Master Thesis

Developing a firm's external corporate venturing capability through strategic CSR

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Developing a firm's external corporate venturing capability through strategic CSR

A qualitative study to assess the integration of external corporate venturing (ECV) capability development and strategic corporate social responsibility (CSR) of an ICT firm in a startup competition case study in Indonesia

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Summary

Established firms need to go beyond their core business in order to survive rapid technological and market changes. As there is a limit in a firm's internal resources and growth, external corporate venturing (ECV) or the creation of new business external to the firm can be considered as a strategic option. However, ECV requires the development of relevant capabilities. Existing research on ECV capability development focus on learning-by-doing, an approach that exposes firm to the risk of failure and significant loss. Thus, this study argues that a less risky approach to ECV capability development is needed. One possible tool that can be used is strategic corporate social responsibility (CSR) that can be designed according to a firm's intention. In this context, CSR initiative can be used as a learning ground to develop a firm's ECV capability without the typical pressure and constraints of a commercial project.

This study aims to answer the research question: *"How can a firm enhance its external corporate venturing capability through strategic CSR?"*. The premise is explored by conducting a single case study on Appcelerate, a startup competition and acceleration program organized under the partnership between Lintasarta, an ICT firm in Indonesia, with three universities. Data are collected through semi-structured interviews with a total of 24 respondents from Lintasarta, three universities, four startups, and comparative organizations. Data processing and analysis is conducted using ATLAS.ti. The type of ECV governance mode implemented in the case study is alliance. A conceptual framework and propositions are drawn up from existing literature on ECV capability development and strategic CSR. Linkages are made using stakeholder theory and resource-based theory, with an extension to relational view of the firm. The conceptual framework is then used to develop research questions, data collection, and analysis on Appcelerate. Afterwards, the framework is adjusted, and new propositions are developed. The propositions can be treated as a set of hypotheses that can be tested in future studies. The case study results are structured to gain insights on internal firm functions (ECV capability development), firm-university relationship (strategic CSR), and firm-startup relationship (ECV).

In essence, strategic CSR can facilitate a firm's ECV capability development by enabling the firm to source external factors that are required for ECV capability development, facilitating a supportive atmosphere for learning, while simultaneously nurturing a trusting relationship with stakeholders. The firm demonstrates visible firm changes that relate to its ECV capability, such as centralization of alliance function, establishment of new alliance framework, and startup pipeline. The firm-university relationship nurtured under strategic CSR facilitates resource sharing that contributes to the successful implementation of Appcelerate. While the firm provides financial resource as the most important component of the program, the collaborating university provides coworking space and the link to startup network. Meanwhile, firm-startups relationships in Appcelerate show that it gives startups a head start in exploring alliance opportunities after program completion. The firm does not only develop its ECV capability development but also source potential startups for future alliance partnerships.

This study contributes to both scientific and managerial domains. Scientifically, this study contributes to two different research streams in strategic management, ECV and CSR, especially in the context of developing country. A new type of alliance is identified: a nested non-equity alliance. Firm-startups are engaged in an asymmetric alliance that is established under firm-university alliance. This is an entirely new object that can be studied. The case enriches the approach of strategic CSR with a design that falls under the theme of entrepreneurship and business incubation. This study confirms the usefulness of linking learning mechanisms with capability development and identified a set of influencing factors. From a managerial perspective, this study addresses two key issues experienced by established firms and offer possible solutions: new approach to capability development and a new design of strategic CSR that brings tangible business benefit for the firm and enhances relationship with stakeholders. This study demonstrates an approach where firms can fulfil two objectives with one action.

Keywords: external corporate venturing, strategic CSR, dynamic capabilities, capability development, developing country

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Thank you. The journey has been amazing.

Yasmin Aruni
Delft, July 2020

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List of abbreviations

B2B	Business-to-business
B2C	Business-to-customers
B2G	Business-to-government
CDC	Community development center
CEO	Chief Executive Officer
COO	Chief Operational Officer
CS	Corporate secretary
CSR	Corporate social responsibility
CSR-PR	Corporate social responsibility – Public relation
CVC	Corporate venture capital
DXB	Digital and next business
ECV	External corporate venturing
GCG	Good corporate governance
GM	General manager
HCM	Human capital management
ICT	Information communication technology
ICV	Internal corporate venturing
IRR	Internal rate of return
ITSPM	IT services product management
KM	Knowledge management
KPI	Key performance indicator
PIC	Person in charge
PKBL	Program Kerjasama dan Bina Lingkungan (Partnership & Community Development Program)
RBT	Resource-based theory
SBD	Strategy & business development
SM	Senior manager
SOE	State-owned enterprise
VC	Venture capital

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1.

Introduction

1.1 Research background

There is a limit to a firm's growth if it solely focuses on its mainstream areas of business and relies on its internal resources. Combined with changes driven by rapid technological developments, market trends, and emergence of new players in the market, firms are increasingly pressured to find alternative ways to thrive. According to Penrose (1959), firm resources can both limit and stimulate expansion, and growth can result from novel combination of existing resources. However, firm cannot solely rely on its existing resources, and should also expand its growth efforts by finding external opportunities. To this end, this study puts emphasize on a firm's ability in conducting external corporate venturing (ECV), or the creation of new business entity external to the firm. The research departs from the rise of information communication technology (ICT), or all technologies that allow people and organizations to interact in the digital world. To address rapid changes, there are different venturing modes that can be implemented by firm, and therefore creating a need for new approaches in developing firm ECV capability. Some unlikely answers might be available. The study will focus on the integration between ECV capability development with a strategic CSR program of an ICT firm.

1.1.1 The rise of ICT and firm challenges

One particularly important trend that drives change is the widespread adoption of ICT. Digital revolution has disrupted all sectors including manufacturing, finance, banking, publishing, and oil and gas. Firms that offer ICT-related products and services are faced with practically limitless opportunities for growth, especially for those who provide fundamental components such as IT infrastructure, data communication, internet connection, and cloud storage. It is also an opportunity for business diversification. One notable firm that has successfully shifted its core business is IBM, from a product firm that positions service support as competitive advantage, into a services firm that include products in its offering (Zysman et al., 2012). IBM still gains significant profit from its hardware sales but has mainly focused in providing services and functionality for firms with its software, targeting customers from all sectors. However, not all ICT firms have the resources to pursue such courageous decision like IBM. Limited resources and capability are typical constraints of established firms (Czarnitzki & Hottenrott, 2012), creating restrictions on decisions that can be taken.

Another important issue for firms is the increasing pressure to participate in solving societal problems. Not only that firms have to compensate for the negative social and environmental implications of their business activities, consumers also demand firms to take extensive measures in building a socially responsible business (Porter & Kramer, 2006). The manufacturing and development activities of ICT firms do not cause extensive harm to environment when compared to extractive industries (e.g., oil and gas, mining). The societal issues faced by ICT firms are mostly data-related and governed under specific laws (Pollach, 2011). Therefore, CSR measures in product development of ICT firms often goes unnoticed, pushing they to find alternative ways in developing tangible CSR initiatives that can be communicated to society and positively improve firm reputation (Esen, 2013). For example, Microsoft partners with community college in the US to improve its quality of IT education while creating a supply of skilled human resources for the firm. It is understandable why society puts extensive burden on firms to contribute to social and environmental issues, as they have the required financial, technological, and human resources and are often more reliable than the government (Hillman & Keim, 2001). However, society needs to realize that firms give the most benefit if they run a successful yet profitable business (Jensen, 2002). Therefore, another challenge for firm is to figure out how it can contribute to society without sacrificing business profitability.

1.1.2 Internal and external corporate venturing

One important mechanism that can be implemented by established firms in adapting to changes is corporate venturing, or a firm's effort that involves the creation of new businesses (P. Sharma & Chrisman, 1999). This approach is argued to create superior corporate performance, but often results in failure and struggle due to ambiguity in its strategic utilization (Covin & Miles, 2007; Fast, 1981). Firms need to carefully find the right CV setting to fully realize the benefits. Based on where the boundary of the venture resides, the types of CV can be classified either as external or internal. The entity resulted from external corporate venturing (ECV) resides outside the boundaries of existing organization, whereas internal corporate venturing (ICV) results in entity that resides within the organization (Sharma & Chrisman, 1999).

In contrast to ECV, ICV is internal to the firm and can be materialized into different organizational structure depending on its strategic importance and operational relatedness (Burgelman, 1984). Completely unrelated new venture that is not critical for the core business should be spun out entirely. This decision implies the importance of congruence between internal venture with the firm's core business, a logic that puts entrepreneurial activities and existing business unit against each other and signals the path dependency between existing and new business idea. ICV is surrounded by constraints that range from the lack of autonomy in decision-making, risk of market overlaps with existing business, and having to compete over corporate resources (Sykes, 1986). Historically, more internal venturing process ends in failure and can only be profitable after 10-12 years of operation, which is longer than the average committed period of less than a decade (Biggadike, 1989). Although recent study pointed out that increased commitment, top management support, and dedicated resources positively influence ICV performance (Garrett & Neubaum, 2013; Kwee et al., 2011), a larger pool of research suggest that external ventures have a higher chance of success (Fast, 1981; Hill & Georgoulas, 2016; Sykes, 1986).

ECV is particularly important when the targeted investment opportunity relies outside of the firm's existing asset base (Williams & Lee, 2009). According to Keil (2003), ECV is a way to acquire new knowledge while managing risk. Firm can save up internal R&D budget and avoid the risk associated with developing radically new technologies or entering an entirely new market. ECV can also be a mechanism for firm to outsource external capabilities and knowledge that are necessary for firm internal development (Capron & Mitchell, 2004). Not only that ECV can be a means for firms to outsource external capabilities (Capron & Mitchell, 2009), it also holds an important role in strategic renewal and overall sustainability of a firm (Zahra & Covin, 1995). ECV is also challenging to conduct and often ends in failure, which can be attributed to commitment in devoting required time and resources (Markham et al., 2005). Although both ICV and ECV both face the same challenges and obstacles related to resource commitment and managerial support, ECV offers more appealing benefits and can expose firm to external growth opportunity without the constraints of organizational rigidity.

1.1.3 The need for a new approach to ECV capability development

Studies propose various approaches for firms in order to improve their ECV capability, such as learning from venture capitals (Fast, 1981), starting with joint venture (Macmillan et al., 1986), and opting for reversible governance modes in early stage of ventures. In essence, all approaches rely on experiential learning. This study departs from the study by Keil (2004) as it thoroughly investigates how a firm can develop ECV capability through learning. Considering the magnitude of risk and loss associated with ECV failures, it is apparent that firms need a 'safer' approach to learn and develop ECV capability. By 'safer', it implies that the learning process is conducted in a more conducive situation as deep learning is unlikely to occur under pressure (Eraut, 1997). This proposition provides a new option of ECV capability development. One possible approach to develop ECV capability that is yet to be explored in literature is through strategic corporate social responsibility (strategic CSR), an approach to CSR that can serve the interests of both firm and society (Porter & Kramer, 2006). Positioning learning as a parallel goal of a strategic CSR program is an opportunity form firm to accomplish two tasks with one action, effectively reducing the learning cost.

At first glance, the two concepts (ECV and CSR) seem to be completely unrelated. However, the discretionary aspect of a CSR initiative means that it can be designed and used strategically according to a firm's intention. One compelling proposal comes from Heslin & Ochoa (2008), stating that strategic CSR programs can be used as 'learning laboratories to study different ideas, methods, and processes without the time pressure and typical constraints on the delivery of commercially contracted products and services' (p. 129). Benefits include increased employee engagement, innovation, and maintained relationship with stakeholders, making strategic CSR a suitable learning ground to improve specific firm capability. In this context, CSR initiative can be used as a learning ground to build a firm's ECV capability. Both ECV and strategic CSR initiatives can be seen as example of firm-specific dynamic capabilities in addressing the rapidly changing environment. ECV is mostly concerned with externally sourcing a firm's innovation and business diversification, whereas strategic CSR is ridden mostly with a firm's responsibility towards the society as an implication of its business activities. However, both concepts seek to achieve the same goal: the overall sustainability of the firm.

1.2 Research context: Appcelerate

This study focuses on Appcelerate, a CSR initiative implemented by Lintasarta, an Indonesian-based ICT firm, in collaboration with three university incubators in Indonesia. This case is selected because it demonstrates a real-life integration of ECV capability development and strategic CSR, providing an opportunity for in-depth study. The initiative consists of two main components: the establishment of co-working space in the university and a digital startup competition and acceleration program. The competition is, in essence, a practice of external corporate venturing (ECV). It aims to discover startups that can provide ICT-based solutions for the problems experienced by the firm's corporate clients. The winners of the competition have the opportunity to partner with the firm and receive assistance in improving and commercializing their products. The type of ECV governance mode can be classified under alliance, or a close association for a common objective. It is a nested non-equity alliance. First, the firm partners with university in a non-equity alliance to develop university-based startups. Second, after the startups emerge from competition as winners, the firm initiates a new non-equity alliance with the startup with the objective to nurture a new partner that can extend the firm's product portfolio.

By participating in the competition, startups can validate both product and market aspects of their ideas and acquire an initial key partner that is beneficial for their future growth. University expands its network to the industry, which can provide insights to market trend and guide R&D effort to be more aligned with industry needs. Simultaneously, this initiative acts as a commercialization pipeline for ideas that originate from university. Through their strategic CSR program, the firm is able to participate in startup development, which will foster innovation that benefits the firm. Indirectly, the firm helps creating employment opportunities for society, while simultaneously develop its ECV capability and potential ECV targets. This case study offers a unique opportunity in which the compatibility between ECV and strategic CSR can be further explored.

1.3 Knowledge gap and problem statement

This study addresses multiple knowledge gaps in different research streams of strategic management, including corporate entrepreneurship and CSR. There are three contributions to the corporate entrepreneurship field. First, the case study reveals a new form of ECV, in which new venture (startup) is founded under a partnership between firm and university. Second, the ECV capability model developed by Keil (2004) is extended to provide additional insights from a developing country perspective. Third, it also enriches the literature on ECV strategies by introducing a new approach in bridging the relationship between firm and startup community through university incubators, which is made possible using strategic CSR approach. In the CSR research stream, this case study demonstrates a form of strategic CSR initiative that falls under the theme of entrepreneurship and is beneficial for the firm in at least two ways: finding external ventures that can extend the firm's portfolio and providing a learning ground for ECV capability development. This is an explorative study that starts with literature study, resulting in a conceptual framework that integrates the two concepts, which will then be validated and adjusted according to insights obtained from the case study.

The main problem highlighted in the proposed study is the increasing threat to a firm's survivability caused by rapid technological and market changes, which forces firm to go beyond its core business into new, unexplored markets. For ICT firms in particular, the rise of ICT opens up limitless opportunities for growth as firms from all sectors are pressured to adopt ICT and transform their business models. However, limited firm resources create restrictions for decisions related to new technology and market, pushing firms to look outside organizational boundaries to find external ventures that can provide proven technology and access to new markets. Literature emphasize extensive experience building as a key in ECV capability development. However, risks of failure in conducting ECV are even higher for inexperienced firms (Macmillan et al., 1986). Therefore, there is a need for a new approach to ECV capability development which can provide flexibility and a more convenient learning pace. One interesting yet unexplored approach is incorporating ECV capability development into strategic CSR initiative, which will be investigated through a startup competition case study of an established ICT company in Indonesia.

1.4 Research objectives and key deliverables

The objective of this study is to investigate the integration between ECV capability development and strategic CSR that is embodied in a startup competition case study in Indonesia. A thorough study on the competition will contribute to the body of knowledge of corporate entrepreneurship and CSR, specifically for ICT firms that operate in emerging economy. In particular, this study contributes to external corporate venturing subfield and the capability development perspective. A contribution to CSR research is also included, focusing mainly on strategic CSR and its empirical implementation. This research is exploratory and qualitative, in which insights gained from the case study can enrich the approach to ECV capability development and strategic CSR under the unifying theme of entrepreneurship. First, a conceptual framework is developed based on identified key components of both concepts. Then, in-depth interviews will be conducted with multiple individuals from different institutions that are involved in the case study, including firm representatives, incubator managers, and startup founders. The findings from the case study are used to refine the framework and identify key success factors of implementation. The results will be analyzed and compared with literature to identify consistencies or new findings. Afterwards, recommendations on how to successfully integrate ECV capability development and strategic CSR are proposed, alongside with general insights that can be implemented for firms in the ICT sector.

There are four key deliverables of this study. First, relevant factors that influences ECV capability development are identified from literature. Second, a conceptual framework that integrates the key components of ECV capability development and strategic CSR are developed. The conceptual framework is used to analyze the case study, where the key components are tested and further adjusted according to empirical findings. It results in the third deliverable: propositions on how strategic CSR can facilitate and support a firm's development of ECV capability. Lastly, the study is concluded with potential challenges and solutions from case study and literature study.

1.5 Research questions

The main research question for this thesis is the following:

"How can a firm enhance its external corporate venturing capability through strategic CSR?"

Sub-research questions (SQs) that support the main research question are listed below:

SQ1: What factors influence the effectiveness of ECV capability development?
SQ2: What are the characteristics and benefits of strategic CSR?
SQ3: How can strategic CSR facilitate ECV capability development?
SQ4: How do ECV capability development and strategic CSR interact in empirical setting?
SQ5: What are the challenges in integrating ECV capability development with strategic CSR and how to overcome them?

SQ1 aims to deconstruct ECV capability model developed by Keil (2004), accompanied with literature study from the stream of capability development, organizational learning, and external corporate venturing. Key components and factors that influence ECV capability development will be identified. SQ2 focuses on strategic CSR and aims to identify its characteristics, components, and key benefits that are relevant to the development of ECV capability and, more generally, learning mechanisms of a firm. SQ3 is a synthesis of the answers for SQ1 and SQ2, in which identified components and factors crucial for ECV capability development are analyzed and matched with characteristics and benefits of strategic CSR. Propositions on how strategic CSR enables firm resource reconfigurations are also derived in this question. SQ4 focuses on the case study, in which the strategic CSR initiative will be thoroughly investigated from the perspective of the firm, university, and startups to gain a rich understanding of factors that are involved in the integration of ECV capability development and strategic CSR. Framework and propositions are adjusted. Lastly, SQ5 will be answered through empirical and literature study.

1.6 Research scope

This research is conducted as a master's thesis project, which is expected to be completed in approximately 26 weeks. Considering the time constraints, the following limitations are placed:

1. *Focus*
   ECV capability development, strategic CSR
2. *Business domain*
   Information Communication Technology (ICT)
3. *Geographical location*
   Emerging economy, Indonesia
4. *Type of corporate entrepreneurship*
   External corporate venturing, non-equity alliance
5. *Actors*
   Firm, university, startups

1.7 Thesis outline

Figure 1.1 presents the outline of the thesis report with a short description of what will be included in each chapter. Study related to *Chapter 4, 5, and 6* are conducted in parallel due to content interconnectedness.

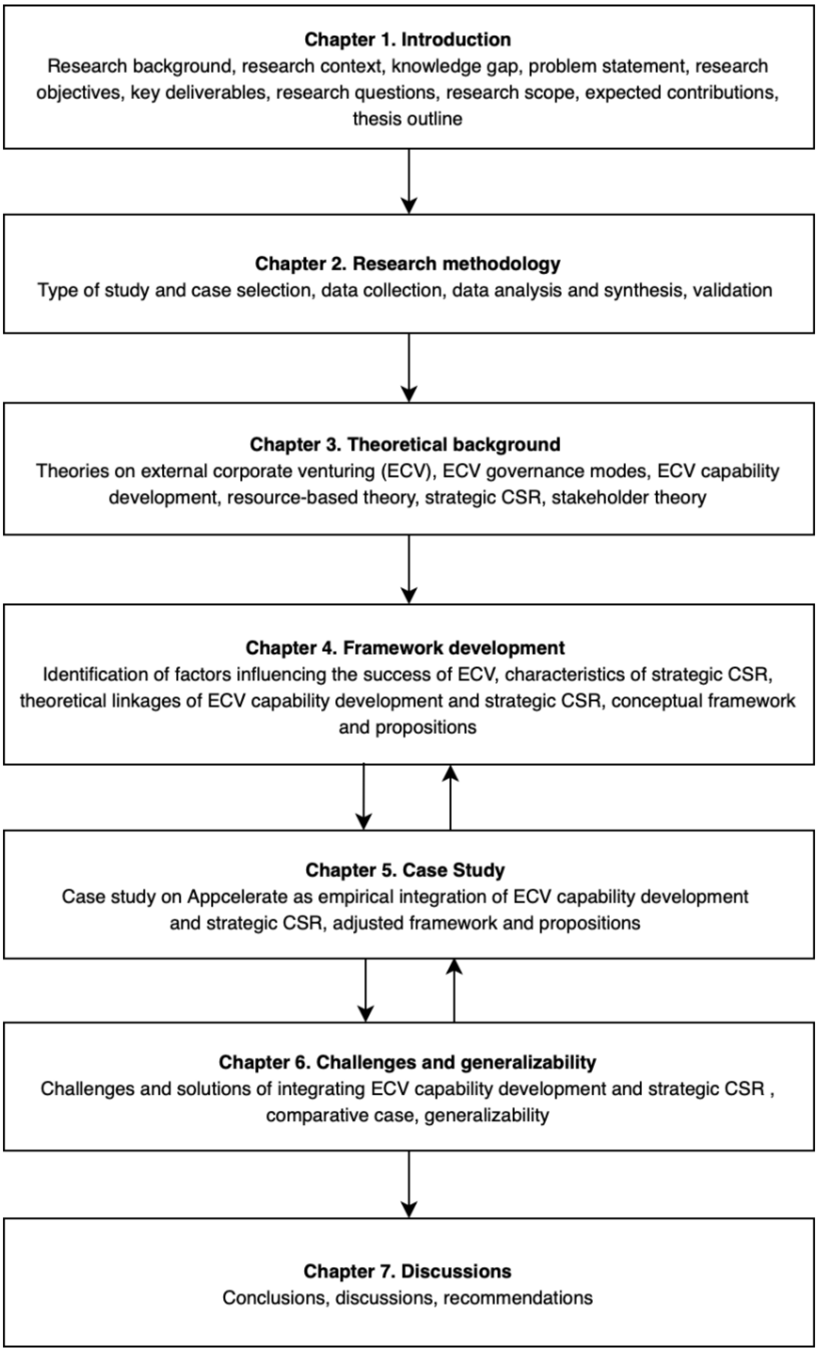


Figure 1.1 Thesis outline

Chapter 1 introduces the research background, providing context for ICT firms and a brief introduction of the case study. This chapter also identifies knowledge gap, problem statement, research objectives, key deliverables, research questions, research scope, expected contributions, and thesis outline.

In *Chapter 2,* the research methodology is explained. There are three steps of the methods that starts after the creation of research questions: data collection, data analysis & synthesis, and validation.

Chapter 3 provides relevant theoretical background for the study. First, external corporate venturing is explained, followed by different governance modes that are implemented, and a narrowed focus on alliance. Then, approaches to develop firm ECV capability and the key model of this study are presented.

The initial framework is developed in *Chapter 4.* Literature search is conducted to provide a baseline for answering research questions, guide the data collection process, and help structure the interview questions for the case study. The initial framework provides the theoretical linkage between ECV capability development and strategic CSR, which can be validated and refined through empirical study.

Chapter 5 introduces the case study that focus on a startup competition and acceleration program initiated by an ICT firm in Indonesia. The competition is argued to be a real-life example of embedding the process of developing firm ECV capability development into a strategic CSR initiative. The case introduction is followed by description, overview of case actors, aspects of data analysis, and case study results.

Chapter 6 presents challenges in integrating ECV capability development and strategic CSR based on empirical findings and literature study. Then, validation interviews are conducted with internal and external respondents.

In *Chapter 7,* the study is wrapped up. The framework and findings from case study are discussed, followed by conclusions that summarize the answers for all research questions. The chapter ends with recommendations for all case actors: firm, university, and startup.

2.

Research methodology

This chapter describes the research methodology of the study. In general, the research methodology starts with research questions, followed by data collection, analysis and synthesis, and validation. This follows the approach proposed by Eisenhardt (1989), which is appropriate in new topic areas such as this study.

The research utilizes literature study, in-depth interviews, and secondary data related to the case study to answer the research questions. In the **first step**, data collection, literature study on ECV, capability development and strategic CSR are conducted. The insights from two perspectives are synthesized to develop plausible linkages between the two concepts and develop a framework that will guide the interview process, data processing, and analysis. Information from preliminary interview are used to identify target respondents. The framework and preliminary information from targeted respondents (e.g., job role, involvement with case study) are used as a guideline to develop interview questions. Subsequently, semi-structured interviews are conducted with respondents from firm, university, and startups to construct understanding of the case study. In the **second step,** insights from literature study and interviews are analyzed using the framework and further synthesized to answer the main research question of this study. We also anticipate unexpected insights that might not be covered by the framework. Then, semi-structured interviews with respondents from comparative organizations are conducted. Points of similarities and differences are identified, in order to find challenges and explore generalizability of the framework in analyzing other firms. In the **third step,** validation interview is conducted, followed by comparisons with existing study to find convergence or inconsistencies of finding, whichever applicable. A summary of the research methodology is presented in Figure 1.2, which includes steps and the corresponding research questions.

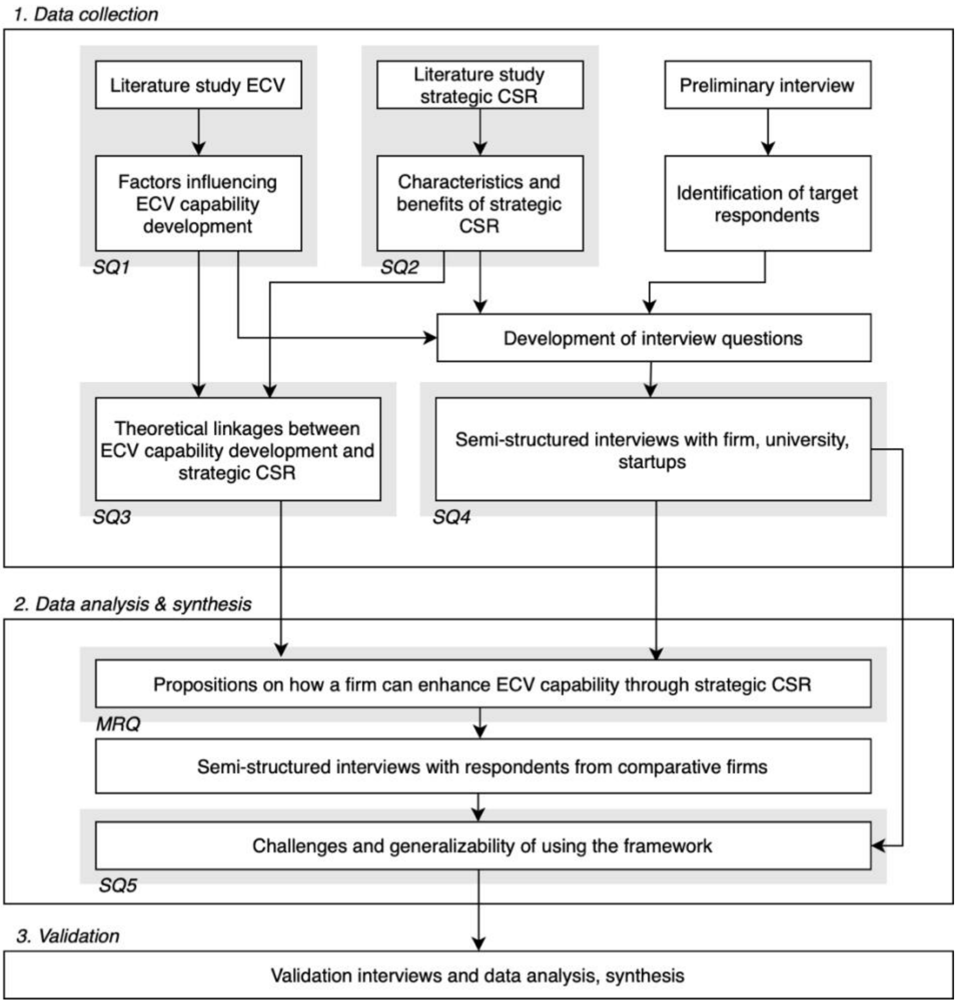


Figure 1.2 Research methodology

2.1 Type of study and case selection

This study deals with qualitative data gathered in a narrative form through semi-structured interviews and secondary data sources (Sekaran & Bougie, 2012). Considering the characteristics of the research object, case study is the most suitable method since this approach enables researcher to identify relationships more efficiently as the intention is to examine a contemporary phenomenon in depth, in its real context (Yin, 2014). Other arguments for selecting case study are argued by Yin (2003): the uniqueness of the phenomenon, representation of a typical “project” (CSR program is typically conducted by established and large corporations), and the potential for this case to be a starting point of a longitudinal study. Justification for the uniqueness of the case is presented in the following paragraphs.

The premise explored in this study is to embed ECV capability development to a strategic CSR initiative. The unit of analysis is Appcelerate, a startup competition and acceleration program held under the partnership between an ICT firm and three universities in Indonesia. However, before proceeding with the case as the object of the study, a preliminary search of similar initiatives was conducted. One of the most similar initiative can be found in Thailand, SCG Bangkok Business Challenge, which claims to be Asia’s longest running global student startup competition (2002 - present). The competition is held by Sasin School of Management together with an established firm as a co-host and title sponsor. From 2007 to 2017, Stock Exchange Thailand (TSX) was the co-host of the competition, before being replaced by Siam Cement Group (SCG) in 2018. However, the program originates from university, and partner firm is merely involved as a sponsor. This follows an opposite direction compared to the proposed case study, where the initiative originates from ICT firm and further enabled by partnership of universities.

2.2 Data collection method

Data for this study are collected through literature study and semi-structured interviews, where a series of questions is constructed then followed by appropriate follow-up questions (Given, 2008). The general method for obtaining relevant literature study will be explained, followed by the method of conducting semi-structured interviews. To develop a keen understanding of the case, informal preliminary interviews are conducted before formal interviews are scheduled. Preliminary interviews were conducted through instant messaging application with the program director of Appcelerate (located in Indonesia), in which the basic building blocks of the case study and initial key respondents are identified.

2.2.1 Literature study

Literature study is conducted to identify current state of knowledge in related fields and is especially important in answering SQ1, SQ2, and SQ3. Literature study provides the basics to develop initial framework and find relevant literature that can be compared with case study results. In general, this is the steps for the undertaken literature study:

1. **Identify mandatory keywords and the corresponding synonyms (including the abbreviated version).** The step starts with defining keywords that will narrow down the search. The mandatory keywords for the search are “organizational learning” and “capability development”, each entered on its own or on the same search iteration, in combination with other relevant keywords.

2. **Use scholarly search engine (e.g., Google Scholar, Scopus, ScienceDirect).** This study uses Google Scholar for literature search, in which the corresponding publication is obtained from external website using official TU Delft credentials.

3. **Establish criteria of inclusion and exclusion.** A set of criteria of inclusion/exclusion is established to identify the most relevant literature. In general, the ideal reference discusses factors that influence ECV capability development and strategic CSR, with acknowledgment of the role of learning. Another important criterion is that only papers from peer-reviewed journal are included to ensure the quality.

4. **Eliminate irrelevant articles.** The decision for inclusion/exclusion is taken after reading the title, abstract, introduction, and conclusion of the article. If the criteria are not fulfilled at all, then the article is excluded also in future search iteration.

5. **Finalize list of reference.** After passing through the initial elimination, each article is thoroughly read. If two or more articles discuss the same matters, then only the most comprehensive one makes it to the final reference list.

2.2.2 Semi-structured interview

2.2.2.1 Participants

Yin (2018) emphasizes the need for a case study research to rely on multiple sources of evidence, aiming for convergence in data triangulation. Multiple perspectives can increase the internal validity of the study. Therefore, interviews in this study are conducted with firm representatives, personnel from university incubators, and startup founders as competition participants. To enable data triangulation, multiple respondents from one affiliation are interviewed whenever possible. The characteristics of interviewees follow the basic requirements suggested by Spradley (1979): with a history of the situation, who is currently in the situation, and those who will allow adequate time for interview. An overview of interview participants and the characteristics of target interview respondents are summarized in Table 1.1. A description of all participants can be found in Appendix A.

Table 1.1 Target interview respondents

No	Affiliation	Respondent criteria
1	Firm	- Involved in the establishment of competition, or - Involved in the design or implementation or evaluation of the competition, or - Has experience/knowledge in the establishment of CSR programs of the firm, or - Has experience/knowledge in partnership/alliance function, or - Has experience/knowledge product development function, or - Has experience in dealing with startups within the duration of his/her employment, of - Has experience/knowledge related to organizational learning activities of the firm
2	University	- Involved in the establishment of competition, or - In charge of the competition, or - Involved with startup development in the institution
3	Startups	- CEO/Founder/Co-founder, or - Participated in the competition, or - Involved in exploring partnership possibility with firm
4	Comparative organization	- Involved in design and implementation of strategic CSR, or - Has experience/knowledge in dealing with startup as potential firm partner, or - Involved in product development, or - Conducting external corporate venturing activities, or - Involved in startup development from the perspective of a firm, or - Has experience/knowledge related to organizational learning activities of the firm

2.2.2.2 Interview locations

Initially, the interviews were planned to be conducted in a face-to-face manner. According to Sekaran & Bougie (2012), some advantages of face-to-face interview is the ability to adapt questions as necessary, clarify doubts, and ensure the proper understanding of the response. It is also more convenient as the interview does not rely on internet connectivity or phone reception, especially in areas where internet connection is insufficient. However, due to the spread of COVID-19, all scheduled face-to-face interviews were switched into video or phone calls. A small part of interviews (7 of 24) managed to be conducted face-to-face in the respondent's office. The detailed list of interviews can be found in Chapter 5. The change to online interview has provided flexibility in scheduling interviews. It also provides convenience in reaching out to respondents that are located in different cities.

2.2.2.3 Interview protocol

The interview protocol is developed and refined following the framework developed by Castillo-Montoya (2016), consisting of four-phase process: (1) ensuring alignment of interview questions with research questions, (2) constructing an inquiry-based conversation, (3) receiving feedback on interview protocols, and (4) piloting the interview protocol. The second step ensures the understandability and accessibility of the questions by respondents. In the third step, the interview questions are presented to a colleague, and later to thesis supervisor to receive feedback. Lastly, piloting the interview protocol was conducted during the first few interviews. Insights from each interview are used for improvement. The list of questions is finalized before the interview. The full question list can be found in Appendix B. The interview process follows the practices suggested by Yin (2016), which includes speaking in modest amount, not giving leading questions, casting neutral manner, maintain good rapport with respondent, using interview guide, and analyze when interviewing. Each interview is conducted in the same manner to ensure reliability of the results. The procedure is as follows:

1. **Invite:** The respondent is asked to participate in the study through a formal message, in which the study is briefly explained. Reason to include the respondent in the study is tailored according to the background and function of respondent.

2. **Prepare:** If the participant agreed to an interview, then an interview schedule is set up. Preparation includes sending out calendar invitation with a link to the corresponding Zoom/Skype virtual room or

physical interview location. Then, background search of both the affiliated firm/institution and the respondent is conducted to build a sufficient understanding to refine the interview questions.

3. **Permission to record:** The respondent is asked for permission to record the interview.

4. **Explanation:** The study background of the interviewer is explained, and the research is introduced. The goal of the interview is explained and tailored to provide context and set expected insights from the respondent.

5. **Note-taking:** Whenever an interesting information is given by respondent, notes are made. Follow-up questions are developed immediately to maintain the pace of the interview. Throughout interview, the list of questions was checked to ensure all important topics are covered.

6. **Data processing:** After the interview is finished, recording is transcribed into written form within 48-hours to ensure the quality of understanding and avoid loss of information. As the interview is conducted in Indonesian, data processing includes translation of transcription into English.

This procedure is repeated for every interview. The supporting materials for interview are an audio recorder to record the conversations, pen and paper to make notes, list of questions, video call applications (Zoom/Skype), phone, and Google Voice Typing to ease transcribing process.

2.3 Data analysis and synthesis

There are three steps of qualitative data analysis: data reduction, data display, and drawing conclusions. Data reduction involves coding or assigning label to units of text. Data display involves visualizing and finding pattern. Drawing conclusions are done to develop generalizations and verify the propositions. After all interviews are transcribed, documents are imported into ATLAS.ti for coding and data analysis, which follows the guideline written by Friese (2012) and refers to ATLAS.ti user manual. ATLAS.ti is selected as it ease the process of data analysis, enabling researcher to arrange, reassemble, and manage data systematically and creatively. In this study, middle-ground approach is implemented. Initial code list is taken from components of conceptual framework, and the list might evolve during analysis to capture relevant details that are not covered by the predefined codes. Conclusions are drawn by exploring the analytical generalization of the concept, which follows a three-step process (Yin, 2016): defining relevant constructs, connecting the findings to the constructs, and argument on how constructs can apply to new situations other than the one(s) studied.

The interview insights can be found in Appendix D. Due to space limitation, only coded quotations that are referred to in the study are included in the appendix. Information obtained from different perspectives (firm, startup, university, comparative organizations) are able to build a holistic view of the case study. Studying internal firm dynamics builds understanding of the role of each function and how they operate. By focusing on three firm-university and four firm-startup relationships, pattern, similarities, and differences can be observed. Interviewing respondents from comparative organizations provide aspects which can be further analyzed. Data analysis and findings are structured according to the framework to ensure coherence of the study.

2.4 Validation

Validity of study results is reached by implementing several strategies presented by Maxwell (2013): respondent validation, triangulation, and comparison. Respondent validation is achieved from clarifying responses during interview, triangulation is conducted by asking the same questions to multiple respondents, and comparison is done by comparing firm in the case study with comparative organizations. Following Eisenhardt (1989), the last part of the research approach is to enfold literature to build internal validity and explore analytic generalizability of the synthesis. This is conducted by comparing study results with existing literature and asking validation questions with both respondents from the strategic level of the firm and comparative organizations.

3.

Theoretical background

In this chapter, existing theoretical knowledge relevant to the study is presented. First, ECV is briefly explained, followed by different governance modes and the introduction to ECV capability. Then, Keil's (2004) ECV capability model is explained to gain sufficient understanding of the starting point of this thesis. As this study focuses on how ECV capability development and strategic CSR can be integrated, two theories are selected and further explained: resource-based theory and stakeholder theory. Resource-based theory is used to analyze ECV capability development processes and identify relevant resources that are crucial in this process, whereas stakeholder theory is used to analyze strategic CSR and its importance in sourcing external resources that are required by the firm.

3.1 External corporate venturing

External corporate venturing (ECV) is a type of corporate venturing where the new business entity of the parent firm resides outside the organizational boundaries (Sharma & Chrisman, 1999). Although sourcing external technology is often mentioned as the main function of ECV, it is important to acknowledge that it is not the only nor the main outcome of ECV. The main aim of ECV is to create new businesses and integrate them into the firm's overall business portfolio (Narayanan et al., 2009). Capron & Mitchell (2009) are able to cover a broader scope of ECV by defining it as an external means to close capability gaps. They used the term 'capabilities', which is defined as 'the firm's capacity to deploy resources for a desired end result' (Amit & Schoemaker, 1993 in Capron & Mitchell, 2009, p. 295), whereas resources are defined as stocks of factors controlled by a firm. The term capability and dynamic capabilities are similar to each other (Eisenhardt & Martin, 2000), in which both can be used interchangeably.

3.1.1 ECV governance modes

Literature highlighted different ECV governance modes such as venture capital investments, alliances, acquisitions, and spin-offs (Keil, 2000). Corporate venture capital activity refers to the participation of firms in private equity market (Gompers & Lerner, 1998 in Keil, 2000), either by investing in existing venture capitals (VCs) or by developing its own corporate VC arm. Alliances are built based on in-depth cooperation between the allying parties aimed to pursue common benefit. Acquisition refers to the situation where an external firm is integrated into the firm. Meanwhile, spin-off is the opposite of acquisition: externalization of an internal venture. Each governance mode has its advantages and disadvantages that should be considered before a firm starts its venturing activity.

In general, firm should consider its long-term strategic objectives, magnitude of risk, and the type of learning and innovation pursued (Keil et al., 2003). Markham et al. (2005) pointed out the importance of aligning venturing mode with the firm long-term strategic objectives. For instance, firms that want to gain access to technological development can invest in VC funds, whereas firms that want to own complete control and exert more influence should opt for direct investment.

Problems associated with acquisitions can be attributed to the neglection of “organizational fit” due to the primary focus on “strategic fit” (Jemison & Sitkin, 1986, in Hill & Georgoulas, 2016). Organizational fit is a crucial aspect in the successful integration of venture into parent firm. Differences in management styles of the firms can result in conflicts, difficulties in achieving operational synergies, and poor performance after the acquisition (Datta, 1991). Meanwhile, investing through VC positions firm at a distance from ventures, limiting the amount of influence and control that can be exerted, and a massive cut off of 20 to 30 percent from profits before returning them (Markham et al., 2005). However, firms are more likely to see a positive return on investment as VC actively helps in managing the companies and go as far as to change the composition of management team and other form of interventions. ECVs founded under joint venture or alliances are positioned under a power relationship between two or more firms, in which each should be cautious not to build dependency to the capabilities of others (Keil, 2000). Another important consideration of deciding on ECV governance mode is the extent of risk involved (Van De Vrande et al., 2006), in which firms can implement a real options approach and opt for reversible governance mode that requires low level of commitment. The last consideration is the type of learning and innovation benefits that are pursued. Keil (2003) argued that all governance modes should be viewed as complementary rather than replacements of one another, implying that firms should possess basic knowledge and experience in conducting various kinds of ECV. In the next paragraphs, we will focus on *alliance* as an ECV governance mode.

According to Hagedoorn (1993), alliance modes can be categorized into equity and non-equity alliance. The former involves *capital* commitment and a longer-term perspective, whereas the latter only involves contractual agreement. The establishment of alliance can be analyzed using resource dependence theory, in which a firm’s ability in obtaining vital resources (e.g., funding) increases its power and control (Pfeffer & Salancik, 1978). The type of ECV developed in the case study can be classified as a non-equity alliance between firm and a new startup. The benefits that are gained from alliances can be understood using the relational view of competitive advantage (Dyer & Singh, 1998). They suggest that a firm’s critical resources may span firm boundaries and result in interorganizational competitive advantage that can be categorized into the following: investment in relation-specific assets, substantial knowledge exchange, combining complementary resources or capabilities, and effective governance mechanisms.

Stark difference can be found in firm-firm alliance and firm-university alliance. Firm that is engaged in an alliance face a risk of opportunistic behavior from its counterpart, sometimes turning the alliance into a competition instead of mere collaboration in developing product or capabilities (Hamel, 1991). This could be attributed to the fact that both firms have the same goal of being the first to market and creating sustainable competitive advantage. On the other side, alliances between firm and university experience a different dynamic. As an academic institution, university has three primary functions of teaching, research, and service (Phillips, 1991), a contrast to a firm’s pursuit of economic benefit. Therefore, firm faces less risk of opportunistic behavior from university in regard to technological appropriation. The arrangement does not come without challenges, which can also be attributed to the fact that they operate with different incentives, goals, routines, and decision-making structures (Bercovitz & Feldman, 2007). As a public entity, university has a role in disseminating knowledge to society, whereas firm relies on exclusive access to knowledge in order to achieve sustainable competitive advantage. This conflict can be addressed by finding a common objective and establishment of a thorough arrangement that deals with points of dispute (Ankrah & AL-Tabbaa, 2015).

3.1.2 ECV capability development

Multiple studies highlighted difficulties and obstacles in conducting ECV and proposed recommendations on how to overcome them. MacMillan et al. (1986) suggest firms to start with small ventures until significant learning has taken place, before gradually increasing venturing efforts. In early stage of venture, firm should opt for a reversible governance mode that requires a low level of commitment (i.e. through venture capital) (Van de Vrande et al., 2006). McGrath & MacMillan (2000) pointed out that in highly uncertain situations, firm should follow the approach implemented by VC, where funding decisions are only made if milestones are reached. This is in line with the proposal from Fast (1981) that suggests firms to learn from VC to improve its venturing capability. However, although literature explicitly mentioned the importance of learning in ECV process, the learning and capability development process remained on an abstract level except for a few studies (e.g. Keil, 2000, 2004).

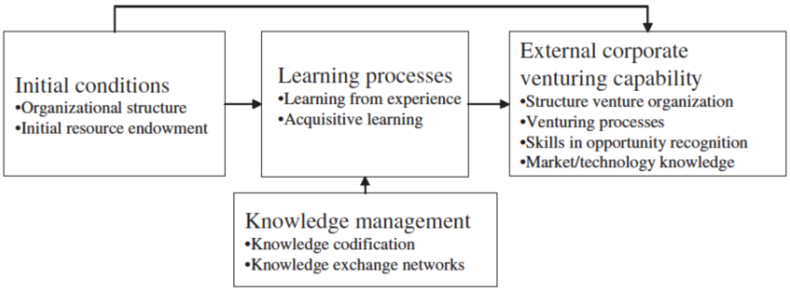


Figure 1.3 ECV capability development model (Keil, 2004, p.812)

A thorough study on firms that operate in ICT sector was conducted by Keil (2000), where an ECV framework and the notion of ECV capability were introduced. Subsequent publications introduce a refined concept of ECV capability and ECV capability development model (Keil, 2004; Keil & Autio, 2001). ECV capability can be defined as ‘the firm’s ability to utilize external ventures to develop new capabilities and to reconfigure existing capabilities in the process of building new business areas outside of the current business focus of the corporation’ (Keil, 2004, p. 809). The capability is conceptualized to comprise of two main elements: bridging and execution (Keil & Autio, 2001). Bridging refers to the creation of relationship between firms and the start-up community, whereas execution refers to the exploitation of established relationship to support venture development. Keil (2004) introduces ECV capability model as depicted in Figure 1.3. The development of ECV capability is theorized to consist of two learning processes: learning-before-doing or acquisitive learning, and learning-by-doing or experiential learning. Although organizational learning is essential for capability development, the two concepts are not equivalent (Keil, 2004). Two set of factors are theorized to influence the learning process and ECV capability development: initial conditions and knowledge management. Initial conditions influence the capability development directly and indirectly, whereas the knowledge management influence the capability development indirectly through learning processes.

3.1.3 Resource-based theory and ECV

As the organizational learning perspective of ECV capability has already been thoroughly covered (see: Keil, 2000), the proposed study will focus on identifying relevant resources that are needed to facilitate an effective learning process, and how to source them. The argument behind focusing on resources is anchored to resource-based theory (RBT), a theory that views firm resources as essential in achieving a sustained competitive advantage (Barney, 1991). Firm resources can be defined as available factors or inputs, tangible or intangible, that are owned or controlled by the firm. Mahoney & Pandian (1992) highlighted the importance of RBT in stimulating dialogue between scholars from different research perspectives under strategic management field such as diversification strategy, organizational economics, and industrial organization. RBT is an important contribution to the strategic management field. By viewing firm as a bundle of resources that can be classified and categorized separately, both scholars and managers are able to find ways to improve the performance and develop competitive advantages of the firm through combination, reconfiguration, and integration of resources.

Barney (1991) adapts earlier research and categorized firm resources into physical resources, human resources, and organizational resources. Physical resources include a firm's technology, plant and equipment, and access to raw materials. Human resources include training, experience, and insights of individual workers. Organizational resources include a firm's structure, planning, coordinating systems, and internal or external firm relationships. This simple classification is useful in identifying different firm resources that are relevant for organizational learning. However, this definition limits resources into those that are internal to the firm. Dyer & Singh (1998) introduce relational view of the firm. By viewing firm relationship as a means to access external resources, the firm can eliminate constraints and expand its resource base. The perspective argues that firm can benefit from interfirm relations by identifying complementary resources that can be combined with firm's resource base. For instance, Wiklund & Shepherd (2009) highlighted the role of alliance and acquisitions, two forms of ECV, in accessing new resources that can be combined to enhance firm performance. Another important point from Dyer & Singh (1998) is that competitive advantages of partnership can only be generated when they move away from market relationships and combine, exchange, or invest in assets, knowledge, resources, or capabilities.

3.3 Strategic CSR

According to EU Commission (2002), 'CSR is a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis' (p.347). Porter & Kramer (2006) classified CSR into two distinct types: responsive and strategic. Responsive CSR covers the company's good corporate citizenship and its effort in mitigating and reducing the negative effects from business activities. On the other hand, strategic CSR transcends the two elements of responsive CSR, and focuses on the opportunities of shared value (Porter & Kramer, 2006). Strategic CSR is a growing field of research that has a high appeal to corporations and strategic management scholars, where the notion of CSR is no longer positioned as merely "corporate cost" but also as an investment that could benefit the company. An example of a successful strategic CSR can be found in Microsoft's five-year partnership with American Association of Community Colleges (AACC) to co-develop the IT curriculum, upgrade the technological facilities, and provide professional development programs. The program main objective is to equip the graduates of community colleges with the relevant IT skill sets, which subsequently can fill the shortage of IT workers experienced by Microsoft. Not only that they are able to benefit the community, the program also creates direct and significant impact on the company.

3.3.1 Four categories of corporate social responsibility and responsible innovation

Carroll (1979) defines four components of social responsibility, addressing the range of obligations that has to be fulfilled by a firm: from economic, legal, ethical, to discretionary. The *economic responsibility* demands a firm to be profitable and contribute to economic development. *Legal* responsibility puts firm under expectation to fulfil its economic mission by abiding to legal requirement. *Ethical* responsibility constitutes behaviors and activities that are not codified but expected of business by society, such as treatment to supplier and the sourcing of raw materials. Lastly, *discretionary* responsibility refers to responsibilities that are left to individual firm judgment and choice, purely voluntary. In 1991, Carroll revisited the concept and visualizes firm total social responsibilities as a pyramid (Figure 1.4). The visualization suggests that firm has to acknowledge all four components as a unified whole and consider them when engaging in decisions. Economic responsibility is positioned as the foundation upon which all the other responsibilities rest.

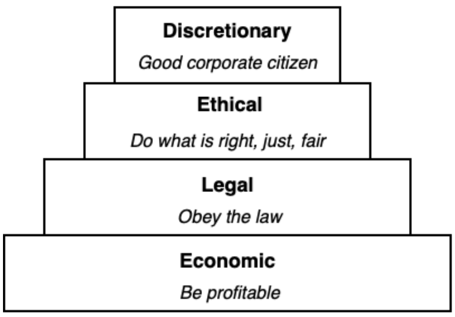


Figure 1.4 Pyramid of Corporate Social Responsibility (adapted from Carroll, 1991)

Another relevant concept that might provide additional perspective for this study is the concept of responsible innovation. Following Stilgoe et al. (2013), responsible innovation can be defined as 'taking care of the future through collective stewardship of science and innovation in the present' (p.1570). Taking the perspective of CSR model, responsible innovation can be seen as an interplay between ethical and legal responsibility, in which societal values are designed into product or service. The values are a result of the close involvement of societal actors during the innovation process. Pavie et al. (2014) introduce five stages of integrating responsibility at all firm levels. Stage 1 is *complying with the law*, where rules and regulations have to be examined in order to find potential obstacles in innovation. Stage 2 requires firm to *anticipate future legal requirements*, which can be achieved by using horizon scanning and risk analysis techniques. In stage 3, organization needs to *think of the value chain as an ecosystem*, pushing it to improve efficiency at all levels. Stage 4 involves *developing responsible products and services,* alongside firm efforts in monitoring and managing the products social, economic, and environmental impacts. The last stage, stage 5, encourages the firm to *lead the change* by taking a leadership role in its industry and educate customers, other market players, and within the organization itself.

3.3.2 Stakeholder theory

The relevance of strategic CSR in the development of ECV capability of a firm can be examined using stakeholder theory. In essence, stakeholder theory suggests that the purpose of a business is to create as much values as possible for stakeholders, which is essential for firm sustainability (Freeman, 1984). Stakeholder theory can explain and guide the structure and operations of firms (Donaldson & Preston, 1995). It is an opposing view against the shareholder view, in which only the opinions of owners of the company are important and that the ultimate responsibility of a firm is to maximize profit (Friedman, 1970). According to Freeman (1984), building better relationships with stakeholders could increase financial performance by helping firms to develop intangible but valuable assets that can be a source of competitive advantages. However, building good relationships take time, resources, and long-term commitment. In addition, Hillman & Keim (2001) emphasized that the value created by interaction between firms and stakeholders are relational rather than transactional. Thus, firm needs to position itself as a reliable and trustworthy partner in order to build lasting relationships with stakeholders.

Donaldson & Preston (1995) introduce three aspects of stakeholder theory: descriptive/empirical, instrumental, and normative (Figure 1.5). Each perspective of stakeholder theory offers different values in usage. From a descriptive perspective, the model describes a firm as a constellation of interests that explains past, present, and future state of affairs between the firm and its stakeholders. From an instrumental perspective, the connections between firm and stakeholders are viewed as a means for the firm to achieve corporate performance goals, which can be achieved through stakeholder management practices. Lastly, normative perspective identifies stakeholders according to their interests in the firm, emphasizing the intrinsic value of stakeholder interests. This implies that the function of firm should be interpreted based on moral or philosophical principles. Although the three different perspectives are thoroughly justified by Donaldson & Preston (1995), they argue that the stakeholder theory is fundamentally normative. For instance, justification on the relationship between stakeholder management and corporate performance will ultimately resort to normative arguments.

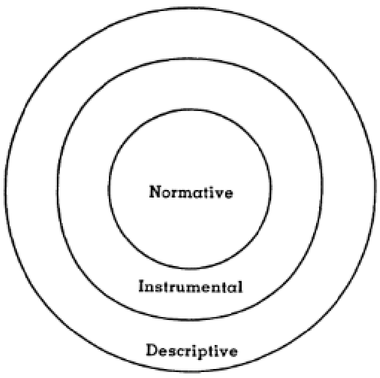


Figure 1.5 Three aspects of stakeholder theory (Donaldson & Preston, 1995, p.74)

3.4 Key summary

The theories in this chapter provides the basic rationale that guide the structure of this study, and justification about why the integration between ECV capability development and strategic CSR is deemed plausible. Extensive literature on ECV identify experiential learning as an approach to develop all form of ECV (venture capital investments, alliances, acquisitions, spin-offs). Different ECV governance mode comes with distinct benefits and challenges. Specific for alliance, the resource dependency between partners is one of the focal concerns. It is important to identify the alliance partner as each organization is different. Firm-firm alliance dynamic is significantly different with firm-university relationship, where it can be attributed to the difference in institutional form, operating norms, goal, and objectives. Keil's (2004) ECV capability model provides a starting point in this study for identifying important factors that influence a firm ECV capability. The pyramid of corporate social responsibility and responsible innovation are briefly reviewed to guide the analysis on the strategic CSR aspect of the case study.

Two theories that are selected to link ECV capability development and strategic CSR are resource-based theory and stakeholder theory. The extension of resource-based theory to relational view of a firm enables the identification of resources that are external to the firm. Firm's relationship with external parties such as supplier, stakeholder, or other business partner can be treated as a way to access external resources and generate relational rent. On the other hand, stakeholder theory enables us to see CSR from its instrumental perspective, where a successful stakeholder management allows firm to access external resources that belong to its stakeholders. The two theories can provide justification on how ECV capability development and strategic CSR can be integrated, which is especially relevant for the specific type of ECV nurtured by the firm: firm-startup alliance that is founded under a firm-university alliance.

4.

Framework development

This chapter deals with the development of framework that integrates ECV capability development with strategic CSR, which is constructed by answering SQ1, SQ2, and SQ3. The framework builds on theoretical background presented in Chapter 3 combined with further literature study on relevant fields. First, factors that are essential for ECV capability development are identified. Then, strategic CSR is assessed from the stakeholder perspective to identify how it can link with ECV capability development. Lastly, a conceptualization of how the two concepts can complement each other is presented and outlined. The framework illustrates, theoretically, how factors that influence ECV capability development can be accommodated by strategic CSR and facilitate firm in developing its ECV capability. The framework is used to guide the process of developing interview questions, the coding process of interview result, illustrate the empirical linkage between factors in the case study, and to structure the analysis and key findings.

4.1 Identifying relevant factors for ECV capability development

This section will answer the first sub-question, "*What factors influence the effectiveness of ECV capability development?*", by conducting a literature study. But first, it is important to acknowledge the two distinct perspectives on ECV in the existing body of knowledge. The first perspective falls under corporate entrepreneurship research field that focus on the role of ECV as a tool for business diversification and growth strategy, whereas the second perspective remains on a broad level of strategic management, focusing on the function of ECV in sourcing external capabilities. The literature on capability sourcing choice is included because it covers the current state of firm capability, which is an important starting point for capability development. This helps to maintain focus of the search and also ensure the contribution and relevance of this study to preexisting knowledge.

Two phases of factor identification are conducted. The first phase aims at identifying factors that influence ECV capability development and capability sourcing choice, covering the two perspectives of ECV. The second phase of the search focus on identifying factors that influence the capability of the specific type of ECV developed in the case study: a non-equity alliance between firm-university, and a non-equity alliance between firm-startup that can transform to direct investment or acquisition later on. Factors that are identified from the first phase provide general insights to all ECV, whereas the factors from second phase are contextual for non-equity alliance. Afterwards, the factors from both phases are merged and categorized into general and specific factors.

4.1.1 First phase: Search process and key literature

In identifying key references for the first phase of the search, the following keywords are used: "factors", "resources", "external corporate venturing capability development", and "external capability sourcing". Other relevant ECV keywords are also included: "acquisition capability development", "joint venturing capability development", "corporate venture capital capability development", and "alliances capability development". Google Scholar is utilized to identify relevant publications, in which the titles and abstracts are read before deciding whether to include or exclude it from the list. The search iteration that used *"factors" AND "resources" AND "external corporate venturing capability development" OR "external capability sourcing"* returned 59 results. Meanwhile, the search iteration that used "external capability sourcing" AND "factors" returned 56 results, and when combined with the rest of ECV-related keywords, around 60 results were returned. To ensure source credibility, only peer-reviewed journal articles are considered. Selected literatures are obtained using TU Delft credentials and thoroughly read. Articles from the reference lists are also considered. The criteria for literature selection in the first phase are as follows:

- Discussing factors influencing external corporate venturing capability development, or
- discussing factors influencing external capability sourcing, and
- acknowledging the role of learning.

Publications obtained from the search result were read thoroughly, in which most are discarded following the criteria of *exclusion*:

- Focusing on the relationship between ECV with firm performance, or
- Focusing on the relationship between ECV with specific firm objective, or
- focusing on small medium enterprises (SMEs), or
- focusing on the management of external ventures

Whenever two or more articles discuss overlapping factors, the more comprehensive one is chosen. Following the criteria of inclusion and exclusion, seven key references are selected. Table 4.1 summarizes the key reference for the first phase of identification and the types of ECV discussed. Keil (2004) is the only author on the list that emphasizes the *venturing* aspect of ECV, whereas the others take the perspective of ECV in sourcing external capability. Only a small number of studies discuss different modes of ECV simultaneously (Capron & Mitchell, 2004; Keil, 2004; Mursitama, 2013). From seven selected references, two articles are selected as the main reference point: *Building external corporate venturing capability* by Keil (2004) and *Where firms change: internal development versus external capability sourcing in the global telecommunications industry* by Capron & Mitchell (2004). The two articles are selected because each represents a different perspective of ECV (venturing and capability sourcing), and both cover all forms of ECV of firms in the ICT sector.

Table 4.1 First phase: Key reference list

Source	Types of ECV
Barkema, H. G., & Schijven, M. (2008). How do firms learn to make acquisitions? A review of past research and an agenda for the future.	- Acquisition - Joint venture
Capron, L., & Mitchell, W. (2004). Where firms change: internal development versus external capability sourcing in the global telecommunications industry.	- Purchase contract - Alliance - Acquisition
Grigoriou, K., & Rothaermel, F. T. (2017). Organizing for Knowledge Generation: Internal Knowledge Networks and the Contingent Effect of External Knowledge Sourcing	- Alliances - Acquisitions
Han, J., Jo, G. S., & Kang, J. (2018). Is high-quality knowledge always beneficial? Knowledge overlap and innovation performance in technological mergers and acquisitions.	- Acquisition
Keil, T. (2004). Building external corporate venturing capability.	- Corporate venture capital - Alliances - Spin-offs, acquisitions

Mursitama, T. N. (2013). How institutional factors matter in acquiring external knowledge: A case of Indonesian firms in the post crisis era.	- Acquisition
Sluyts, K., Matthyssens, P., Martens, R., & Streukens, S. (2011). Building capabilities to manage strategic alliances.	- Alliance

4.1.2 First phase: General ECV factors

Factors mentioned in key references are critically reviewed and compared, in order to find convergence and possibility to merge, aiming for parsimony. Each factor is coded to show the regrouping iteration that takes place on the next step. Table 4.2 summarizes all ECV factors (coded with letter E) as explicitly mentioned in each source.

Table 4.2 First phase: Identified factors

Code	Factor	Definition	Source
E1	Experience accumulation	Firm experience in acquisition	(Barkema & Schijven, 2008)
E2	Deliberate learning mechanisms	Processes that help firm to acquire, accumulate, and leverage know-how and best practices	
E3	Learning from others	Firm learns from other firms through imitation	
E4	Capability attributes	Features of a targeted new capability	(Capron & Mitchell, 2004)
E5	External constraints	External availability or tradability of targeted capabilities	
E6	Internal reconfiguration routines	Internal search and processes to make internal capabilities available and transferable within the firm	
E7	External reconfiguration routines	External search and processes to identify, import, and leverage external capabilities	
E8	Recombination potential	Possibility of combining externally sourced capabilities with firm's existing internal knowledge	(Grigoriou & Rothaermel, 2017)
E9	Coordination costs	Effort dedicated by firm to identify partners, work with them, commit resources, transfer knowledge, monitor progress, make adjustments, and so on	
E10	Knowledge overlap	Number of patents from target firm that belongs to the same patent class with acquiring firm	(Han et al., 2018)
E11	Initial conditions	Initial level of a firm-level variable, e.g., resource endowments or organizational structure	(Keil, 2004)
E12	Knowledge management	Internal practices that influence the effectiveness of learning processes	
E13	Access to external knowledge source	Firm relationship with external parties	(Mursitama, 2013)
E14	Experience	Success with prior acquired external knowledge	
E15	Organizational change	Change of major ownership, top management, organizational structure, and merger & acquisition	
E16	Environment dynamics	Government policies, technological change, change of government regime	
E17	Experience	Alliance experience	(Sluyts et al., 2011)
E18	Top management involvement	Close follow up with firm alliance management procedures, setting policies and goals	
E19	Organizational culture	Open organizational culture as enabler of alliance learning system	
E20	Dedicated alliance function	Infrastructure to support the management of alliances and enhance the process	

Legend: E = ECV factors

From Table 4.2, it is apparent that several concepts are present in multiple source, such as *experience, knowledge,* and *learning.* In the next step, similar factors are grouped together in order to find a more generalizable, simple categorization of factors. Whenever necessary, factors are either merged, replaced, or remain as a self-standing component of the category. To put a structure in the grouping process, factors from the models developed by Keil (2004) and Capron & Mitchell (2004) are used as a reference point. Next, each model is thoroughly reviewed.

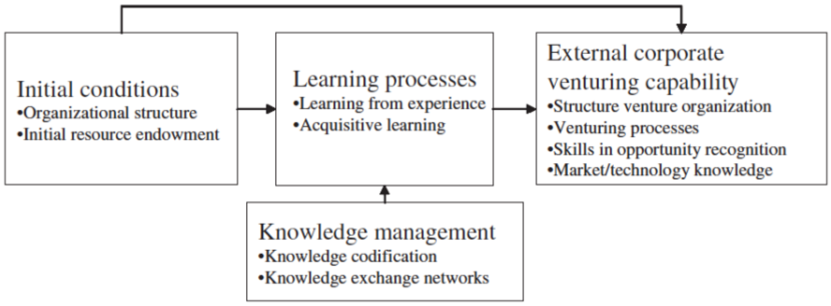


Figure 4.1 ECV capability development model (Keil, 2004, p.812)

The ECV capability model is presented in Figure 4.1. Keil (2004) argues that capability building takes place through learning processes that include learning-by-doing (experiential learning) and learning-before-doing (acquisitive learning). Two set of factors that affect learning processes are initial conditions and knowledge management. Initial conditions refer to the initial level of firm variable that includes resource endowments and organizational structure. For this study, the two components are generalized into *resource,* as organizational structure can also be classified under organizational resources (Barney, 1991). Another category of factors identified by Keil (2004) is *knowledge management* that includes knowledge codification and knowledge exchange networks. Knowledge management is a crucial factor for this study as it facilitates the effectiveness of linkage between organizational learning and capability development (Zollo & Winter, 2002).

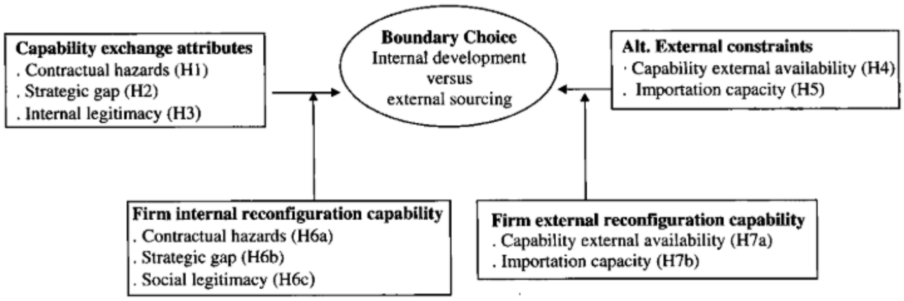


Figure 4.2 Model for the choice of internal development vs external sourcing of new capability (Capron & Mitchell, 2004, p.159)

Capron & Mitchell (2004) develop a model in deciding between internal development or external sourcing, proposing four factors that influence the choice: capability exchange attributes (E4), firm internal reconfiguration capability (E6), firm external reconfiguration capability (E7), and external constraints (E5), as depicted in Figure 4.2. Capability exchange attributes refer to the risk of proprietary knowledge leakage, capability gap that is too wide, and potential disruption to existing routines. To translate internal and external reconfiguration capability into observable constructs, the factors will be subsequently referred to as internal reconfiguration *routines* (E6) and external reconfiguration *routines* (E7). Internal reconfiguration routines (E6) require firm to conduct internal search and source internally available resources. Existing reconfiguration routines (E6, E7) provides insight to relevant firm mechanisms that can facilitate effective learning processes and the mobilization of required resources.

Another distinct factor that is not explicitly mentioned in Keil (2004) and Capron & Mitchell (2004) but holds an important role in ECV capability development is *top management involvement,* as proposed by Sluyts et al. (2011). Their work focus on alliance capability of a firm, in which four factors are conceptualized to influence the alliance capability development: experience, top management involvement, organizational culture, and a dedicated alliance function. Experience can be categorized under *knowledge management,* as it is a part of important learning mechanisms that has to be accompanied with codification and articulation efforts to efficiently contribute to organizational learning (Zollo & Winter, 2002). Meanwhile, organizational culture represents a set of organizational values that influence learning orientation (Farrell et al., 2011 in Sluyts et al., 2011). An open organizational culture (E19) can be categorized as a property of organizational resources that facilitate learning. A dedicated alliance function (E20) can be seen as a firm effort in managing specific knowledge (Barkema & Schijven, 2008). A dedicated alliance function does not only represent knowledge management, but also a commitment from top management to allocate firm resources in supporting capability development. Thus, the remaining two factors of top management involvement and dedicated alliance function can be merged under *top management involvement.*

Now, we have five categories of factors: resources, knowledge management, reconfiguration routines, external factors, and top management involvement. Factors that are related to experience, learning, and knowledge are grouped under knowledge management, following the arguments from Zollo & Winter (2002) that identify experience accumulation, knowledge codification, and knowledge articulation as three learning mechanisms that can contribute to capability development. This includes learning from others, as proposed by Barkema & Schijven (2008), which can be defined a means for firm to learn from the experience of other firms, avoiding any costs and risks associated with experimentation. Access to external knowledge source (E13) (Mursitama, 2013) is included under knowledge management. Knowledge overlap and recombination potential are important dimensions of knowledge management, as they enable the firm to measure its current capability and the gap to be overcome.

Internal and external reconfiguration routines (E6, E7), coordination costs (E9), and organizational changes (E15) are grouped under reconfiguration routines. Coordination costs (E9) represent a firm internal reconfiguration capability (Grigoriou & Rothaermel, 2017). The lower the coordination cost, the easier it is for firm to adapt new external capability. Meanwhile, organizational change (E15) negatively influences firm reconfiguration routines and external capability sourcing tendency (Mursitama, 2013). This can be attributed to the fact that firm needs to allocate their resources to adapt with the implications of organizational changes such as change in top management, ownership, or structure. External constraints (E5) and environmental dynamics (E16) can be categorized under external factors, as both are exogenous and can either influence firm capability development positively or negatively. On the other hand, capability attributes (E4) is intrinsic to the targeted capability which is beyond the control of the firm. The regrouping iteration is presented in Table 4.3.

Table 4.3 First phase: categorized factors influencing ECV capability

Code	**Factor**	**Categories**
E11	Initial conditions	Resources (Barney, 1991)
E19	Organizational culture	
E1	Experience accumulation	Knowledge management (Keil, 2004)
E13	Access to external knowledge source	
E14	Experience	
E17	Experience	
E2	Deliberate learning mechanisms	
E3	Learning from others	
E8	Recombination potential	
E10	Knowledge overlap	
E12	Knowledge management	
E6	Internal reconfiguration routines	Reconfiguration routines (Capron & Mitchell, 2004)
E7	External reconfiguration routines	
E9	Coordination costs	
E15	Organizational change	
E20	Dedicated alliance function	Top management involvement (Sluyts et al., 2011)
E18	Top management involvement	
E4	Capability attributes	External factors (Capron & Mitchell, 2004)
E5	External constraints	
E16	Environmental dynamics	

Legend: E = ECV factors

In the next step, categories of factors are finalized and factors are simplified (Table 4.4). The codes start with letter G, representing ‘General factors’. Resources, coded with G1, are defined following the categorization from Barney (1991): human capital, physical capital, and organizational capital. Knowledge management (G2) consists of experience accumulation and external linkage. Reconfiguration routines (G3) consist of internal and external reconfiguration routines, and organizational change is positioned as a negative influence that hinders firm reconfiguration activities. Top management involvement (G4) is a self-standing factor that can be observed from the internal state of the firm (G1, G2, G3). Lastly, external factors (G5) consist of capability attributes and other environmental dynamics such as changes of policy and macro-economic phenomenon.

Table 4.4 First phase: Final ECV capability development factors

Code	Category	Factors
G1	Resources	- Human capital - Physical capital - Organizational capital
G2	Knowledge management	- Experience accumulation - External linkage
G3	Reconfiguration routines	- Internal reconfiguration routines - External reconfiguration routines - Organizational change
G4	Top management involvement	- Top management involvement
G5	External factors	- Capability attributes - Environmental dynamics

Legend: G = General factors

4.1.3 Second phase: Search process and key literature

The second phase of factor identification aims to identify factors that influence a non-equity alliance relationship between firm-university and firm-startup. The same search steps with first phase are implemented, but different keywords combinations are used. The following keywords are used: “factors”, “firm university”, “firm startup”, “organizational learning”, “capability development”, “collaboration”, and “alliance”. Organizational learning is also included as it is a precursor to capability development. Google Scholar returned 307 results. The next search iteration uses “asymmetric alliance”, “firm”, “startup”, which returned 24 results. Only articles from peer-reviewed journals are included. Title and abstracts from the articles are read before being included into the reference pool. Publications are retrieved from online platforms using TU Delft credentials, followed by a thorough reading. Next, literatures are selected according to the following criteria:

- Discussing factors influencing alliance between firm-university as key findings, or
- Discussing factors influencing alliance between firm-startup or small firm as key findings, and
- Discussing organizational learning

As alliance is a specific mode of ECV, literatures that were excluded in the first phase are also excluded in this phase. To achieve parsimony, factors that overlap with categorization presented in the first phase will be merged under relevant categories. Factors from this phase are complementary with general ECV factors identified in Section 4.1.2 and they are expected to provide contextual factors specific for non-equity alliance relationships between firm-university and firm-startup. Selected key references are presented in Table 4.5, alongside with the corresponding alliance members and the objective of alliance. The majority of firm-university alliance focus on innovation and R&D purposes, whereas some also mention different purposes such as production, marketing, and trading (Cambra Fierro & Pérez, 2018; Garcia-Perez-de-Lema et al., 2017). However, no studies have explicitly discussed firm-university alliance that aims to develop startups.

Table 4.5 Second phase: Key reference list

Source	Alliance members	Alliance objective
Bellini, E., Piroli, G., & Pennacchio, L. (2019). Collaborative know-how and trust in university–industry collaborations: empirical evidence from ICT firms.	Firm-university	R&D
Cambra Fierro, J. J., & Pérez, L. (2018). Value creation and appropriation in asymmetric alliances: the case of tech startups.	Firm-startup	Trading
Chen, H., & Chen, T. J. (2002). Asymmetric strategic alliances: A network view.	Large firm-small firm	Not specified, include R&D, production, marketing, cross-licensing.
Elmuti, D., Abebe, M., & Nicolosi, M. (2005). An overview of strategic alliances between universities and corporations.	Firm-university	Problem-solving
Hervas-Oliver, J.-L., Albors-Garrigos, J., & Baixauli, J.-J. (2012). Beyond R&D activities: the determinants of firm's absorptive capacity explaining the access to scientific institutes in low-medium tech contexts.	Firm-public research offices (including university)	Innovation
Mora-Valentin, E. M., Montoro-Sanchez, A., & Guerras-Martin, L. A. (2004). Determining factors in the success of R&D cooperative agreements between firms and research organizations.	Firm-research organization (including university)	R&D

4.1.4 Second phase: Alliance-specific factors

As some factors mentioned in literature overlap with categories of factors established in first phase, they are merged with final factors presented in Table 4.4 (Section 4.1.2). The identified factors are summarized in Table 4.6, where overlapping factors are coded according to categories developed in the first phase. Colored cells represent new factors that are not explicitly present in the first phase, coded with the letter D. Then, each factor is analyzed before deciding whether or not it can be categorized into general factors. If not, then new categories of alliance-specific factors are created.

Table 4.6 Second phase: Identified factors

Code	Selected factor	Definition	Source
G2	Collaborative know-how	Ability to develop specialized knowledge via experience and use it for further benefits	(Bellini et al., 2019)
D1	Trust	Firm belief or confidence of partner	
G1, G3	Resource complementarity	Distinct resource that has synergy potential	(Cambra Fierro & Pérez, 2018)
G1, G3	Organization complementarity	Compatibility and similarities of strategies, organizational culture, goals, and communication processes	
G2	Learning with customers	Learning about customers and how to work with them	
G1	Customer-specific investment	Additional investment related to alliance partner	
G3	Resource commitment	Firm resources dedicated for the alliance and influences organizational form	(Chen & Chen, 2002)
G5	Commitment of senior management	Ensure allocation of necessary resources and to convince others throughout organization of the importance of the alliance	(Elmuti et al., 2005)
G1	Firm absorptive capacity	Firm's internal resources in terms of strategy and organization, human resources, and technology	(Hervas-Oliver et al., 2012)
G2	Experience	Previous interactions with other organizations	
G1, G3, G5	Commitment	Extent to which the partners get involved in the interorganizational relationship	(Mora-Valentin et al., 2004)
G2	Previous links/experience	Learning in cooperative relationship	
D2	Clear definitions of objective	Plainly and accurately formulate the aims of the cooperative agreement	

D3	Conflict	Lack of harmony and agreement between cooperating organizations	
D4	Communication	Process of exchanging information, concepts and ideas between individuals that belong to different organizations	
D5	Trust	Willingness to believe in the other partner within a context where actions of one partner make the other vulnerable	
D6	Reputation of partners	Information about partners which is of public knowledge	

Legend: D = Distinct factor; G = General factor

Mora-Valentin et al. (2004) propose that a partner's degree of commitment can be measured according to the contribution of resources, managerial support, and involvement of the rest of the staff. Therefore, for this study commitment is represented by the combination of resources (G1), reconfiguration routines (G3), and top management involvement (G5). Meanwhile, resource and organization complementarity involve resource (G1) and internal reconfiguration routines (G3). The other identified factors are categorized under G1-G5 according to their relevance, following the categorization presented in Section 4.1.2. The study by Mora-Valentin et al. (2004) is chosen as reference point to group the factors because it analyzes the success of cooperative agreements from the perspective of both firm and research organizations, which is more holistic compared to other references.

Trust between partners is an important factor that influences the success of strategic alliance between firm and university (Bellini et al., 2019; Mora-Valentin et al., 2004). According to Cullen et al. (2000), trust is an important relationship capital in alliance that can help partners overcome issues that requires more than mere formal agreement. In addition, trust enables partners to focus on R&D challenges instead of trying to address all possible issues that might arise (Bstieler et al., 2015). Lack of trust might lead partners to hold back information or take advantage of each other when possible. Subsequently, trust provides foundation for commitment, and when combined with extensive communication (D4), conflict (D3) can be minimized. Communication (D4) is also essential to build trust and can be used to establish clear definitions of objective (D2). Reputation of a partner (D6) is a result of past experience (G2) and meticulous corporate communication that can influence the trust of its counterpart. Table 4.7 presents the regrouping process of factors.

Table 4.7 Second phase: Categorized factors influencing alliance relationship

Code	Factor	Categories
D1	Trust	Trust (Mora-Valentin et al., 2004)
D5	Trust	
D2	Clear definitions of objective	Communication (Mora-Valentin et al., 2004)
D3	Conflict	
D4	Communication	
D6	Reputation of partner	

Trust and communication are coded with S, referring to its status as a specific factor influencing alliance relationship between partners. The interconnectedness between the two factors are explained and presented in Table 4.8.

Table 4.8 Phase two: Final alliance-specific factors

Code	Factors	Description
S1	Trust	- Influenced by communication - Influenced by reputation of partner
S2	Communication	- Establishment of clear objectives - Conflict avoidance - Build reputation of partner - Establishment of trust

Legend: S = Specific factor

4.1.5 Summary: Relevant factors influencing ECV capability development

After identifying and converging the factors in first phase and second phase, both set of factors are merged to answer the first sub-question: *"What factors influence the effectiveness of ECV capability development?".* Two classification of factors are identified: general-ECV factors and alliance-specific factors. General ECV factors consist of resources, knowledge management, reconfiguration routines, top management involvement, and external factors. The effective interaction between internal firm factors are required to deal with external factors and contribute to successful ECV capability development. Meanwhile, alliance-specific factors include trust and communication as important aspects that mediate the relationship between partners within the alliance. Factors that start with the letter G represents general-ECV factors, whereas S represents alliance-specific factors. The final factors are presented in Table 4.9.

Table 4.9 Final factors influencing ECV capability development

Code	Factor
G1	Resources
G2	Knowledge management
G3	Reconfiguration routines
G4	Top management involvement
G5	External factors
S1	Trust
S2	Communication

Legend: G = General factor; S = Specific factor

4.2 Strategic CSR and its relevancy

This section will answer the second sub-question, *"What are the characteristics and benefits of strategic CSR?",* by conducting a literature study. In the first part of this section, a strategic CSR framework introduced by Porter & Kramer (2006) is thoroughly reviewed. The article provides basic logic and thought process in designing a CSR initiative that address the interest of both firm and society from a practitioner's point of view. It is closer to the real-life business context and offers generic steps that can be followed by firms from all industries. In the second part of the section, a literature study is conducted to identify the benefits of strategic CSR that is relevant to the process of organizational learning and capability development. By selecting sources that originate from both practical and academic perspectives, it is hoped that the result can provide a balanced view.

4.2.1 Characteristics of strategic CSR

The main idea behind strategic CSR is finding potentials for shared values in which both firm and society can flourish together (Porter & Kramer, 2006). The key characteristic of strategic CSR is its potential to bring tangible benefits for the business. There are three classifications of social issues: generic social issues, value chain social impacts, and social dimensions of competitive context, which influences the corresponding CSR. The classification affects the prioritization of issue. What is deemed a strategic CSR differs from firm to firm, country to country, and across business context. What is considered as strategic CSR by Nestle, such as the establishment of farms in rural India, is not strategic from the perspective of oil and gas companies such as British Petroleum. The uniqueness of strategic CSR is also argued by Heslin & Ochoa (2008), stating that the imitation of other organizations' strategic CSR practices misses out the differences in organizational competencies and contexts. Strategic CSR design should be derived from careful analysis of an organization's unique culture, competencies, and strategic opportunities.

In order to correctly identify all value chain activities, their impact on society, and design the appropriate CSR initiative, firm needs to possess the relevant capability. Ramachandran (2011) proposes two underlying capabilities that influence the success of a CSR initiative: sense-and-respond capability and execution capability. Sense-and respond capability refers to the overall process of sensing a social issue and designing a specific response, which can also be viewed as a problem-solving or decision-making process. Meanwhile, the execution capability includes the process of detailing and executing the design response. Garst el al. (2019) introduce value-sensitive absorptive capacity framework that consists of value receptivity, value articulation, and value reflexivity. In essence, the framework can be used for firms to absorb societal values and integrate the values onto firm operational activities and final product/service offerings. Based on the article by Porter & Kramer (2006), accompanied with insights from other references, we can summarize the characteristics of strategic CSR as the following: it focuses on shared value between firm and society, it brings tangible business benefit, it is context-dependent and firm-specific, and the successful design and implementation of strategic CSR requires relevant capabilities.

4.2.2 Benefits of strategic CSR

This study focuses on ECV capability development as a corporate goal, which is also the firm-specific goal that will be achieved through strategic CSR. According to the proposition from Zollo & Winter (2002), capability development is a result of organizational learning. Therefore, the combination of keywords that are used to find relevant literature are the following: "strategic corporate social responsibility", "benefit", "organizational learning", and "capability development". The combination *of "strategic corporate social responsibility" and "benefit" and "organizational learning"* returned 379 results, whereas the addition of *"capability development"* to the search returned 25 results. To include other potential literature, the keywords *"corporate social responsibility" and "benefit" and "organizational learning" and "capability development"* are also used, in which 402 results were returned. The selection starts with the search iteration that returned the least number of results, in which discarded literature are automatically excluded in the next iteration. The following criteria of inclusion are in place:

- Focus on corporate social responsibility or corporate responsibility as a cause and not an effect (can be observed through model and framework included in the study), and
- Explicit mention of the term 'learning' or 'capability', and
- Provide the link between CSR and organizational learning or capability development

Articles that discuss the opposite direction of relationship between learning and CSR such as those published by Uzhegova et al. (2018) and Blackman et al. (2012) are excluded. Following the list of inclusion criteria, nine academic articles are chosen to provide existing knowledge on strategic CSR relevancy with organizational learning and capability development. The findings are summarized in Table 4.10.

Table 4.10 Benefits of strategic CSR

Source	**Context of study**	**Benefits of strategic CSR**
Ahen, F., & Zettinig, P. (2015). Critical perspectives on strategic CSR: What is sustainable value co-creation orientation?	Integrate CSR doctrine into corporate strategy	- Feedback from consumers, institutions, strategic stakeholders and competitors
Heslin, P. A., & Ochoa, J. D. (2008). Understanding and developing strategic corporate social responsibility.	Establish principles for enacting strategic CSR	- Growth in market share - Increased organizational learning - Committed and engaged employees - Support from external stakeholders - Positive investor relations
Li, N., & Toppinen, A. (2011). Corporate responsibility and sustainable competitive advantage in forest-based industry: Complementary or conflicting goals?	Analysis of CSR in forest-based industry	- Reducing cost and risks - Differentiating through enhanced corporate intangible assets (e.g. reputation, brand and stakeholder management) - Improving access to market & finance - Maintaining corporate legitimacy
Martinuzzi, A., & Krumay, B. (2013). The Good, the Bad, and the Successful - How Corporate Social Responsibility Leads to Competitive Advantage and Organizational Transformation.	Linkage between CSR with firm competitive advantage and organizational transformation	- Develop the capabilities for dialogue and flexibility

Militaru, G., Purcuarea, A.-A., Borangiu, T., Druagoicea, M., & NegoicTua, O. D. (2015). How Social Responsibility Influences Innovation of Service Firms: An Investigation of Mediating Factors.	Role of CSR on innovation performance of service firms	- Collaboration with customer, employee, business partner
Tuan, L. T. (2013). Leading to learning and competitive intelligence.	Examine chain effect from CSR and emotional intelligence to organizational learning and competitive intelligence in Vietnam	- Upward influence behaviors: influence attempts directed toward someone higher in the formal hierarchy
Vallaster, C. (2017). Managing a Company Crisis through Strategic Corporate Social Responsibility: A Practice-Based Analysis.	The role of CSR on crisis recovery of a firm	- Using stakeholders to learn and evolve through feedback loops - Influence company's resource base and value creation
Vitolla, F., Rubino, M., & Garzoni, A. (2017). The integration of CSR into strategic management: a dynamic approach based on social management philosophy.	CSR integration in strategic management and control system	- Top management learning as the basis of feedback mechanism in developing strategic changes
Zhao, Z., Meng, F., He, Y., & Gu, Z. (2019). The influence of corporate social responsibility on competitive advantage with multiple mediations from social capital and dynamic capabilities	Correlation between CSR and competitive advantage under the mediations of social capital and dynamic capability	- Establishing close relationships with external stakeholders - Gathering resources needed for innovation - Promoting enterprises and employees - Form trusting and cooperative atmosphere

To achieve parsimony, the benefits obtained from the literature study will be grouped according to their relatedness. 'Growth in market share', one of the benefits mentioned by Heslin & Ochoa (2008) is excluded from the categorization as it is a result of the combination of multiple firm-related aspects such as the increase in resources, stakeholder involvement, and external dynamics. Following the theories explained in Chapter 3, three broad categories are used as a starting point for grouping: resources, stakeholder, and organizational learning. *Resources* is used to group the notions that relate to the firm's physical, human, and organizational capital. *Stakeholder* is used to group the notions that involve stakeholder presence. *Organizational learning* is used to group the notions that relate to process that influence firm capability development. The notions 'reducing cost and risk' and 'form trusting and cooperative atmosphere' are included under stakeholder category. Although the notions do not explicitly mention stakeholder, both are the result of a successful stakeholder management that provides rationale of the linkage between firm CSR activities and improved firm performance (Donaldson & Preston, 1995). The final categorization and the corresponding benefits are presented in Table 4.11.

Table 4.11 Categorization of strategic CSR benefits

Category	**Benefits**	**Source**
Resources (Barney, 1991)	Committed and engaged employees *(human resource)*	(Heslin & Ochoa, 2008)
	Enhanced intangible asset *(organizational resource)*	(Li & Toppinen, 2011)
	Access to markets and finance *(organizational resource)*	(Li & Toppinen, 2011)
	Corporate legitimacy *(organizational resource)*	(Li & Toppinen, 2011)
	Influence company's *resource* base and value creation	(Vallaster, 2017)
	Gathering *resources* needed for innovation	(Zhao et al., 2019)
Stakeholder (Donaldson & Preston, 1995)	Feedback from consumers, institutions, strategic stakeholders, competitors	(Ahen & Zettinig, 2015)
	Support from external stakeholders	(Heslin & Ochoa, 2008)
	Positive *investor* relations	(Heslin & Ochoa, 2008)
	Reducing cost and risk	(Li & Toppinen, 2011)
	Collaboration with customer, employee, business partner	(Militaru et al., 2015)
	Upward influence behaviors	(Tuan, 2013)
	Using stakeholders to learn and evolve through feedback loops	(Vallaster, 2017)

	Establishing close relationships with external stakeholders	(Zhao et al., 2019)
	Form trusting and cooperative atmosphere	(Zhao et al., 2019)
Organizational learning (Zollo & Winter, 2002)	Increase organizational learning	(Heslin & Ochoa, 2008)
	Develop capabilities for dialogue and flexibility	(Martinuzzi & Krumay, 2013)
	Top management learning	(Vitolla et al., 2017)

4.2.3 Summary: Characteristics and benefits of strategic CSR

Based on literature study, the second sub-question, *"What are the characteristics and benefits of strategic CSR?",* can be answered. Departing from the study by Porter & Kramer (2006) as the focal reference, four characteristics of strategic CSR are identified: shared value between firm and society, brings tangible business benefit, context-dependent and firm-specific, and requirement of relevant capabilities. Meanwhile, literature study on strategic CSR benefits that relate to organizational learning and capability development result in three categories: resources, stakeholder, and organizational learning. The categorization will be used as an input for the next step of this study, in which relationship between ECV capability development and strategic CSR is explored.

4.3 ECV capability development - strategic CSR framework

After answering the first and second sub-question, components of framework that integrates ECV capability development and strategic CSR have been identified. In this section, theoretical linkages will be made to answer the third sub-question: *"How can strategic CSR facilitate ECV capability development?".* First, we will recall both general-ECV and alliance-specific factors identified in Section 4.1, followed by the benefits of strategic CSR identified in Section 4.2. To ensure that the program fulfils its main objective of creating positive impact for society, Carroll's (1979) four CSR components are also included in the framework. Then, relevant stakeholders for this study are identified according to actors within the case study: startup and university. Lastly, relevant theories taken from Chapter 3 are used to establish the linkages. The framework development process and corresponding sub-questions are presented in Figure 4.3.

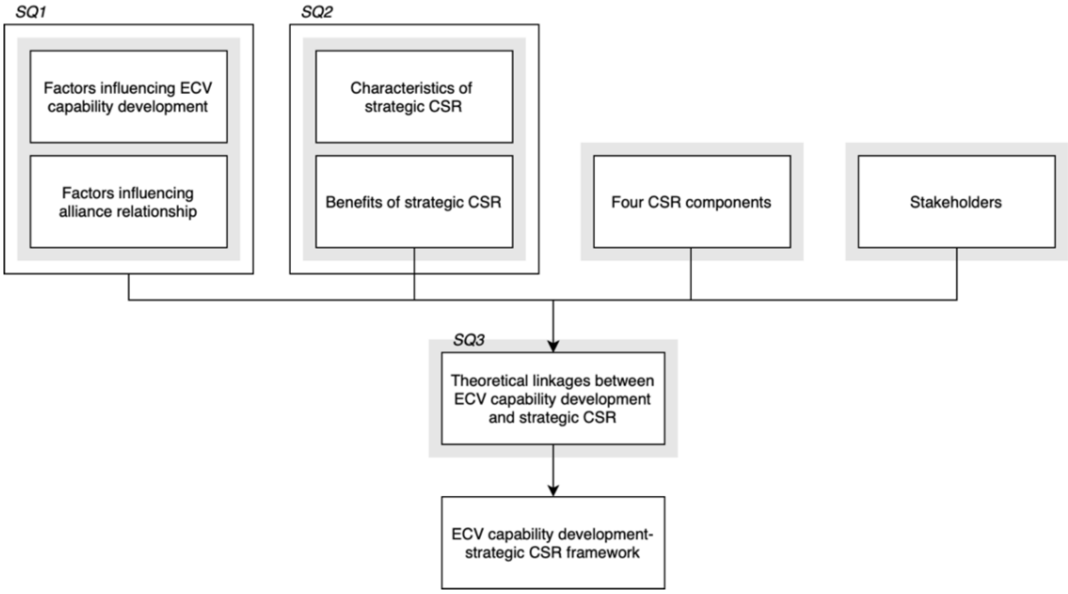


Figure 4.3 Framework development

We first emphasize that this study departs from Keil's (2004) ECV capability development model which establishes firm ECV capability as a result of learning process. Therefore, the factors in this study are discussed in relation to the learning processes experienced by the firm. To structure the process of framework development, the integration is divided into two different steps: *general-ECV factors-strategic CSR* and *alliance-specific factors-strategic CSR.* The main theories used in this section are stakeholder theory (Donaldson & Preston, 1995) and resource based theory (RBT) (Barney, 1991), with an extension to relational view of the firm (Dyer & Singh, 1998).

4.3.1 General-ECV factors and strategic CSR

From the literature study, five set of factors that influence the development general ECV capability are identified. Resources, knowledge management, reconfiguration routines, and top management involvement are factors that are internal to the firm. Meanwhile, external factors are beyond the firm's control. We will start by discussing how each factor relates to one another and how they can be linked to strategic CSR to enable ECV capability development. In the framework, startup is included as stakeholder as they are the main target of the strategic CSR program, and have the potential of becoming firm business partner where they can be affected directly by firm actions. Figure 4.4 presents the components that will be discussed in this section.

General-ECV factors	Benefits of strategic CSR	Stakeholders
Resources Knowledge management Reconfiguration routines Top management involvement External factors	Resource Stakeholder Organizational learning	University Startup

Figure 4.4 General-ECV factors and strategic CSR

Resources is a crucial factor for firm in conducting its operational activities, developing novel initiatives, or adapting to external changes. The broad definition of resources includes *anything* that is owned by a firm, from employees, factories, knowledge, to external relationships. In this study, we emphasize the importance of resources in developing firm ECV capability and implementing strategic CSR. Relational view of the firm argues that a firm's critical resources may extend beyond firm boundaries (Dyer & Singh, 1998). Firm can use its external relationships to access external resources and extend its resource base. This study takes an instrumental perspective of stakeholder theory to examine the strategic CSR initiative, which is a form of stakeholder management. A successful stakeholder management can enable a firm to access external knowledge and resources that belong to its stakeholders (Roszkowska-Menkes, 2018). Through an interplay between relational view of the firm and stakeholder theory, we can view stakeholder's resource base as an extension of the firm's. Strategic CSR is the enabler of such proposition.

Proposition 1: *Strategic CSR enables firm to access external resources owned by stakeholders.*

Knowledge management is defined as internal practices that influence the effectiveness of learning processes. Keil (2004) identified knowledge articulation, knowledge codification, and knowledge exchange networks as components of firm knowledge management. Knowledge management is needed to turn individual knowledge into firm resources that can be accessible to the rest of the organization. Strategic CSR can be seen as a firm's effort in expanding its knowledge exchange networks with external learning partners. By engaging external learning partners, firm can enrich its knowledge base with different perspectives. This is also an opportunity for firm to update its knowledge on relevant stakeholders and improve its stakeholder management approach.

Proposition 2: *Strategic CSR enables firm to engage stakeholders as external learning partners.*

Reconfiguration routines require a firm to search and source internal and external resources that is relevant to firm objective. In this study, reconfiguration routines are needed to facilitate effective learning processes and the mobilization of required resources in developing ECV capability. Through strategic CSR, firm cannot only reconfigure internal resources but also its external resources. As the CSR program brings more benefit for stakeholders, it creates more incentive for the stakeholder to cooperate and mobilize the required resources: sharing them with the firm to realize a successful program. Strategic CSR creates a base for relational exchange between firm and stakeholders, where no price tag is assigned on the resources.

Proposition 3: *Strategic CSR enables firm to reconfigure external resources to facilitate effective learning process.*
Proposition 4: *Strategic CSR creates a base for relational exchange between firm and stakeholders.*

Involvement of *top management* is important to enable resource mobilization and in the establishment of both knowledge management and reconfiguration routines. Once the top management considers firm activity to be of strategic importance, it receives more attention and support. The support can come in the form of substantial resource commitment, policies, and incentive system. A study by Lock & Seele (2016) shows that in the most sustainable companies, CSR is anchored in both governance and operational level. CSR is positioned within close reach of top management and has a direct access to top management support. Strategic CSR, as compared to traditional altruistic CSR, implies the strategic value of the program and the need for close alignment with overall firm strategy. Therefore, strategic CSR initiative might receive more support from top management. The acquired resources can then be used to execute both strategic CSR and ECV capability development.

Proposition 5: *Strategic CSR receives top management support in the form of resource commitment, policies, and incentive system.*

The last general-ECV factor is *external factors.* Firm can deal with *external factors* by reconfiguring its resource base according to its knowledge and past experiences that are stored in the knowledge management mechanisms. The strong involvement of top management involvement can provide a clear direction of firm strategy in dealing with external factors. Thus, we argue that a firm's ability in dealing with external factors is an interplay between resources, knowledge management, and reconfiguration routines that is moderated by top management involvement. In this study, the particular firm strategy in dealing with external factors is to embed its ECV capability development activity to a strategic CSR initiative.

Proposition 6: *Firm deals with external factors by utilizing internal factors that it owns.*

4.3.2 Alliance-specific factors and strategic CSR

Two alliance-specific factors were identified from literature: *trust* and *commitment.* The two factors are included in the framework to include insights on alliance, which is the type of ECV developed in the case study. Figure 4.5 presents the components that will be discussed in this section.

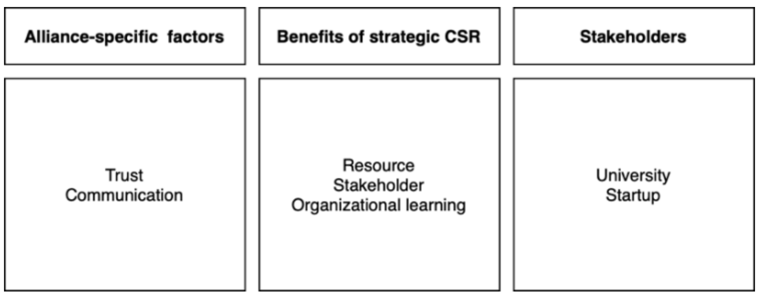


Figure 4.5 Alliance-specific factors and strategic CSR

Dyer & Singh (1998) emphasize the key role of governance in the creation of relational rents as it 'influences transaction costs, as well as the willingness of alliance partners to engage in value-creation initiatives' (p.669). Two classes of governance were identified: third-party enforcement and self-reinforcing agreements (no third party is involved). The type of governance associated with a strategic CSR initiative can be classified as a self-reinforcing agreement that contains "informal" safeguards such as goodwill trust, embeddedness, and reputation (Dyer & Singh, 1998). It is argued that informal safeguards are the most effective and least costly means to facilitate the exchange (Gulati, 1995). Strategic CSR can be positioned as a ground to build trust between firm-university and firm-startup and enable a supportive atmosphere for resource sharing and exchange. Trust is also an important aspect in interorganizational learning process as it lets both partners to share knowledge without fear of opportunism and can increase the quality of learning.

Proposition 7: *Strategic CSR can act as a ground to build trust between firm-university and firm-startup in alliance relationships.*
Proposition 8: *Trust enables firm and stakeholders to be engaged in productive knowledge sharing and learning.*

Communication is an important aspect in maintaining relationships between partner. Communication is involved in a positive feedback loop relationship with trust, where transparent communication can help build the trust of the partner, and an increased trust create more willingness of the partner to communicate transparently. In this case, trust and communication are important for both the design, implementation, and evaluation of the strategic CSR program in firm-university relationship, as well as in the alliancing (ECV) process between firm and startups. The firm should communicate clear definition of firm objective followed by a thorough explanation of the program and its benefit for stakeholders. That way, all partners can set a realistic expectation of the program, and willingly contribute the necessary resources for the benefit of all parties.

Proposition 9: *The transparency in communication between firm and stakeholders influences the success of strategic CSR program.*

4.3.3 Final ECV capability development – strategic CSR framework

In essence, strategic CSR examines the role of CSR from an instrumental perspective of stakeholder theory, where the links between stakeholder management and achievement of corporate goals can be established (Donaldson & Preston, 1995). Theoretical linkages were drawn from literature study and will act as a guide in analyzing the case study. Nine propositions regarding ECV capability development and strategic CSR have been developed in the preceding section, providing the answer to SQ3: *"How can strategic CSR facilitate ECV capability development?"*. The framework is visualized in Figure 4.6. Characteristics of strategic CSR are included in the framework to analyze whether or not the case study conforms to literature. Carroll's (1979) CSR components are included in the framework to analyze the extent of fulfillment of firm responsibility through the strategic CSR initiative. In subsequent chapters, the framework will be treated as the main reference point for data collection, analysis, synthesis, and validation.

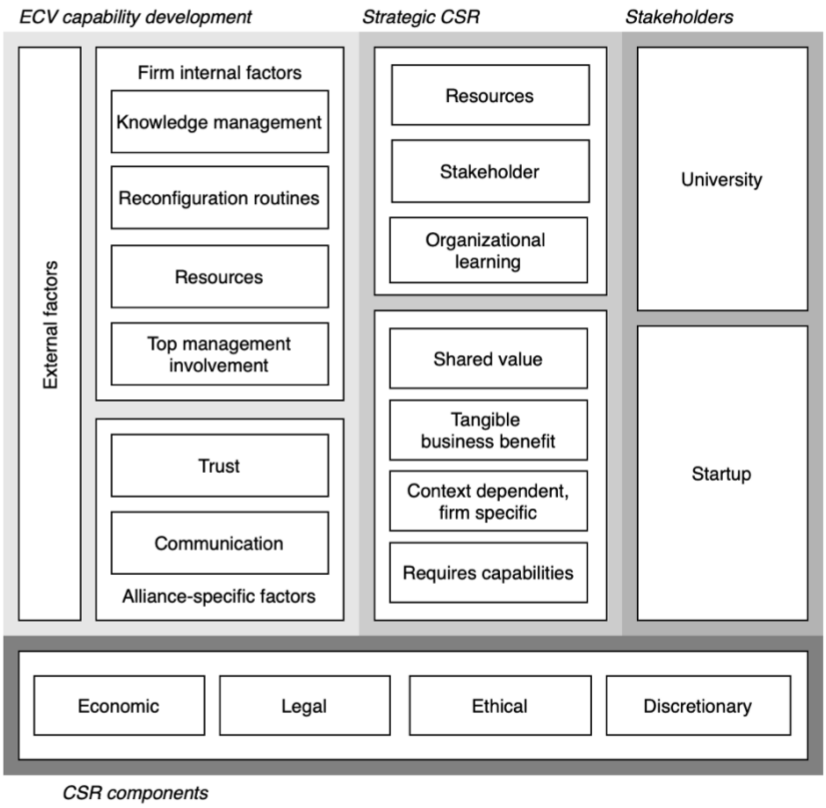


Figure 4.6 ECV capability development - strategic CSR framework

5.

Case study

This chapter aims to answer SQ4, "*How do ECV capability development and strategic CSR interact in empirical setting?",* by conducting a case study research on Appcelerate. Results from semi-structured interviews, observations, and secondary data are structured in this chapter to delineate how ECV capability development and strategic CSR interact in empirical setting. The conceptual framework is used to analyze the case study, and empirical findings that were not covered in the framework are identified. Propositions that were introduced in preceding chapter are corroborated and refined. The chapter starts with introduction to the case study, followed by aspects of data collection and analysis, and results that are structured into firm internal functions (ECV capability development), firm-university relationship (strategic CSR), and firm-startup relationship (ECV capability).

5.1 Case introduction

5.1.1 Appcelerate

Lintasarta is an Indonesia-based ICT firm that provides end-to-end ICT solutions for corporations, from data communication to value added services. It is a firm with around 720 employees and generated USD 160.6 million of revenue in 2016. Since its establishment in 1988, the firm focused on providing data communications for enterprise where competition was still low. In 2014, a new CEO was appointed to oversee firm transformation towards data communication & IT services company. The transformation was needed to survive the increasing competition and pursue revenue growth. A new IT services division was formed to provide consultancy for firm customers. With their established base of approximately 2,000 corporate clients that range from banking to mining, the firm has the potential to sell products and services on top of their IT infrastructure.

In 2016, the company initiated Appcelerate, an annual startup competition and acceleration program organized under the partnership between Lintasarta and three universities. Lintasarta used their CSR budget to revitalize co-working spaces of the universities, provide financial means and mentoring sessions for up to 10 startups per university per year to develop prototypes and refine their business idea. The duration of the program is 6 months. The competition aims to discover potential startups with promising ICT-based solutions that can answer the problems experienced by Lintasarta corporate clients. The winners of the competition gain monetary prizes and receive the opportunity to be a partner of the company, where Lintasarta will help in commercializing their product. Five startups have entered the partnership stage. Figure 5.1 visualizes Appcelerate as a process component, where startup participants enter the competition as inputs, and leave the competition with partnership opportunities.

Figure 5.1 Case study

The competition is a strategic CSR initiative that acts as a means to build its ECV-related dynamic capabilities alongside strategic philanthropy. The 'social' aspect of the program provides neutral learning ground for the organization in dealing with startups (Heslin & Ochoa, 2008), building organic relationship with startups and university partners based on goodwill, and provide time in reconfiguring resources alongside with the development of required capabilities. On the other side, the successful outcome of the competition will further improve the reputation of the firm, and open future partnership opportunities. From the perspective of society, the involvement of the firm in supporting new startups contribute indirectly to the creation of employment opportunities and encouraging collaborative approach in product development that can cater the needs of different stakeholders. It provides industrial linkage to universities, which can narrow the gap between academia and business. It is a concrete demonstration of strategic CSR that benefit both the firm and society.

5.2 Data collection

The participants are presented according to the order of interview schedule, in order to illustrate the sequence of information obtained throughout the study. A total of 24 respondents from firm, university, startups, and comparative organizations were interviewed. To mask the university respondents, we will refer to universities to University A, B, and C. The interview implements snowball sampling, where at the end of the interview, respondent is asked to recommend someone who might be relevant to the study. The interview is conducted in approximately 3 weeks, with duration of interview ranging from 20 minutes to 1.5 hours. The average duration of interview is 42 minutes. The shortest interview (20 minutes) was conducted with the General Manager of Strategic Business Development, with the main goal of obtaining top management perspective of the program and the direction of firm ECV strategy. The longest interview (1.5 hours) was conducted with Appcelerate program director. Table 5.1 presents the interview sequence with details regarding the type of respondent (startup/university/firm/comparative organization), name of affiliation, role, characteristics fulfilment (referring to Table 1.1 in Section 2.2.2.1), duration of interview, and mode of interview that was utilized. Each respondent is coded to ease future referencing.

Table 5.1 Sequence of interviews

Code	Type	Institution	Role	Characteristics fulfilment	Date	Duration	Mode
S1	Startup	Kazee	CEO/Founder	CEO; participated in competition; explored partnership opportunity	16/3/20	0:30	Skype video call
U1	University	University B	Business Development & Partnership	Establishment of competition; in charge of the competition	17/3/20	1:15	Face-to-face
U2	University	University B	PIC of Appcelerate	In charge of competition; startup development	17/3/20	0:40	Face-to-face
U3	University	University A	Incubator Manager	Establishment of competition; In charge of competition; startup development	19/3/20	0:30	Skype video call

F1	Firm	Lintasarta	Senior Officer of Strategy & Business Development	Involved in design & implementation of competition	19/3/20	0:45	Skype video call
U4	University	University C	Incubator Manager	In charge of competition; startup development	19/3/20	0:30	Phone call
S2	Startup	Lokapoin	CMO/Founder	Co-founder; participated in competition; explored partnership opportunity	23/3/20	0:30	Zoom video call
S3	Startup	Fleetara	CEO/Founder	CEO; participated in the competition; explored partnership opportunity	23/3/20	0:30	Face-to-face
S4	Startup	Fleetara	Business & Product Development	Explored partnership opportunity	23/3/20	0:30	Face-to-face
F2	Firm	Lintasarta	VP Vertical Industry & Government	Involved in implementation of competition; experience in product development function	23/3/20	0:40	Skype video call
F3	Firm	Lintasarta	Program director Appcelerate	Establishment of competition; design, implementation of competition; establishment of CSR programs; dealt with startups	24/3/20	1:30	Skype video call
U5	University	University A	Director of Institute for Innovation and Entrepreneurship Development (LPIK)	Establishment of competition	24/3/20	0:30	Face-to-face
U6	University	University A	Incubator Manager	In charge of the competition; startup development	24/3/20	0:25	Face-to-face
U7	University	University C	PIC of Partnership	Establishment of competition; in charge of the competition	24/3/20	0:40	Phone call
S5	Startup	Halofina	CEO/Founder	CEO; participated in competition; explored partnership opportunity	25/3/20	0:40	Zoom video call
F4	Firm	Lintasarta	Product Manager	Experience in alliance; experience in product development; dealt with startups	27/3/20	1:00	Zoom audio call
F5	Firm	Lintasarta	Senior Manager Cloud Product	Involved in implementation of competition; experience in product development function; dealt with startups	31/3/20	1:00	Microsoft Teams audio call
C1	Comparative organization	Telkom	Officer in Synergy & Portfolio Department	Design and implementation of strategic CSR	31/3/20	0:30	Phone call
C2	Comparative organization	Telkom	Officer in Digital & Next Business	Involved in product development; dealt with startups	1/4/20	1:00	Phone call

C3	Comparative organization	MDI Ventures	COO & Portfolio Director	Dealt with startups; conduct ECV; startup development	2/4/20	0:40	Zoom video call
C4	Comparative organization	Indigo Incubator	Officer in Business Incubation	Dealt with startup; startup development	3/4/20	1:00	Phone call
F6	Firm	Lintasarta	Organizational & Learning Expert	Experience with organizational learning activities	4/4/20	1:00	Zoom audio call
C5	Comparative organization	Telkomsigma	Head of IoT and Smart solutions	Involved in product development	7/4/20	0:30	Zoom audio call
F7	Firm	Lintasarta	GM of Strategy Business Development	Involved in evaluation of competition	8/4/20	0:20	Microsoft Teams audio call

Legend: C = comparative organization, F = firm, S = startup, U = university

The order of interview was crucial in obtaining the relevant information, where information from the preceding respondent generates new knowledge and aspects to be clarified in the next interview. Initially, the interview was planned to be phased into three different foci: internal firm respondents are interviewed in the first week, followed by respondents from university and startups in the second week, and the final week focuses on obtaining comparative insights from external organizations. However, due to the spread of COVID-19, the schedule was changed significantly, and the approach shifted from phased interview into interviewing whichever respondent that was available. It turns out that the mix of respondents enable immediate data triangulation. For instance, in the first week the interview schedule is as follows: startup - university - university - firm. Information from startup could be validated with the corresponding incubator within the span of 3 days, whereas information from two different universities could be compared within the span of 2 days. Another important point of the data collection part was the interview with the key respondent: Appcelerate program director. The interview was conducted after perspectives from all three university incubators, three startups, and two internal firm functions were obtained. Thus, a lot of aspects could be verified, validated, and can be further enquired.

5.3 Coding and data analysis

Each interview is transcribed and saved as a separate document. Then, the documents are imported to ATLAS.ti for coding and analysis. To ease analysis process, the documents are divided into 4 groups: Firm, Startup, University, and Comparative. The coding process uses a predefined code list taken from the framework and related concepts from corresponding literature. The initial code list of 25 codes is presented in Table 5.2. Stakeholder and Resources each belong to two framework components: Internal firm factors-Strategic CSR and Strategic CSR-Stakeholder. Therefore, the cells are highlighted and only one of each is elaborated. The coding process is non-linear, and additional codes are added when it is deemed necessary.

Table 5.2 Initial code list

Framework component	**Code**	**Related codes**
ECV capability development	(1) Capability-ECV	
Internal firm factors	(2) Knowledge management	(14) Knowledge articulation (15) Knowledge codification (16) Knowledge exchange network
	(3) Reconfiguration routines	(17) Resource reconfiguration (18) Reconfiguration frequency
	Resources	(19) Resources: Human (20) Resources: Organizational (21) Resources: Physical (22) Resources: Financial

	(4) Top management involvement	(23) Firm policy
External firm factors	(5) External factors	
Alliance-specific factors	(6) Trust	
	(7) Communication	
Strategic CSR	Resources	
	Stakeholder	
	(8) Organizational learning	
Stakeholders	(9) Stakeholder	
CSR components	(10) Responsibility: Economic	
	(11) Responsibility: Legal	
	(12) Responsibility: Ethical	
	(13) Responsibility: Discretionary	(24) CSR: Responsive (25) CSR: Strategic

After the coding process is finished, we arrive to the final code list of 146 codes. Some codes are created to add more details to initial codes, whereas some are created to group insights accordingly. For instance, the following codes are added under organizational resources: *market access, network access, organizational structure,* and *preexisting relationship*. The codes enable a deeper understanding and the types of organizational resources that are present in the case study. Thematic codes such as *Appcelerate, Startup, Support,* and *Partnership* are also created to facilitate data analysis, where code co-occurrences can be identified more easily. For instance, if we want to identify which resources are present in Appcelerate benefits, we can choose the *Resources* codes and *Appcelerate-benefit* in the Code Co-occurrence Table menu of ATLAS.ti. The examples of thematic codes are presented in Table 5.3. Some in-vivo codes are also extracted from the interviews. The codes are then linked to one another to enable a deeper understanding of the relationships and create network visualizations. The final code list can be found in Appendix D.

Table 5.3 Example of thematic codes

Appcelerate:	**Comparative:**	**Support:**	**Partnership:**
Background Benefit Challenges Changes Design Evaluation Expectation Improvement Influencing factors Involvement Outcome Perception	Challenges Coordination Investment strategy Network Startup experience	Firm University	Arrangement Challenges Considerations Continuity Expectation Experience Outcome Strategy

5.4 Case study results

The result of the case study starts with a descriptive delineation of firm internal functions and firm changes, followed by the result of the first embedded case study that focus on firm-university incubator relationship (Appcelerate as a strategic CSR program), and the second embedded case study that focus on firm-startup relationships (Appcelerate as an ECV capability development program). Afterwards, the analysis will return to the main unit of analysis: Appcelerate as an integration of both concepts. The analysis is guided by the ECV capability development-strategic CSR framework presented in Section 4.3.3. The corresponding sources for evidence in this study are written at the end of sentence, in referral to the codes written in Table 5.1 Section 5.2 and quotation reference from ATLAS.ti quotation manager. For instance, a code that is written as (F6 1:8) means that the quotation is taken from respondent F6, with quotation number 1:8 taken from ATLAS.ti project. The corresponding quotations can be found in Appendix C.

5.4.1 Firm internal functions

This study explores the possibility of embedding ECV capability development with strategic CSR. Following the conceptualization by Zollo & Winter (2002), capability is a result of learning. Therefore, we will start by discussing firm approach to learning and capability development, which provides a contextual background for the case study. Next, interactions between firm internal functions throughout planning, implementation, and evaluation of Appcelerate are discussed. This section ends with a summary of changes within firm and Appcelerate, demonstrating the learning outcome experienced by the firm.

5.4.1.1 Organizational learning

Organizational learning is a responsibility of the Human Capital Management (HCM) division. The firm is promoting the approach of independent learning for employees (F6 1:8), which is supported by the provision of online learning platforms (F6 1:27) that caters acquisitive learning. The results are structured following framework components of internal firm factors and external firm factors, demonstrating the usage of the framework.

Resources

As all learning takes place within individuals (Simon, 1991), humans are the most important resource for firm learning and knowledge management processes. This translates to firm hiring strategy and approach to learning. Experience is one of the most important indicators of a person's capability. The firm needs new human resources when they develop new things as capabilities are embedded to the person, and existing individuals cannot be taken onboard unless they have the experience (F2 5:36). As the firm does not have a corporate university (F1 16:15), or a dedicated external entity aims to foster organizational learning and knowledge, capability development is mostly conducted through training provision, knowledge sharing, and online learning platforms (F6 1:1, 1:27). To help learning process of new hires, firm provides training and implements a buddy system for all level from staff, senior manager, to general managers. The buddy usually comes from the same division and can help each other when facing difficulties and need guidance (F5 2:28).

Reconfiguration routines

At the beginning of the year, HCM reviews employee's suitability and performance in their current roles. If there is a lack of performance but the individual's competency is suitable in other functions, an internal firm transfer can be arranged. HCM also conducts quarterly review to identify vacant or soon-to-be vacant positions due to retirement or based on request from top management. Organizational change is fairly frequent; it can happen at least once a year. The change can be triggered by the introduction of a new product and a suggestion for a more effective organizational structure. There can be up to two small changes per year, such as an addition of department under a division, or a merge between two departments to one division (F6 1:25). There is also an internal job market, where employees can apply for an open position through firm system. Internal firm transfer is possible, but it requires approval of the corresponding director. The final decision depends on the urgency and degree of importance of the new role (F2 5:37; F4 3:27).

Knowledge management

The firm is still early in the implementation of knowledge management (KM), such as utilizing online platforms (e.g., OneDrive, Microsoft Teams) to upload learning materials and making them accessible for employees throughout the firm (F6 1:46). The urgency for KM stems from the firm generation gap caused by a 5-year freeze in recruitment in early 2000s. Policy related to knowledge management include optimizing online platform, minimizing document transfer through email, avoiding file storing in internal storage, and encouraging internal knowledge sharing (F6 1:45, 1:50). The three learning processes as proposed by Zollo & Winter (2002) are present albeit to different extents. Experience accumulation takes place within individuals through experiential learning. Knowledge articulation occurs during discussions, progress meetings, and sharing sessions. Meanwhile, the formalized codification of lesson learned is still implemented as a trial. Final reports are uploaded to online platform, accessible for other teams working on similar projects (F6 1:51). In case of personnel change, knowledge transfer session and handover documents are created (F2 5:4, F4 3:96). It is acknowledged by the firm that the lack of knowledge management system results in loss of knowledge when an someone leaves the organization (F6 1:68).

Top management involvement

Suggestions and final decisions regarding firm reorganization come directly from the CEO, which is motivated by an increase in organizational efficiency and effectiveness (F6 1:57). A lot of firm improvement suggestions and projects also come from CEO and the head of HCM. Top management is involved in the request for incidental employee reviews and decisions regarding the content for employee training and development (F6 1:72). Firm policies are developed and approved by top management. Firm internal transfer also requires approval of the relevant top management individuals (F2 5:37; F4 3:27). Activities that are important for firm long-term strategy are of top priority, and therefore top management are more likely to allocate the required resources. In this case, the implementation of knowledge management after persisting as an idea for years signifies top management attention and firm priority.

External factors

There are two particularly important external factors that influence the firm's organizational learning activities: technological development and global health condition. Technical ICT skills are fast-moving, and therefore HCM consults regularly with leaders in related functions to keep up with the most up to date requirements (F6 1:30). The firm informs the difficulties in developing a long-term learning roadmap due to frequent changes with certification partners (F6 1:15). Another important factor in this situation is the COVID-19 pandemic, which forced all companies to implement remote working. For the firm, this condition coincides with the launch of online learning platform and the freeze in public training. Therefore, the firm is able to encourage employees to adopt the new learning approach.

5.4.1.2 Appcelerate

The ideal outcome of Appcelerate as stated by firm respondents are to obtain business partner (F1 16:2), development of startups that can be profitable (F7 6:40) and can solve problems of industry (F3 4:152), aligned with firm business (F2 5:7), and act as a catalyst for firm internal development efforts (F5 2:6). The expectation guides the design and implementation of the program and is supported by a suitable governance mode.

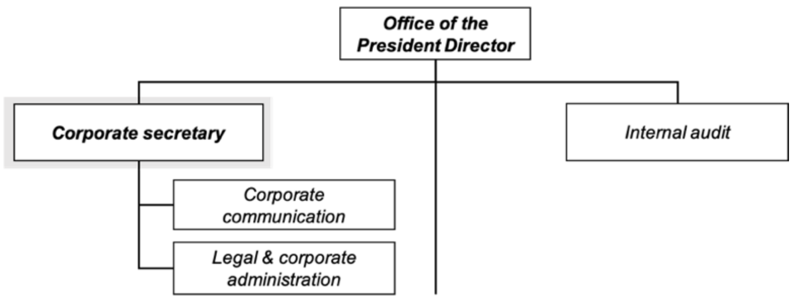


Figure 5.2 Corporate secretary position relative to CEO (source: firm internal document)

Firm internal functions can be categorized as organizational resource that creates advantages and limitations for the firm. In this section, we will first start by explaining the governance mode of CSR, followed by an explanation of interaction between functions involved in Appcelerate. CSR program, including Appcelerate, is a responsibility of Corporate Secretary, an extension of the Board of Directors' (BoD) function in carrying out the communication function. Firm's corporate secretary position relative to CEO is presented in Figure 5.2. The firm follows the Indonesian GCG Guideline (2006), where CSR initiative is assigned to the corporate communication function. CSR programs are ensured to fulfil firm responsibilities as a part of society and to empower stakeholders. CSR program is a responsibility of one officer from CS, which is supervised and approved directly by the CEO. Figure 5.3 breaks down Appcelerate into three phases: preparation, Appcelerate, and post-Appcelerate. Each phase engages relevant functions in learning process (written inside the brackets). In this section, only preparation and Appcelerate are discussed (highlighted in grey). Post-Appcelerate discussion will be discussed later on page 43 (Figure 5.5).

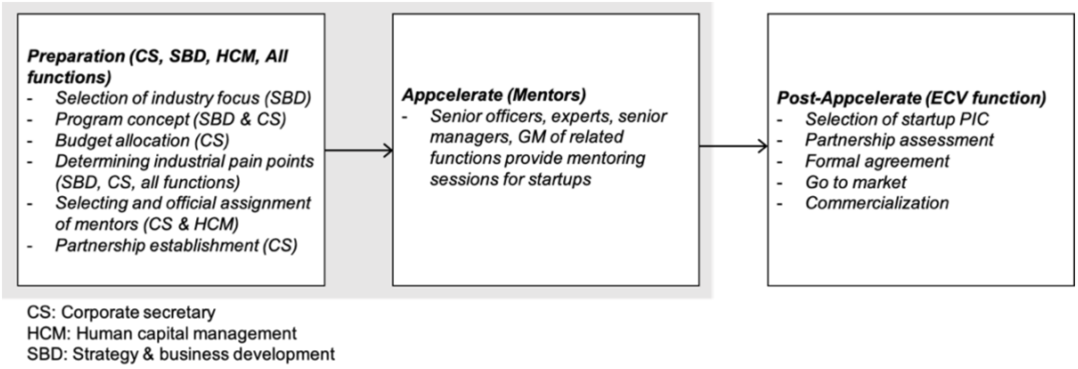


Figure 5.3 Appcelerate and learning functions

Resources

Human and finance are the two most important resources in the establishment of Appcelerate. Without CSR budget from CS, the program would not materialize. The budget of the program increased in from USD 115,000 in the first year into USD 300,000 in 2nd year and USD 200,000 in 3rd year as the program expanded to cover three universities (F3 4:46). The funding is used to revitalize coworking space in universities, fund startup product development, and as prize money for the final winners. Financial resources are also used to cover transportation costs of mentors from Jakarta (firm HQ) to three different cities (Bandung, Yogyakarta, Surabaya). Meanwhile, human resources of the firm are also involved as mentors, which determines the quality of mentorship provided for Appcelerate participants. It is important to acknowledge that the mentors do not only provide learning for startups but are also engaged in the learning process itself. Involvement in Appcelerate pushes the mentors to continuously update their knowledge on the development of startup landscape (F1 16:16).

Reconfiguration routines and top management involvement

As the program has been conducted for three years, the resource reconfiguration can be seen as a routinized activity that includes search process, assignment, and finalization. The reconfiguration of human and financial resources required for Appcelerate is enabled by the involvement of top management. The program progress is updated regularly to CEO, and changes in budget allocation was decided in the BoD meetings. In addition, the official assignment is signed directly by CEO, and employees that are involved will obtain credit from HCM (F3 4:16). Firm also allows startup participants to use infrastructure, network, internet, and cloud during the program (F2 5:56). Appcelerate is championed by the CEO as a feature program that is known firm wide (F3 4:50), and therefore it receives substantial attention and support.

Knowledge management

The firm is still early in implementing a centralized knowledge management system (F6 1:27), and therefore knowledge is mostly exchanged during meetings, de-briefing sessions, and cross-functional discussions. By involving other functions such as marketing, sales, and product development, Appcelerate team is forming a knowledge exchange network where cross-functional teams can meet and discuss. Knowledge codification is implemented when the program director was transferred to his new role in a different division (F3 4:62). A document containing the steps needed in design and implementation of Appcelerate was submitted to CS. The officer also participated in the firm annual knowledge sharing event by giving a presentation titled ‘How to develop startup through Appcelerate’ (F3 4:64). Now, Appcelerate team is positioned as a source of startup information for functions that are looking for external partners in product development (F4 3:19).

External factors

There are three external factors that influence the implementation of Appcelerate. First, when sudden assignments are scheduled for mentors, they hold a higher priority compared to mentoring sessions. Therefore, when such thing happens, no back up mentors are available, and the session must be rescheduled (F2 5:47). Second, the quality and readiness of startup participants are external factors that is beyond the firm’s control, and it largely influences the quality of the competition itself. Based on experience, startups come with similar ideas throughout the years, signaling idea saturation (F5 2:68). Third, whether or not potential partners agree to co-host Appcelerate is an external factor. The officer mentioned that one of the challenges in Appcelerate is in convincing the highest level of authority in university to partner with the firm (F3 4:23).

5.4.1.3 Learning outcome and ECV capability

Internal changes within the firm is a visible result of organizational learning, where resources are reconfigured according to updated firm knowledge. Therefore, to see how Appcelerate influences firm organizational learning and capability development, we can observe the changes in the firm and in the design of the program itself. Figure 5.4 summarizes the timeline of relevant firm changes that took place between 2011 and 2020.

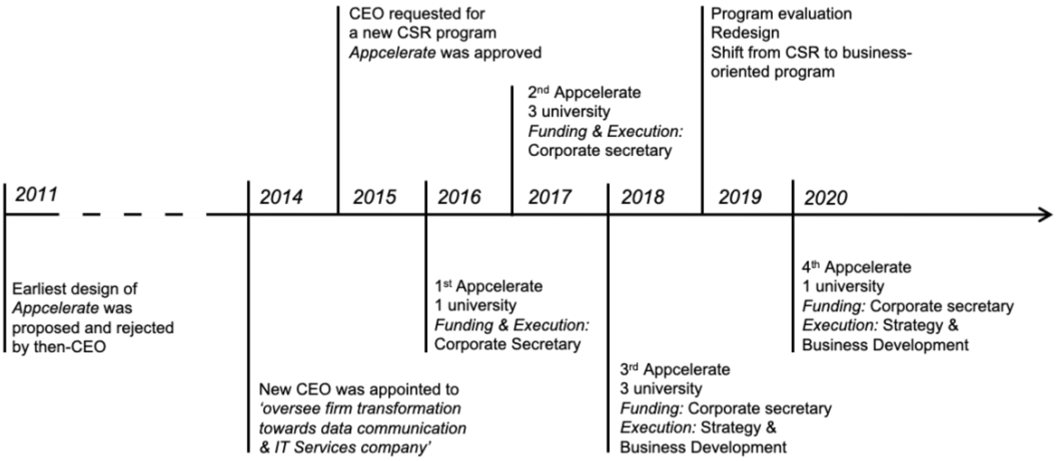


Figure 5.4 Timeline of Appcelerate changes

In 2011, the first design of Appcelerate was presented to the CEO, but it was rejected. In 2014, a new CEO was appointed to oversee firm transformation towards providing both IT infrastructure *and* services for existing customers. The transformation requires the firm to go beyond its existing capability. As quoted from the CEO: *"Providing IT Services is very different from selling access. IT Services means that we are consultants from customers. This means we must be creative and flexible."* In 2015, CEO requested for a new CSR program that is more aligned with firm core business and directed at universities. Appcelerate was implemented for three years between 2016 and 2019. The changes include the level of startup readiness, program orientation (from pure CSR to business-oriented program), an increasingly focused competition (from unspecified theme, to B2B, to B2B and specific industry), size of the program (from 1 university to 3 universities), and organizational change (from pure CS to SBD). Supporting quotations are presented in Table 5.4.

Table 5.4 Quotations: Changes in Appcelerate design

ATLAS.ti reference	Quotation	Respondent	Scope of change
4:73	Those who enter incubation are not based on quota but based on who can truly meet industry criteria. We used to take startups from scratch or ideation. [...] From a business development perspective, from the very beginning we chose the one who has a prototype and a good business case.	F3	Startup readiness
5:2	[On new Appcelerate] Conceptually, it is very different, we will partner with several investors that we have invited in previous Appcelerate. We invite these investors to see the Appcelerate process [...] so that investors are interested in joining to contribute funds to the development of these startups.	F2	Orientation of program
5:30	If from 2017-2018 it is only pure CSR [...] But starting in 2020 we will co-fund with partners. In 2020, the main goal is how we can build a startup that is directly aligned with the core business and also our partners.	F2	
13:5	When Appcelerate finishes [...] there will be pitching in front of the corporate CEOs [...] the investors will immediately have a deal with the startup.	U5	

5:5	The concept of Appcelerate 2018 is specific to vertical industry. Between 2016-2018, Appcelerate does not have specified theme. In 2018, we decided on a theme that is in line with firm's business strategy.	F2	Focus of program
12:28	The shift from CSR program [...] into a program to find partners and products from the startup. Themes also shifted: in the first year we take both B2B and B2C, then the second year there is still a little B2C, then the third year is industry specific - B2B and industry.	U3	
16:4	In the first year we hold the event in University A, the second and third year expanded to University B and University C, so there was an increase in funding. But this year, we are scaling it down [...] there are other programs that we are running that also requires funding. This year the funding has been reduced and focus on 1 university, but with a different treatment.	F1	Size of program
16:30	There are additional universities, more proposal submissions, the product is more directed towards B2B and B2G. [...] Several startups get customers from the program and used by Lintasarta itself.	F1	
16:10	The main coordinator was from corporate secretary. As of 2019, it is no longer a CSR program, and transferred to SBD directorate. Although source of funding remains in CS, now SBD runs the program.	F1	Organization

The changes were motivated by the successful outcome of the pilot program, where *'all the products were good, although not all of them were suitable for B2B' (*F3 4:14). The pilot acts as a learning tool for firm to explore university potentials in producing startups, before committing more resources and expand the program. To ensure alignment with firm core business, the program became more focused and stricter selection criteria were imposed. By transferring Appcelerate from CS to SBD, the firm fully commits on developing profitable startups and avoid the confusion caused by CSR identity of the program (F5 2:61). Next, we will discuss learning outcome related to firm ECV function in the post-Appcelerate phase, as shown in Figure 5.5 (highlighted in grey).

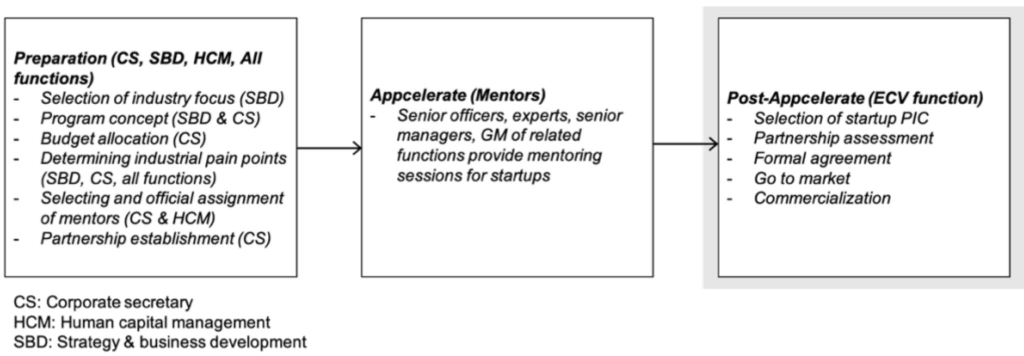


Figure 5.5 Appcelerate phases: Post-Appcelerate (ECV function)

The firm implements alliance as its ECV governance mode, which is a responsibility of Alliance Management function under IT Services & Product Management (ITSPM) division. Alliance Management is in charge of firm partnerships with external vendors, including startups. The alliance goal is to co-develop products. Starting in 2019, the firm created a centralized alliance function, which was previously present in all four departments under ITSPM. A new partnership framework was also introduced to streamline the process, starting with partnership assessment, creation of NDA, and ending with handover to procurement division (F4 3:45). A new policy sets maximum number of potential alliance partner to three, pushing other departments to rigorously assess the quality before submitting them to Alliance Management (F4 3:46). In addition, there is an official memorandum that establishes the assignment of products based on industry to three different firm units (F4 3:5). After the partnership is established, startup will regularly interact with the corresponding unit to develop product and enter the commercialization phase together.

5.4.3 Firm-university: Strategic CSR

This section discusses the first embedded case study, focusing on the relationship between firm and university, as depicted in Figure 5.6. This part of study emphasizes on the implementation of Appcelerate as a strategic CSR and the resource-sharing activity. Following the conceptual framework, this section will assess the program from the perspective of resources, stakeholder, and organizational learning. From the case study, the extent of resource contribution from both firm and university are identified. The role of strategic CSR in starting a partnership relationship with university as stakeholder is outlined. The aspects of organizational learning that takes place within universities are also discussed. A cross-case analysis between three university partners will be conducted.

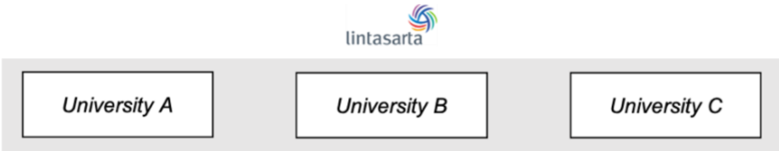


Figure 5.6 Embedded case study 1: Firm-university incubators

The firm first reached out to University A to start a pilot program in 2016, which is a university located in Bandung. In 2017, the firm started partnering with University B in Yogyakarta, and University C in Surabaya. The partnerships continued in 2018. All partners are public universities located in Java, the same island with the firm's headquarter in Jakarta. A map of firm and the three universities is presented in Figure 5.7.

Figure 5.7 Firm and university locations

5.4.3.1 Resources

In running Appcelerate, both firm and university contribute their resources, as visualized in Figure 5.8. A university respondent acknowledged that *'we have the resources, talent, and facility, so that (co-hosting Appcelerate) might be a pretty good combination'* (U5 13:20). In this study, firm *financial resource* is written as a self-standing factor outside Barney's (1991) three categories, as it is the most significant enabler of the program to revitalize coworking space, startup funding, and finance the sequence of events. As a recipient of CSR program, university does not commit financial resources. However, due to the long bureaucracy of university that slows down the process of receiving external funds, universities have to provide fill-in funding to ensure the program can be executed according to schedule (U7 14:39). Minor expenses that are expected to be covered by university including additional consumption packages and transportation costs for program socialization that are not included in program budget (U1 18:25, F3 4:81).

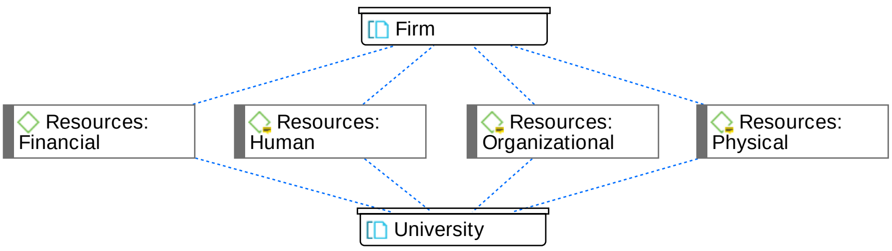


Figure 5.8 Firm-university resource sharing

The frequency of co-occurrences between the code Support-Firm, Support-University, and four Resources codes (Financial, Organizational, Physical, and Human) are summarized in Table 5.5, representing the type of support provided by firm and university. The codes classify the types of resources that are contributed by both parties. The groundedness (Gr) of each code represents the total number of codes in all documents. *Human resource* (Resources: Human) is the code with most co-occurrences with both firm and university support, as well as the highest number of codes in all documents, indicating that human resource is the most important type of resources.

Appcelerate program director stated that he *'ran the program himself through coordination with partners in universities'* (F3 4:139). The program director is in charge of securing budget and sourcing mentors from internal firm and industry (F3 4:88). Meanwhile, manager of university incubators deals with internal administrative tasks, reach out to potential startup participants, source mentors from university, schedule mentoring sessions, and monitor startup progress throughout the program.

Table 5.5 Co-occurrences: Firm-university resources

	Support-Firm Gr=30	**Support-University** Gr=22
Resources: Financial Gr=22	4	2
Resources: Human Gr=78	11	11
Resources: Organizational Gr=32	3	6
Resources: Physical Gr=25	6	5

Both firm and university contribute to the program by providing access to each other's network and reputation, which can be identified as an *organizational resource.* Firm gives university access to its industry linkages, which is beneficial for university in narrowing the gap between research and industry needs (U5 13:7). Meanwhile, university supports the program by providing access to its network of students, academics, and different bodies within the university. In promoting the program, employees from university incubators send out posters and letters to faculties and through mailing lists (U6 11:6). By tapping into the university's network of startups, the firm does not have to build one from scratch. University incubator is a suitable partner for the program as it houses university-based startups and owns a database of students and academic groups that are passionate about entrepreneurship (U1 18:12). By co-hosting the program together with top public universities in Indonesia, the firm is benefitting from the reputation of its counterpart in creating positive publication (F1 16:46).

Physical resources are contributed by both firm and university. All three universities are located within the firm operational regions, which ease the communication and coordination process (U3 12:35). The design of Appcelerate requires a dedicated space that can be used to gather startup participants and to facilitate their day to day activity. Therefore, firm revitalizes the coworking space owned by university, which is a part of the CSR program. Firm also supplies infrastructure, network, internet access, and cloud to support the activities in the coworking space (F2 5:79). University is also in charge in finding venues for events such as promotional activities, kick off seminar, and bootcamp (U1 18:25). Table 5.6 summarizes the resource sharing between firm and university.

Table 5.6 Firm-university resource sharing

	Firm	**University**
Resources: Financial	- Revitalize coworking space - Startup funding - Funding of events	- Provide fill-in funding - Cover minor expenses
Resources: Human	- Coordinate financial aspects - Source mentors from firm and industry	- Incubator manager - Administrative tasks - Reach out to startup participants - Mentors - Monitor startups
Resources: Organizational	- Industry linkages (network) - Reputation	- Access to students, academics - Reputation
Resources: Physical	- Firm location - Network, internet access, cloud	- University location - Coworking space - Venue for events

5.4.3.2 Stakeholder

The firm has a preexisting relationship with the pilot university (University A). The CEO is an alumnus of the university and he has a personal connection with the director of university incubator. Firm products and services are also used at the university (F1 16:13). Appcelerate officer contacted University A through the electrical engineering and informatics faculty (F3 4:123), where firm often sponsors events (U3 12:5). Through Appcelerate, firm is able to intensify the relationships with university. Initially, the firm planned to hire external agency to conduct the competition due to limited human resources. However, the head of incubator said that this program could be held together without involvement of other parties (F3 4:54). The firm agreed to this arrangement, and the program was designed to allow deep collaboration. The arrangement provides a base for a trusting and cooperative atmosphere for both firm and university. After a successful outcome of the pilot program, top management requested for an expansion in the subsequent year. The Appcelerate officer was assigned to find two additional university partners. In approaching University B, Appcelerate officer gained the contact and recommendation from the incubator manager of University A. Through the link, the officer was able to initiate communication with the right contact in University B. A contact to University C was given by the firm business director who was an alumnus of the university. Communication is mentioned as a key success factor in securing university partner (F3 4:11).

The firm views CSR program as purely altruistic where no benefit is intentionally designed into the program (F2 5:49). However, closeness with university as an outcome of the program was not denied. Maintaining a positive relationship with university as a stakeholder is highly beneficial for the firm. Due to its collaborative nature, both firm and university have a high sense of ownership and willingness to successfully execute the program. For instance, university arranges fill-in funding so the program can proceed as scheduled, as well as to commit its human resources. Both parties also gain benefit from the program. The firm was able to secure a prime spot in the university job fair by asking a favor to the incubator manager, without any additional cost (F3 4:162). Through extensive communication with internal university units, the program director was offered with prospective ICT projects (F3 4:58). It is an opportunity for firm to expand its market, which is currently dominated by state-owned banks and governmental institutions. The benefit for university includes the increasing number of quality startups that become incubator tenants, industrial linkages, and a new model of incubation.

5.4.3.3 Organizational learning

The university also experiences organizational learning and capability development throughout the program. There are two notable knowledge and capabilities gained by the university: startup incubation and university-firm partnership. University B stated that the incubation model developed together with the firm is the most cost-effective and results in high quality startups (U1 18:8). The collaborative model of Appcelerate is very different to common firm programs, where universities are only involved in the campaign phase whereas the event is fully controlled by the firm itself (U3 12:13). The close involvement of university enhances their knowledge in dealing with startups, especially from the ICT sector.

University and firm have different objectives and operate differently. This requires firm to understand university limitations, especially in establishing partnership with private sector and receiving external funding. In the first year of partnership with University C, the agreement was signed by two parties: university partnership agency and firm. In the second year, the agreement included PT C as a third party, which is a university-owned company that aims to commercialize technology (U7 14:28). By including PT C, the fill-in funding can be provided, and an alignment between potential startups and commercialization opportunity can be created. The same thing is experienced by University B, where the agreement was signed between three parties: firm, university, and PT B, a university-owned company. PT B is a private entity that has more freedom in managing fund and making decisions (U1 18:1). By understanding its internal limitations, university can arrange a partnership model that can accommodate the need of external partner. Meanwhile, University A signed a bi-partite agreement with firm, with a clause that appoints the incubator as a PIC for the program. The arrangement is thus context-dependent and require each university to make specialized adjustments.

5.4.3.4 Firm-university: Cross-case analysis

All university respondents identified startup readiness and commercialization with industry as ideal outcome of Appcelerate, showing alignment with the firm's objective. Both firm and university respondents identified vision-mission alignment, commitment, communication, and quality of startups as factors that influence Appcelerate success. All three universities received the same budget for coworking space revitalization and internet provision. The differences rely on the presence of preexisting relationships, where firm directors have a personal relationship with University A and C. Meanwhile, the link to University B was obtained from University A. Each university has distinct organizational structure, and therefore the agreements were signed with different units. However, all Appcelerate activities were coordinated by university unit that is in charge of startup development/incubation. As for the program outcome, University A has the highest number of firm-startup partnerships, followed by University B. Startups from University C have not partner with firm due to the lack of readiness of both startup and products (U7 14:18). The cross-case analysis is summarized in Table 5.7.

Table 5.7 Cross-case analysis: Firm-university partnership

Aspect	**University A**	**University B**	**University C**
Year of partnership	2016-2019	2017-2019	2017-2019
Location	Bandung	Yogyakarta	Surabaya
Distance from firm HQ	152km	563km	789km
Resources	Coworking space, internet connectivity	Coworking space, internet connectivity	Coworking space, internet connectivity
Preexisting relationship	CEO is an alumnus Sponsor for university events	-	Business director is an alumnus
Agreement	*Bi-partite:* Vice-rector of Research, Innovation, & Partnership and firm	*Tri-partite:* Directorate of Business Development & Incubation, PT B, and firm	*Tri-partite:* Business development and partnership agency, PT C, and firm
Number of startups that partner with firm	4	1	0

Lintasarta has the strongest relationship with University A, which can be attributed to their involvement in jointly formulating Appcelerate before the program is replicated in University B and University C. They have the most intense communication and coordination activities, whereas the two other universities received ready-made program and are more involved with implementation. This might explain why firm-university A partnership is the most smooth and successful (F3 4:29). Stronger involvement creates stronger incentives for collaboration and a higher sense of ownership. On the other hand, employees from other universities are more calculative and reluctant to do voluntary activities as they are not getting additional payment for the extra workload. As the partnership agreement does not cover detailed job division, the quality of program greatly depends on the counterparts' initiative and willingness to collaborate. Another issue is in the university's policy and vision alignment. One university demands to get a share of startup's equity, which might prevent participation from more mature startups. It is important to find university partners that aspire to help startups into becoming independent and successful. Two relevant factors that influence firm-university relationship are identified: institutional factors (i.e., regulations, structure, startup policy) and the university's degree of involvement in the program.

5.4.3.5 Fulfilment of corporate social responsibility

This section investigates the four types of corporate social responsibility as defined by Carroll (1979) in the case study. Strategic CSR can be classified under discretionary responsibility, which is voluntary and can be defined independently by the firm. Figure 5.9 visualizes the linkage between interview documents that are grouped under Startup, Firm, and University, with CSR-related codes taken from ATLAS.ti. Responsive and strategic CSR are defined as two sub-codes of discretionary responsibility. In the case study, startup and firm are connected through economic, legal, and ethical responsibility, whereas strategic CSR links firm and university.

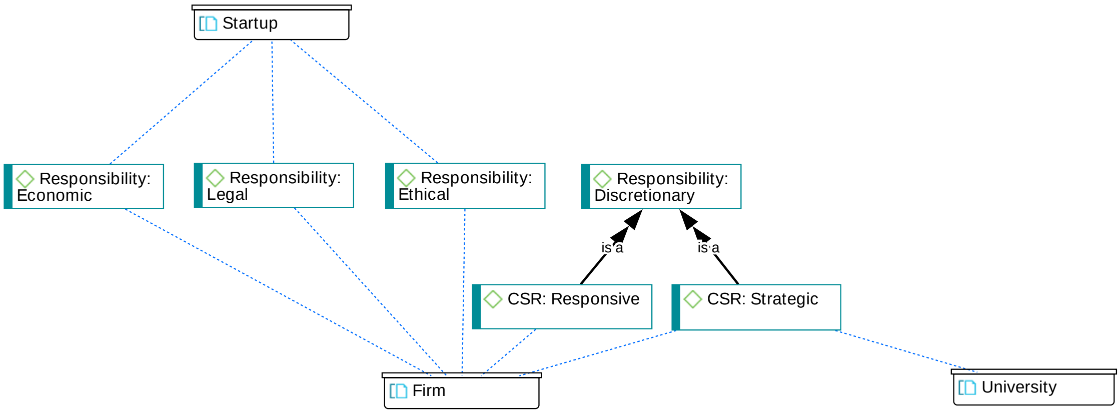


Figure 5.9 Four CSR: Firm-University-Startup relationship

Table 5.8 is exported from ATLAS.ti, summarizing the total number of CSR-related codes within Firm and Startup document groups. *Responsibility: Discretionary* is a parent to two sub-codes: *CSR: Responsive* and *CSR: Strategic.* There are seven documents in Firm group, five documents in Startup group, and seven documents in University group, each with total codes of 557, 199, and 193, respectively. Economic responsibility has the highest frequency in Firm documents, followed by ethical responsibility, two types of discretionary responsibility (strategic and responsive CSR), and legal responsibility. Meanwhile, there is no mention of discretionary responsibility in Startup document group, and legal responsibility has the highest frequency in the group. Economic and ethical responsibility are both mentioned once. In the University document group, only strategic CSR is mentioned.

Table 5.8 Code-document: firm-startup-university social responsibility

	Firm Gr=557; GS=7	**Startup** Gr=199; GS=5	**University** Gr=193; GS=7	**Totals**
• **Responsibility: Economic** Gr=8	4	1	0	**5**
• **Responsibility: Legal** Gr=13	1	6	0	**7**
• **Responsibility: Ethical** Gr=4	2	1	0	**3**
• **Responsibility: Discretionary** Gr=12	4	0	0	**4**
• **CSR: Responsive** Gr=11	2	0	0	**2**
• **CSR: Strategic** Gr=8	2	0	1	**3**
Totals	**15**	**8**	**1**	**24**

According to the CEO, the aim of Appcelerate as a CSR program is to contribute to the development of ICT-based economy and digital startup ecosystem. This program contributes to fulfilment of firm economic responsibility by empowering early stage startups and helping them grow. The firm mentioned that its ultimate aim from Appcelerate is to produce startups that can generate profits instead of large valuation (F7 6:41). The economic responsibility is even greater in the new model of Appcelerate, in which investors are closely involved to co-invest in winning startups (F2 5:88). Firm's ethical responsibility is present in its commitment to fix errors related to application or infrastructure and not to bestow it on customers (F2 5:43). As for the legal responsibility, the firm abides to contract clauses that it signed with customers (F2 5:20) and by complying to industry regulations and standards. Firm discretionary responsibility is translated into responsive and strategic CSR program. Their responsive CSR initiatives include distribution of relief packages to flood victims and provision of VSAT antenna for a disaster post. On the other hand, firm strategic CSR initiatives aim to contribute to the advancement of IT and digital industry in Indonesia, which is aligned with firm identity. After Appcelerate is shifted to SBD, the firm starts a new CSR program that provide 3,200 programming scholarships for high school students and vocational school graduates.

Startups are also aware of the economic responsibility that they bear, stating that every partnership between firm and startup must be built on commercial grounds and not because of their status as Appcelerate graduates (S5 8:66). The firm is largely involved with educating startups about their legal responsibility. For instance, in establishing partnership, startup has to fulfil legal and administrative requirements. Startup has to comply with the firm service level and quality (S4 27:9). Through the partnership, startups are being made aware of legal and quality aspects that they have to fulfil before entering the market. Firm also helps startup to focus on product development by providing security standards that comply with industry regulations, before selling them to firm clients (S4 27:34). As for ethical responsibility, startup only uses publicly available data that are aggregated (S1 9:34). In the University document group, there is only one responsibility-related code: Strategic CSR. University C stated that they receive a lot of CSR programs but not always in the form offered by Appcelerate. For instance, a telecommunications firm gave approximately EUR 120,000 to develop coworking space, but it was not utilized properly as it was not assigned to any unit within the university (U7 14:25).

5.4.3.5.1 Responsible innovation

This study also investigates the implementation level of responsible innovation by focal firm and all startups involved. The analysis follows the five stage of responsible innovation introduced by Pavie et al. (2014). The interviews were initially conducted on the broad level, starting with the question: *"What is the most important value during product development?"*. Lintasarta responded by identifying several frameworks such as New Product Development (NPD) and market validation, emphasizing the importance of product-market fit, and the prioritization of consumer needs to be embedded in the product. The next question is narrowed to the development of smart city products, with the hope that the answers will be related to societal values, the key notion in responsible innovation. The answers remain on the level of law compliance, stating that the firm will only access data that are permitted by the government, and that both parties are bounded on a legally binding contract (F2 5:20).

The same question on values were asked to four startup respondents. They identified the values of automation, robo-advisory, content quality, and digitalization, respectively. The answers indicated that the initial association of the term 'value' still remains on the idea of *value* proposition and not of societal values. One startup stated that they were still in the process of fully complying to the financial industry regulations and security standards (S5 8:30, 8:31). Subsequent questions tried to direct the respondents' thoughts towards specific societal values such as privacy and data protection. One startup CEO said that they avoid privacy issues by taking publicly available data (S1 9:34), but the involvement of customers as a stakeholder remain on the level of finding the right product-market fit. The case study results exhibit evidences that both firm and startups are still in the first stage of responsible innovation: compliance with the law.

5.4.4 Firm-startup: ECV capability

This section discusses the second embedded case study, focusing on firm-startup relationship that starts after Appcelerate is completed. In the case study, firm implements alliance as an ECV governance mode with a goal to co-develop products. Following the conceptual framework, this section will focus how alliance is developed, how the firm treats startups, and how the two alliance-specific factors (trust and communication) are crucial in the relationship. Four out of five Appcelerate startups that have started partnership with the firm were interviewed. The fifth startup, Mechlab, did not respond to interview request. The embedded case study is presented in
Figure 5.10.

Figure 5.10 Embedded case study 2: Firm-startups

'In the beginning, the firm also uses our product (as a paying customer) to know the pluses and minuses of the product. [...]. Then there was an option for the firm to invest in Kazee, but it is not legally feasible as the decision is owned by the parent company.' (S1 9:5)

The quote summarizes the relationship between firm and Appcelerate startups. Both firm and startups indicated that investment or acquisition is a more ideal ECV mode, as firm would be more committed in commercializing startup products (S1 9:20). Unfortunately, as a subsidiary, the firm cannot conduct corporate actions without the approval of its parent company, which is also owned by a Qatar-based firm (F2 5:28). Organizational restriction is one of the main reasons why firm resorts to alliance. Limited financial resource is also acknowledged as a barrier to ECV, where the firm has to be careful and thorough in making investments (F5 2:54). In dealing with startups itself, firm is unable to commit fresh money but instead giving support in the form of lending servers, computers, and laptops (F5 2:22). Another form of support is by becoming early customers of Appcelerate startups, where their products are used internally by the firm (F4 3:119, S1 9:5).

5.4.4.1 Alliancing process and treatment to startup

After the completion of Appcelerate, the firm proactively follows-up potential startups. All participants have the same opportunity for partnership. The close involvement of firm internal functions, senior managers, and GMs as mentors and judges enable them to monitor promising startup since the competition. After Appcelerate, meetings were scheduled to explore potential collaboration. A dedicated PIC from ITSPM division is assigned to startup, and from that point onwards the startup will regularly interact with the PIC. Although not all startups are immediately aligned with the firm's business, more effort was put in to find collaborative opportunities. For instance, Lokapoin is a B2C booking platform. Nevertheless, after extensive discussion with the unit that is in charge of smart city, they identified an opportunity to redirect the startup to a B2G orientation and started to co-develop of a smart tourism app. Supporting quotations that are coded with 'Post-Appcelerate activity' are summarized in Table 5.9.

Table 5.9 Quotations: Post-Appcelerate activity

ATLAS.ti reference	Post-Appcelerate activity	Respondent
2:8	(The follow-up) Based on the request of the directors or the judges. One of the judges is the boss or GM of each product that has an interest […]	F5
4:176	[…] From the beginning, ITSPM, SBD and marketing units were involved. Later, the judges can decide which startups can be onboarded with the firm. […] When Appcelerate ends, it is continued by ITSPM […] they are always involved during Appcelerate. They always monitor whether this startup is worthy of the partnership or not.	F3
8:8	The firm proactively facilitates follow-up. There are several meetings to discuss products that can be offered to existing clients. In general, the firm company also seeks win-win arrangement […] We met with internal units within the firm that are related to business carried out by Halofina […]	S5
9:27	After Appcelerate, the first time we do is GTM (go to market) with the firm. […] There is an initiative from them to use our products […] The firm has a PIC that is assigned to Kazee. […] we can also get input, access to markets, improvements. There are many lessons from the firm […]	S1
10:9	In the beginning, I was still confused about what I wanted to work with, because we were actually more B2C-oriented. So at that time we just keep in touch […] Because of frequent contact, this collaboration idea appears […]	S2
26:4	[…] The top 10 startups were involved in intensive discussion with firm. We discuss product development, collaboration, product development and business agreement […]	S3
27:2	[…] Actually we didn't win, but we stayed in contact with the firm. Maybe the firm saw an opportunity with some of his clients […] there is a lot of discussion about customer needs. Then we started adjusting the product to enter their market.	S4

The firm is aware on the limitations that are experienced by startups, and it also shapes their treatment. All alliance partners of the firm have to undergo a series of assessment that covers business, technological, and organizational aspects. However, firm admits that it relaxes the assessment process for startups, especially Appcelerate graduates. The firm is more lenient and understanding with startups. The firm acknowledges the startups' lack of experience and takes on a more understanding approach during the development of product and strategy. On top of that, the firm also admits to a bigger sense of ownership with Appcelerate startups, stating that they are more driven to find business opportunities. The mentor-mentee relationship continues even after the completion of Appcelerate. However, if no potential opportunities are identified after the exploration, then firm may also drop the alliance. Relevant quotations that are coded with 'Startup treatment' are summarized in Table 5.10.

Table 5.10 Quotations: Startup treatment

ATLAS.ti reference	Startup treatment	Document
2:15	We must distinguish (startup and non-startup). We make it easier for startups […] Especially if they say they can't submit offers or presentations due to academic issues […]	F5
2:16	To maintain, we don't have special treatment especially for non-Appcelerate startups. For Appcelerate startups, it is indeed special because we also have a sense of ownership and pride that they managed to win (Appcelerate) and we can start business […]	F5
2:117	Because they are startups and they do not have sufficient human resource, in the end we have to wait. Be patient. They also have limitations and priorities.	F5
4:115	[Relationship between Appcelerate and non-Appcelerate startup] It's different. I know a startup that I always interact with from the beginning to the end. They are active in Appcelerate and they develop good and realistic products. There are also startups that participate in Appcelerate only during the selection stage […] My relation with them is not as strong as with Appcelerate startups. […] Secondly, they just want to take advantage of firm resources, or they need free infrastructure from firm. […]	F3
16:58	[Treatment to Appcelerate and non-Appcelerate startups] The same. But it seems like the sense of ownership is indeed higher, as we helped coach and assist them during development. But if the evaluation is not good then we let go. So that's why Halofina was dropped.	F1

The firm's understanding of startup limitations is also reflected in the partnership agreement. Firm provides startups with access to infrastructure and human resources and ensure the fulfilment of industry standards before offering products to customers. Appcelerate startups pointed out that the firm strived for a win-win arrangement, and it supports startups by providing access to firm internal functions during product development phase (S5 8:47). The firm views startup growth as an essential aspect of the alliance, as stated by Appcelerate program director: *'The startup will grow along with the firm, and vice versa. The firm always has (profit) target, but we must also have a target where startups have the same passion for what we are carrying out (alliance)' (F3 4:48).* During the establishment of alliance, startups also point out the presence of Appcelerate program director that acts as a consulting point and help in arriving to an agreement that also benefits startups (S2 10:29).

5.4.4.2 Alliance-specific factors

The two alliance-specific factors, trust and communication, are essential in alliance establishment. Firm and startup start to interact from the beginning of Appcelerate, and the relationship is regularly maintained through mentoring sessions. Appcelerate requires startups to trust the firm (represented by mentors) and maximize the value of mentoring sessions in developing their product and business. Mentors provide tailor-made suggestions depending on the situation of startups. Therefore, the more transparent the startups in communicating their situation, the more precise the mentors' inputs. Both trust and communication provide a starting point for partnership exploration after the completion of program. An effort implemented by firm to grow its trust on the capability of startup is by requesting product features. Then, startup PIC can evaluate their performance based on quality and delivery time. A different treatment to startup is also present when the performance is not satisfactory. The shortcomings are discussed between PIC and senior manager, but startups are still given chances to improve. Another evidence of trust is the start of a firm-startup project on the basis of a gentleman agreement (S2 10:11).

Communication is maintained through e-mail, WhatsApp, and offline meeting in firm office. Intensive communication between firm and startup facilitates brainstorming and identification of potential collaboration, as with the case of Lokapoin (S2 10:39). Lokapoin and the firm are now developing a smart tourism app for a regional government. However, not all intensive communication produces positive results. Firm engaged Halofina in a series of meetings where each party brought their prospective customers to be approached. There were efforts in obtaining corporate clients, but none was converted to sales. The startup identified its readiness and mismatch in business orientation (Halofina: B2C, Firm: B2B & B2G) as factors that obstructs positive alliance outcome. In the end, the firm values the alliance based on startup ability in generating revenue. It is one of the reasons why partnership with Halofina was not continued. However, it is mentioned that communication between Halofina and the firm is still well-maintained.

5.4.4.3 Firm-startup: Cross-case analysis

All startups that partner with firm originate from University A. Three of them (Kazee, Lokapoin, Halofina) are 1st winners, whereas Fleetara only made it to Top 10. However, the firm recognizes the potential of Fleetara product and offered it a partnership. Only Kazee and Fleetara have B2B orientation from the beginning. Meanwhile, Lokapoin and Halofina are directed for B2C market. After extensive communication, Lokapoin is willing to branch out to reach B2G market: regional governments that are the customers of Lintasarta's smart city products. On the other hand, Halofina continued to focus in developing its B2C segment. All startups experience growth in employees, where Kazee and Halofina displays the highest growth. Both Kazee and Fleetara have renewed their contract and stated that firm support has been adequate although they expect to get a higher number of clients. Halofina contract was not renewed due to lack of sales conversion. Meanwhile, Lokapoin is still on the process of formalizing the agreement, which is delayed due to the global pandemic. Table 5.11 summarizes the aspects of cross-case analysis between four startups.

Table 5.11 Firm-startup: Cross-case analysis

Aspect	**Kazee**	**Lokapoin**	**Fleetara**	**Halofina**
Year founded	2016	2017	2017	2016
Year of participation	2016	2018	2016	2017
Participation outcome	1st winner	1st winner	Top 10	1st winner
Product	Data analytics	Smart tourism, booking platform	Fleet management system	Digital financial advisory
Business orientation	B2B	B2C, B2G	B2B	B2C
Partnership status	Renewed for the 2nd year	No formal agreement yet	Renewed for the 2nd year	Not renewed after 1 year
Proportion of clients acquired through alliance	15% (9/60)	100% (1/1)	100% (2/2)	N/A
Employee during Appcelerate	20	3	2	20
Current employee	59	11	5	58

All firm founders have different background and entrepreneurship experience. The CEO of Kazee has years of experience in the telecommunications industry before starting his own venture. His experience might explain their product readiness, B2B orientation, and the relatively small portion of customers gained from firm-startup partnership. Kazee is already an independent startup that can grow with or without Lintasarta. Halofina is jointly founded by a veteran in the financial industry with a master's graduate from a US university. The startup's clear vision on developing a B2C platform might explain their reluctance in adapting their products to fulfil firm's needs and their significant growth throughout the years. Although their agreement was not renewed, the startup does not deny future partnership possibilities that can be pursued when both are more ready. On the other hand, both Lokapoin and Fleetara started their business right after graduation. The differences in experience might explain the performance gap. Fleetara is actually a part of a project-based software house, where the fleet management system is their only product. They do not put substantial resource and focus to develop the app, which might explain their dependence to the firm. As an early stage startup, Lokapoin receives the most support in product development, where the firm provides UI UX designer and they focus on curating the content of smart tourism app. Lintasarta adjust their level of support based on startup's readiness and product potential.

5.4.5 Summary: Case study results

The case study of Appcelerate was analyzed to understand how ECV capability development and strategic CSR interact in empirical setting, providing answer to the fourth sub-question. In addition, results regarding firm-university and firm-startup were also presented. The firm shows visible organizational changes related to its ECV capability, such as in the creation of centralized alliance management function under ITSPM division, a new partnership framework, and memorandum that establish the assignment of partner based on industry to three different firm units. The involvement of firm internal units from the planning phase of Appcelerate enable relevant functions to monitor potential startups and allow them to transition smoothly from Appcelerate into entering alliance partnership with the firm. The capability development and learning process are embedded in Appcelerate as a strategic CSR program. The integration also enables firm to source all general-ECV factors that are required by accessing external resources owned by the stakeholder. From the case study, it is found that both firm and university contributed substantial resources to ensure a successful implementation of Appcelerate. Through the program, firm is also able to strengthen its relationship with university as a stakeholder. The collaborative arrangement of Appcelerate enable both firm and university to be engaged in learning process, where both can benefit from the knowledge. Firm gains insight about startup landscape, whereas university enrich their partnership and startup incubation portfolio.

Appcelerate fulfils the characteristics of a strategic CSR program as presented in the conceptual framework. Firm and university are engaged in program that promotes a shared value of startup development. Appcelerate brings tangible business benefit in the form of projects and clients. The program is context dependent and firm specific, which can be seen from the theme, the collaborative design of the approach, and the preexisting relationships that were utilized. The program also requires firm to have relevant capabilities. In this case, firm needs to be able to establish partnership with educational institutions and startups. The four components of corporate social responsibility are present in the case study, emphasizing the role of firm in helping startup to fulfil their responsibilities. Meanwhile, strategic CSR links firm with university, where each party obtains benefit, and subsequently contribute to society at large by supporting new companies and creating employment opportunities. The two alliance factors (trust and communication) are relevant in both firm-university and firm-startup partnerships, where a long-lasting relationship can be developed. Startup's status as Appcelerate graduate gives additional motivations for firm to find collaborative opportunities and results in a more understanding treatment from the firm.

In general, the conceptual framework is able to structure the analysis and provide understanding of the case study. However, there are three contextual factors that are not covered by the framework. First, *institutional factor* holds a critical position in the establishment of firm-university partnership, which can either enable or obstruct the partnership. All universities in this case study have different structures and regulations. This requires firm to discuss with university to arrange the most ideal partnership that can cater the interest of both parties. Also, university regulation regarding equity ownership of a startup might affect both firm-startup and firm-university relationship, causing potential startups to be reluctant in participating (F3 4:85). Second, *firm contextual factors* also influence the decisions that can be taken by the firm. In the case study, the firm's status as a subsidiary limits its ECV decisions, leaving alliance as the only mode that can be implemented with full authority of the firm. Other ECV modes (investment, acquisition, joint venture) are classified as a corporate action that needs the approval from two levels: the parent firm in Indonesia, and the Qatar-based parent firm. Nevertheless, firm contextual factors can also bring advantage. In the case study, CSR program is a responsibility of Corporate Secretary and positioned directly under CEO. Third, *degree of involvement* greatly influences the quality of learning and capability development that can be achieved by the firm. Had the firm stick to its initial plan of outsourcing the program to an agency, and had the university not suggest a co-hosting design of Appcelerate, both parties would not be involved as closely as they have. The design allows both firm and university to enhance their capability through learning-by-doing.

5.5 Adjusted conceptual framework and propositions

In this section, adjustments are made to the conceptual framework based on results obtained from the case study and answer the main research question of this study: *"How can a firm enhance its external corporate venturing capability through strategic CSR?".* An adjusted framework is presented in Figure 5.11, where *firm limitations*, *institutional factors,* and *degree of involvement* are added as new blocks of the framework. Related components are numbered to ease reader in identifying relevant components for each proposition. The propositions in Section 4.3.1 and 4.3.2 are verified using empirical evidence from the case study, and further accompanied with additional propositions.

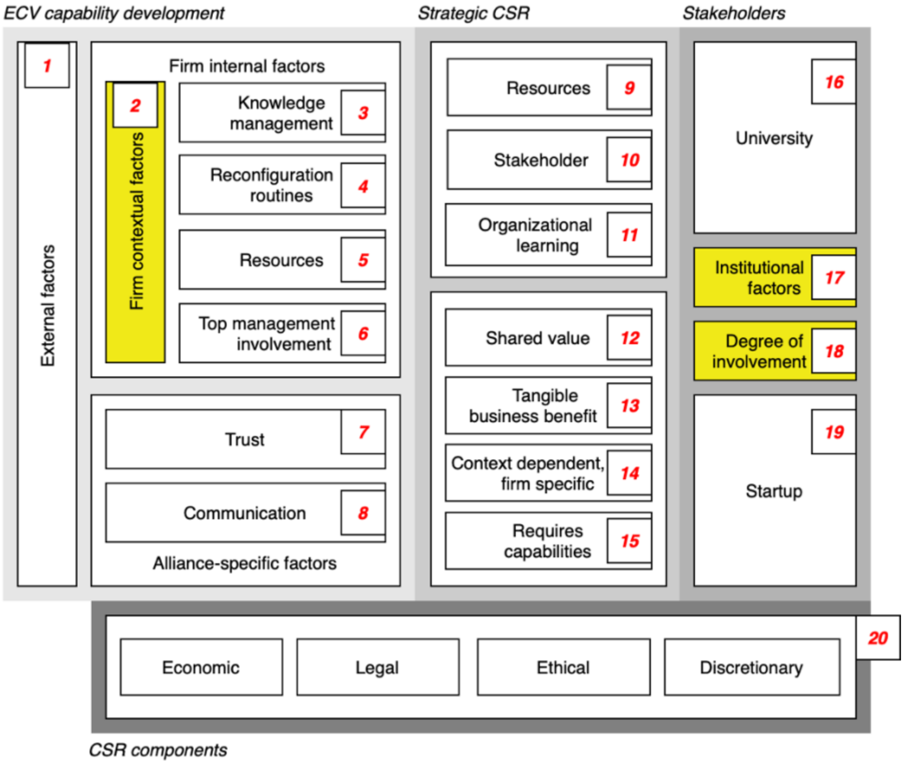
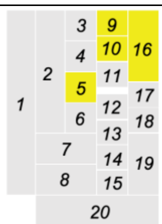
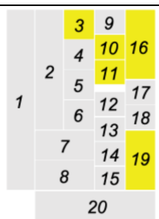
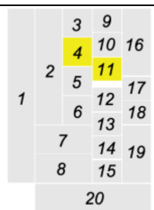
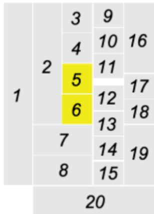
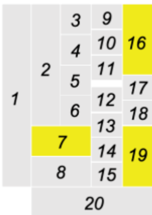
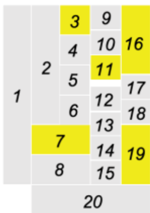
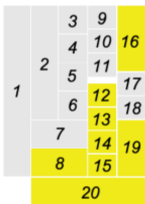


Figure 5.11 Adjusted ECV capability development-strategic CSR framework (Note: yellow boxes are framework components added based on the empirical findings)

Table 5.12 summarizes all propositions from conceptual framework, related blocks in the conceptual framework, complemented with supporting evidence from the case study.

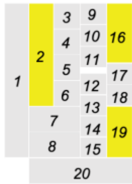
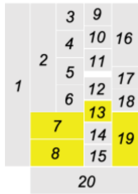
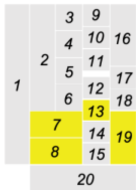
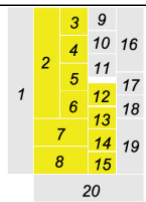
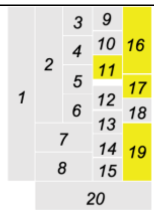
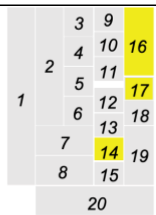
Table 5.12 Propositions, related framework components, and empirical finding

Proposition	***Related components***	***Empirical finding***
1. Strategic CSR enables firm to access external resources owned by stakeholders.		University contributed financial, human, organizational, and human resources to organize Appcelerate. It is enabled by the co-hosting design of Appcelerate where university has a significant involvement and resource contribution. This proposition links firm's resources with external resources owned by stakeholders.
2. Strategic CSR enables firm to engage stakeholders as external learning partners.		Firm engages both university and startup as external learning partners. By partnering with university, firm enriches its portfolio of strategic CSR program. Through interaction with startup, the firm is able to gain up-to-date understanding of startup landscape and identify potential alignments with firm business. This proposition links firm's knowledge management with stakeholder and organizational learning.
3. Strategic CSR enables firm to reconfigure external resources to facilitate effective learning process.		This proposition is linked with proposition 1 and 2. Firm is able to influence the university to facilitate the execution of the program by providing fill-in funding, involving the right university unit, and in sourcing quality startup participants and mentors. This proposition links firm's reconfiguration routines with external resources owned by stakeholders.

4. Strategic CSR creates a base for relational exchange between firm and stakeholders		The firm was able to secure a prime spot in the university's job fair without any additional cost. An established relationship with stakeholders also enables firm to access their network. For instance, the firm was referred to University B by the help of University A's incubator manager. This proposition links stakeholder and firm through strategic CSR.
5. Strategic CSR receives top management support in the form of resource commitment, policies, and incentive system		CSR is a responsibility of Corporate Secretary, which is positioned directly under CEO. The direct relationship between firm CSR function and CEO enabled the program to receive substantial support in the form of resource commitment and firm policies. This proposition links top management involvement, resources, and reconfiguration routines.
6. Firm deals with external factors by utilizing internal factors that it owns.		The external factor highlighted in this study is the rapid technological and market changes that requires firm to adapt. Firm responds by embedding ECV capability process into a CSR program, enabling the firm to fulfil two objectives with one action. This proposition is an interplay between all firm internal factors: resources, knowledge management, resource reconfiguration, and top management involvement.
7. Strategic CSR can act as a ground to build trust between firm-university and firm-startup in alliance relationships. *8. Trust enables firm and stakeholders to be engaged in productive knowledge sharing.*	 	Firm and university have been organizing Appcelerate since 2016. Trust is built based on past experiences that are shared between the two parties. Meanwhile, the early relationship established between firm and startup during mentoring sessions provides a starting point for startups in entering an alliance with the firm. Subsequently, a trusting relationship enable all parties to be more open and transparent during interaction, which is crucial in learning process. Proposition 7 links firm-university and firm-startup with trust. Proposition 8 extends proposition 8 by linking it with organizational learning.
9. The transparency in communication between firm and stakeholders influence the success of strategic CSR program.		Communication is emphasized by multiple firm, university, and startup respondents as an important aspect of relationship. The communication is maintained using both online and offline means. Transparent communication enables each party to maintain expectation and contribute the required resources to achieve common benefit. This proposition is an extension of proposition 8, linking it with strategic CSR.

Empirical findings from case study, related components of the conceptual framework, and the corresponding propositions are presented in Table 5.13.

Table 5.13 Empirical findings, related framework components, and additional propositions

Empirical finding	***Related components***	***Proposition***
The firm selected University A as a pilot university based on a request from the CEO, which is an alumnus of the university. The CEO also has a personal relationship with the director of the innovation agency that houses the university incubator. This proposition links firm with university.		*10. Preexisting relationship between firm and stakeholder smoothen the partnership process*
Startup readiness and business alignment are identified as important aspects that influence the alliance outcome. The partnership with Halofina was discontinued as it has a different business orientation and a product that was not made for B2B market. Firm alliance with Kazee has the highest performance compared to others, which can be attributed to its close alignment with firm core business and its readiness. Proposition 11 and 12 links startups with alliance-specific factors.	 	*11. Startup readiness influence the outcome of firm-startup alliance* *12. Business alignment influence the outcome of firm-startup alliance*
In the case study, firm's status as a subsidiary limits how it can implement ECV. Alliance is the only governance mode that does not require approval from parent firm. The positioning of CSR directly under CEO is also a contextual factor that might explain the substantial support gathered by Appcelerate. This proposition links firm contextual factors with alliance-specific factors and strategic CSR		*13. Firm contextual factors influence firm decisions in conducting ECV and strategic CSR*
The essence of learning-by-doing relies on experience. Both firm and university are closely involved throughout the planning and implementation of Appcelerate, increasing exposure to available knowledge and allow knowledge exchange. This proposition links firm and stakeholders using degree of involvement and connects it with organizational learning.		*14. The degree of involvement of both firm and stakeholder influence the quality of learning*
Every university is different, and therefore institutional factors have to be taken into account before establishing a partnership. It requires university employees to understand its internal limitation and arrange the most suitable partnership. For instance, University B and C had to involve a university-owned firm, which is a private entity, into the agreement to allow receipt of funds and unrestrained spending. This proposition links institutional factors with firm.		*15. Institutional factors influence firm-university partnership arrangement*

In total, fifteen propositions are derived from framework and case study. It is important to acknowledge that the aforementioned propositions are developed based on embedded single case studies of an ICT firm in Indonesia, which might limit their generalizability and could be further inquired in a different study setting.

6.

Challenges and generalizability

This chapter explores the analytical generalizability from case study insights. The main idea of this study is to explore a new approach to capability development: embedding the learning process into a strategic CSR program. This study focuses on developing a firm's ECV capability, especially for alliance governance mode. Results from case study are used to answer the fifth sub-question, *"What are the challenges in integrating ECV capability development with strategic CSR and how to overcome them?"*. We will start by identifying empirical challenges and solutions to conducting Appcelerate, theoretical challenges and solutions of integrating the two concepts, followed by validation interviews with an organizational & learning expert of Lintasarta and the COO of MDI Ventures, a CVC of a large telecommunications firm in Indonesia.

6.1 Challenges in integrating ECV capability development and strategic CSR

6.1.1 Empirical challenges and solutions

Challenges in integrating ECV capability development and strategic CSR are identified by finding quotations that are coded with *'Appcelerate-challenges'*. Codes that co-occur with *'Appcelerate challenges'* are also identified. The codes and their linkages are visualized using ATLAS.ti and is presented in Figure 6.1.

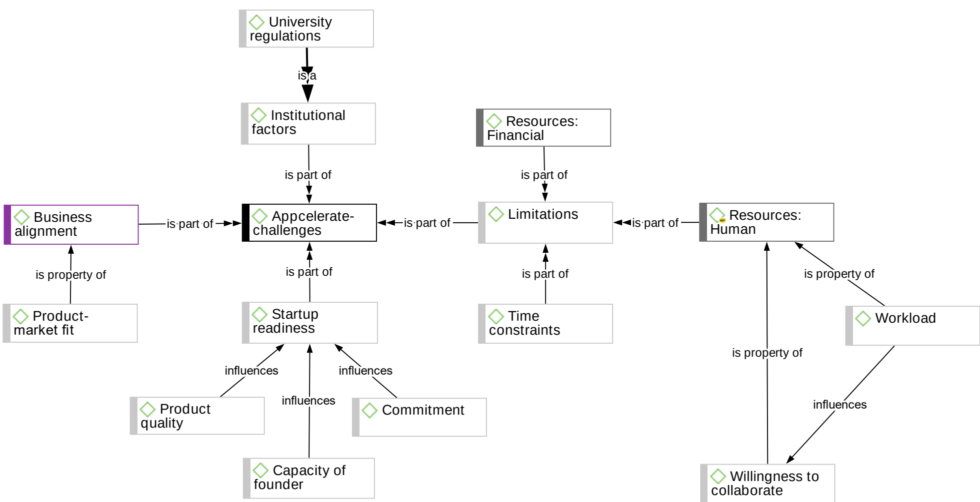


Figure 6.1 Appcelerate challenges

Ideally, Appcelerate produces startups that can help solve problems experienced by industry and is ready to partner with the firm. However, firm respondents identify challenges in achieving the intended outcome. In general, there are four categories of challenges faced by Appcelerate: startup readiness, business alignment, institutional factors, and limitations. Startup readiness is influenced by commitment, quality of founder, and product quality. Business alignment requires startup to have either B2B or B2G orientation, limiting potential partners as most university startups do not have sufficient understanding of problems experienced by industry (F7 6:18). Meanwhile, institutional factors such as university regulations might limit the extent of partnership and requires more effort from both sides. Lastly, limitations consist of three aspects: time, financial resources, and human resources. Time constraints are mentioned as challenge by both university and firm as employees from both parties organize Appcelerate as an additional load on top of their existing work. This causes Appcelerate to be shifted when there are more important priorities. Workload influences the willingness of university employees to run the program. Meanwhile, the short duration of the program means that startup has limited time in developing their products. The supporting quotations and corresponding codes are summarized in Table 6.1.

Table 6.1 Supporting quotations: Appcelerate-challenges

ATLAS.ti reference	Quotation	Respondent	Codes
2:49	Because they are startups and they don't have enough human resource, in the end we have to wait.	F5	Appcelerate-challenges, Limitations, Resources: human
6:17	In the future, we will choose a startup that is suitable for our business, and can create revenue for itself or for firm. The partnership between us and startups can be mutually beneficial, not only do we continue to provide coaching and funds but firm also benefits from startups.	F7	Appcelerate-challenges, Business alignment, Grow together, Revenue size
12:45	Finding a startup that fits the industry focus of the company is difficult, and also in keeping the commitment of the startup to not participate in too many programs […] the challenge is to define the pain points of the industry […] especially for products that are specified for industry as it is usually more complicated.	U3	Appcelerate-challenges, product-market fit, time constraints, commitment
13:2	The shortcoming? Because they entered too many contests, their commitment with us was difficult to maintain. That's what we really need to manage well.	U6	Appcelerate-challenges, Commitment
13:11	Any source of funding is not a problem for us. Actually the problem is not with them, but at the university. The rules are too complicated. The problem is on campus, not with the industry.	U6	Appcelerate-challenges, University regulations
14:35	The problem is human resources. Appcelerate doesn't have money (to pay university employees). So if people want to work, they have to do this without money […] The second is because of the amount of resources. Everyone has their own main tasks and functions […] the obstacle is when monitoring tenants [..] startup participating in competitions like this only needs the money and prize, after that they don't continue the business.	U7	Appcelerate-challenges, Workload, Commitment, Startup motivation, Limitations, Resources: Human
15:13	Majority of the participants are students, thus it's difficult to arrange schedule and hard to make targets. On the other hand, communication runs smoothly.	U4	Appcelerate-challenges, Communication, Time constraints
16:18	The challenge is commitment and time. Because we have another day to day KPIs, everyone is demanded by other KPIs […] especially revenue and business. So this (Appcelerate) is not a top priority. There is usually a change in mentoring schedules because we have to meet clients, etc.	F1	Appcelerate-challenges, Commitment, Firm priority, Time constraints, Workload
17:25	Some people might not be motivated to implement Appcelerate. Because honestly we have our own workload […]funding from the firm runs out for the program. […] We are not paid (extra). So it is not prioritized.	U2	Appcelerate-challenges, Willingness to collaborate, Workload
17:28	Internal coordination is done via WhatsApp too. […] Sometimes the difference is not from us but from our superiors. […]	U2	Appcelerate-challenges

Solutions are derived and grouped based on improvement points that are identified by respondents, coded with '*Appcelerate-Improvement points*' in ATLAS.ti. Then, solutions and suggestions are categorized according to challenges that are present in three stages of Appcelerate: preparation (input), Appcelerate (process), and post-

Appcelerate (output). Business alignment is addressed in all three stages, from ensuring the focus of program and selecting suitable mentor in the preparation stage, followed by ensuring product-market fit during Appcelerate, and in defining win-win partnership arrangement. Startup readiness is addressed in both preparation and Appcelerate by imposing stricter startup criteria and developing mentoring content that can narrow the capability gap of startup. Institutional factors are addressed in Appcelerate stage, where firm and university interact in organizing the program. Lastly, limitations are addressed in both Appcelerate and Post-Appcelerate stage, by improving coordination between partners and establishment of linkage to financial resources such as venture capital. Challenges and solutions to improve Appcelerate are summarized in Table 6.2.

Table 6.2 Challenges and solutions for Appcelerate

Step	**Aspect**	**Improvement points**	**Challenge addressed**
Preparation (Input)	Industry focus	- Specify and limit industry focus (S5 8:36)	Business alignment
		- Involvement of firm clients to provide insights (U3 12:30)	
	Mentor selection	- Experience in product development and strategic background (F4 3:30, F4 3:31)	
	Startup criteria	- Stricter requirement for participants (product/team readiness) (S2 10:24)	Startup readiness
		- Establishment of digital ecosystem (F3 4:75)	
Appcelerate (Process)	Mentoring content	- Capability development for founder, team, and organizational aspects. (S5 8:35)	
		- Emphasize on business, marketing, strategic support (F4 3:47, U6 11:17)	
		- Regular follow up on startup progress (U7 14:38)	
	Product-market fit	- Validation of market and product (S3 26:11)	Business alignment
		- Bring the firm's product requirement to the competition (F4 3:40, F2 5:14)	
		- Involvement of firm clients to provide insights (U3 12:30)	
	University regulation	- Simplification of bureaucracy (U5 13:21)	Institutional factors
		- Adjustment of university regulation to include entrepreneurial activities as course credit (U5 13:19)	
	Coordination	- Improve communication between partners (U2 17:26)	Limitations
Post-Appcelerate (Output)	Financial resources	- Linkage to Venture Capital (F3 4:75)	
	Partnership	- Partnership arrangement that enable both startup and firm to grow (F3 4:49)	Business alignment
		- The firm sets a specific target for startup sales target and linking it to firm customer base (S5 8:25)	

In general, all improvement points addressed Appcelerate as a startup competition and acceleration program. Improving the design of Appcelerate will enhance the learning experience of participants from firm, university, and startups. By producing startups that are ready for commercialization, firm can allocate more resources to link startup with clients and generate sales. Meanwhile, the main challenge that relates to Appcelerate status as a CSR program is caused by its dual identity. As a CSR program, Appcelerate should be altruistic in nature and no benefit should be explicitly designed. However, as a program that produces potential firm partners, not following them up would be a waste of opportunity. It causes internal confusion regarding whether or not the program will be assigned with financial KPI and treated as business or remain purely as CSR (F5 2:61). However, this confusion has been addressed by the firm by omitting Appcelerate CSR status and changing it into a business-oriented program.

6.1.2 Theoretical challenges and solutions

To complement the empirical findings, we conduct literature search on challenges that might hinder the integration of ECV capability development and strategic CSR alongside with corresponding solutions. In this case study, strategic CSR can be seen as an implementation of stakeholder management that enables a relational view of the firm, which will guide the literature search. The challenges and solutions are categorized according to the adjusted conceptual framework, as summarized in Table 6.3. The content of the cells highlighted in grey are not taken from the reference and will be further elaborated.

Table 6.3 Theoretical challenges and solutions

Source: *The Relational View: Cooperative Strategy and Sources of Interorganizational Competitive Advantage. (Dyer & Singh, 1998)*			
Factor	**Challenge**	**Solution**	**Factor**
Reconfiguration routines	Find partner and recognize potential value in combining resources	Build experience in alliance management	Knowledge management, Human resources
Knowledge management	Codification of alliance-specific knowledge	Creation of dedicated alliance function	Organizational resources, Top management involvement
	Obtaining accurate and timely information on potential partners	Access to information	Knowledge management
Organizational resources	Compatible systems and cultures to facilitate coordinated action	*Organizational adjustments, communication*	Reconfiguration routines, Communication
Trust	Requires substantial time to develop	*Invest in stakeholder management*	Firm contextual factors
	"Paradox of trust" – risk of opportunism	*Transparent communication, develop working experience*	Communication
External factors	*Availability of alliance partners*	*Network expansion*	Organizational resources
Source: *The Stakeholder Theory of the Corporation : Concepts, Evidence, and Implications. (Donaldson & Preston, 1995)*			
Factor	**Challenge**	**Solution**	**Factor**
Firm contextual factors	Defining legitimate stakeholders	Identify stakeholder based on actual potential harm and benefits	Firm contextual factors

Dyer & Singh (1998) identified compatibility of systems and cultures between partners as a challenge. To overcome this, firm should be willing to make organizational adjustments and communicate to find a win-win arrangement. This is also an opportunity of the firm to demonstrate its goodwill. Other challenges are related to trust, which require substantial time to develop and might create a risk of opportunism due to leniency in rules and norms. Firm should invest in stakeholder management to develop working experience, and exercise transparency in communication. Lastly, availability of alliance partners is included under external factors. According to the bounded rationality concept, a firm can only make decisions based on the information that it possess. In this case, a firm can only select a partner that it knows. To overcome this, a firm should constantly expand its network to find new potential partners. A firm's identification of stakeholders and how it approaches stakeholder management differ from firm to firm, and therefore stakeholder-related issues are grouped under firm contextual factors. In general, Dyer & Singh (1998) emphasize the importance of effective governance in alliance relationships, especially in reducing transaction cost and increasing value-creation engagement. For instance, self-enforcing mechanisms can create supportive condition for partners to develop their trust and avoid spending excessive contractual cost.

6.1.3 Synthesis of challenges in integrating ECV capability development and strategic CSR

Combining insights from Appcelerate case study and literature search enable us to obtain a well-rounded perspective. Empirical challenges and solutions address the quality of learning process and outcome of Appcelerate. On the other hand, literature search focus on the underlying theories that enable the integration of the two concepts. Firm needs to address both the quality of learning process and the establishment of partnership that will allow successful integration of ECV capability development and strategic CSR. Respondents identified business alignment, startup readiness, institutional factors, and limitations as Appcelerate challenges, which also influences the ECV capability development process. To address the challenges, a set of improvement points are developed to improve all three stages of Appcelerate, from selecting industry focus and imposing stricter criteria of startup that can participate, an improved mentoring quality to increase startup quality, addressing partner's institutional factors, to the establishment of win-win partnership and firm commitment in commercializing startups. Another challenge relates to the program CSR identity that creates internal confusion, which is addressed by transferring the program to the Strategy & Business Development division and asserting its business-orientation. Insights from case study should be considered as aspects that influence the quality of learning experience.

Literature search focuses on theories of stakeholder management and relational view of the firm. The first challenge is associated with reconfiguration routines that relate to identifying potential partners with complementary resources. It can be addressed by building experience in alliance management or hire experienced professionals. The second challenge relates to the knowledge management process that includes the codification of alliance-specific knowledge information. The solution is to create a dedicated alliance function. Third, the compatibility of systems and cultures between partners, which requires firm to make organizational adjustments and communicate. The fourth challenge relates to trust: the substantial amount of time required to develop it, and the risk of opportunism. Firm should invest in stakeholder management, exercise transparent communication, and develop working experience. The fifth challenge relates to external factors that include the availability of alliance partners, which can be addressed by expanding firm network. The last challenge relates to firm contextual factors that will influence its definition of stakeholders, issue prioritization, and choice of stakeholder management approach. Firm should implement effective governance mode to reduce transaction cost and increase value-creating initiatives.

6.2 Comparative case: Telkom

In this section, the approach to ECV, ECV capability development, and strategic CSR of PT Telekomunikasi Indonesia (Telkom) is briefly reviewed. Telkom is a majority state-owned, Indonesian multinational telecommunications conglomerate, with 33 subsidiaries that operate in various fields. Interview with respondents from Telkom, Indigo (firm's incubator and accelerator), MDI Ventures (Telkom's CVC), and Telkomsigma (Telkom's subsidiary that is also Lintasarta head-to-head competitor in IT services) as a part of Telkom ecosystem are also conducted. The insights are given from the perspective of a resourceful firm, to illustrate the contrast. The comparison between Lintasarta and Telkom is summarized in Table 6.4.

Table 6.4 Comparative aspects of Lintasarta and Telkom

Aspects	**Lintasarta**	**Telkom**
Status	Private	Public
Corporate identity	Full service provider of data communications, internet and IT Services for all industry segments	Indonesia's largest telecommunication and network provider
Firm vision	End-to-end ICT solution provider	"King of digital in the region"
Number of employees	720	12,700
Revenue	\$160.6 million (2016)	\$8.73 billion (2017)
Market segments	Enterprise, Government	Mobile, Enterprise, Consumer, Wholesale & International business
CSR approach	Responsive Strategic	Responsive Strategic
No. of subsidiaries	2	33
Corporate venture capital	-	Yes: MDI Ventures
Alliance with startups	Yes	Yes

6.2.1 Telkom: ECV capability development

This section analyzes Telkom and its affiliates (Indigo, MDI Ventures, Telkomsigma) using the ECV capability development component of the adjusted conceptual framework. Due to organization interconnectedness, ECV capability development often happens during interaction and exchange between firms under the Telkom holding. Information are taken from Telkom's Annual Report (2018) and interviews with firm respondents. The insights are summarized in Table 6.5.

Table 6.5 Telkom: ECV capability development

Aspects	Description
Firm contextual factors	Telkom is the largest telecommunication and network provider in Indonesia. It operates as the parent company of Telkom Group with activities in a wide range of sectors. Due to its large portfolio, Telkom puts emphasize on *synergy* to link and match the need and capability between subsidiaries and with the firm itself. It is a majority state-owned that has a strong relationship with Ministry of State-Owned Enterprises (SOE) that represents government as the majority owner.
Resources	The firm has a corporate university that provides training for all Telkom Group employees. The firm has a well-developed ECV pipeline that can screen startups and match them with firm internal functions for further collaboration. Telkom's organizational resource include Digital & Next Business (DXB) unit that is in charge of strategy (including alliance function), orchestration, and synergy of firm business portfolio (C2 24:1), Strategic Investment Department (SID) that is in charge for acquisitions, Indigo as an incubator and accelerator that provides links to startup as alliance partners, and MDI Ventures as a CVC.
Reconfiguration routines	Organizational changes are implemented to accommodate firm long-term vision as a leader in digital business. The organizational changes can be observed from firm's annual report. It includes the separation and merge of multiple departments and units (C2 24:28), and removals of roles (C1 25:2). On the other hand, hired employees are directly assigned to a specific function and internal transfer is deemed very difficult (C1 25:16).
Knowledge management	Indigo releases a catalogue of startups and distribute it to Telkom subsidiaries and firm internal function, acting as a contact point in finding suitable startup for collaboration (C4 20:38). Telkom has an internal knowledge management tool called 'Kampiun' where employees can upload work-related papers and gain points (C1 25:30). Employees that were sent on training are required to share their knowledge during scheduled sharing sessions (C1 25:21).
Top management involvement	After the establishment of Indigo, Telkom realizes the potential benefit and decided to expand the program, where it was almost established as a separate directorate (C4 20:52). In reconfiguring firm internal resources and avoid unwillingness of units to contribute, the Synergy Department often mentions that it is a direct instruction from top management (C1 25:15).
External factors	Telecommunications industry face heavy pressure from continuous decline in the legacy business such as voice and SMS services. Customers have increasing options to communicate using various Over the Top (OTT) services such as instant messaging app, snatching away revenue opportunities from the firm. As for supply of startups, firm also acknowledges that there is a decrease in quality and a lot of startups have failed (C4 20:5).
Trust	MDI Ventures stated that trust is an important factor that influences firm decision in startup investment (C3 21:21). Meanwhile, Telkomsigma points out that it does not partner with external startups as they lack experience. Instead, the firm still considers partnering with internal startups from Telkom as there is a personal relationship and trust that the startup is capable of implementing the solution (C5 23:24).
Communication	Indigo mentioned that communication with startups are well-maintained even after they have graduated incubation and acceleration (C4 20:33). Communication between Telkom internal functions, Indigo, and MDI Ventures is crucial in identifying the right startup that can enhance firm portfolio and avoid overlap. Through routine communication, Indigo can link and match their startups with the needs of Telkom and its subsidiaries.

The development of Telkom's ECV capability is an interplay between training provision, learning-by-doing, and knowledge exchange network. As a parent firm of a group with abundant resources, Telkom has the capability to orchestrate its subsidiaries and internal functions to achieve synergy, including in conducting ECV activities. Similar to Lintasarta, Telkom's collaboration with startups aim to smoothen firm transformation. To ensure high-quality input of digital startups, Telkom establishes Indigo as an incubator and accelerator. In Indigo, startups receive support from Telkom in the form of office space, financial support, infrastructure, mentoring, and sales support (C4 20:46). Selection phase of startups involve multiple units within Telkom to map out collaboration opportunities and avoid overlap with existing firm portfolio (C4 20:17). MDI is also involved from startup selection, mentoring, until graduation stage (C3 21:27). The involvement enables MDI to monitor potential startups and invest in them as soon after they graduate from Indigo (C3 21:54), while enhancing the knowledge of Indigo employees. Any investment or exit decisions made by MDI is taken after deliberation with Telkom Indonesia as the holding company, ensuring that the knowledge is equally disseminated throughout the organization.

6.2.2 Telkom: corporate social responsibility

Telkom is able to fulfil its *economic responsibility* to its shareholders. Over the years, Telkom is able to maintain positive growth despite the decline in legacy business. This can be attributed to the increased contribution of digital business. Every year, Telkom distributes cash dividends to shareholders with a payout ratio ranging from 60% to 75%. Telkom and its subsidiaries have various certifications to provide best services for customers and implement international standards, fulfilling their *legal responsibility*. Corporate actions were taken under the annual general meeting of shareholders. *Ethical responsibility* is present in the firm's employment practices that comply with international regulations and business *ethics,* emphasizing concern on gender equality and employment opportunities. Positions and roles are earned according to their competency, regardless of the gender. Telkom also implements a whistleblowing system (WBS) since 2006, facilitating all individuals within Telkom and third parties in reporting violations, fraud, or other forms of ethical violations. It is an effort of the firm to uphold business and work ethics while guarding the identity of the reporter.

Telkom's discretionary responsibility is divided into two CSR programs: Partnership & Community Development Program (PKBL) and CSR-PR (Public Relation). It is translated into two different CSR functions within Telkom: CSR-PR under Corporate Secretary with reputation and branding purposes, and PKBL under the Community Development Center (CDC) in HCM directorate. As a state-owned enterprise (SOE), Telkom receives government mandate to disburse loan funds to micro and small businesses under the *partnership program*, with budget allocated from ministry. On the other hand, budget for *community development program* and *CSR-PR* sources from Telkom internal budget. Community development program is a responsive CSR that consists of philanthropy activities such as rehabilitation of orphanage and sanitation facilities. Meanwhile, PKBL projects can be categorized as either responsive or strategic CSR, depending on the content. Ministry of SOE derives PKBL projects from the ministry's strategic initiative and assigns them to be implemented by Telkom. One particular example of the firm's strategic CSR is the agriculture digitalization initiative. The initiative involves people from the DXB unit to develop the platform, combined with help from the CDC to empower the farmers and build infrastructure. After the CSR initiative is completed, the platform is transferred to the DXB unit. The digital agriculture platform is projected to be commercialized in the future (C1 25:7).

6.2.4 Cross-case analysis: Lintasarta and Telkom

Telkom utilizes the interaction between subsidiaries and internal function to enhance firm ECV capability through learning-by-doing. In contrast, Lintasarta has to engage university as a learning partner while tapping into their startup network. Both Lintasarta and Telkom acknowledge the decline in startup ideas as an input for firm ECV activities. However, their response is highly influenced by the resource base that they control. Respondents from Lintasarta mentioned that firm can help narrow knowledge gap of startups and only provide non-financial support. On the other hand, Telkom is able to provide substantial funding and support for startups that are admitted to Indigo. The involvement of MDI as a venture capital throughout Indigo activities also acts as a quality control that can ensure business alignment and startup readiness (C3 21:28). As a firm that pursues multiple market segments, Telkom does not limit the type of startups it partners with. This is different with Lintasarta that focus only on identifying and developing B2B startups. From the comparative analysis, firm contextual factors and resource base are the two most important aspects that influence firm's approach to ECV capability development. It also emphasizes the importance of learning partner to generate knowledge and improve learning quality.

Important contextual factors that influence a firm's CSR approach are organizational structure and firm affiliation. Both Lintasarta and Telkom assign CSR function to Corporate Secretary, directly under CEO. However, Telkom has an additional CSR structure under HCM department that is responsible to execute CSR initiatives that are assigned by the Ministry of SOE. Telkom's status as a SOE also directs the theme of firm's discretionary responsibility of providing loan funds for micro, small, and medium enterprises (MSMEs). As a public company, Telkom is also more transparent in communicating its performance and activities. Both firms comply to legal regulations and have certifications that ensure service quality. Telkom presented a more elaborate approach to ensure ethical responsibility by establishing a whistleblowing system and a non-gender-biased employment. Based on the comparative analysis, a summary of contextual factors that influence a firm's ECV and CSR approach is presented in Table 6.6.

Table 6.6 Relevant firm contextual factors

Firm contextual factors	**Description**
Firm size	- Number of employees - Revenue size - Asset size
Business orientation	Market segmentations (e.g., B2B, B2C, B2G)
Firm status	- Public/private - Subsidiary status - SOE/non-SOE
ECV approach	- CVC - Alliance - Joint venture - Acquisition
Organizational structure	- Firm internal ECV function - CSR structure

6.3 Generalizability of findings

This section aims to explore the extent of the generalizability of findings from the case study. There are two directions of the generalizability: (1) The utilization of strategic CSR to develop other specific firm capabilities, and (2) The utilization of strategic CSR to develop ECV capabilities by other firms. Therefore, two interviews are conducted: the first interview with a firm internal respondent from the HCM division and the second interview with an external respondent from a corporate venture capital.

6.3.1 Internal generalizability

In this section, results from an interview conducted with the firm's Organizational & Learning Expert (F6) from Human Capital Management (HCM) division are presented. The interview objective is to gain the perspective of internal practitioner to evaluate the feasibility of integrating capability development with strategic CSR. First, the proposition that Appcelerate can be seen as a learning ground to develop firm ECV capability was communicated. Then, the concept was broadened to include the possibility of utilizing CSR program to develop specific firm capabilities. An example that was given is to improve a firm's product development capability by increasing customer understanding through provision of CSR program to university. The response is as follows:

"There is a potential to go there. […] In terms of skills and resources, employees that understand the product already exist, but we want to develop a product specifically for CSR and then we apply it in schools or government agencies that need it, there is a potential, it is really possible […] If what is targeted through CSR is (product) insight and what is needed (by customer), then we can create the product. If there is a market, it might work." (F6 1:32, F6 1:33)

The next validation question concerns aspects that influence the feasibility of integrating capability development with strategic CSR. The response is as follows:

"There needs to be a dedicated team because in the firm, CSR is a unique responsibility of Corporate Secretary. […] If there is a team dedicated for collaboration, it is very possible. Currently, HCM has never been involved directly in CSR programs." (F6 1:19, F 1:20)

The last question is associated with the limitations faced by firm in implementing knowledge management and proposing a new initiative. The response is as follows:

"Long-term ideals: knowledge is not only stored in people but can also be shared. The constraints are in time limitation and the corporate system […] What has been agreed together will be a priority. […] When there is a

trigger for a new initiative in the middle of the year, it is not feasible […] If we want to develop a program with huge potential, we lack resources. Either (the program) is postponed or only 1-2 people run it." (F6 1:21)

The respondent's response indicated that the utilization of strategic CSR as a learning ground is a possibility. Particularly, the CSR program can be used to gain insights from customer in developing products. However, it requires a dedicated team for collaboration. It is mentioned that HCM has never been directly involved in organizing CSR program. In the case of Appcelerate, HCM was involved in sourcing mentors that are suggested by the program director but not in designing the program itself. Time and resource constraints are identified as obstacles that hinder the implementation of a new initiative. Even if the new initiative is approved, it is either postponed or is only run by a few employees. This indicates that a program would need internal endorsement, such as from top management, to be considered a priority and earn the firm's resource commitment.

6.3.2 External generalizability

To gain an external perspective, the validation questions are also asked to the COO of MDI Ventures, which is the CVC of PT Telekomunikasi Indonesia (Telkom), Indonesia's largest telecommunication company. MDI is established in 2015 with USD 100 million investment fund that is 100% taken off Telkom's balance sheet. MDI focus on startups that can enhance the value of Telkom's overall portfolio. In 2019, they have profited off 7 successful exits and recorded an IRR of 35%.

The first question is stated in a general level: *"For small and medium firms with limited financial resources, what is the suitable form of venturing?".* The respondent said that investment fund influences the ticket size (investment amount) that can be issued by a VC. For instance, MDI started with USD 100 million investment fund, enabling them to issue large ticket size. In a year, MDI can invest to 10-15 companies with ticket size that varies between USD 5-10 million. Meanwhile, firms that only have USD 5-10 million fund per year would have to invest with smaller ticket size. However, it is important to note that the smaller the startup, the bigger the risk of failure.

Then, the essence of the study is stated as the following: *"This study focuses on firm with limited resources that have to find alternative ways to learning and developing ECV capability. Through strategic CSR in the form of a startup competition, firm can involve internal employees and subsequently enhance their capability."* Afterwards, the respondent gives the following response:

"As a VC, I won't look for startups from competition, because there are startups that want to be celebrity, win competitions, but the product does not work and there is no traction. We're looking for startups who work hard, off the radar […] Those kinds of startups are usually a part of incubator or accelerator under a company. Startups that participate in competitions will exhaust their effort for winning the competition instead of pursuing company performance." (C3 21:37)

Afterwards, the respondent is asked to give recommendations for firms that wants to begin ECV. The response is as follows:

"Be a partner of incubator and accelerator […] When we were first established, we don't have a network, we have no idea where to invest, no experience. We looked for funds where our money can be deposited. From then, we can be sure that the incubator/accelerator invests in good startups, and we can learn their network." (C3 21:38, 21:39)

The respondent does not think that the concept is ideal, and instead recommend firms to start partnering with incubators and accelerators that can distribute their investment funds. The response is specific for VC investing, which requires a firm to have substantial amount of fund and extensive startup network. In essence, the capability development is still embedded to learning-by-doing.

6.4 Summary: challenges, solutions, and generalizability

This chapter answers the fifth sub-question: *"What are the challenges in integrating ECV capability development with strategic CSR and how to overcome them?"* by synthesizing insights from case study and literature. Challenges from the empirical finding concerns the quality of startup inputs, quality of learning process and partner interaction, post-program follow-up, and the dual identity of program. The solutions include the improvement of recruitment, mentoring, partnership arrangement, and assertion of program orientation. Meanwhile, challenges identified from literature focus on partnership establishment that can generate relational rents. Firm should focus on identifying potential partner with complementary resources, establishing knowledge management system to contain alliance-specific knowledge, assessing organizational compatibility, expanding firm network to increase pool of partner selection, and investing in stakeholder management. Most importantly, firm should implement effective governance to reduce transaction cost and increase value-creating initiatives.

There are two directions of generalizability that are explored in this study: (1) The utilization of strategic CSR to develop other specific firm capabilities, and (2) The utilization of strategic CSR to develop ECV capabilities by other firms. According to firm's HCM personnel, utilizing strategic CSR as a learning ground is plausible. However, it requires a dedicated team for collaboration and support from top management to allow prioritization and resource commitment. Another challenge in implementing a new initiative is that it will occupy lesser importance compared to firm priorities. The factors that are involved include resources, reconfiguration routines, and top management involvement. As for the generalizability of findings to other firms, the CVC respondent mentioned that he is concerned about the characteristics of startups that participate in competition and recommend to instead start investing in startups by partnering with incubator/accelerators with a finetuned investment thesis. However, this approach is only applicable to firm with excessive resources, as VC activities require substantial amount of funding and access to extensive startup network. A limited investment fund limits the size of investment that can be made by a firm, confining firm to the choice of smaller startups with higher risk of failure. A cross-case analysis between Lintasarta and Telkom provide insight about different contextual factors that might influence the generalizability of this study. The factors include firm size, business orientation, firm status, ECV approach, and organizational structure.

7.

Conclusions

External corporate venturing (ECV) is an important strategy for firms that want to go beyond their core business in order to survive market and technological changes. This study focuses on the development of relevant ECV capability, especially for ICT firms. The central thesis of this study is to propose a new approach to ECV capability development by embedding the learning process into a strategic CSR program. The feasibility of this idea is explored by studying Appcelerate as a single case study. This confines the study findings to ICT firms in developing countries that implement alliance as their ECV governance mode. In this chapter, answers to research questions are summarized, followed by discussions on study findings, recommendations for case actors, summary of contributions, and ended with limitations and suggestions for future research.

7.1 Conclusions

This study explores the integration of ECV capability and strategic CSR by combining literature and case study. Appcelerate is selected as the object of embedded single case studies due to its uniqueness and its ability to represent a typical “project” (Yin, 2018), such as a firm’s CSR program. Appcelerate demonstrates the feasibility and successful outcome in conducting both ECV capability development and strategic CSR, achieving two objectives with one action. Although the positive result is only experienced by one ICT firm, this study suggests that integrating the two concepts is indeed possible. The insights presented in this study also demonstrates the usefulness of adjusted conceptual framework in understanding the phenomenon. In this section, answers to each sub-question are briefly summarized.

SQ1 – *What factors influence the effectiveness of ECV capability development?*

The question is answered by conducting literature study. Keil’s (2004) ECV capability development model is used as a starting point of this study as it thoroughly investigates firm ECV capability development by linking it to learning mechanisms. Two sets of factors that are identified: general-ECV factors and alliance-specific factors. General ECV factors consist of resources, knowledge management, reconfiguration routines, top management involvement, and external factors. The interplay between firm internal factors (resources, knowledge management, reconfiguration routines, top management involvement) influences firm response in addressing external factors. Meanwhile, alliance-specific factors include trust and communication as important aspects that mediate the relationship between partners within the alliance.

SQ2 – *What are the characteristics and benefits of strategic CSR?*

There are four characteristics of strategic CSR as taken from Porter & Kramer (2006): shared value between firm and society, brings tangible business benefit, context-dependent and firm-specific, and the requirement of relevant capabilities. The benefits of strategic CSR are identified from literature that explicitly discuss organizational learning and capability development as a by-product, ensuring a more focused pool of reference. The benefits are then categorized into three: resources, stakeholder, and organizational learning. Through strategic CSR, firm can increase commitment and engagement of employees, enhance reputation and legitimacy, gain access to markets and finance, and gather resources for innovation. From a stakeholder perspective, the firm can benefit from strategic CSR by receiving feedback and support from stakeholders. Closer relationship with stakeholder can also be achieved. As for organizational learning, strategic CSR enable firm to experience an increase in learning and capability development.

SQ3 – *How can strategic CSR facilitate ECV capability development?*

The answer is obtained by combining answers of SQ1 and SQ2 and linking them using relevant theories: stakeholder theory and relational view of the firm. To ensure the fulfilment of program's objective as a CSR, Carroll's (1979) four CSR components are also included in the framework. Then, relevant stakeholders for this study are identified according to actors within the case study: startup and university. The integration is structured into two different steps: *general ECV factors-strategic CSR* and *alliance specific factors-strategic CSR.* In essence, strategic CSR enables firm to source external factors that are required for ECV capability development, facilitate a supportive atmosphere for learning, while simultaneously nurturing a trusting relationship with stakeholders. The answer is presented as a conceptual framework that will guide the development of questions, data collection, and analysis of case study. Nine propositions developed from theoretical grounds are also presented. Both answers provide the starting point in conducting case study and will be further adjusted to answer the main research question. The elaboration is presented in the subsequent research questions.

SQ4 – *How do ECV capability development and strategic CSR interact in empirical setting?*

The fourth sub-question is answered by conducting a case study on Appcelerate, which is a startup competition and acceleration program offered to universities as a strategic CSR. Data were collected through semi-structured interviews, observations, and secondary data. The conceptual framework from SQ3 is used to develop interview questions, analyze the case study, and identify factors that are not yet covered. From the case study, there are visible firm changes that relate to its ECV capability, such the centralization of alliance function, establishment of new alliance framework, and startup pipeline – demonstrating positive learning outcome. Both firm and university contribute substantial resources to ensure a successful implementation of Appcelerate. The firm provides financial resource as the most important component of the program, alongside mentors from internal firm and industry partners, and provision of IT infrastructure. Meanwhile, university provides coworking space and link to startups. Firm and startup begin their relationship in Appcelerate, giving startups a head start to explore alliance opportunities after the completion of program. Not only that firm is engaged in ECV capability development, the program also prepares the firm to start its ECV journey, especially in sourcing potential startup partners.

Appcelerate as a strategic CSR program contributes to the development of ICT-based economy and digital startup ecosystem. The program also helps firm in fulfilling all four responsibilities: economic, legal, ethical, and discretionary. In addition, firm holds an important role in educating startups about their legal responsibility, while providing support such as security standards to help startups in entering the market. Trust and communication that are nurtured during the strategic CSR program support both firm-university and firm-startup relationship, enabling all case actors to engage in learning process and gain benefit from the program. From the case study, three additional framework components are identified: institutional factors, firm contextual factors, and degree of involvement.

MRQ – *How can a firm enhance its external corporate venturing capability through strategic CSR?*

The answer to the main research question is a synthesis of theoretical and empirical findings. The conceptual framework is adjusted by including institutional factors, firm contextual factors, and degree of involvement. New propositions are added. Institutional factor is critical in firm-university relationship as it can enable or thwart the partnership. Firm needs to be understanding of university limitations, and university should come up with a solution that is highly contextual. In the case study, two of three universities had to involve university-owned firm as a third party to enable receipt of external funding. Firm contextual factors include subsidiary status and CSR structure, which influence the freedom in implementing different ECV governance modes and determine top management involvement. Lastly, degree of involvement influences the quality of learning experienced by case actors. The adjusted conceptual framework is presented in Figure 7.1.

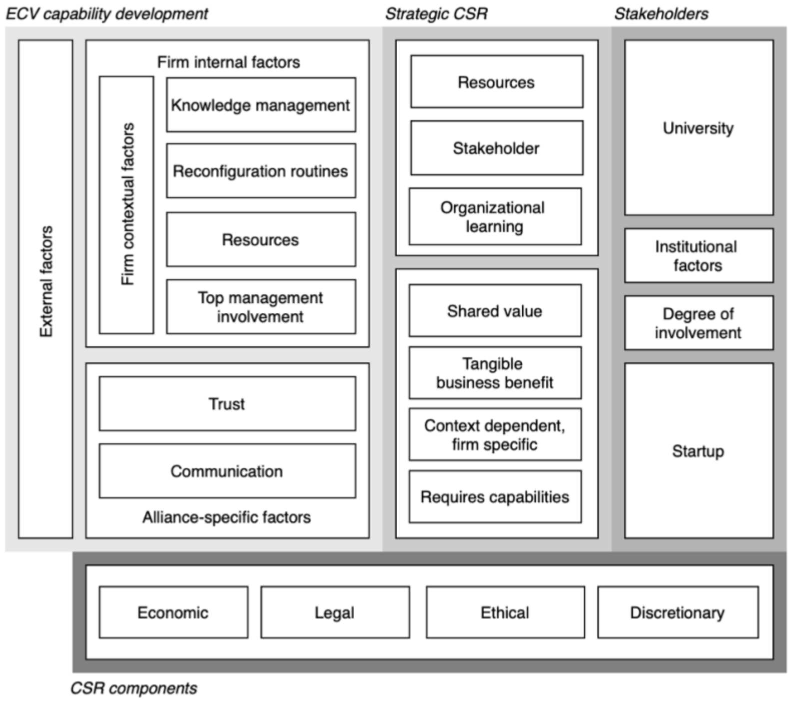


Figure 7.1 Adjusted conceptual framework

The conceptual framework presents all relevant components that can help readers in understanding the integration of ECV capability development and strategic CSR. Fifteen propositions that explain how a firm can enhance its ECV capability through strategic CSR are presented in Table 7.1. The propositions can be treated as a set of hypotheses that can be tested in other studies.

Table 7.1 Overall propositions

Literature study	**Proposition 1**	*Strategic CSR enables firm to access external resources owned by stakeholders.*
	Proposition 2	*Strategic CSR enables firm to engage stakeholders as external learning partners*
	Proposition 3	*Strategic CSR enables firm to reconfigure external resources to facilitate effective learning process.*
	Proposition 4	*Strategic CSR creates a base for relational exchange between firm and stakeholders*
	Proposition 5	*Strategic CSR receives top management support in the form of resource commitment, policies, and incentive system.*
	Proposition 6	*Firm deals with external factors by utilizing internal factors that it owns.*
	Proposition 7	*Strategic CSR can act as a ground to build trust between firm-university and firm-startup in alliance relationships*
	Proposition 8	*Trust enables firm and stakeholders to be engaged in productive knowledge sharing.*
	Proposition 9	*The transparency in communication between firm and stakeholders influence the success of strategic CSR program.*

Case study	**Proposition 10**	*Preexisting relationship between firm and stakeholder smoothen the partnership process*
	Proposition 11	*Startup readiness influence the outcome of firm-startup alliance*
	Proposition 12	*Business alignment influence the outcome of firm-startup alliance*
	Proposition 13	*Firm contextual factors influence firm decisions in conducting ECV and strategic CSR*
	Proposition 14	*The degree of involvement of both firm and stakeholder influence the quality of learning*
	Proposition 15	*Institutional factors influence firm-university partnership arrangement*

SQ5 – *What are the challenges in integrating ECV capability development with strategic CSR and how to overcome them?*

Challenges in integrating ECV capability development with strategic CSR are taken from empirical findings on Appcelerate and literature study on stakeholder theory and relational view of the firm. Interview respondents identified business alignment, startup readiness, institutional factors, and limitations as challenges faced by Appcelerate. In general, the challenges correspond to the quality of learning experienced by the firm. The solutions are implemented in three different stages in Appcelerate: ensure quality of startups, ensure quality of firm-university and firm-startup interaction, and ensure quality of post-Appcelerate follow-up. On the other hand, insights from literature study focus on establishment of firm-stakeholder partnership that allow successful integration of ECV capability development and strategic CSR. The challenges relate to firm reconfiguration routines, knowledge management, organizational compatibility, trust, external factors, and firm contextual factors. Solutions include experience building, creation of dedicated alliance function, organizational adjustment, invest in stakeholder management, communication, and implementation of effective governance mode.

7.2 Discussions

Although Appcelerate represents a unique case, insights from the study can still be beneficial for other firms and the strategic management field in general. This section starts with a discussion on the generalizability of study findings, providing disclaimer for the readers. Then, interesting insights from the study are presented and further discussed.

7.2.1 Generalizability of findings

The initial propositions and framework in this study (answers to SQ3) are first developed based on literature study before adjusted according to case study results. Therefore, the first nine propositions of this study might have a higher degree of generalizability compared to the other six, as they are taken from various academic source on different firm contexts. The propositions were corroborated in the case study. On the other hand, the three new framework components (firm contextual factor, institutional factor, degree of involvement) and six new propositions are added after the analysis of case study results. The readers are advised to process the insights related to the new propositions and framework components with more caution (i.e., testing in future research is needed).

First of all, we have to acknowledge that this study is conducted on a *positive* case, where all theoretical propositions were confirmed in the case study. We will shortly review all fifteen propositions to figure the limitation of generalizability (please refer to Table 7.1 for full set of propositions). The positive firm-stakeholder relationship, as indicated in proposition 1, 2, 3, and 4, is highly influenced by the willingness of the stakeholder and the firm's stakeholder management approach. Meanwhile, although Lintasarta demonstrates the role of top management support in the firm's strategic CSR program (proposition 5), the situation depends on the focus of top management and the presence of other more pressing issues. Proposition 5 is the most prominent finding in this study, showing the role of top management involvement in reconfigure all required resources and enable the execution of Appcelerate. Proposition 6 is generalizable to other firms as the reconfiguration of firm's internal factors is indeed a means for firm in addressing external factors (Teece et al., 1997). Proposition 7 can only be investigated in firms that implement strategic CSR. Proposition 8 is influenced by the willingness of stakeholders to be involved with learning activities. Proposition 9 is relevant for all firm-stakeholder relationships in other non-CSR-related programs, such as in firm-supplier relationship (Chen & Chen, 2002). Proposition 10 might be highly influenced by sociocultural context, which calls for comparisons between firm-stakeholder partnership in Asian and non-Asian countries, or between developing and developed countries. Proposition 11 and 12 are likely to be found in the alliances of other firms, which might also be influenced by the alignment and potential to firm's core business. Proposition 13 is related to firm contextual factors, which in this study refers to firm size, business orientation, firm subsidiary status, ECV approach, and organizational structure for ECV and CSR. Other contextual factors might be found in other studies. Proposition 14 is likely to be found in other firm-stakeholder relationships, which is also influenced by knowledge management implemented by both parties. Lastly, proposition 15 refers to institutional factors that might different from university to university, and from country to country.

In order to find the extent of generalization of the findings, we have to define new situations in which the results might still hold. The generalizability of utilizing strategic CSR as learning ground is explored in two different directions: inside Lintasarta to develop other types of capability, and in other firms to develop their ECV capability. In the validation interview, respondent from Lintasarta identified dedicated team, top management support, and resource commitment as conditions where strategic CSR can be used to develop other specific capabilities. On the other hand, the respondent from a CVC did not give a positive response to the concept. One main concern with this concept is the characteristics of startups that join competition, where they are often more focused in gaining media publication instead of developing their business. However, there are several other factors that might explain why the CVC is reluctant to adopt the idea, especially related to its status as the VC of Indonesia's largest telecommunication firm. First, excessive firm resources enable the firm to implement learning-by-doing more comfortably. The firm is aware that investments do not always succeed immediately, and they are capable to bear the risk. Second, the firm is already confident with its current capability, as they hired professionals with plenty of experience in VC and the startup world. Third, as a CVC they are looking for mature startups that are independent and have proven products. This is a contrast to the early-stage startups attracted by competition program such as Appcelerate. However, this does not mean that the integration of ECV capability development and strategic CSR cannot be implemented by other firms. Instead, future study should reach out to other firms with similar contextual factors as Lintasarta to check whether or not the concept is applicable in their situation.

7.2.2 Factors influencing firm choice of ECV governance modes

According to Keil et al. (2003), firm should consider its long-term strategic objectives, magnitude of risk, and the type of learning and innovation pursued before deciding to implement a particular ECV governance mode. The aforementioned aspects refer to a firm's end goal and external factors, which have not taken firm's internal factors into account. By focusing on the capability development part of ECV, firms can identify their current capability level and include it as a factor that influence the choice of ECV governance mode. Acknowledging a firm's existing capability is crucial for firm in making the right decision and minimizing risk of failure. This takes into account the evolutionary argument that emphasizes firm investments and operating routines as constraints to a firm's capability (Capron & Mitchell, 2009).

There are other contextual factors that influence a firm's choice of ECV governance modes. In this case study, a firm's subsidiary status holds an important role. As a subsidiary of an Indonesian firm that is owned by a Qatar-based firm, Lintasarta can only exercise alliance as an ECV governance mode with full autonomy. Other ECV requires approval from both parent firms, which requires substantial effort and time. In this case, the firm has no other option but to develop its alliance capability. Another important factor is the availability of firm resources. Respondents from Lintasarta repeatedly mentioned that resource limitations require them to be more cautious in making investments. Limited resources and subsidiary status influence Lintasarta to become risk averse and avoid ECV modes that require substantial resource commitment. Alliance requires the least amount of commitment, enabling firm to find different alliance partners that are suitable for different firm needs.

7.2.3 Discussion on Keil's ECV capability development model

This study departs from Keil's (2004) ECV capability development model, which consists of initial conditions, knowledge management, and learning processes. Initial conditions and knowledge management is conceptualized to contribute to ECV capability development directly and indirectly through learning processes. The initial plan was to test whether or not the model can also be applicable in the context of a developing country. However, after conducting a literature study, it was decided that there are three other relevant factors that should be included: reconfiguration routines, top management involvement, and external factors. This decision is made to cover the other function of ECV as a tool to source external capabilities. This is particularly relevant for alliance, which is utilized as a tool for firm in accessing external capabilities. Reconfiguration routines represent the firm's starting level of capability, top management involvement influences the direction of ECV approach, whereas external factors require firm to be aware of available ECV options.

Case study results show that ECV capability is indeed an outcome of both experiential and acquisitive learning. Lintasarta improved its alliancing framework and created a centralized alliance function. Although the changes might not be entirely caused by Appcelerate, firm respondent acknowledged that interacting with Appcelerate startups did enhance her knowledge especially in dealing with startups. Another important point is the firm's decision to hire the incubator manager of University A, internalizing the firm's link to both startup and university network. One firm respondent mentioned that her search process in finding new alliance partners now include asking people from the Appcelerate team, before asking other functions and eventually tapping her own network. Appcelerate now acts as a knowledge exchange network for internal firm employees. Initial resources endowment is also crucial in a firm's ECV capability development. Financial limitation and organizational restriction are the two most important aspects that limit a firm's ECV decision. In short, Keil's (2004) model is also applicable for ICT firm in a developing country, although further research on contextual factors might provide more insights.

7.2.4 The role of strategic CSR in avoiding problems in asymmetric alliance

Some problems in asymmetric alliance include the risk of exploitation and opportunistic behavior, which can be addressed by drawing up an arrangement that covers all possible mishaps. However, it requires substantial resource and has the risk of making potential partner feel untrusted, hindering the achievement of alliance objective. The case study demonstrates alignment with a study by Larson (1992) that highlights reputation, trust, and reciprocity between parties as important preconditions for alliance formation. The reputation of Lintasarta as an established ICT firm can persuade startups to become alliance partners. It is further enhanced by Lintasarta's role as an initiator that demonstrates willingness to engage in more cooperative relationship. Startups can see firm's seriousness in pursuing economic opportunities that are beneficial for the both of them. The firm positions itself as a mentor and partner of the startup and establishes win-win arrangement that allows both to grow together. Initiating firm-startup relationship in a setup facilitated by strategic CSR builds a firm's sense of ownership. Firm has a stronger inclination to see the growth and success stories from the startups it supported.

Larson (1992) also mentions knowing the people and knowing their capabilities as two key considerations in deciding which entrepreneurial firms it partners with. As very young entrepreneurial entities, startups lack the experiences they could demonstrate to potential partners. In the case study, they can only build their personal reputation as an entrepreneur instead, shown by their level of participation throughout Appcelerate activities. Strategic CSR program can be used for a firm to screen which startup is reliable and which are not. Personal relations built from Appcelerate can facilitate a supportive situation for economic exchange and a long-lived relationship that spans beyond economic motivation. Power imbalance between firm and startup is not dominant in this case, indicating that preexisting relationship built on goodwill might avoid exploitation risk in asymmetric alliance. Strategic CSR is beneficial for both firm and entrepreneurial entities as a media to familiarize themselves on a personal level before taking the relationship to a business context.

7.2.5 Balancing the interests of firm and society through strategic CSR

Strategic CSR is an appealing concept for managers and strategic management scholars due to its ability to change the perspective of CSR from a "corporate cost" into an investment that can benefit company in the long term. Porter & Kramer (2006) emphasize on the notion of 'shared value' between firm and society, indicating that firm can create benefit for society without sacrificing profit. This study presents Appcelerate as an example of strategic CSR that lies under the theme of entrepreneurship. Through Appcelerate, Lintasarta is able to benefit university and startups as stakeholders, contribute to the development of ICT-based economy in Indonesia, while simultaneously expanding its business. Following Donaldson & Preston (1995), this case is an example of how a successful stakeholder management can contribute positively to firm's performance.

Supporting entrepreneurs through CSR is an approach that can benefit society in the long-term. Not only that firm insights help startups in finalizing their products, the firm acts as startup's first partner and provides access to the market. In the case of Appcelerate, the firm supports startups by providing infrastructure and ensuring security standards that follow industry regulations. This setting enables startups to start gaining revenue while preparing themselves to be independent. Entrepreneurship-themed strategic CSR program also fulfils economic responsibility of both firm and startup. Another important benefit is experienced by university as a partner in organizing Appcelerate. The collaborative design of Appcelerate allows university incubator employees to be deeply involved from selection, mentoring, to graduation. As observed from the case study, the incubation program implemented in Appcelerate is the university's most cost-effective and efficient approach. Multiple high-quality startups can be produced in a short period of time. Interaction with firm also enriches the perspective of university in regard to real-life problems experienced in the industry. Therefore, university can narrow the gap between research and industry needs.

Another important yet promising insight from this case study is that strategic CSR can be viewed as an incubation ground for new firm initiatives. After conducting Appcelerate for three years, the top management decided to transfer the program from Corporate Secretary to Strategy & Business Development and redesign the program, asserting its new identity as a business-oriented program. This decision answers internal firm confusion that is caused by Appcelerate's dual identity. Although the capability development does take place during strategic CSR, after the capability is sufficiently developed it should be transferred to a more suitable firm unit for advancements. In the case study, the transfer is a nod to Appcelerate's strategic importance as a tool to source promising startups. The firm's 3-year duration of CSR program also means that nonperforming new initiatives can be terminated midway. As firm views CSR program to be altruistic in nature, the termination does not harm the firm's balance sheet. Instead, the firm can view strategic CSR initiative as a learning investment, benefitting them from the knowledge and lesson learned in post-mortem evaluation.

7.2.6 Selecting partner for firm's strategic CSR program

Prior to Appcelerate, Lintasarta usually partners with vocational schools to implement their strategic CSR program. The change of CSR partner from school to university is a direct request from the CEO. During the pilot program, University A was chosen as a partner due to the CEO's personal connection as an alumnus. The case demonstrates the importance of selecting the right partner for the pilot program. Due to the very successful outcome of the first Appcelerate, the firm realized the potential of finding startups through the CSR program, and increased resource commitment to scale up the program. Therefore, a firm should conduct a thorough assessment before partner selection to improve future opportunities for similar initiatives.

There are at least three reasons why university is an ideal partner for firm CSR program. The first reason is related to its primary functions of teaching, research, and service (Phillips, 1991). This is a contrast to firm's pursuance of economic benefit, thus reducing the risk of opportunistic behavior. Second, partnering with educational institution can help firm build its legitimacy and reputation. In this case, Lintasarta deliberately decided to partner with public universities that have positive reputation in engineering. Third, the firm-university relationship built under CSR program can be beneficial for firm in the long term. By demonstrating a firm's goodwill in the eyes of university, firm can enhance its image as a trustworthy partner. This allows the basis for relational exchange and advancements to business domain. In the case study, the firm was able to gain sales prospects.

7.2.7 CSR and responsible innovation in developing country

This study also contributes to the field of CSR, answering the call from Belal (2001) in Jamali & Mirshak (2007) to conduct more CSR research in the context of developing countries and balance the Western-centric perspective. Aligned with findings in a study by Jamali (2007), firms in this study referred to philanthropic type of CSR programs with no mention of ethical, legal, or economic considerations. Several firms in the study by Jamali (2007) implemented CSR initiatives through an ad hoc committee that comprises of different firm functions. It is different with the approach of Lintasarta that embed CSR function to Corporate Secretary, and Telkom with its dedicated CSR function. This supports the argument that a firm's CSR approach and structure are highly contextual (Heslin & Ochoa, 2008). A study by Sharma (2019) highlights the involvement of government in CSR campaigns of firms in developing countries, whereas firms in developed countries hold a higher degree of control over their own CSR campaigns. This idea is reflected in Telkom's approach to CSR that is closely controlled by the government as it is a state-owned firm, but not in Lintasarta, which is a private firm. Therefore, this study adds to the work of Sharma (2019) by showing that not all types of firms in developing countries experience strong involvement of government in their CSR campaigns, as it might be highly influenced by the status of firm ownership.

Lintasarta and Telkom exhibit fulfilment of all four components of Carroll's (1979) CSR pyramid. The two firms implement both strategic and responsive CSR programs to fulfill their discretionary responsibility. The form of responsive CSR ranges from firm philanthropic activities in helping disaster victims to the disbursement of loan for small entrepreneurs. Meanwhile, strategic CSR initiatives of both Lintasarta and Telkom focus on new product development albeit in different approach: Lintasarta establishes alliance with startups, whereas Telkom engages with product user. Both Lintasarta and Telkom develop products that can ease the business activities of their customers; increasing their productivity and further enhancing the economy. It is a rather unconventional approach of embedding CSR to product development, which can be found in the marketing and branding of socially responsible products (e.g. fair-trade cocoa). The difference of embedding CSR in product development might be influenced by the industry where firms operate. Thus, this study sheds light on how ICT firms can utilize CSR in their product development.

Responsible innovation is a concept that originates from Europe, with a majority of existing studies focusing on developed countries with very few publications conducted on developing countries (Vasen, 2017). This study tries to investigate responsible innovation in the context of developing country, and to what extent the responsibility is fulfilled. According to the five stages of responsible innovation (Pavie et al., 2014), firms and startups in this study still adhere to the first stage of responsible innovation: compliance with the law. Respondents refer to industry regulations as the guide in embedding values during product development and deployment, but not more than what is mandatory. This might be influenced by the fact that technology assessment and public participation has not been successfully developed outside of Europe and North America, indicating the need to adjust the framework to be more suitable in developing country context (Vasen, 2017).

7.3 Recommendations

7.3.1 Recommendations for firm

Appcelerate is an innovative way of engaging stakeholders through program that is beneficial for all parties. It also enables Lintasarta to create its own startup network by partnering with universities. However, the design of the program and the scope it imposed means that the participants would largely consists of either students that want to win a competition, or early-stage startups that are still struggling in defining their value proposition. Respondents from both firm and universities identify startup readiness and business alignment as two key challenges. Therefore, the recommendation is to improve the design of Appcelerate according to the points summarized in Chapter 6. As a firm that focus on B2B and B2G market, the firm should break down industry problems into points that can be easily understood by university students.

Lintasarta should also continuously maintain the good relationship it has established with three universities. The relationship might be useful for the firm's future endeavors. Another recommendation is to increase the coordination between internal firm functions, especially in following up business prospects from the university. The Appcelerate program director pointed out that although he managed to receive two prospective projects, the prospects were never followed up by the regional sales team. This is a missed opportunity that might harm the firm's reputation. The firm can also formulate a business or partnership scheme that can increase the willingness of firm sales force to sell products from Appcelerate startups or establish an entirely new sales function that is dedicated to startups. For other firms in general, this study demonstrates two new plausible approaches: utilizing strategic CSR as a learning ground to develop capability, and a design of strategic CSR with close stakeholder involvement. As both ECV and CSR are highly contextual, the insights from this study should be considered as one successful example and not copied point-blank.

7.3.2 Recommendations for university

In Indonesia, there is a shift in university orientation from teaching and research university towards entrepreneurial university. University is expected to generate revenue and contribute directly to society through technology and research commercialization. Partnership with firm such as Lintasarta is a means that should be considered. However, university should be able to be more flexible in receiving external partnership. One important component of the conceptual framework is the institutional factor of university. University is bureaucratic and slow when compared to firms. It also follows a strict set of regulations that limit its activities, including in receiving external funding. Therefore, university should come up with a partnership framework that can facilitate private entities. This might increase the incentives for firms in choosing university as a partner for CSR programs, instead of NGOs, NPOs, or research institutes.

7.3.3 Recommendations for startups

In this case study, startups are the main recipient of firm's strategic CSR initiative. They receive funding, mentoring, and are expected to be ready for both partnership with firm and commercialization by the end of Appcelerate. However, the relatively short duration of the program (6 months) means that not all startups will be ready after completion. This is unfortunate, as firm partnership is one of the most important aspect that can help startup achieve their independence and grow their business. Therefore, startups that are interested in joining competitions such as Appcelerate should prepare themselves. Another important recommendation for startups is to maintain good relationship with firm through regular communication, where each other can remain in contact in case of future partnership opportunities.

7.4 Contributions

This study gives both scientific and managerial contributions. Scientifically, the unique case study provides opportunity to explore the compatibility of ECV capability development and strategic CSR in empirical setting. This research connects two separate knowledge streams: ECV and CSR. It enriches the field of strategic management with insights from developing country. A new alliance type is identified from the case study: an asymmetric alliance between firm-startup that is established under a firm-university alliance. We refer to this alliance as a nested non-equity alliance. The case provides a design of strategic CSR that touches upon entrepreneurship theme, instead of the more commonly researched themes such as product development and innovation. This study confirms the usefulness of linking learning mechanisms with capability development and identified a set of factors that influence the process.

From a managerial perspective, the study addresses two key issues experienced by established firms. The first one is on how a firm can develop its ECV capability. The proposed approach still involves learning-by-doing, but in a situation that is more convenient for both individuals and the organization at large. It also provides firm with a window to monitor technological development and research that are sourced from the university, which can be used to support the firm internal development or even find new people that can be recruited into the firm. The second one is a proposal for a concrete strategic CSR program that can highly benefit the firm while simultaneously creating a positive, tangible outcome for society. The implementation of startup competition and acceleration program as a strategic CSR initiative supports the development of entrepreneurial ecosystem, contribute to emergence of new technology startups, while providing opportunities for them to grow and expand as a partner of the firm. Integrating ECV capability development with strategic CSR is an appealing proposition for managers to fulfil two objectives with one action.

7.5 Limitations and suggestions for future research

The first limitation is related to the nature of a single case study, where the generalizability of findings is limited. This study presents a unique case where ECV capability development can indeed be integrated with strategic CSR, but this might not be applicable in other situations. Secondly, as a master's thesis, this study is expected to be completed in 26 weeks. Therefore, there is a limit in the amount of data and analysis that can be drawn up. This influences the depth of analysis that is possible within available resources. Thirdly, the quality of a case study is closely associated with the quality of the researcher. Therefore, researcher bias is unavoidable and might influence the conclusions inferred from the case study. Another important point is the fact that this study is a positive case, where all theoretical propositions were confirmed in the study. Although this means that the linkage between ECV and strategic CSR does exist in this case, we missed out on the chance to explore rival explanation of the firm's capability development and approach of a firm's ECV and strategic CSR.

There are several suggestions for future research. The first one is to test whether or not the fifteen propositions developed in this study also holds in different situations, extending the generalizability of findings. Second, as this study connects two different research streams that are both popular in the strategic management field, future research can either study ECV approaches of firms with different contextual factors such as size and subsidiary status, or different firm approaches towards strategic CSR that involve university as a partner. As this study focus on alliance governance mode in particular, future studies can also implement the methodology to study different ECV modes to test the robustness of the framework. Following Jamali & Mirshak (2007), there is a particular need to balance insights on strategic CSR from a developing country context. Therefore, future research can study how different Indonesian firms approach strategic CSR. Third, future research can also compare different firm approaches in treating startups as an alliance partner. This goes to the direction of asymmetric alliance, where power imbalance often puts smaller firm (in this case, startup) at a disadvantage. Lastly, future research can also focus on the impact that is created from this program, and check whether or not the development of ICT-based economy and digital startup are indeed attained.

7.6 Reflection

This study applies the concepts of strategic management on a high-tech firm that operates in the ICT sector, investigating how a firm can survive technological and market changes while fulfilling its corporate social responsibility. There is a certain balance between business and society that needs to be maintained by technological firms. Therefore, this thesis subject is highly aligned with the content and objective of the Management of Technology program.

As a master's student, I found the opportunity to conduct this particular study to be very valuable. I get to combine the knowledge I gained from different courses and implement it to analyze a case study. I was able to interact with a lot of people from different organizations, and learned how firm, university, and startups can interact in a real-life setting. In addition, I got to learn a lot more about external corporate venturing, capability development, and strategic CSR: concepts that are crucial for established firms. I found the field of strategic management fascinating as the challenges experienced by firms are getting increasingly complex and would require firms to innovate continuously. While conducting this research, I also deepened by understanding of qualitative study and case study in particular. I found the importance of being able to structure the findings into a storyline that has to engage readers. In the future, I would like to also develop my quantitative research skills and conduct better studies.

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Appendix A. Case study description

A.1 Focal firm: Lintasarta

Lintasarta is an Indonesian ICT firm that provides internet and telecommunications infrastructure, cloud services, data center, with services that has also expand to provision of ICT solutions to its existing corporate clients. The firm is established in 1988 and currently has around 700 employees. It serves more than 2,000 corporations. In order to survive the market, they started developing over-the-top products that can be bundled with firm infrastructure. As a mid-sized firm with limited resources, Lintasarta has to be careful in developing technology and products.

Eighty percent of the firm CSR initiatives focus on education. Before Appcelerate, the CSR focus on providing infrastructure and programming training for students of a vocational school in Kalimantan for a duration of three years. In 2015, there is a change of CEO in Lintasarta, and he asked for a change in the CSR program that can be targeted to universities, and to be more aligned with firm business as an ICT company. The Junior Manager of Corporate Communication, who is also in charge of CSR programs, presented a draft concept of Appcelerate. The initial design of the program was actually presented in 2011 but rejected by the CEO. Initially, the program aims to help startups to develop their business using firm infrastructure. In 2015, the goal is finetuned: finding startups that *can solve the problems of industry* using firm infrastructure.

A.2 University

All three universities are located in Java Island. The pilot for Appcelerate started in 2016 under the partnership of Lintasarta and University A. In 2017, the program expanded to other two universities, with competition scope that starts in the university level, then expands to city level in the following year.

1. **University A (Bandung)** is a public university located in West Java province, Indonesia. It is the first partner in piloting Appcelerate (2016), where both curriculum and program design were co-developed between the incubator manager and Appcelerate program director. The design serves as a baseline for replication of Appcelerate in other universities. The CEO of Lintasarta graduated from the university, and he has personal connection with the director of the Institute for Innovation and Entrepreneurship Development (LPIK). Business incubator is a division under LPIK. Four startups from University A has explored partnership opportunity with Lintasarta.

2. **University B (Yogyakarta)** is a public university located in DI Yogyakarta province, Indonesia. The Appcelerate program director receive a contact referral from ITB incubator manager to approach Innovative Academy, which is a business incubation program developed by Directorate of Business Development of Incubation (PUI) of the university. PT GIB, a company owned by UGM, is also involved in the formal agreement and implementation of Appcelerate due to the restriction experienced by PUI in receiving external funding. One startup from UGM is currently exploring partnership opportunity with Lintasarta.

3. **University C (Surabaya)** is a public university located in East Java province, Indonesia. The Appcelerate program director has no preexisting link with people in the university, and he went to the incubator office to meet with the director of Business Development and Management Agency (BPPU). Next, he presented the program in front of Vice Rector. In the first year, only people from the BPPU are involved. In the second year, business incubator is involved, followed by PT C – a university-owned company that commercializes technology and provides technical consultancy. PT C is involved to provide financial support and to provide the company with access to potential innovation of the university. No startup from C has explored partnership opportunity with Lintasarta, but one startup currently partners with PT C to develop a learning management system.

A.3 Startup

All startups are chosen as respondents as they are all offered partnerships by Lintasarta and has experienced follow-up meetings aimed to find potential business partnerships.

1. **Kazee** is a data analytics company founded in late 2016. It initially started with social media analytics as the main product, participated in the first Appcelerate (2016) and became the first winner of the competition. Up until now, they have just under 10 customers from the partnership with Lintasarta, which makes up 15% of startup total projects. Their product is also included in the smart city system developed by Lintasarta. Several discussions regarding further investment opportunities have taken place, but it is inhibited by lack of approval from Indosat Ooredoo, which is the owner of Lintasarta. Kazee has grown from a team of 20 in 2016, to 59 in early 2020.

2. **Fleetara** is a fleet management system, a product from a software house startup that is established in 2017. The team participated in the first Appcelerate (2016) and made it to Top 10. Although they did not win the competition, Lintasarta offered follow-up partnership. The team undergone intensive discussions on product development, collaboration, and formal business agreement. Their product is now a part of the portfolio from Product Management division. They currently have two clients, all acquired with the help of Lintasarta. According to interview respondent, the current relationship they have with Lintasarta is ideal: startup deals with technical, development, and maintenance, whereas the firm is in charge of marketing, business, and meeting with clients. In order to focus on the app, they have a dedicated team of 5 people that handles the product.

3. **Lokapoin** is a startup that provides booking platform for homestay or villa, combined with local activities. It is established in 2017, participated in the third Appcelerate (2018), and became the first winner of the competition. Their app focus on B2C, which is still struggling in competition with established online travel agents. During follow-up discussions with Lintasarta, Lokapoin is offered to take part in the firm smart tourism project that involves local government of two cities in Indonesia, changing the orientation of the business from B2C to B2G. In the project, Lokapoin develops the app by providing the content, where the firm provides UI UX designer to fine-tune the design. Firm provides contacts of the people from regional tourism and communication agencies (Disbudpar, Diskominfo) to be followed up by Lokapoin. They do not have a formal agreement yet with the firm because the schedule is interrupted by COVID-19. The team has grown from 3 people to 11 people (5 full-time, 6 freelance).

4. **Halofina** is a startup that provides digital financial advisory and wealth management application, established in 2017. They participated in the second Appcelerate (2017) and became the first winner of the competition. They were involved in meetings with Lintasarta internal business units that have a collaboration potential and signed a formal agreement afterwards. Each has also brought potential customers to be approached, but no sales have been made. The respondent said that a partnership opportunity with Lintasarta can be very promising, as the firm existing customer base includes established banks and other financial institutions. However, due to difference in business orientation (Halofina – B2C, Lintasarta – B2B), the product-market fit has not been found. The agreement was not renewed, and now Halofina focus on developing its app. The team has grown from 10 people in 2017 to 58 people in 2020.

A.4 Comparative organizations

1. **PT Telekomunikasi Indonesia (Telkom)** is a majority state-owned, Indonesian multinational telecommunications conglomerate. In 2017, the total number of employees is around 23,000 people, with revenue of US$8.73 billion. Its major businesses lie on fixed line telephony, internet, and data communications. It is operated as the parent company of Telkom Group, in which more than 30 subsidiaries operate in a broad range of business that include telecommunication, multimedia, property,

and finance services. Since 2008, Telkom Indonesia began changing its business focus and multiple aspects of its organization to embark on digital transformation and survive rising competition. The firm has an important role in developing Indonesia digital startup ecosystem starting from early 2012, by developing its own incubator and accelerator *(Indigo)*, a startup pooling system through *Digital Innovation Lounge (DILo)* operating in three different cities, and a corporate venture arm *(MDI Ventures).*

As a telco giant, Telkom Indonesia is able to pursue multiple modes of external corporate venturing (acquisitions, joint venture, alliancing, corporate venture capital) through internal departments and external corporate-owned entities. In order to maintain its expanding portfolio, the firm owns a dedicated department called *Digital & Strategic Portfolio (DSP)* with synergy as one of its key function. The pipeline between each department is carefully designed, in which potential startups can be assessed by *Digital & Next Business (DXB)* unit in order to establish partnership with Telkom, and if the startup has a high synergy value and does not overlap with firm existing portfolio, DXB sends out recommendation report to *Strategic Investment Department (SID)* where the final acquisition decision is achieved. By pooling startups through Indigo, Telkom is able to attract potential startups that can further expand firm portfolio of business, products, and services. Promising startups in Indigo are handed over to MDI Ventures for further investment opportunity.

2. **Indigo Incubator & Accelerator (Indigo)** is a startup incubator program operating under Telkom, designed to support digital entrepreneurs. Startups receive 6 months of incubation support such as access to market, business, technical consultancies, and co-working space facility. Funds of up to IDR 750 million is provided in the incubation program, whereas startups that have entered acceleration phase can receive funds of up to IDR 2 billion. The fund is exchanged with convertible notes that is activated when first investment is made by external entity. From the startup selection stage, representatives from Telkom business lines (enterprise, wholesale, retail, consumer) are involved in order to identify potential internal collaborators and avoid overlap with firm existing portfolio. Representatives from MDI Ventures are also involved from startup selection stage throughout both incubation and acceleration program, enabling the corporate venture capital to monitor potential startup from an early stage. Indigo employees also hold an important role to assist startups that are exploring partnership opportunity with Telkom, where they act as a mediator and ensure a win-win arrangement for both parties.

3. **MDI Ventures (MDI)** is a Jakarta-based corporate venture capital (CVC) initiative by Telkom Indonesia with operations in Singapore and Silicon Valley. Its funding starts from pre-series A, with ticket price ranging from USD 500,000 to USD 5 million. It is established in 2015 with USD 100 million starting fund gathered solely from Telkom balance sheet. It is the first CVC of a state-owned company and made its first investment in 2016. Within three years (2016-2019), MDI has made seven profitable exits (35% IRR), providing validation to other state-owned companies to pursue this form of corporate venturing. Now, multiple state-owned CVCs have emerged. Its close tie with Telkom is translated into its investment thesis, where only startups that have a synergy value with firm businesses are considered. It is closely involved with Indigo and Telkom internal functions to ensure alignment with firm overall portfolio, and before reaching the final decision regarding exits.

4. **Telkomsigma** is an end-to-end ICT solutions company that is also a subsidiary of Telkom Indonesia. Telkomsigma was established in 1987, and acquired by Telkom in 2008. The firm's vision is *'the preferred digital transformation partner',* focusing on enterprises. It is also Lintasarta's direct competitor in offering IT services. It is the biggest ICT solutions company in Indonesia with more than 1,200 employees. As a subsidiary of Telkom, Telkomsigma often undertake projects under the name of Telkom, and also get to utilize the corporate university facility owned by the holding.

Appendix B. Interview questions

The interview questions are divided into three different categories of respondents: firm, university, and startups.

B.1 Firm

Background information (asked to all respondents)

How long have you worked for the company, in what position? How long have you worked in this position? How long have you been involved in Appcelerate?

Appcelerate Program Director

Appcelerate design

1. Can you tell us the beginnings of developing the Appcelerate concept? Who sparked the idea, and what was the motivation behind this program?
2. Can you please tell us how the Appcelerate concept emerged and finally implementation?
3. What other CSR programs are implemented by companies other than Appcelerate?
4. How do companies evaluate the performance of CSR programs? What is assessed?
5. How can you realize this program? What internal and external factors are crucial for the sustainability of this program?
6. What is the ideal outcome of Appcelerate?
7. What is the budget used for Appcelerate and how does the amount change from year to year?
8. How often does the Appcelerate progress update to C-level?
9. How do top management support Appcelerate? In what form?
10. What functions are involved in Appcelerate? How do they interact from planning to execution?
11. What steps are taken in organizing Appcelerate?
12. How often does the Appcelerate team meet? Internally and with an incubator?

Firm-University

13. Why do companies choose universities as partners for Appcelerate?
14. How do firms approach and select universities? Is there a predecessor relationship between companies and universities?
15. What is the division of tasks between companies and universities?
16. What are the benefits of university-company relations?

Implementation – Appcelerate follow up

17. What factors influence Appcelerate's success?
18. What are the challenges in implementing Appcelerate?
19. Is there an evaluation mechanism after the completion of Appcelerate? How is knowledge transferred from individuals to organizations?
20. Is there further collaboration or collaboration between companies and universities after Appcelerate?
21. How do you relate to startup from Appcelerate? Who is responsible for maintaining the relationship?
22. What happens to participants after the competition is over?
23. How do companies decide which startup is ready for commercialization?
24. Who is involved in making contracts for new startups?

Program development and changes

25. What changes have occurred since 2016 until now?
26. What are the company's internal changes caused by Appcelerate?
27. Are there plans to develop Appcelerate in the future? How do you achieve it?

Internal aspects

28. How to coordinate with the company's internal team in implementing the program? Who is involved?
29. Are there special people recruited to help carry out the program?
30. Are there documents regarding Appcelerate that can be learned by people in the company? A kind of guideline?
31. What are the knowledge transfer processes related to Appcelerate?

32. Could you please tell us about Appcelerate's transfer from CS to SBD?

Officer Level

Appcelerate

1. What is the ideal outcome of Appcelerate?

Capability development

2. What training processes does the company provide for the (department name) team?
3. How can (department name) develop the alliancing capabilities of the people in this division?

Knowledge management

4. What is the relationship between ITSPM and other departments? With which departments do you interact the most and in what contexts?
5. When you first entered (department name), what knowledge was taught?
6. What are the knowledge management processes carried out at (department name)?
7. What are the personnel education backgrounds at (department name)?
8. What is the process of handover that occurs when there is a change of personnel?
9. What are some important skills that people must have at (department name)?

Reconfiguration routines

10. How difficult is the process for mutation from one department to another?
11. Is there a routine rotation process within the company? Like the internal job market?

Product development (asked to ITSPM respondents)

12. What are the considerations taken by the company in choosing between internal development and taking from external sources such as startups and others?
13. What is the product development process in the sector that you handle? Does it involve the role of stakeholders?
14. What are the most important values in product development in your department? How to ensure that the value is in the product?
15. Do you develop smart city products? Is there a difference between developing smart city products and for other industries?
16. How many products are produced in one year?

Alliance function (asked to ITSPM respondents)

17. What are the steps for alliancing/partnership?
18. How to build trust and establish communication with vendors?
19. Is there a difference between Appcelerate and non-Appcelerate startup treatment in the product development process?
20. What is the process of follow up and partnership recommendation for Appcelerate startups?
21. What are the challenges in partnering with startups?
22. Is the existing partnership / alliancing framework ideal? What can be fixed?
23. How committed is the company to developing Appcelerate startups?

VP/C-Level

Involvement in Appcelerate

1. Are you involved in the process of developing the Appcelerate concept? If so, can you briefly describe the process? If not, do you know what initial concept development is like?
2. Who was the internal party who first told you about the Appcelerate program, and how was this program communicated to you?
3. How often do you get updates about Appcelerate progress?
4. In your opinion, what is the ideal outcome of Lintasarta? Why?
5. In your opinion, what are the advantages and disadvantages of Appcelerate?
    a. Does it have something to do with its status as a CSR program?
6. How important is the Appcelerate program for corporate strategy?

7. What forms of support do top management provide for Appcelerate?
8. What are the benefits that you get from your involvement in Appcelerate?
9. In your opinion, what are the benefits of partnering with universities for organizing Appcelerate?
10. In your opinion, what are the benefits of running Appcelerate as a CSR program?
11. How can Appcelerate help the activities of the department you lead?

B.2 University

Background information

1. Since when did you work at university?
2. How long have you been involved with Appcelerate? In what capacity?
3. What is the focus area of the incubator (university name)?

Implementation of Appcelerate: University-Lintasarta

4. How did Appcelerate begin?
5. How does Lintasarta approach the incubator? Is there a predecessor relationship between companies and universities?
6. Why do you think Lintasarta chose (the name of the university) as an Appcelerate partner?
7. Why did the incubator agree to work with Lintasarta to organize Appcelerate?
8. What are the benefits of an incubator from the Appcelerate program?
9. Is there another collaboration between the incubator and Lintasarta?
10. Is there another collaboration between the incubator and other large companies? What is the difference between the implementation of the program and Appcelerate?
11. Is there a special team that handles Appcelerate? Is there a special place in the structure?

Implementation of Appcelerate: university - startup

12. How does the incubator reach potential Appcelerate participants?
    a. What proportion of tenants follow Appcelerate?
    b. Is student interest still high from year to year?
13. How do universities and Lintasarta divide the workload during Appcelerate?
    c. How does the incubator establish a relationship with startup during Appcelerate?
14. What happens to startup after Appcelerate? Has anyone been offered a cooperation contract?

General

15. What is the ideal outcome of Appcelerate?
16. What are the factors that influence Appcelerate's success? What is the most important factor?
17. What are the challenges in implementing Appcelerate?
18. Is there an evaluation mechanism after Appcelerate?

Closing

19. What changes have occurred since the implementation of Appcelerate in 2016 to 2018?
20. What are the effects of Appcelerate on the internal activities of the incubator?
21. How to improve the quality of Appcelerate?

B.3 Startup

Background information

1. Can you tell me about your start up?
2. Have you already entered commercialization phase before joining Appcelerate? Do you have a clear product idea?
3. When did you join Appcelerate?

Appcelerate experience

4. Please tell us about your experience during the Appcelerate
   a. How did you find out about Appcelerate?
   b. Incubator
   c. Why did you decide to join Appcelerate?

   d. What are the benefits that you feel during Appcelerate?
   e. Is there a follow-up partnership or collaboration between Lintasarta and startup after Appcelerate? How does that work?
5. What are the differences between Appcelerate and other competitions?

Post-Appcelerate experience

6. Please tell us about your post-Appcelerate experience:
   a. How does the company approach you to offer cooperation?
   b. What negotiations take place?
   c. Who are the parties involved?
   d. What challenges did you experience when starting a formal cooperative relationship?
   e. In your opinion, why is the company interested in establishing further cooperation with (startup name)?
   f. How many new customers have you gotten since participating in Appcelerate? Do they occupy a significant portion of the company's total projects?
   g. How many workers do you have now?

General

7. In your opinion, what is the ideal outcome for startups participating in Appcelerate?
8. (Related to smart city products):
   a. How do you (startup name) involve stakeholders / end users in product development?
   b. In your opinion, what is the most important value in product development, especially in the context of smart city?

Closing

9. Are you satisfied with Appcelerate's travels? How to improve the quality of the program?
10. In your opinion, what aspects should be considered for startups that will explore cooperative relationships with large companies?
11. Is the post-Appcelerate process going well? How to improve the quality of the process?

B.4 Comparative organizations

All comparative organizations belong under the ecosystem of PT Telekomunikasi Indonesia (Telkom).

Background information (asked to all respondents)

How long have you worked for the company, in what position? How long have you worked in this position? What is the role of your department for the firm?

Telkom

CSR

1. What is the definition of strategic CSR in Telkom?
2. What is the approval process for CSR program?
3. Is there any particular CSR theme?

Reconfiguration routines

4. How hard is it to transfer to another fivision?
5. Is there any internal job market?

Knowledge management and learning

6. What kind of training do you usually get?
7. How does the capability development take place? What learning process do you experience?
8. Can you explain the firm’s approach to knowledge management?

Product development (including responsible innovation and product development alliance)

9. Does the product development involve stakeholders or end users? How do you ensure data safety?
10. How does partnership process take place?

11. Is there any difference in treatment between startups, non-startups, and established companies for partnership?
12. Are there any differences in assessment between Indigo startups and non-Indigo startups?
13. What is your experience in partnering with startups for product development?

Synergy

14. How does the internal coordination process take place?
15. How does coordination with external entities (under Telkom group) take place?
16. How can you access startups under MDI?

Indigo

Synergy

1. What is the position of Indigo in relation to Telkom?
2. What is the process of linking Indigo startups with Telkom?
3. How is MDI involved in Indigo activities?
4. What are the challenges in startup incubation to ensure alignment with Telkom?
5. Can Indigo startups partner with Telkom subsidiaries? How does it take place?

Knowledge management and learning

6. What kind of knowledge management system is implemented?
7. What is the capability development approach?

MDI

Respondent background

1. What is the difference in leading a CVC when compared to previous firms?

Knowledge management and learning

2. What is the knowledge management method implemented by MDI?
3. Is there any training provision?

VC activities

4. How many startups have you invested in?
5. What types of exits are the most dominant?
6. Are there any startups that are acquired by Telkom?
7. There is an increasing trend of CVC, what is MDI strategy?

Synergy

8. What is the pipeline of handing over startups from MDI to Telkom for acquisition?
9. How does MDI interact with Indigo?
10. Is there any startup taken from Indigo?
11. Are there any personnel from Telkom that is transferred to MDI?
12. Is there any difference in treating Indigo and non-Indigo startups?

Telkomsigma

Product development (including responsible innovation and product development alliance)

1. Does the product development involve stakeholders or end users? How do you ensure data safety?
2. Is there any particular treatment to development of products targeted for government?
3. What are the measures in ensuring data security?
4. Does the firm always develop product internally or also in partnership with vendors?
5. What are the considerations in partnering with vendors?
6. Do you have experience in partnering with startups?
7. What are the challenges in product development?

Synergy

8. How does Telkomsigma interact with Telkom? Is there any routinized coordination?

Appendix C. Interview results

The interview excerpts are taken from ATLAS.ti Quotation Manager. Due to space limitations, only codes that are referred in the report are included in the appendix. The quotations are grouped according to the respondent.

C.1 Firm

F1: Senior officer of Strategy & Business Development

ATLAS.ti reference	Quotation	Codes
16:2	Can be partners according to the company's business focus. Appcelerate is a way to get a business partner.	Appcelerate-expectation, business partner
16:13	Actually, in terms of our directors there are also personal relationships from the university. Some of them are alumni. Or company facilities are used at the university, for example internet access, and so on. Because the university is one of the clients of the company. The company has many clients at the university.	Pre-existing relationship
16:15	For the development of the employees themselves, we do not have a corporate university. But from the board of directors want each employee to continue to learn, not only learn independently or through training, also given LinkedIn Premium, LinkedIn learning. The development also includes sharing knowledge	Factors-Organizational learning, Knowledge exchange network, Learning approach, Limitations
16:16	This is also a way to encourage senior managers and general managers to keep on updating knowledge, because they are forced to continue learning about startup development. Learning participants level from senior managers and above. We are forced to study more.	Learning goal
16:46	First is the university. Even though this is a CSR program, but we also want branding too. There is an element of promotion. So, the selection is the top 10 universities, that is located in the operational area to facilitate coordination. Then the university also has a record of producing good startups. More to the branding side because if you enter a large university, the branding is also good, then they also have quality facilities in the beginning. We do not have to build from scratch. Capable.	Partnership-consideration, Geographical location, quality of startup, Resources: Physical, Reputation

F2: VP Vertical Industry & Government

ATLAS.ti reference	Quotation	Codes
5:4	I moved to SBD to replace a person, and the person I replaced did a handover. He told me that Appcelerate was in my place (SBD).	Knowledge management
5:7	In 2020 the main goal is how we can build startups that are directly aligned with the firm's business and our partners	Appcelerate-expectation
5:14	I will bring (industry) pain points to startups, and what kind of solutions that is most effective and efficient	Appcelerate-improvement points
5:20	Our application will indeed access data from the government as long as it is permitted. Because actually, the mandate of the local government when implementing smart city is to integrate various data, so they have the same features as well as a decision support system for new policies. This DSS cannot be implemented without integrating the data earlier. We may have accessed these data with permission from the regional government. It was entered into the application, to the platform, then the visualization was shared with the public. When it comes to confidentiality data, there must be between the government and the company. As stated in the contract.	Responsibility: Legal, Data accessibility, Responsibility: Ethical
5:27	We have our own partnership department and this department evaluates whether a partner is credible in the related field. Suppose we want to enter into tourism, we will give 3 potential partners to the partnership team. So besides Lokapoin, I also gave two other partners names to be validated by them in terms of technology and experience. Then in terms of ease of communication. After that, who is suitable to become a partner and the final decision is in the partnership.	Capability-ECV, Communication, Partnership-consideration, Partnership-experience, Product-market fit
5:28	Those who need approval from the parent company are called corporate actions, they must go to Indosat then to Ooredoo. That is done if we want to make an acquisition, invest, or want to spin off. We need their approval because we have shareholders from Ooredoo, and the process is indeed long because we have to do a test and so on, before the shareholders in Ooredoo can approve corporate action.	Limitations, Resources: Organizational
5:36	When there is something new, surely, we will need new human resources, because we also need their capabilities. Cannot be taken from an existing individual unless they already have experience there.	Hiring strategy

5:37	As long as it can be approved by the general manager, there is no problem with the transfer. Actually, the first step is indeed from the senior manager to approve transfer to other places. But the final approval is with the General Manager.	Resource reconfiguration, Resources: Human, Top management involvement
5:43	When error, we have to check; is it in the application or infrastructure? If infrastructure is in LA, we will be responsible for it. We will bear it on the customer.	Responsibility: Ethical
5:47	In terms of weakness, this program is only 3 years compared to other incubation programs, so we sometimes lack a mentor who was plotted in the official assignment. We tend to have sudden meetings, so no substitutes are available for the mentoring. There is no mitigation yet.	Appcelerate-design, Limitations, Resources: Human
5:49	CSR programs must be pure giving, no benefits are received. When we put this program together, the main goal is to give, there is no purpose to gain benefits.	CSR: Responsive
5:56	We provide a variety of infrastructure. In institutions we build coworking space, that's directly from top management. We also provide infrastructure, network, internet, cloud to be used by startups, so they don't need to invest in the beginning for something they don't know yet. That's one form of extraordinary support, because it's not cheap either. The internet is something that if measured by money is quite expensive. And we also do not give the specs of a mockery. For the mentor himself, we are given official travel facilities	Resources: Physical, Support-Firm
5:79	Because they are Appcelerate winners, they are not only offered prizes but also infrastructure. We also make publications and knowledge to our customers. Then in terms of industry compatibility, because they (Lokapoin) are engaged in the tourism industry, which is one of the company's priorities, they get facilities to directly enter the company's customers. So, when there are customers who need this product, we can connect them with Lokapoin.	Appcelerate-benefit, Support-firm, Business alignment, Firm priority, Resources: Organizational, Resources: Physical, Market access
5:88	Because we are co-funding, we also have an obligation to return to our partners. Because they invest here.	Responsibility: Economic

F3: Senior Manager Cloud Product

ATLAS.ti reference	Quotation	Codes
4:11	The conclusion is how to convey it to [director of incubator], which made the program accepted or not	Communication
4:14	The first Appcelerate was considered very successful; The top 5 are actually all good, although exactly not everything is right for B2B.	Appcelerate-outcoume
4:16	The people I invited to be involved in in the Appcelerate program will be mentors and hopefully will be able to get credit from HR	Firm policy
4:23	What is quite difficult is how to convince the highest management level of a university	External factors
4:24	I explained everything. I assure them that this program is the same as the Google program that he just got. Because at that time I was meeting with the Vice Chancellor because he had just returned from Sillicon Valley. I also gave an explanation of the startup incubation program too.	Communication
4:33	This is the result of discussing with [incubator manager]. She participated in the incubator association in Indonesia, so she knows about any university that has an incubator who has the same passion as us.	Resources: Organizational, University links, Spirit, Knowledge exchange network, Partnership-consideration, Willingness to collaborate
4:46	I have a budget of around 500 million IDR, but finally after I review and revise, I check the needs, we need a room, we run a program and all kinds of costs, there is an increase from 500 million to 1,750 billion in the first year of 2016. In the second year, 3 universities are 4.5 billion. Then the third one, we only needed 3 billion. The fourth, If I'm not mistaken it costs 1.1 or 1.3 billion.	Resources: financial
4:48	The startup will grow along with the growth of the company and vice versa. The company always has a target (revenue) but we must have a target (for startup) so that they have the same passion for what we do together.	Grow together, Partnership-expectation
4:49	I think, this is something that still has to be improved – both partnership and business arrangement – so both startup and firm can grow together	Appcelerate-improvement points, Grow together, Partnership-arrangement
4:50	We update to C-level every month. The C-level concern at that time was indeed Appcelerate, because at that time the CEO was always echoing this Appcelerate everywhere, so he had pretty high expectations about Appcelerate. Top management is very supportive.	Appcelerate expectation, Top management involvement
4:54	Yes, the design at the beginning was like that, because initially I was alone. I really had to look for (a partner), I asked to find an agency to run this program without involving universities. But it turns out when chatting with (director of incubator), he said this could be done together without involving other parties. Because of the direction from the university, I offered it to the incubator, which was welcomed.	Appcelerate-design, Limitations, Resources: human, Willingness to collaborate

4:58	That (firm-university relationship) should be used by the company. I am not from sales, but finally I opened the door. I talked to various units in the university, and I also told salespeople in the region.	Appcelerate-benefit, Communication, Sales opportunity
4:62	When I moved from CS to SBD, there was knowledge that I had left at CS. I made the stages I run Appcelerate in PowerPoint slides.	Knowledge management, Knowledge codification
4:70	If according to ITSPM this startup is not good, don't decide about it now, maybe if we polish for a year, this will be a very good benefit for the firm.	Treatment to startup, Trust
4:75	First, there has to be a VC where promising startups can be funded either by Lintasarta or another local VC, and second, the firm has to develop a good digital ecosystem.	Appcelerate-improvement, Resources: Organizational, Resources: Financial, Startup ecosystem
4:81	That (travel allocation) is actually not you not included in the budget that I prepared, it's up to the campus itself to provide official travel. But that's what they don't want to do.	Support-university
4:85	At University B, there are factors that may be rather hindering but not hindering anyway, so for example from the chairman of the partnership agency: they always want equity from the startups they foster.	Partnership-challenges
4:88	I coordinate financial matters, firm mentors, and mentors from industry. That's what I do.	Support-firm, Resource reconfiguration, Resources: human, Resources: financial
4:104	I'll ask GM to another GM. there they have given the right direction and I confirm to the people I invited to become a mentor, they want, then I make official memorandum of service, signed by the CEO,	Top management involvement
4:123	I went to University A because at that time I had contact with a faculty person.	Preexisting relationship
4:139	I did run it myself (Appcelerate). I coordinate with friends who are in university.	Resources: human, Support: university
4:152	The ideal outcome from Appcelerate is to produce solutions or products that can solve the problems of the industry.	Product-market fit
4:162	We can get a big booth (in job fair) without any cost	Relational exchange
4:200	Finally, I was called by the Director of the Business to get into University C. I was given the telephone number of a person who apparently had nothing to do with the business incubator. Finally, I went to the business incubator by myself.	University links

F4: Product Manager

ATLAS.ti reference	Quotation	Codes
3:5	If you want to enter Alliance management, there is an official note in the cross. There is a division of types of products. In the Industry Solution is even more focused because it has been divided per industry: government, finance, and health care.	Capability-ECV
3:19	I asked the Appcelerate team first because Appcelerate friends were low priced, not very high. From there, I went to SBD, presales. Here, we start seeing bigger firms that are usually expensive, but the solution is complete. If there aren't any of them, then I'll find it myself.	Capability-ECV, Resource: organizational
3:27	It depends on the level and depending on where you want to transfer. For example, yesterday, G moved to SBD, the approval reached the CEO because SBD was directly under the President Director. However, if anyone wants to move to my place, s/he only needs approval from the ITSPM directors.	Resource reconfiguration, Resources: human, Top management involvement
3:30	Not only from startup but also from Appcelerate team itself. Personally, I think the team should involve people who has experience in product development, so s/he knows how to teach the startups. Experience is more important than theory.	Appcelerate-improvement points, Resources: Human, Business-experience, Quality of human resource
3:31	Provide mentor that understands product development and strategy.	Appcelerate-improvement points, Resources: Human
3:40	Our product needs can be brought to Appcelerate.	Appcelerate-improvement points
3:45	There are already partnership stages. There are vendors that enter the partnership team, scoring, product manager and development team are assessed as well, then we submit to procurement. It's actually the result of our learning. We didn't have it like that before. Previously partners entered without selection. NDA. All were given NDA and MoU, making us confused about which partner would be cooperated. Now, what you mention is a learning outcome in partnership.	Learning and development, Capability-ECV
3:46	Finally, at the end of last year, the partnership team made a policy that 1 product could only have a maximum of 3 vendors and only 1 NDA was made.	Firm policy
3:47	Maybe there is a need for substantial funding […] The top three can be supported in marketing and other aspects.	Appcelerate-improvement points, Resources: Financial, Resources: Human

3:96	Predecessor had sat together 1-2 times; he explained the current status and next action that they had planned.	Knowledge exchange network
3:119	But so far until now, Fleetara has not been terminated fully. Now, Fleetara is only in charge of one product that is used internally by the firm: the online transportation system.	Support-firm

F5: Senior Manager Cloud Product

ATLAS.ti reference	Quotation	Codes
2:6	I used to hope that Appcelerate product could be a catalyst for the firm to work on solutions on top of company's existing services such as data centers, clouds, etc.	Appcelerate-expectation
2:22	We try to help them in several ways, not with direct funding but with indirect funding - lending servers, computers, laptops. The firm can only do that now. We can't give fresh money.	Resources: physical, Support-firm
2:28	Our learning approach is no longer per department but per division. We have a buddy system. This buddy is at the staff level, senior manager, GM, there is the buddy. These buddies are usually from one division whose nature is equally helpful when there are difficulties and guidance is needed.	Learning approach, Resources: human
2:54	Now we are looking for a revolutionary startup in the field. But that doesn't mean we can't look for small startups. But this little one is difficult. When we look for startups that are similar to Fleetara, there are dozens of them. They are present every year during Appcelerate. You have to find something unique.	Limitations
2:61	In the past, we were still confused about whether the concept of Appcelerate would later become a KPI, related to business, or just CSR. It turns out that at that time until last year, we still thought of this as CSR alone.	Confusion
2:68	Most startup ideas are B2C. After two years of joining in, it's a bit boring after a while. It turned out that most of the ideas followed were the same. It was difficult for us.	Appcelerate-design, Quality of startup

F6: Organizational & Learning Expert

ATLAS.ti reference	Quotation	Codes
1:1	The learning system in the company is divided into two: is public training, sending employees for external training or inhouse training. Instructors from external but invited inhouse, or it could be internal sharing knowledge. Participants are employees. The cycle starts at the beginning of the year we begin by recording a personal development plan (PDP), we give opportunity to each person. In the first quarter, I have requested what PDPs to submit. We will compare it with the results of the competency assessment. In December, they filled out the assessment through a fairly long process because it was assessed in two layers. Around February or March, it is finished. From the results of the assessment, we compare it with the PDP. We do the mapping, planning, implementation. Which is public training, inhouse, or internal knowledge sharing. If there is a subject matter expert, we will direct it to internal knowledge sharing. Technical functions that require special certification to support the work, usually there is a special request from the top management, and we will allocate specifically.	Learning approach, Knowledge exchange network, Learning preparation, Resources: human, Top management involvement
1:8	What we want to campaign is not learning by doing but independent learning. Employees related to development are still dependent, if they are not facilitated by the learning team they will not request. So, we encourage employees to learn to be independent learners.	Learning approach, Independent, Learning goal
1:15	It is rather difficult when we make a roadmap, there are many certification partners that have also changed. For example, Cisco has changed a lot this year.	External factors
1:25	Reorganization is fairly frequent. Because there is a new product, there is a suggestion that an organizational system like this is more ineffective or more effective. There is a reorganization at least once a year. The reorganization is small, not radical. Suppose there is one department adding 1 department, or 2 departments become 1 division. A year can be two small changes.	Reconfiguration routines, Resources: Organizational, Reconfiguration frequency, Reason for changes
1:27	The KM was really just launched in 2019, about 3 months before I joined. The actually wanted to implement it for a long time, but it remained as concept and was only implemented then. And even then, the form is more focused on gathering training materials into 1 source and optimize a learning corner. We publish a policy to reduce sending documents via email, OneDrive optimization so that all can share. That can be knowledge for other functions. All employees create their own folder so that it can be a shared folder that can be accessed by all employees. More encouraging internal sharing of knowledge and folder management. Previously, there was no policy that regulates that documents must be shared, all documents are stored in each laptop. If resigned, the document will be deleted by the IT team. We release policy to minimize files that are stored in internal storage.	Learning approach, Knowledge management, Firm policy

1:30	For new content or technical themes, we routinely consult with leaders in related functions as the product changes very quickly.	Top management involvement
1:45	We publish a policy to reduce sending documents via email, OneDrive optimization so that all can share. That can be knowledge for other functions.	Firm policy
1:46	And even then, the form is more focused on gathering training materials into 1 source and optimize a learning corner.	Knowledge management
1:50	If there is a subject matter expert, we will direct it to internal knowledge sharing.	Resources: human
1:51	What has begun to be required for lesson learned is in the project. It's still trial. Try one function first, take a sample, there are several PM who are required to make a report. Then put into the learning corner.	Knowledge management
1:57	The main directives must be from BoD. Trigger from BoD to improve organizational effectiveness or efficiency.	Top management involvement
1:68	When a key person leaves the organization, he also takes away knowledge without being shared.	Resources: human
1:72	Technical functions that require special certification to support the work, usually there is a special request from the leadership and we will allocate specifically.	Top management involvement

F7: General Manager of Strategy & Business Development

ATLAS.ti reference	Quotation	Codes
6:18	That is one of our concerns at SBD. At the start of Appcelerate we still haven't limited it. Students are welcome to develop solutions they have. There are many more solutions to daily life on campus, surrounding areas, so solutions are developed more to B2C.	Firm-startup mismatch
6:40	A promising startup is a startup that can generate profits.	Startup characteristics
6:41	The firm's hope is to produce startups that can generate profits, not valuations.	Appcelerate-expectation, Responsibility: Economic

C.2 University

U1: Business Development & Partnership (University B)

ATLAS.ti reference	Quotation	Codes
18:1	Appcelerate is a tripartite contract: PT GIB, Lintasarta, University B (Directorate of PUI). Directorate cannot accept money, if money comes in from outside must be issued based on financial budget and there is no flexibility. Meanwhile, PT GIB is a private entity, so it has more freedom in managing funds and making decisions. PUI is not looking for profit (not for profit), the aim is to facilitate business units at UGM.	Institutional factor
18:8	Vision and mission match. Innovative social experience. The program has different pipelines compared to other programs and curriculum. The results are better than other programs. Why? It is open for all, and any ideas can be accepted, not based on business.	Appcelerate-design, Appcelerate-influencing factor, Appcelerate-outcome, Vision mission alignment
18:12	We already have a database of students/groups/WA groups/communities/SMEs that are concerned with entrepreneurship.	Resources: organizational
18:25	University B adds small costs. The overbudget is borne by the university. We also found a place, with the university's network.	Network access, Resources: financial, Resources: physical, Support-university

U2: PIC of Appcelerate (University B)

ATLAS.ti reference	Quotation	Codes
17:26	Communication between Lintasarta and my employer. The communication between higher-ups needs to be clearer and not made personal.	Appcelerate-improvement points, Communication

U3: Incubator Manager (University A)

ATLAS.ti reference	Quotation	Codes
12:5	Now, if University A and firm are indeed quite closely related, yes, some firm facilities are also used at the university. Firm also supports several programs such as events, especially for activities organized by the informatics department. So	Preexisting relationship

	initially there was already a closeness but with this program it became even more intense.	
12:13	A very fundamental difference is, they (other firms) come only to campaign programs or training, then the startup is taken by them to run the program themselves so that our involvement is very lacking. That's the most significant difference.	Appcelerate-design, University involvement
12:30	Mentors have to be more specific and more diverse, not only from the firm's perspective but also firm customers. The campaign has to be more intense to gain more participants. In terms of funding, it can be considered whether it needs to be added or not or adjusted to the needs.	Appcelerate-improvement points, Mentoring, Quality of human resource
12:35	If examined further, why we chose University A can be seen from the geographical side. The firm has three areas: middle, east, and west. Well, Bandung is in the middle, and has a regional HQ of firm, so that communication is more secure.	Communication, Geographical location

U4: Incubator Manager (University C)

ATLAS.ti reference	Quotation	Codes

U5: Director of Institute for Innovation and Entrepreneurship Development (University A)

ATLAS.ti reference	Quotation	Codes
13:7	I think the firm indeed provides industrial links, networking, because they manage 1500-2000 accounts. Network links that we can use well. The ideal idea is that the industry link with the innovation research link at university, ideally should be put to good use. Because innovation alone without industrial links cannot succeed. The firm has a pretty good idea, the market is also good, but the industrial link network is quite extensive. But the market access is amazing.	Market access, Network access
13:19	But because the ideas are from students, their concentration and time are divided. If their entrepreneurship experience can be recognized as course credits, they will have more freedom. If they have to work hard completing a lot of credit, they don't have time for Appcelerate. The main problem is that students cannot focus.	Appcelerate-improvement points, Commitment, University regulations
13:20	While we have the resources, the talent, we also have the resources of the facility, so that might be a pretty good combination.	Resources: human, Resources: physical
13:21	The system in our finances is being cut. At the logistics we are cutting. All will be simplified. It is ongoing.	Appcelerate-improvement points, Institutional factors

U6: Incubator Manager (University A)

ATLAS.ti reference	Quotation	Codes
11:6	At that time, we made posters and distributed them, we also give letters from each faculty and each department. In addition to posters to our university, we reach out to associations informally through the internet. We use mailing list, then also word of mouth to tenant friends.	Resources-organizational, Support-university
11:17	Mentors provide more material. I wish it could be more like a practice in real life. In terms of resources, it is rather difficult because the mentors are on the GM level. They can afford the weekend because it's in Bandung. Besides coaching there is also a workshop. One by one mentoring. This workshop is not general. Maybe more in the business or marketing field.	Appcelerate-improvement points, Mentoring

U7: PIC of Partnership (University C)

ATLAS.ti reference	Quotation	Codes
14:18	Secondly, the obstacle is when monitoring tenants, that is the difficulty. They can't manage their time. If they really have a strong desire, they can actually manage (the schedule). But on average children participating in competitions like this only need the money, the prize, after that goodbye.	Commitment, Startup motivation
14:25	We have many CSR programs, but not always in the form of Appcelerate. [A firm] gave 2 billion just to build coworking space. But unfortunately, it is not utilized properly because it is not assigned to any specific unit. There must be an institution within ITS that does indeed control it.	CSR-content, CSR: Strategic
14:28	Partnership agency (BPPU) cannot directly commercialize because - BPPU is a part of university, whereas PT C is freer to commercialize products from startup. The second year involved PT C more deeply, including funding. First year, only BPPU and firm, the second year was tripartite (BPPU, firm, PT C). In addition to the matters of funding as well, because it is very difficult to take funds from university. Funding can be covered first by PT C with the hope that maybe of the 3 that will be	Limitations, University regulations

	winners, maybe there are 7 of them that we think maybe there is something we can indeed develop.	
14:38	If the program wants to be really serious, time will also have an effect. And although there is one on one mentoring, monitoring must be more stringent. Progress must be monitored thoroughly. From the very beginning it they're not performing; they should be cut already. The student sometimes just needs the prize.	Appcelerate-improvement points, Monitoring, Time constraints
14:39	Funding can be covered first by PT C with the hope that maybe of the 3 that will be winners, maybe there are 7 of them that we think maybe there is something we can indeed develop.	Resources: financial, Support-university

C.3 Startup

S1: CEO/Founder (Kazee)

ATLAS.ti reference	Quotation	Codes
9:5	In the beginning not only prospective clients, but firm also uses us. They pay to use startup products. There is an initiative from them to use our products too, so we know the pluses and minuses of what they look like. First of all, the firm has a PIC that holds Kazee. Because there is a PIC, we can also get input, access to markets, improvements. There are many lessons from the firm, because there are dedicated people who sell Kazee's products. There has always been an option for the firm to invest in Kazee, it just can't because of legal challenges due to a decision in Indosat (parent firm), so it is not possible.	Resources: financial, Support-firm, Learning and development, Limitations
9:20	And if for example, the firm invests in us, at least we can secure cooperation. The relationship can be even more strategic. Then, we can go to the market together and be more committed.	Commitment, Firm-startup synergy
9:34	Regarding data privacy, we always take publicly available data.	Responsibility: ethical

S2: CMO/Founder (Lokapoin)

ATLAS.ti reference	Quotation	Codes
10:11	We will have (formal agreement). But we have actually become partners to work on a project, and we are going to discuss the next project where we will really become partners. Administrative requirements have been asked by the firm. But the partnership is still a gentleman agreement? Yes, maybe like that.	Trust
10:24	The density of the participants and the quality of the participants will determine the quality of the program. There should be more spread of information, and criteria can be tightened even more, the phase of business. When we were in the top 8, we could share many things not only with mentors but also with other participants. It really helps not only to support each other but also to compete with each other is good.	Appcelerate-improvement points, Quality of startups, Knowledge exchange network
10:29	Luckily, there was also the [program director] who helped, we felt that he was a mediator. He was a firm employee, but he also considers startup perspective. With this collaboration, we find out how not only firm and firm clients can benefit but also the startups.	Firm-startup relationship, Win-win, Mediator
10:39	So we can share a lot, not only with mentors but also with other participants. That really helped. not only support each other also compete with each other.	Knowledge exchange network

S3: CEO/Founder (Fleetara)

ATLAS.ti reference	Quotation	Codes
26:11	Strengthening the coaching process, the first is indeed an ideation session, brainstorming, mind mapping, to challenge the team. Validation for markets and products.	Appcelerate-improvement points, Product-market fit

S4: Business & Product Development (Fleetara)

ATLAS.ti reference	Quotation	Codes
27:9	Because for more than a year, the company is more rigid about document requirement, starting from the technical service level agreement (SLA), what	Responsibility: Legal

	services are provided. The point is more towards standard documents to meet the agreement. Meanwhile, we as startups are more focused in developing products.	
27:34	Because we are product providers, we collaborate with the firm. We focus more on application development, whereas other security measure such as firewall are provided by the firm.	Responsibility: Legal

S5: CEO/Founder (Halofina)

ATLAS.ti reference	Quotation	Codes
8:25	The improvement in capacity of the founders as well as the management team of the startups [...] the organizers (corporate) ensure that with their captive market or network [...] create sales building or sales pipeline building [...] It will be very beneficial for startups, that there are specific targets or sales to the captive market. The third is forming capital. Maybe it would be far more useful if the capital was generated from a project produced by his Appcelerate [...] the most interesting thing was to make corporate clients as startup's customers. The prize can still be included, and it doesn't have to be a big one [...] not just giving the capital but also adding value in the form of the business.	Appcelerate-improvement points, Learning and development, Market access
8:30	Technically we try to comply to the security standards. We are also in a submission process to fulfill the ministry standard and so on. So gradually we proceed according to the standards that apply globally.	Responsibility: Legal
8:31	We are registered and licensed in Financial Services Authority (OJK) and all products are registered in OJK, as advisors and digital financial planners. All of our services comply with existing regulations.	Responsibility: Legal
8:35	Ensuring conceptual end-to-end is important, [...] divided by 2 from the founder side and the team is the same from the organizational side. [...] Next is the product and customer development, I make sure that all of them have a clear and comprehensive concept and connect will be more effective	Appcelerate-improvement points, Capacity of founders
8:36	Helping startups with different categories and types is too difficult, impossible to do. Other VCs are very focused on specific segments. By limiting, they can identify who is the venture capitalist, market segment, investor. So that it can build a good ecosystem.	Appcelerate-improvement points, Startup ecosystem,
8:47	In general, from the company side, there is an effort to provide win-win support. From the business side, the firm brought together startup with parties in the company that relates to the business conducted by Halofina.	Win-win
8:66	I think everything must be built on the commercial side where both parties have benefits. Not because of their status as Appcelerate graduates but because of business.	Responsibility: Economic

C.4 Comparative

C1: Officer in Synergy & Portfolio Department (Telkom)

ATLAS.ti reference	Quotation	Codes
25:2	Now the role of Senior Vice President (SVP) is removed	Resources: Organizational
25:7	The Ministry of SOE had an initiative for agriculture digitalization. It didn’t depart from CSR but assignments from the ministry to large SOEs. When we were asked to develop the product, we don’t expect to directly generate cash. We can monetize in the future.	CSR: Strategic
25:15	(Coordination) is very difficult, needs to bring up boss’ direction. For instance, when we receive an assignment of ministry, we emphasize that to the corresponding units.	Comparative-challenges, Inertia
25:16	(Internal transfer) is very difficult especially if it is between directorate. Unless it is for employees in the higher level.	Inertia, Resource reconfiguration
25:21	Improvement is directly implemented in the field and unrecorded. There is a mandatory sharing session, targeted, and included as KPI. Those who received training are required to share their knowledge.	Firm policy, Knowledge exchange network, Learning approach
25:30	We have an app called Kampiun, where people write paper on their work, uploaded, and if approved they can gain points.	Firm policy

C2: Officer in Digital & Next Business (Telkom)

ATLAS.ti reference	Quotation	Codes
24:1	There are three points in current job: strategy, orchestration, and synergy. In Telkom there is a term called customer facing unit (CFU), and they are required to synergize.	Synergy

24:28	We have an organizational change. There, Division 1 and 2 are separate […] Now put together as a flat structure. The difference is that now DXB (Digital & Next business) is operational.	Resource reconfiguration, Resource: Organizational

C3: COO & Portfolio Director (MDI Ventures)

ATLAS.ti reference	Quotation	Codes
21:21	Network is the most important, because the essence of VC is networking. If I want to invest in other place, to be given good deals, I have to know the person and trust him/her.	Comparative-network, Trust
21:27	People from MDI helps Indigo, because people in Indigo are all from Telkom. They do not have capability and experience in VC, so as the experienced unit, MDI assigns some people to help handle Indigo.	Comparative-coordination
21:54	We educate or search startups from seed stage, in the early stage from Indigo in Telkom. From the idea, product validation, or business model validation stage, we catch them from the beginning to monitor them until they are mature.	Educating startup, Startup readiness

C4: Officer in Business Incubation (Indigo Incubator)

ATLAS.ti reference	Quotation	Codes
20:17	We take all startups. When startups apply, not only Indigo decides on investment. We invited CFU and sales unit for all four segments. They are the judge. With the hope when they agree, the startups can collaborate with units.	Synergy
20:33	After startups graduate, we still keep in touch. Every year we have Indigo gathering, where all successful startups come and share their stories. Like a family.	Communication, Comparative-network
20:38	Indigo releases catalogue for all subsidiaries and CFU. Through integration function, CFUs often request for a specific type of startups. We can help look for startups.	Knowledge management
20:46	If they have entered incubation stage, we do not only provide funding. The amount of funding depends on the result of due diligence and startup valuation. We also provide them with mentors […] When the business finds it shape, account managers from Telkom help with sales to corporate clients.	Support-Firm, Mentoring, Resources: Financial, Resources: Human
20:52	Over time, Indigo generates many benefits for Telkom, so it got bigger. It almost became one directorate.	Top management involvement

C5: Head of IoT and Smart Solutions (Telkomsigma)

ATLAS.ti reference	Quotation	Codes
23:24	We will ask for past projects, what relevant experience. If they don’t have experience, then we have to know the person. If we don’t know them, we won’t know whether or not they can deliver. With startups from Telkom, we know them personally, and they have implemented similar solutions during their involvement with the firm.	Comparative-startup experience, Trust

Appendix D. Code list

D.1 Initial code expansion

Framework component	Code	Related codes
ECV capability development	(1) Capability-ECV	*(13) Capability-gap* *(14) ECV-strategy*
Internal firm factors	(2) Knowledge management	(15) Knowledge articulation (16) Knowledge codification (17) Knowledge exchange network *(18) Urgency for knowledge management*
	(3) Reconfiguration routines	(19) Resource reconfiguration (20) Reconfiguration frequency
	Resources	(21) Resources: Human - *(22) Quality of human resources* (23) Resources: Organizational - *(24) Market access* - *(25) Network access* - *(26) Organizational structure* - *(27) Preexisting relationship* (28) Resources: Physical - *(29) Geographical location* (30) Resources: Financial
	(4) Top management involvement	*(31) Firm policy*
External firm factors	(5) External factors	- *(32) Startup ecosystem* - *(33) Participation trend* - *(34) Talent*
Alliance-specific factors	(6) Trust	
	(7) Communication	*(35) Informal communication*
Strategic CSR	Resources	
	Stakeholder	
	Organizational learning	*(36) Learning and development* *(37) Learning approach* *(38) Learning preparation* *(39) Learning experience* *(40) Learning goal* *(41) Factors-Organizational learning*
Stakeholders: University & Startup	(8) Stakeholder (management)	University: - *(42) Incubation approach* - *(43) Internal connection in university* - *(44) Institutional factors* - *(45) Links* - *(46) Sales opportunity* - *(47) University involvement* - *(48) Regulations* - *(49) Willingness to collaborate* - *(50) Workload*
		Startup: - *(51) Idea* - *(52) Product development* - *(53) Product quality* - *(54) Quality of startups* - *(55) Behavior*

		- *(56) Capacity of founder* - *(57) Characteristics* - *(58) Motivation* - *(59) Performance* - *(60) Readiness* - *(61) Value proposition* - *(62) Time to market* - *(63) Treatment*
CSR components	(9) Responsibility: Economic	*(64) Revenue size*
	(10) Responsibility: Legal	
	(11) Responsibility: Ethical	
	(12) Responsibility: Discretionary	- *(65) CSR-content* - (66) *CSR-perspective* (67) CSR: Responsive (68) CSR: Strategic

D.2 Thematic codes

Appcelerate:	**Business:**	**Comparative:**	**Firm:**
(69) Background (70) Benefit (71) Challenges (72) Changes (73) Design (74) Evaluation (75) Expectation (76) Improvement points (77) Influencing factors (78) Involvement (79) Outcome (80) Perception	(81) Alignment (82) Partner (83) Experience	(84) Challenges (85) Coordination (86) Investment strategy (87) Network (88) Startup experience	(89) Control (90) Performance (91) Priority (92) Proactiveness (93) Vision (94) Inertia
Relationship:	**Partnership:**	**Support:**	
(95) Firm-startup mismatch (96) Firm-startup relationship (97) Firm-startup synergy (98) Firm university partnership (99) University-startup partnership	(100) Arrangement (101) Challenges (102) Considerations (103) Continuity (104) Expectation (105) Experience (106) Outcome (107) Strategy	(108) Firm (109) University	

D.3 In-vivo codes

(110) Commitment (111) Comparison between firm and comparative (112) Confusion (113) Customer characteristics (114) Data accessibility (115) Educating startup (116) Exposure (117) Financial support (118) Grow together (119) Hiring strategy (120) Independent (121) Industry involvement	(122) Initiative (123) Internal awareness (124) Internal coordination (125) Involvement of HCM (126) Legal aspects (127) Limitations (128) Mediator (129) Mentoring (130) Monitoring (131) Objective (132) Post-Appcelerate activity (133) Product-market fit (134) Reason for changes	(135) Relational exchange (136) Reputation (137) Role of function (138) Search strategy (139) Sense of ownership (140) Spirit (141) Synergy (142) Time constraints (143) Understanding (144) Vision mission alignment (145) View on concept (146) Win-win