

Management Control Systems in a Corporate Venture Capital Backed Start-up: An Exploration and Exploitation Perspective

-A case study of a Swedish Corporate Venture Capital investor and its start-up in the digital entertainment industry

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Abstract:

This study was aimed at examining the application of Management Control Systems (MCS) and the learning consequences of these in start-ups. This was done through a single-case study of a Corporate Venture Capital (CVC) investor and its start-up, thus analysing the impact of an external investor previously overlooked in research, which mainly has been confined to Venture Capital (VC) investors. Using Merchant & Van der Stede's (2007) object-of-control framework, we find the CVC to implement extensive results- and action controls, while personnel/cultural controls seem to be of less interest. Thus, the controls implemented by CVC and VC investors appear to be similar despite the differences in structure and investment rationale. However, we find action controls to be more *emphasized* by the CVC. Drawing upon March's (1991) concept of organizational learning through exploration and exploitation, we analysed the effect of the control mechanisms on learning *between* and *within* the CVC and start-up. Notwithstanding the recognized exploratory aim of CVC investments, the control mechanisms implemented nevertheless seem to primarily facilitate exploitation. The CVC investor appears to be largely influenced by its parent company, thereby being restricted in implementing controls facilitating exploration. An understanding of the crucial effects of the control mechanisms can be expected to significantly facilitate managers' possibility to align these with the aim of the investments.

Key Words: Management Control Systems, Corporate Venture Capital, Start-up, Exploration, Exploitation

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Date: 16 May 2016

Acknowledgements

We would like to thank CorpInvest and DigiStart for their willingness to take part in this study.

We thank all interview participants who with their time and effort helped us to investigate the chosen research topic. We would also like to thank Martin Carlsson-Wall, our tutor, for his valuable and enthusiastic guidance throughout our research.

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1 Introduction

“The small business sector plays an important role in employment creation, innovation and the economy in general” (Storey, 1994, p.1)

While large, established firms tend to provide stepwise innovation, new entrepreneurial start-ups often challenge existing beliefs with radical leaps (Baumol, 2004). As resources are usually scarcer in these firms, they need to focus on the technologies with highest potential (Spencer & Kirchhoff, 2006). Through the flexibility and freedom to create out of thin air, entrepreneurial minds have contributed to significant societal transformations (Baumol, 2004). In the modern economy, start-ups are challenging established business communities across several industries, such as media, banking and telecom (Grossman, 2016). In such visionary firms, control may seem as a distant concept (Aiken & Hage, 1971). Nonetheless, the need for control is imperative for companies to grow (Merchant & Ferreira, 1985).

“Why would a fast-moving company need tools that appear to constrain creativity and slow down growth? ... Think about a car: the faster it goes, the more sophisticated the technology required to keep it under control. ... The same logic applies to growth with startups. The faster they need to go, the more management systems infrastructure they need”

(Davila et al., 2010, p.87)

Recently, Management Control Systems (MCS) are becoming regarded as an integral part of the innovation and commerciality of start-ups (Davila et al., 2009; Sandino, 2007). One factor that has been found to impact both the speed and extent of adoption of formal control mechanisms in start-ups is the presence of external investors (Davila & Foster, 2007; Granlund & Taipaleenmäki, 2005; Silvola, 2008a&b). Researchers examining the impact of external investors have mainly equated these with VC (Venture Capital) investors (Davila & Foster, 2007; Davila et al., 2009; Granlund & Taipaleenmäki, 2005; Mitchell et al., 1997; Silvola, 2008a&b). This has resulted in Corporate Venture Capital (CVC) investors being largely overlooked in the existing literature. These are however becoming increasingly important in the start-up environment and differ from VC investors in several aspects (Chesbrough, 2000; Pahnke et al., 2015)

In 2015, CVC activity reached its highest level since the dot-com bubble, constituting one fifth of all venture capital deals (NVCA, 2016). Well-known companies, such as Google, General Mills and Eli Lilly have complemented their R&D departments with CVC units in response to environmental changes in the IT, consumer health and biotechnology sectors (Lerner, 2013). CVC and VC both invest in early-stage start-ups (Chesbrough, 2002). Yet, the structure and investment rationale of the external investors are often different. VC investors typically focus on financial returns upon exiting the position in five to ten years (Zider, 1998). Capital is sourced from limited partners into an independent fund. On the other hand, CVC are structured as units within large corporations from which they receive capital. The investment rationale is dual; while there is a financial interest, the reason for investing in start-ups is primarily strategic (Yost & Devlin, 1993). Since CVC investments are related to the long-term, strategic needs of the parent company, they are commonly referred to as “patient capital” (Pahnke et al., 2015). Given these distinct characteristics, MCS implemented in start-ups by the two types of investors can be expected to differ.

There has indeed been some research identifying control mechanisms introduced in a CVC-start-up setting, such as Keil (2004) and Yang (2012). However, these studies have not focused on MCS implemented *by* the CVC *in* the start-up, but rather on specific control mechanisms governing the CVC. While examining the implications of the controls on the start-ups, data have only been collected from the CVC. Hence, the studies have not contributed to the literature regarding the impact of external investors on MCS configuration in start-ups. The present paper aims to advance the understanding on the impact of CVC investors on the MCS in start-ups. This will be done by conducting a qualitative single case study examining the controls implemented *by* a CVC *in* a start-up, from both organizations’ perspective. We define start-ups as companies younger than 10 years exhibiting fast growth (Granlund & Taipaleenmäki, 2005) and employing more than 10 people (Hellmann & Puri, 2002). An in-depth case study of both a CVC and a start-up facilitates analysis not only of the formation of MCS, but also the application. It enables observations of the subtle effects of the control mechanisms in both organizations. Previous studies examining control mechanisms implemented *by* external investors, i.e. VC, *in* start-ups have predominantly rested upon agency-principal (Wijbenga et al., 2007; Mitchell et al., 1997) and life-cycle (Davila, 2005; Davila et al., 2010; Granlund & Taipaleenmäki, 2005; Silvola, 2008a&b) theories to understand the role of MCS. Such theoretical perspectives, we claim, do not allow for recognition of the application of MCS as tools for learning *within* and *between* the organizations. Literature has shown that knowledge transfer between the CVC and start-up is

crucial for the success of the investment (Weber & Weber, 2007). Hence, we believe it is important to study the MCS through a “learning lens”. In this study, we will combine Merchant & Van der Stede’s (2007) object-of-control framework and March’s (1991) concept of exploratory and exploitative learning to *understand the role of the MCS implemented by CVC investor in start-ups*.

The structure of the paper is as follows: the next chapter presents existing literature on MCS in start-ups as well as the theoretical foundations of the analytical framework. Chapter three outlines the methodology of the study, followed by a description of the empirics in the fourth chapter. In the fifth chapter, the findings are analysed and related to previous literature. Lastly, we summarize the conclusions and discuss the papers limitation and suggest directions for future research in the sixth and seventh chapter, respectively.

2 Theoretical Development

In section 2.1, we outline literature on the role of MCS in start-ups and argue for the need to examine their formation and application in a CVC-start-up setting. In section 2.2, March's (1991) concept of learning through exploration and exploitation is outlined and put in a CVC setting. An analytical framework classifying control mechanisms and their effects on learning is developed in section 2.3.

2.1 Management Control Systems in Start-ups

2.1.1 Management Control Systems as Facilitators of Growth

The monitoring and measurement of business performance is of interest to managers and business owners (Connolly et al., 1980; Ross, 1973). It has also long attracted the attention of researchers within management accounting. Anthony (1965) was the first to move away from a financial perspective on monitoring and control to a more holistic, defining MCS as the processes managers use to ensure resources are used to achieve organizational objectives (Otley, 1994). The ability to use MCS as a means to achieve efficient strategy implementation has been examined and documented in different types of organizations, industries and organizational relationships (Chenhall, 2003; Hofstede, 1981; Langfield-Smith, 1997; van der Meer-Kooistra & Vosselman, 2000). Until recently, the benefits of MCS have been confined to mature businesses. Within young and entrepreneurial businesses these have been seen as harmful. Formal control has been argued to hamper innovation, risk taking and quick responses to new opportunities (Damanpour, 1991; Freeman & Engel, 2007; Morris & Trotter, 1990)

In 1985, Merchant & Ferreira suggested that “*MCS are critical to the success, and even the survival, of early-stage firms*” as cited in Sandino (2007, p.266). Despite the authors' claim, the academic research in the field continued to be scarce for almost two decades (Davila & Foster, 2008). It is not until recently the discussion of MCS in a start-up context has generated new perspectives. Now, the literature suggests that in companies reaching a certain size, informal controls may no longer be sufficient to monitor the activities. In such cases, the “entrepreneurial crisis” may occur (Davila et al., 2010; Greiner, 1972). Greiner suggested that to overcome the crisis “*new accounting procedures are needed for financial control*”, as cited by Davila & Foster

(2008, p.324). Moores & Yuen (2001) confirmed this by showing that in the growth stage, firms particularly focus on formalization of their Management Accounting Systems (MAS).

Davila et al. (2010) suggested that not only accounting procedures, but other types of formal controls can also benefit start-ups. Instead of viewing MCS as an inhibitor of growth according to previous studies, the authors argued that these provide start-ups with the necessary infrastructure for growth. The changed perspective on controls in start-ups has resulted in researchers giving attention to the application of MCS in new organizational settings as well (Davila et al., 2009).

2.1.2 Literature on Management Control Systems by Venture Capital investors

Previous studies investigating MCS implemented *by* external investors *in* start-ups have examined this by studying the presence of VC (Davila, 2005; Davila & Foster, 2007; Granlund & Taipaleenmäki, 2005; Silvola 2008a&b). To our knowledge, there have not been any such studies on CVC investors. To put the control systems implemented by CVC, discussed in the empirics of this study, in a broader context, the following section outlines the control mechanisms found by previous literature to be implemented by VC investors.

Notably, using the approach suggested by Davila (2005), the control mechanisms in the present study will be classified through Merchant & Van der Stede's (2007) framework. Davila (2005) suggested it to be useful when studying start-ups since; "*... it [the framework] is not limited to large organizations and its richness can be exploited within small growing organizations*" (p.226). As we do not study a single control mechanism, the comprehensive scope of the framework is advantageous (Haustein et al., 2014; Sandelin, 2008). The framework's broad reach also enables us to first classify controls based on formation and then to analyse them based on application, defined as exploratory and/or exploitative. Merchant & Van der Stede's (2007) framework focuses on the object of control rather than type of control and identifies three categories: *results controls*, *action controls* and *personnel/cultural controls*. Results controls are indirect forms of controls as they influence employees' actions through measurement of their results and by linking rewards to outcome. Action controls can be seen as the opposite of results control. It is a direct form of control that prescribes the actions to be taken without specifying the result of the actions. The last controls, personnel/cultural controls, are aimed at aligning the objectives of the employees and the organization in order to achieve employee self- and group monitoring. Notably, Merchant & Van der Stede's (2007) object-of-control framework includes

both formal and informal controls. As the existing literature on the impact of CVC on MCS is nascent, we delimit our study to only formal controls for two reasons: 1) By confining the scope of the study more in depth analysis of each control mechanisms is enabled (Yin, 2014), 2) To facilitate comparison with previous studies on MCS implemented by VC investors in start-ups, as such studies have mainly focused on formal controls.

Below, we outline the findings of previous literature on the impact of VC investors on the development of MCS within start-ups, using Merchant & Van der Stede's (2007) framework. Due to the broad scope of the framework, there is room for various interpretations in the classification of control mechanisms. Therefore we have turned to previous literature for guidance, see Appendix 9.1.

2.1.2.1 Results Controls

Financial reporting Literature suggests the presence of VC investors to both increase frequency and level of details of financial reporting in start-ups (Davila & Foster, 2007; Granlund & Taipaleenmäki, 2005; Mitchell et al., 1997; Silvola, 2008a). New types of reports are also introduced following VC investment, predominantly cash flow reports (Davila & Foster, 2007; Mitchell et al., 1997; Silvola, 2008a).

Budgeting Several studies show an increase in budgeting activities following the entrance of VC investors. It has been found that these regard budgeting as the most preferred tool, i.e. the task that should be prioritized when resources are scarce (Granlund & Taipaleenmäki, 2005). Not only are budgeting procedures implemented to a greater extent (Davila & Foster, 2007), in VC-backed firms, the budgeting frequency also increases (Mitchell et al., 1997).

Financial & Strategic Planning VC investors bring a strong focus on the future to the start-ups they invest in. Planning systems, both financial and strategic, are more frequently introduced following the entrance of VC investors (Davila & Foster, 2007; Granlund & Taipaleenmäki 2005, Silvola, 2008a). The future-orientation can be excessive at times; "*planning and forecasting have a strong prerogative over control*" (Granlund & Taipaleenmäki, 2005, p.49). In the early-stages, the planning is especially focused on the short-term as the environments and life expectancy of the firms is uncertain (Granlund & Taipaleenmäki, 2005; Silvola, 2008a).

Incentive Systems Many studies suggest that VC-backed start-ups are faster than non-VC-backed in adopting stock-option compensation plans (Granlund & Taipaleenmäki, 2005; Hellman & Puri, 2002; Sahlman, 1990). Wijnbenga et al. (2007) found that VC presence is positively correlated with the implementation of reward and incentive structures, not limited to stock-option plans. However, the literature is not conclusive as Davila & Foster (2007) found that VC-backed firms were actually slower in implementing performance objectives, evaluation and reward than non-VC-backed firms.

2.1.2.2 Action Controls

Decision-Making Information Following presence of VC investors, decision-making becomes driven by data instead of gut-feeling (Granlund & Taipaleenmäki, 2005; Mitchell et al., 1997; Silvola, 2008a). Systems to facilitate information gathering are implemented to enable data analysis, predominantly to assist in strategic- and capital investment decisions (Mitchell et al., 1997). Davila & Foster (2005) also found that VC investors speeded up the implementation of MAS in order to facilitate decision-making and help managers “*update their belief about the consequences of their decisions*” (p.1044).

Board of Directors & Pre-Action Review VC tend to exert power through the Board of Directors. Several studies have shown that such investors often place themselves in the board of the start-ups (Sapineza et al., 1996; Fried et al., 1998). Also, Clarysse et al. (2007) found that VC-backed firms have more external board members than non-VC-backed firms, illustrating significant change in board composition after VC investments. Davila & Foster (2005) found that the presence of VC investors is associated with faster implementation of approval processes for both operating and capital expenses. Generally however, the functioning of the board of directors as a control mechanism has been sparsely researched (Davila et al., 2009).

In a study examining the implementation of results controls, action controls and personnel/cultural controls in start-ups, Davila (2005) found that action controls take the longest time to formalize. Yet, the presence of VC was shown to decrease the time-to-adoption of such systems, defined, by Davila (2005), as e.g. organizational charts and written job responsibilities.

2.1.2.3 Personnel/Cultural Controls

In a study by Davila (2005), the author showed the presence of VC not to have any effect on the time to adoption of personnel/cultural controls. Similarly, Davila & Foster (2007), found that job

design, core values and mission statements, all considered by the authors to be personnel/cultural controls, were adopted later and less extensively in VC-backed start-ups than non-VC-backed. While Davila (2005) and Davila & Foster (2007) demonstrated the lack of VC influence on personnel/cultural controls, other authors have reported the opposite. Hellman & Puri (2000) found that VC-backed firms are more likely and faster to hire top management personnel, including the CEO. On a similar note, Kaplan & Strömberg (2001) showed that in over 50 per cent of the cases (sample size 213 VC investments), VC played an active role in shaping the management team. Specifically, it entailed hiring executives with significant business experience. In a later study by Hellman & Puri (2002), the authors examined the impact of VC investors on recruitment processes and hiring of top management personnel. The authors found that VC presence lead to quicker professionalization along these dimensions.

The above review gives a perspective on how one type of external investor impacts the control systems in start-ups. In the examination of the role of CVC in start-ups, we use the previous research on VC investors as a point of reference for our findings. The strategic nature of CVC investments entails a focus on learning between the firms (Dushnitsky & Lenox, 2005). Therefore, to better understand the MCS implemented in our empirical setting, we will draw upon literature on exploratory and exploitative learning. In the following section, the structure and investment rational of CVC will be explained followed by an outline of the concept of exploration and exploitation (March, 1991).

2.2 Exploration and Exploitation in Corporate Venture Capital

2.2.1 The Structure and Rationale of Corporate Venture Capital

Structure CVC units can be described as the investment arm of large, non-financial corporations (Schildt et al., 2005). These are usually designed as separate divisions whilst still being embedded in the corporate hierarchy. They must coordinate with business units and top management to access resources for ventures (Chesbrough, 2002; Pahnke et al., 2015). The need to turn to the parent company for capital is argued to limit the autonomy of CVC units (Dushnitsky & Lenox, 2006). This makes them slow as *“the approval process within large enterprises is neither fast nor effective enough”* (Jeng & Wells, 2000, p.247). In addition, CVC have to comply with policies and processes of the parent company, *“even though their particular*

market circumstances may be different” (Robbie et al., 1997, p.11). Such requirements may further be imposed on the portfolio companies (Sykes, 1986). As the parent company often is public, top management can be particularly concerned with the accounting earnings of CVC units, further narrowing the distance between the organizations (Gompers & Lerner, 2000).

Investment Rationale CVC engage in equity investments primarily targeting start-up companies (Chesbrough, 2002). Firms that are exposed to industries characterized by rapid technological breakthroughs, high competitive environment and weak appropriability are more likely to engage in CVC activities (Basu et al., 2011). Maula et al. (2013) reported that failure by top management to act on these environmental contingencies and “*technological discontinuities*” (p.926) can be devastating for the companies. CVC units are established to battle this, with the purpose of promoting innovation in the parent company (Dushnitsky & Lenox, 2005). Pahnke et al. (2015) stated that a major focus of CVC is the fit between the parent company and the portfolio firm, as the intention is often to acquire products that support the parent company’s business. Since the investments are tied to the long-term strategic needs of the corporation, CVC are not limited by a specific time horizon (Pahnke et al., 2015). Looking at the investees, Yang (2012) and Lantz et al. (2011) showed that portfolio companies also benefit from the CVC, as aside from capital, they may receive strategic, sales- and marketing support and key industry inputs (Chesbrough, 2002; Pahnke et al., 2015; Lantz et al., 2011).

Indeed, there is a reciprocal dependence between the firms. The start-up decreases risk by gaining additional resources, whilst the parent company gains access to and control of new innovations (Lantz et al., 2011). One of the contingencies for a CVC-start-up relationship to succeed is the ability to learn from each other. Knowledge-inflows and outflows have been shown to positively influence the performance of CVC investors and the start-up (Yang, 2012). The next section will discuss knowledge transfer through exploration and exploitation.

2.2.2 Explorative and Exploitative Learning

Exploration and exploitation involve the acquisition, development and use of knowledge in organizations (March, 1991). Exploration engages organizations in “*search, variation, risk taking, experimentation, play, flexibility, discovery, and innovation*” (March, 1991, p.71), whilst exploitation is characterized by “*refinement, choice, production, efficiency, selection, implementation, and execution*”. Lavie et al. (2010) also adhere to March’s (1991) view. The authors stated that exploitation is associated with the development of the organization's current

knowledge base, whilst exploration is linked to a shift away from the existing knowledge base. Both exploitation and exploration, Lavie et al. (2010) argued, are essential for organizational learning, which is viewed as a prerequisite for organizational success (March, 1991; Kloot, 1997). However, attaining a balance on the continuum of exploration and exploitation is inherently difficult as the two forms of learning are associated with different organizational activities (March, 1991). Schildt et al. (2005) emphasised these differences, suggesting that exploration tends to increase variation in financial returns, while exploitation decreases variation. This was eloquently highlighted by March (1991): *“Compared to returns from exploitation, returns from exploration are systematically less certain, more remote in time, and organizationally more distant from the locus of action and adaptation. ... The certainty, speed, proximity, and clarity of feedback tie exploitation to its consequences more quickly and more precisely than is the case with exploration”* (March, 1991, p.73). As a consequence, firms tend to primarily focus on exploitation (March, 1991). Ultimately, finding the right balance between exploration and exploitation poses significant challenges to organizations. CVC units are one way for corporations to achieve this, which will be discussed below.

2.2.3 Learning in a Corporate Venture Capital Context

Engel (2004) states that as start-ups are usually characterized by high technology-intensity and a passion for innovation and entrepreneurship, they pose excellent opportunities for exploratory learning. CVC investment is an efficient way of garnering such capabilities, as it often entails lesser risk exposure and a higher flexibility than other options such as M&A, joint ventures and R&D (Lee & Kang, 2015). However, CVC units can also promote exploitative learning, as the parent company aims to recombine its existing capabilities with those of the start-up to enhance efficiency (Keil, 2004). Through the investment in start-ups by CVC units, the parent company aims to attain the right balance of exploration and exploitation, and generate an entrepreneurial vitality whilst refining its current business activities (Birkinshaw & Hill, 2005). Keil (2004) defines the CVC role in the parent company as two fold; first, to learn how to operate in new market segments, and second to learn how to reconfigure and exploit its existing resources more efficiently. While the main focus of CVC is to explore, there are clear elements of exploitation as well. Similarly, Yang (2012) notes that while investees often have intelligent and new technologies to offer, they lack the required industry knowledge and capability to commercialize. Thus, they must exploit the relationship with the CVC while still remain exploratory (Yang, 2012). Overall, we believe exploration and exploitation serves as powerful tools in understanding CVC investments, also referred to as “learning investments” (Lee & Kang, 2015, p.349).

The following discussion will address how organizations can leverage this knowledge transfer through formal control mechanisms.

2.3 Management Control Systems to Facilitate Exploration & Exploitation

2.3.2 Management Control Systems as a Learning Tool

In complex business environments, new issues arise for corporations. In order to manage these challenges, control systems need to be formalized to provide structure, yet flexible enough to allow for the changes enterprises face (Batac & Carassus, 2009). Kloot (1997) was early to highlight that environmental changes call for organizational learning, transferred and created through control systems. Along with Kloot (1997), Batac & Carassus (2009) demonstrate how control and learning involve similar purposes; both are concerned with an organization's ability to adjust to a changing and dynamic environment. It has been found that formal controls can facilitate this as they have a dual use, not only enabling monitoring of operations, but also creation, assembly and transfer of new knowledge (Kloot, 1997). Tse (2014) state that the contingency for MCS to facilitate learning lies in the degree to which the information transferred is relevant to the affected parties. Consequently, not all control mechanisms implemented by CVC in start-ups may enable learning. Below, the control mechanisms having been identified in previous literature to facilitate learning will be outlined.

2.3.3. Control Mechanisms Facilitating Exploration

Results controls may, if designed properly, induce a "*sense of curiosity and experimentation*" in the organization (Kloot, 1997, p.54). If the control mechanisms question existing goals and objectives, the identification of mismatches can allow the corporation to adopt a broader perspective and consequently lead to innovative solutions (Kloot, 1997). In other words, formal controls might lead to insights as to whether the strategy and structure are inaccurate in the current environment, thereby leading to explorative learning (Kloot, 1997). Similarly, McCarthy & Gordon (2011) give evidence of how control tools that enable the analysis of market trends, such as tracking systems, may lead to a company steering towards a new direction, thereby facilitating exploration. Kloot (1997) argues that the extent to which formal control systems can instigate exploratory learning depends on the degree of collaboration in decision-making processes. As such, action controls through the limitation of decision-making authority may

inhibit exploratory learning. In regards to personnel/cultural controls, it has been found that permissive controls can lead to self- and group monitoring targeted towards explorative behaviour (Kloot, 1997). Consequently, personnel/cultural controls that hone the creative spirit in organizations can increase exploration. Mission statements, core values and flexible job designs may provide support for this environment (McCarthy & Gordon, 2011).

2.3.4 Control Mechanisms Facilitating Exploitation

Results controls associated with traditional accounting systems, such as budgets, usually reinforce existing approaches (Kloot, 1997). Through such controls the firm adheres to current rationales, encouraging a “*sense of clarity and comfort*” (Kloot, 1997, p.54). As an example, Kloot (1997) mentions budget variance information, which is designed to identify and solve problems associated with the “*current operating paradigm*” (p.55). As an effect, results controls could enhance the efficiency of the existing operational practices, leading to exploitative learning. McCarthy & Gordon (2011) give evidence of how “*project milestones that keep investors happy*” (p.250) lead to efficiency and optimization of existing assets, reflecting exploitative learning. The authors also state that employee awards connected to measureable outcomes promote exploitation (McCarthy & Gordon, 2011). Consequently, results controls may induce exploitation, making organizational actors number-focused and conscious about operational efficiency and improvement. McCarthy & Gordon (2011) also demonstrate how code of conducts drives “*risk-averse product development*”, illustrating exploitative learning through the aforementioned control. Thus, action controls, such as capital requirements, code of conducts and policies that drive organizational continuity and focus might facilitate exploitation. Finally, Kloot (1997) highlights that personnel/cultural controls may be used to exploit. For example, centralization of job designs may lead to hierarchical structures, which tend to favour exploitation.

This section has aimed to develop an analytical tool integrating Merchant & Van der Stede's (2007) object-of-control and March's (1991) exploration & exploitation frameworks. The preceding discussion has shown that control mechanisms should not be treated as binary learning tools. Rather, it is the specific formation and application of the controls that drive learning outcomes, rendering most mechanisms as potential promoters of explorative and exploitative learning. As the CVC has a dual focus on finance and strategy, it can be assumed that a combination of various controls, both in formation and application, should be implemented in the start-up. The figure below shows our proposed framework of the type of learning that might be facilitated through specific control mechanisms in the CVC-start-up setting. We use the outlined framework to answer the following, refined, research questions:

How does the MCS implemented in a start-up by a CVC investor facilitate exploratory and exploitative learning?

		<i>Explorative & Exploitative Learning</i>	
		Exploration	Exploitation
<i>Object of Control</i>	Results Controls	Analysis of market environment through for example KPIs (McCarthy & Gordon, 2011)	Traditional accounting systems, budget variance information (Kloot, 1997)
	Action Controls		Code of conduct & limited decision-making authority. (McCarthy & Gordon, 2011; Kloot, 1997).
	Personnel/Culture Controls	Permissive personnel controls, such as mission statements and core values (McCarthy & Gordon, 2011; Kloot, 1997)	Centralization of job design & responsibility (Kloot, 1997)

Figure 1: Analytical framework, based on previous literature, of exploration and exploitation facilitated through control mechanisms

Through this framework we will classify the control mechanisms identified in our empirical setting and outline them according to their effects, if any, on exploratory or exploitative learning. The method by which this is done will be presented in the next section.

3 Method

This chapter contains a motivation and presentation of the research method. In section 3.1, the design of the study is outlined. The data collection process is described in section 3.2, and the data analysis in section 3.3. In the last section, 3.4, the quality of the study, in terms of reliability and validity is discussed.

3.1 Research design

3.1.1 Empirical Method

To examine the MCS implemented by the CVC in the start-up, as well as their application within both firms, we chose to conduct a single case study. Acknowledgement of more tacit and less obvious aspects of the investigated setting was thus enabled (Dyer & Wilkins, 1991). This helped us achieve more detailed insight into the underlying dynamics MCS (Eisenhardt, 1989; Merriam, 1994), which is important when analysing abstract concepts such as learning. As most of the research on the implementation of MCS by CVC in start-ups is in a rather novel stage (Davila et al., 2010), a quantitative approach was discarded (Eisenhardt, 1989). Such studies often rest upon previous qualitative investigations (Hakim, 2000) and mature theory (Edmondson & McManus, 2007).

Whereas the choice of conducting a case study was rather straightforward, the decision of studying one or multiple cases was not as obvious. Advantages of multiple case studies are replication and extension of findings, which are argued to improve their generalizability (Eisenhardt, 1989). In our study, numerous individuals across both organizations were interviewed to gather information to support our analysis on the research topic. As such, to ensure sufficient depth, the setup had to be narrowed down (Yin, 2014), underlying our decision to conduct a single case study.

3.1.2 Research Approach

Following the guidelines of Dubois & Gadde (2002), we have applied an abductive research approach, also referred to as a “systematic approach”. It is characterized by a continuous alternation between theory and empirics (Dubois & Gadde, 2002). This approach is advised by both Dubois & Gadde (2002) and Edmondson & McManus (2007) when the research topic has

previously been little explored. This motivated our choice of an abductive study, as research on MCS in start-ups, in relation to CVC-backed companies is limited. A deductive approach was rejected as it involves empirical testing of a hypothesis based on existing theories (Bryman & Bell, 2007; Edmondson & Gadde, 2002). An alternative, inductive, approach where information is gathered and a suitable theory is searched for in hindsight (Bryman & Bell, 2007) was also rejected. There is indeed some research on the impact of one type of external investors, i.e. VC, on the development of MCS in start-ups. We have turned to the literature for guidance in developing the method as well as preparing interview questions. Both inductive and deductive approaches take a linear process as given (Dubois & Gadde, 2002; Bryman & Bell, 2007), which was not the case in the present study. Instead, there has been a continuously iterative process, changing the focus of the interviews depending on earlier responses. Our first interviews were rather broad and during the course of the study the questions became more and more narrowed. This iterating procedure resulted in interesting findings of, for example, how accounting tools, traditionally viewed as monitoring tools, could facilitate exploitative learning outcomes.

3.1.3 Selection of Case Companies

3.1.3.1 Scope of the Study Created Need for Two Case Companies

We aimed at examining the MCS implemented *by* the CVC *in* the start-up and therefore were not interested in the MCS introduced by the start-up itself. This delimitation was introduced to investigate the control mechanisms implemented by the external investor, and consequently enable comparison to previous literature on VC investors. To get a deeper understanding of the control mechanisms implemented, their role in facilitating learning was also examined. It is important to note that exploration and exploitation can take place both *between* and *within* the organizations. Thus, to answer our research question, two case companies were needed: a CVC investor and its start-up.

3.1.3.2 Criteria Guiding the Selection of Case Companies

There were several characteristics the case companies had to fulfil. It was critical that the CVC could exercise significant control over the start-up. This criterion was considered as the CVC investor had to have the ability to implement MCS in the start-up. Also, for any influence to be evident, the CVC investor needed to have been present in the start-up for more than 6 months. In our choice of start-up, the following characteristics needed to be exhibited by the company: (1) No more than 10 years of legal age, (2) More than 10 employees (Hellmann & Puri, 2002) (3) Fast growth (Granlund & Taipaleenmäki, 2005). As we focus specifically on learning, we chose

to limit the search to start-ups operating in fast-moving industries. Market environments characterized by high degree of uncertainty and rapidly changing technologies and customer demands put stronger pressure on companies to learn in order to survive (Lavie et al., 2010). We therefore believed exploration and exploitation dynamics would be stronger and more emphasized in such setting.

The search for suitable case companies narrowed down to the selection of the CVC investor CorpInvest¹ and its start-up DigiStart². Both are Swedish and operate in the digital entertainment industry. The companies were chosen as both showed interest in the research question and provided access to people at all levels of the organization. CorpInvest is the sole CVC unit of its parent company. Within the unit, the study focused on the department responsible for the investments within DigiStart's industry segment. DigiStart has around 70 employees in five countries and out of these, with close to 50 in Stockholm, Sweden. We chose to focus the study on the Stockholm office of DigiStart. There are several reasons for this. First of all, the headquarters (HQ) of DigiStart as well as CorpInvest's parent company, and CorpInvest itself, are situated in Stockholm. Thus, that is where almost all contact between the two companies takes place. Also, DigiStart's Stockholm office exhibits the highest degree of formalization of systems and routines, as it is the largest and most mature office. This made the office suitable for our study focused on formal control systems. Notably, the study was not limited to a specific sub-unit of the Stockholm office of DigiStart. Instead, we have focused on diverse functions and various levels of the organization as we aim to examine how MCS are used throughout DigiStart and CorpInvest.

3.2 Data collection

3.2.1 Primary Data

The primary data of this study was in-depth qualitative interviews. Qualitative interviews are recommended by Edmondson & McManus (2007) when prior research in the area is nascent. In total, 20 interviews were conducted, 19 with employees of DigiStart and CorpInvest and one with a third-party expert within CVC investments. The interviews lasted between 30 and 70 minutes,

¹ The case company has been anonymized throughout the study

² The case company has been anonymized throughout the study

averaging around 55 minutes. Seventeen interviews were held between March and May 2016. Three pre-study interviews were conducted in December 2015, which formed the basis for the selection of the research topic. Interviewees constituted both top management and other employees at both CorpInvest and DigiStart. This enabled us to access perspectives of people responsible for deciding on the implementation of control mechanisms as well as those using them in daily operations. It also allowed for the examination of how the control mechanisms brought about learning. Specifically, whether learning was associated with the *process* behind the implementation of the controls, or the *usage*.

A semi-structured method was used for the qualitative interviews. This approach allowed us to design the interviews through predetermined questions, while at the same time enable further development of topics during the interviews (Merriam, 1994). In all interviews but one, both authors were present. One was responsible for leading the interviews and the other for taking notes and asking follow-up questions as recommended by Eisenhardt & Bourgeois (1988). In addition to modifying the questions in real time, the predetermined questions based on our framework were also revised throughout the data collection process as new insights arose requiring further elaboration (Merriam, 1994). All interviews were recorded and later transcribed with the permission of the interviewees. They were informed about their anonymity to make them feel more comfortable and allow an open discussion.

The initial interview guide was adapted to the interviewees' line of business and organizational level. The semi-structured approach allowed us to revise the questions according to the interviewees' background, function and responsibility. The questions directed to top management emphasized strategic topics while those to other levels of the organization had a more operational weight. Even though the topic emphasized changed, similar questions were asked to several people in order to gather data from multiple sources, thereby gaining different perspectives on the same topics.

Contact was established with key people within both DigiStart and CorpInvest whom facilitated access to employees for interviews. In total 12 interviews were conducted with 10 people at DigiStart, out of which five are part of the management team. At CorpInvest, seven interviews were held with six people: one belongs to the management team, two work as support staff, two are the portfolio managers currently responsible for the investments in DigiStart's industry segment, while the last person previously responsible for DigiStart currently holds the role of

Head of Investments within CorpInvest. All interviews except two were conducted face-to-face at the office of the interviewee. Two interviews were held over telephone. Depending on the background of the respondents, the interviews were either held in Swedish or English.

3.2.1 Secondary data

Triangulation was achieved through collection of complementary data such as internal and external documents as recommended by Edmondson & McManus (2007) & Dubois & Gadde (2002). Public annual reports as well as internal documents such as monthly reports, budgets, organizational charts and accounting information were collected after the interviews. These documents served as a platform for questions in the subsequent interviews and as a support for the discussion of the findings.

3.3 Data analysis

As an abductive method was used, data collection and analysis took place simultaneously. Thus, through data analysis, new topics were identified, and data collection could be adapted accordingly, which in turn contributed to new data to be analysed. This process was iterative throughout the study.

After each interview, key findings were noted and discussed, as suggested by Eisenhardt (1989). At first, each interview was analysed on an individual basis, which enabled coding of the responses. Data was coded into themes based on our analytical framework. We characterized control mechanisms into ‘results’, ‘action’, ‘personnel/cultural’ and analysed their effect on learning, if any, as ‘exploration’, ‘exploitation’, for both case companies. These were then subgrouped with findings from other interviews and summarized to get a clearer overview. Subsequently, the empirics were compared with previous research on the same topic to identify similarities and differences.

3.4 Research quality

3.4.1 Reliability

Reliability is a measure of the consistency of the research procedures and the repeatability of the study (Merriam, 1994; Yin, 2014). To facilitate for future researchers to replicate our study, we have recorded and transcribed all interviews. Information regarding position of interviewees as well as date and duration of the interviews is available in Appendix 9.2. Nevertheless, in order to ensure the anonymity of respondents, their titles have been broadly defined. Triangulation through use of multiple sources of data was another method used to increase the reliability of the present study. However, there are some challenges in achieving reliability inherent in the chosen method of study. First of all, the use of interviews as a means to collect data can negatively impact the reliability due to the changing nature of human behaviour. It could result in the interviewees responding differently in different points in time (Merriam, 1994). The rapidly changing organizational environments and market dynamics of both DigiStart and CorpInvest could also cause different results if the study was replicated in another point of time. Lastly, the qualitative analysis and interpretation of the interviews is inherently subjective (Merriam, 1994) which negatively affects the possibility to replicate the study with regard to results and conclusions.

3.4.1 Validity

The validity of the study is determined by the degree to which the research results reflect reality (Merriam, 1994; Yin, 2014). Validity can be characterized as internal and external. Internal validity is concerned with the researchers' interpretations of the results. Subjective interpretation is however unavoidable in, and to some degree the purpose of, qualitative research (Merriam, 1994). Yet, measures were taken to enhance the internal validity of the study. Similar questions were asked in both organizations to permit a nuanced perspective on the controls implemented. Within the organizations, we also interviewed employees representing different functions to reduce the risk of having a "function-specific" point of view. We individually analysed the findings of each interview and later discussed the interpretations. It should be noted that Yin (2014), as opposed to Merriam (1994), mainly attributes issues of internal validity to explanatory or causal studies, which aim to establish a causal relationship. As the nature of the present study is exploratory, risks of reduced internal validity should not be regarded as a major threat to study quality.

External validity concerns the generalizability of the study's results (Merriam, 1994; Yin, 2014). Given the selected single case-study method, external validity is difficult to attain as it is based upon an in-depth examination of one specific case. The choice of a case study approach rests upon an aim to dig deeply into a specific situation, not to examine whether something can be generally applied (Merriam, 1994). The relative modernity of the DigiStart's industry makes it difficult to predict if the empirical findings are exclusive to our case or not. Hence, the chosen method is associated with limitations of the external validity.

The application of established frameworks, i.e. Merchant & Van der Stede (2007) and March (1991), as guidelines in the analysis process could be argued to somewhat increase the generalizability. We have also attempted to provide a detailed description of the case companies and the empirics in the next chapter to facilitate for the reader to judge whether the findings of this study can be generalized or not.

4 Findings

In this chapter, we present our empirics. In section 4.1, the case companies are introduced. Through the use of the analytical framework, we describe our findings in section 4.2. First we classify the control mechanisms identified, and then discuss their corresponding effects on learning.

4.1 Company Descriptions

4.1.1 CorpInvest

CorpInvest is the CVC unit of one of Sweden's largest entertainment companies. The unit was formed in 2013 with the purpose of finding and developing digital entertainment products complementing the parent company's portfolio and to discover new concepts³. CorpInvest's parent company employs around 4,000 people and is publicly listed. The parent company's core business has been suffering from declining growth and shrinking margins for many years. As an effect of the poor performance, there was recently a large restructuring of the organization. Several hundred people were laid-off while the parent company continued to allocate more capital to CorpInvest for investments. CorpInvest's portfolio companies' importance have been clearly highlighted in most external communications lately, as they appeared to be viewed by the top managers of the parent company as the drivers of long-term shareholder value.

In total, CorpInvest has 15 employees. As can be seen in Figure 2, the investments are divided into two industry segments employing all together eight people. There are two portfolio companies within each segment, with one portfolio manager responsible for each start-up. The CVC also has a team responsible for executing the investments, as well as its own CEO and CFO. Nonetheless, it is an integrated part of the parent company. CorpInvest is located in the same building as the parent company and they share several support functions, such as Finance, HR, Strategy and Legal. In addition, the CEO of CorpInvest is a member of the management team of the parent company. All investments of CorpInvest in the form of stock purchases have to be approved by the Board of Directors of the parent company, no matter the size. For other types of capital expenditures, there is a threshold-level up to which CorpInvest can make its own

³ [Parent company] website 2016

investment decisions. Nonetheless, CorpInvest has been given clear guidelines from the parent company regarding which areas to look for opportunities in. CorpInvest is not designed as a fund structure, rather, the parent company “earmarks” capital for it to invest.

In 2013, CorpInvest acquired a minority stake in DigiStart. By that time, DigiStart consisted of five people. Everyone was involved in all parts of the operations and there were no formal control systems in place. A little more than one year later, an additional stake was acquired, with CorpInvest’s share totalling less than 50% of DigiStart. A majority stake was subsequently acquired in the first half of 2015.

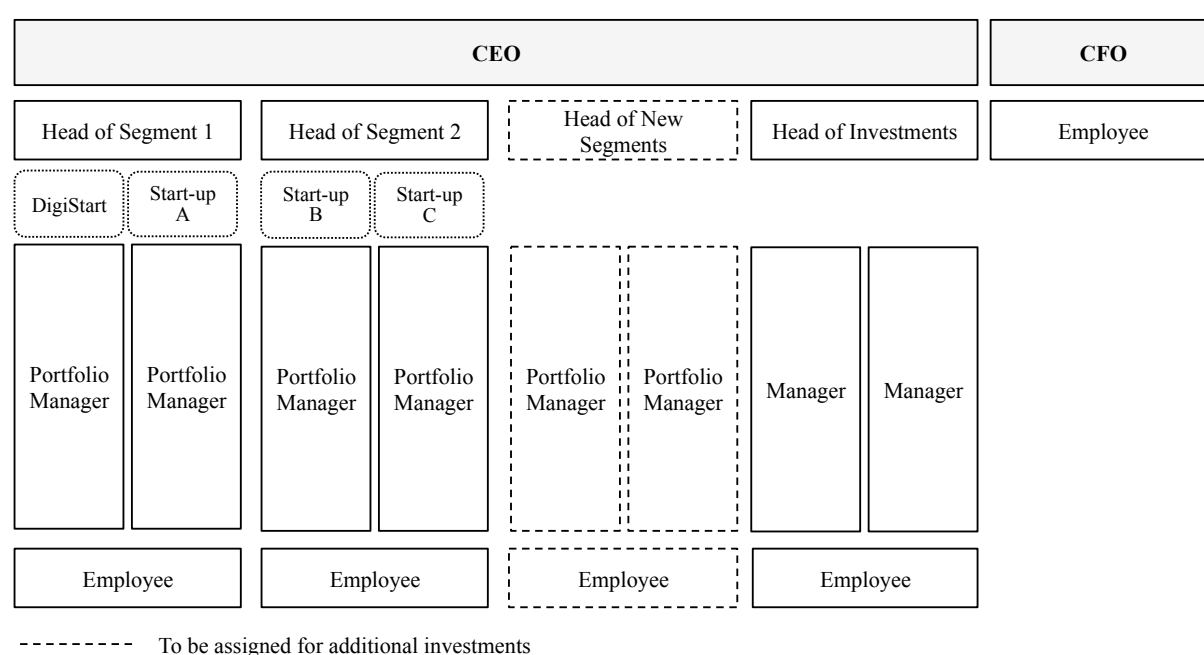


Figure 2: Schematic overview of CorpInvest organization

4.1.2 DigiStart

DigiStart is a Swedish start-up founded in 2012 that operates in the digital entertainment industry. It is headquartered in Stockholm and has offices in five countries. The four founders still hold operational positions in the firm, one currently as DigiStart’s CEO. In total, there are around 70 employees out of which a clear majority is seated in Stockholm. DigiStart has expanded rapidly over the past years and exhibited a growth rate of around 150% last year, from double-digit figures (million SEK). DigiStart has a matrix organisation consisting of both country and product managers, as seen in Figure 3. Currently, DigiStart has four product managers and six country managers, including the CEO who is responsible for the international business.

DigiStart was the first company of its kind in Sweden, although firms with similar business models can be found around the world. DigiStart targets millennials, i.e. people born around year 2000. This customer group is increasingly hard to reach for traditional entertainment companies as they consume content in a new, “digital”, manner. DigiStart creates content and ad campaigns directed towards this teen group. Over time, the start-up has broadened its product portfolio from an original focus on a single platform to becoming what they define as a “one-stop-shop” for digital entertainment.

DigiStart has developed quickly since it was founded, with regards to both size and products. It is important for DigiStart to remain agile and reactive to the market. A member of the management team explains the company’s dynamic approach: *“Our product follows the digital consumption. We do not put a product in the hands of our users, we take what people are using right now”* (Management Team Member 1 DigiStart, 14.12.2015). The market for DigiStart is constantly developing, and its products along with it. DigiStart drives many of the developments within the market as it is the dominant actor in the field and its industry segment is newly established.

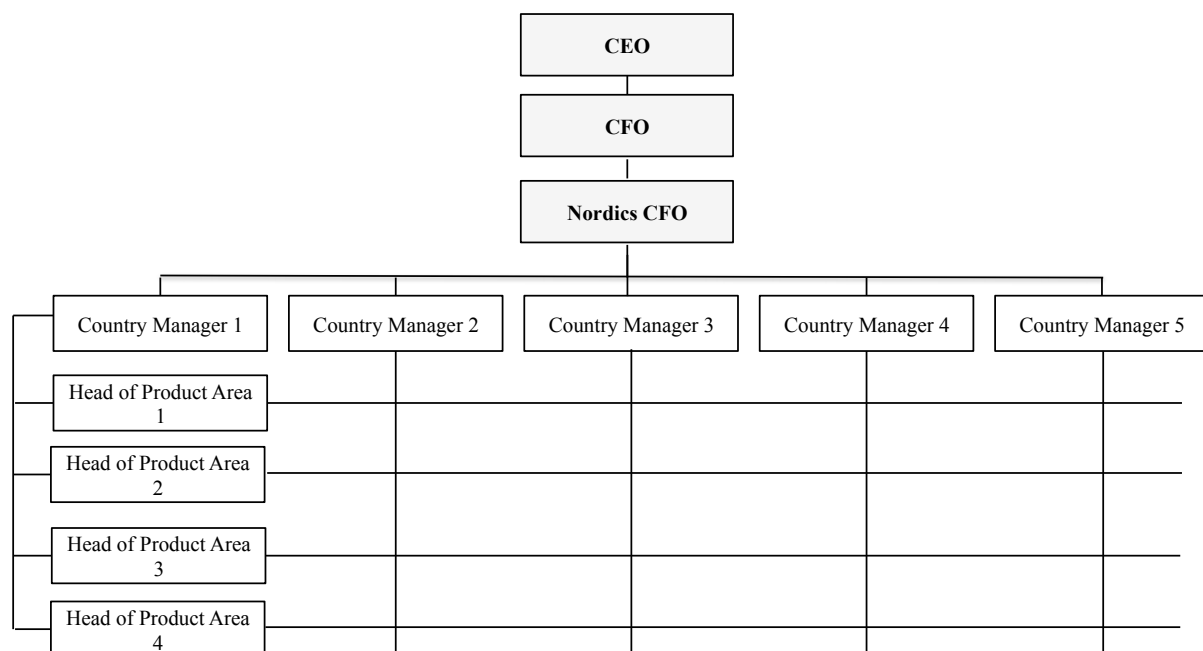


Figure 3: Schematic overview of DigiStart organization

4.2 The Formation and Application of Management Control Systems

Object of Control	Exploration		Exploitation	
	DigiStart	CorpInvest	DigiStart	CorpInvest
Results Controls				
Budget	—	—	✓	—
<ul style="list-style-type: none"> - <i>One-year budget</i> Updated for: <ul style="list-style-type: none"> <i>Three coming quarters</i> <i>Two coming quarters</i> <i>One coming quarter</i> - <i>Monthly prognosis for current quarter</i> 				
Five-year plan	—	✓	—	—
Monthly KPIs	—	✓	✓	—
Incentive System	—	—	✓	—
<ul style="list-style-type: none"> - <i>Management Incentive Program</i> - <i>Employee compensation scheme</i> 				
Financial Statements				
<ul style="list-style-type: none"> - <i>Monthly income statement & balance sheet</i> - <i>Quarterly capital expenditure report</i> - <i>Quarterly working capital report</i> 	—	—	—	—
Monthly CEO report to Parent Company	—	✓	✓	—
<ul style="list-style-type: none"> - <i>Income statement & Capital expenditure</i> - <i>KPIs</i> 				
Group accounting consolidation system	—	—	—	—
Action Controls				
Board of Directors	—	—	✓	—
<ul style="list-style-type: none"> - <i>Capital expenditure approval</i> - <i>Budget approval</i> - <i>Strategic change approval</i> 				
Business Case Review	—	—	✓	—
Reporting Requirements	—	—	—	—
<ul style="list-style-type: none"> - <i>Quarterly financial statements</i> - <i>Reporting deadlines</i> 				
Company Policies				
<ul style="list-style-type: none"> - <i>Anti-bribery</i> - <i>“Green initiative”</i> - <i>Reduction of CO₂ emission</i> 	—	—	—	—
Personnel/Cultural Controls				
Selection & Placement	—	—	✓	—
<ul style="list-style-type: none"> - <i>Suggestions of recruitments</i> 				

Figure 4: Findings overview of control mechanisms and their learning outcomes

In the following section, the formation and application of the control mechanisms implemented by CorpInvest in DigiStart will be presented, with a subsequent examination of their impact on learning. In Figure 4, above, all control mechanisms identified in the study are shown, with their corresponding effect on exploitative and exploratory learning for both organizations. Notably, not all control mechanisms will be discussed in depth. Instead, focus will be on the control mechanisms most frequently referred to and perceived as most important by CorpInvest and DigiStart.

4.2.1 Results Controls

4.2.1.1 Budget

“CorpInvest values success by how well we perform compared to the budget” (Management Team Member 1 DigiStart, 03.03.2016).

One of the most important control mechanisms used by CorpInvest is the budget. It involves a number of reports for DigiStart to develop and update on a continuing basis. This control mechanism became increasingly important for CorpInvest following its majority stake: *“We did not really care about it [the budget] when we had a minority stake. Now it [budget reporting] is every month!”* (Head of Investments CorpInvest, 14.12.2015). Increased attention to the budget was also noted in DigiStart: *“There was no comprehensive budget [before CorpInvest’s majority stake], no figures that showed how you arrived at a specific number in the budget. No breakdown”* (Middle Manager 1 DigiStart, 29.03.2016).

The development process of the yearly budget starts in August of each year. As a first step, DigiStart outlines its market projection and accompanying goals for the coming year. The budget is then elaborated on during autumn and revised through discussions between DigiStart and CorpInvest. Indirectly, CorpInvest’s parent company is highly involved in this process. Every year, it sets clear targets for CorpInvest’s portfolio: *“[The CEO of CorpInvest] has been delegated targets from above regarding a certain turnover or EBIT. [The CEO] then calibrates the [budget items of the] companies within the portfolio to ensure attainment of what has been overall undertaken”* (Portfolio Manager 2 CorpInvest, 03.05.2016). Thus, portfolio companies are assigned stretched budget targets to ensure that the overall portfolio targets can be reached. CorpInvest’s CEO may require several adjustments before accepting a budget to be presented to the parent company: *“There has never been a budget approved right away. There are always*

adjustments” (Head of Investments CorpInvest, 11.03.2016). In the final step, the CEO and CFO of the parent company approve the budget. As the parent company is responsible for the final decision of the budget, it can also affect its content directly by requiring specific amendments before approval. After the budget has been settled for the year, DigiStart reports monthly figures and accompanying comments on how the current quarter is developing, explaining any deviations from the budget. Notably, while the parent company receives monthly reports, the quarterly figures are of particular importance as these are reported to the market: *“If you underperform in January, but overperform in February, so that you are overall in line over the quarter, [the parent company] does not care. But you have to be able to show in January that you actually will overperform in February, otherwise there will be a discussion”* (Employee 1 CorpInvest, 03.03.2016).

The perception of the role of the budget is not the same across both organizations. CorpInvest claims that it provides structure and a financial mind-set in DigiStart: *“[The budget] it provides structure and focus. ... They just want to grow and think about that. We need to make them understand that it might not be the case, and you might not reach a budget target”* (Employee 2 CorpInvest, 08.03.2016). The start-up has a more nuanced view. While some people at DigiStart do indeed see the budget as a good way to implement structure and keep track of how the company is performing, others argue that an emphasis of the budget may be hazardous. It is argued to hamper the flexibility of DigiStart and impose a corporate environment: *“The budget process makes us understand how it [the budget] works, which is good, but it also makes us less flexible [to changing market conditions]. It becomes very much a corporate mind-set”* (Management Team Member 3 DigiStart, 07.04.2016).

Exploitative Learning Through the Budget

“There is a risk that we take on certain jobs only to keep the revenues up instead of those that might not contribute as much to the budget but that we believe would drive the company forward in the long term” (Management Team Member 5 DigiStart, 25.04.2016).

The budgetary control mechanism develops an exploitative learning in DigiStart caused by its rigidity and short-termism: *“If I do not want to pursue something, I might have to do it anyway. For example, if a sales target for [product x] has been set by CorpInvest in the budget, I have no choice but to find a way to sell that product. [CorpInvest] does not consider changes in the market and the need to switch focus”* (Management Team Member 1 DigiStart, 14.12.2016). The

inflexibility of the budget in combination with the extensive processes of developing it influences top management's way of thinking in DigiStart: *"It [the budget] can also impede us a little. When we take certain decisions, people [in DigiStart's management] sometimes question them and ask 'But why are we doing it like this? CorpInvest wants us to do it differently!'* Then I try to tell them *'We decide ourselves, never mind CorpInvest!'* It [the budget] is very deeply rooted in people and I think it is from the budget process. It has become too much work, and once the budget has been submitted, we need to live up to it" (Management Team Member 5 DigiStart, 25.04.2016).

The budget limits DigiStart's search for new opportunities. It causes the organization to reduce innovation and instead increase utilization of the existing product portfolio: *"It [the budget] has definitely made us focus more on what we can sell right now, as opposed to how we can develop a new product"* (Employee 1 DigiStart, 22.04.2016). The perception of the budget as an obstacle to new long-term development is further echoed: *"Maybe we take a lot of the 'bread and butter' jobs only for it to look nice in the accounts. Then there is a risk that we do not develop fast enough and become surpassed by someone newer, smarter and quicker"* (Management Team Member 5 DigiStart, 25.04.2016). However, the benefits of the exploitative learning through the budget are also noted: *"When I taught the country managers how a budget works and explained the targets which they were measured upon, they became very pleased. They particularly appreciated the fact that they now understood what exactly needed to be done and as long as they reached the expressed EBIT-goal, they had freedom in their work"* (Management Team Member 2 DigiStart, 29.03.2016).

4.2.1.2 Five-Year Plan

"In terms of follow-up, we have the five-year plan. It is set each year in May and then when the budget is due in the autumn, it is compared to the five-year plan" (Employee 1 CorpInvest, 03.03.2016).

The five-year plan implemented by CorpInvest is basically a long-term budget. It is important to note that the five-year plan is an initiative by the parent company. Although it is imposed by CorpInvest on DigiStart, it is not implemented on the advice of the portfolio managers. Nonetheless, it is used as a benchmark for the yearly budget to keep DigiStart focused on the long-term plans and not divert from core operations. The relationship between the five-year plan and the budget is explained: *"At one point we felt understaffed and as a consequence accounted*

for recruitments in the budget. However, CorpInvest said that it was not in congruence with the profit level in the five-year plan, so we had to decrease our proposed expenditure, and cut the headcount” (Middle Manager 1 DigiStart, 29.03.2016).

The usefulness of the five-year plan is questioned by DigiStart, given the rapid market dynamics: *“I think it is extremely difficult [to make a five-year plan], when we cannot even foresee what will happen in the next six months. Also, it is difficult to answer when they [CorpInvest] ask ‘Why did this not happen?’ as everything is moving so fast”* (Employee 2 DigiStart, 08.03.2016). While the view on the control mechanism is disconcerting to employees of DigiStart, the problems with the five-year plan are also acknowledged by people at CorpInvest: *“It is pretty easy to see that all start-ups cannot do this [five-year plan]. It has almost been ludicrous when you have made a five-year plan and realize that the actual outcome was completely different six months later”* (Employee 2 CorpInvest, 03.03.2016). The implementation of the five-year plan, despite being questioned by both DigiStart and CorpInvest, may be explained by the parent company requiring this specific control mechanism in all of its business units.

Five-Year Plan Contributes to One-Sided Exploratory Learning

”The financial five-year plan looks good from the outside, but it is less about how much we are going to sell in x years, and more about how we are going to develop the company to be in the position we want in five years’ time” (Head of Investments CorpInvest, 04.12.2015).

The five-year plan, as described above, according to CorpInvest, should facilitate search for new opportunities. It is used for strategic purposes rather than financial. The five-year plan raises questions and introduces search initiatives to tackle future challenges. While it is used to facilitate exploratory learning at CorpInvest, it does not serve the same purpose in DigiStart where it appears not to have any effect on learning. On the question concerning how DigiStart uses the five-year plan, it is put eloquently: *“Of course we fill in the numbers. But it is more for the show, since, really, you have no idea [of how the market will develop]”* (Management Team Member 3, DigiStart. 07.04.2016).

4.2.1.3 Key Performance Indicators

"We send the same KPIs to CorpInvest [as used internally]. ... It is how we ourselves monitor the business" (Middle Manager 1 DigiStart, 29.03.2016).

The Key Performance Indicators (KPI) comprise another important component of results controls at DigiStart. The development of the KPIs was partly collaborative as DigiStart was given the opportunity to influence the measures to be reported to CorpInvest. The process is described from the perspective of CorpInvest: *"We started the KPI process by suggesting [to DigiStart] which measures to use. But the discussion with DigiStart was key, both in order for us to understand what actually drives the company, but also so they would buy in to the KPIs"* (Head of Investments CorpInvest, 11.03.2016). Some KPIs are common among all CorpInvest's portfolio companies and have been implemented regardless of DigiStart's opinion. The majority of the KPIs used are related to the specific industry in which DigiStart operates, the most important being "view count", "number of [product]", "views/[product]" and "number of channels". The KPIs form a set of clear and understandable goals for DigiStart, considering their operational nature, thereby making the KPIs widely used: *"Every country-manager and production manager have their own KPI reports now with clear goals. It enables them to break down the activities and only focus on the stuff they are familiar with. That way they can be less bothered with the more high-level financial budget"* (Middle Manager 1 DigiStart, 29.03.2016). KPIs have always been a priority for DigiStart. Yet, it is not until now they have been formalised: *"It has always been that way – that we, for example, look at specific view count figures. It has become more formalized now, and everyone has a clear goal they work towards"* (Middle Manager 1 DigiStart, 29.03.2016).

Key Performance Indicators Lead to Multiple Learning Outcomes

"The KPIs are a manual for strategic planning" (Portfolio Manager 1 CorpInvest, 09.03.2016).

People at CorpInvest are explicit about the impact of KPIs on learning; *"If you see a trend in KPIs concerning CPM⁴ for example, you can then take a decision whether we should decrease our dependence on CPM revenue streams also in our other investments"* (Portfolio Manager 1 CorpInvest, 09.03.2016). The ability to search and discover new possibilities through the KPIs facilitates explorative learning, which is further described: *"In my mind, the KPIs enable you to*

⁴ [Cost Per Mille, an advertisement metric of the cost of showing an ad to 1000 viewers]: Fain, D. C. and Pedersen, J. O. (2006), *Sponsored search: A brief history*. *Bulletin of the American Society for Information Science and Technology* 32: 12–13.

ask core strategic questions, concerning for example whether we are in the correct segment, or if we need to be somewhere else” (Portfolio Manager 1 CorpInvest, 03.03.2016). When asked about what metrics they usually focus on, an employee at CorpInvest again brings forth the exploratory value of KPIs: “Obviously we look at the [financial] results, but also the KPIs. They build an understanding of the market. ... The “soft measures” are important; you want to be able to see what the next step is” (Employee 1 CorpInvest, 03.03.2016). DigiStart did not mention any exploratory learning enabled through the KPIs. It did however speak of exploitative learning achieved by the KPIs: “When we saw a negative trend in the CPM levels on the ads, we quickly intervened. We changed the prognosis for the specific product and changed focus to one of our other product to reach our overall sales target. This would never have been spotted by just using the budget” (Management Team Member 2 DigiStart, 29.03.2016).

4.2.1.4 Incentive System

“If you have a bonus-coupled salary, you will see a completely different engagement” (Management Team Member 2 DigiStart, 29.03.2016).

Before CorpInvest became majority owners, there were already incentive systems put in place for key personnel in DigiStart. However, these were loosely coupled with operations and not fully understood by the recipients. Following the majority investment, an initiative was taken by CorpInvest to thoroughly overhaul the incentive system. One of the initial concerns of CorpInvest was that the junior personnel had become too reliant on the management team for directives. This prompted a change of the compensation structure, to better define and promote responsibility among middle management. The incentive system is now separated by country, area of responsibility and product area. There are three reward levels associated with employee performance. At the end of the year, each employee receive a bonus related to the level reached. The clear link between performance and rewards enables a greater impact on their own compensation: *“They [the employees] now have a whole other opportunity to influence how well they are compensated” (Management Team Member 2 DigiStart, 29.03.2016).*

Key management personnel have its own earn-out based incentive plan, referred to as the “MIP” (Management Incentive Program). The earn-out structure has a vesting period of five years to keep these people in the firm. Its workings are described from the perspective of CorpInvest: *“If you stay until 2020 you get X amount of money. Obviously you would not leave before” (Employee 2 CorpInvest, 07.04.2015).* The MIP is based on a sales- and EBIT-multiple for the

whole organization [DigiStart] to motivate key management personnel to focus on driving the company forward.

Exploitative Learning Rewarded Through Incentive System

“Before it was like ‘I got some kind of bonus, but I do not know why’. ... Now it is ‘These are your goals, and this is the compensation connected [with their fulfilment]’” (Management Team Member 2 DigiStart, 29.03.2016).

As was explained above, the newly formed bonus system for lower level employees was met by considerable appreciation. It enables the employees in DigiStart to target their efforts towards the bonus-related goals, resulting in more focused actions. While increasing efficiency of operations, thereby promoting exploitative learning, some raised concerns about the recent development of the incentive systems: *“For those who just have a nice bonus at the end of the year it might be difficult to think about the bigger picture instead of their own winnings”* (Management Team Member 3 DigiStart, 07.04.2016). Similarly, the MIP also drives exploitation for top management in DigiStart, through focusing attention to sales- and EBIT-targets in the near future: *“The earn-out obviously drives the focus towards how much we sell and how profitable we are”* (Management Team Member 3 DigiStart, 07.04.2016). This limits the top management’s efforts to search for returns realized farther in the future.

4.2.2 Action Controls

4.2.2.1 Board of Directors & Business Case Reviews

Board of Directors

“During the past six months, a greater presence of [CorpInvest’s parent company] has been noted. Since the majority acquisition, we have people from [the parent company] in our Board of Directors” (Member of Management Team 1 DigiStart, 14.12.2015).

Following the majority stake, several people of the parent company and CorpInvest took seats on the Board of Directors of DigiStart. The Executive Chairman, acting as the advisor to the CEO of the parent company, as well as the CEO of CorpInvest, both members of the management team of the parent company, and the Portfolio Manager of DigiStart were assigned seats. The board meeting became more formalized: *“We did not have formal board meetings before, it is probably a result of its [the parent company] inquiries. Before, we only had informal business reviews”*

(Portfolio Manager 2 CorpInvest, 03.05.2016). Following these changes, the decision making authority of DigiStart was effectively reduced. Constraints were introduced regarding the actions DigiStart can take without the approval of its Board of Directors or shareholders at the Annual Meeting: *“The CEO [of DigiStart] can make decisions regarding ongoing management measures up to a certain amount [2 MSEK]. If that amount is surpassed, the Board of Directors [of DigiStart] might make the decision. In some cases, it might be decided at the Annual Meetings”* (Head of Investments CorpInvest, 04.12.2015). In essence, it is the parent company of CorpInvest that decides in these situations: *“By referring to ‘Board of Directors of DigiStart’, or ‘shareholders at the Annual Meeting’, one effectively means the parent company”* (Head of Investments CorpInvest, 04.12.2015). Hence, CorpInvest also has limited authority in these matters. The fact that it effectively is the parent company that has the final decision in such questions is further highlighted: *“Whether we want to ask for more capital or change the strategy and/or the management of the portfolio firms, the final approval is always up to the parent company”* (Management Member 1 CorpInvest, 26.04.2016).

Business Case Reviews

“A goal without a plan is just a wish” (Member of CorpInvest Board of Directors, cited by Head of Investments CorpInvest, 04.12.2015).

Before anything is taken to the Board of Directors of DigiStart, DigiStart needs to present business cases outlining the proposed actions to CorpInvest. This control mechanism, implemented by CorpInvest, serves to force DigiStart to clearly concretize its intentions. DigiStart’s decision-making authority is further limited by the need for approval from an additional instance, aside from its board. This has caused DigiStart to become more data driven: *“Before, things were more based on gut feeling, like ‘Yes, let’s do this! We believe in it!’ Now it is more about creating business cases on all kinds of thoughts and ideas”* (Middle Manager, 29.03.2016). This development has been a goal of CorpInvest: *“What we try to achieve is that, if you for example are going to start selling a specific ad format, you need to tell beforehand how much you are going to sell”* (Head of Investments CorpInvest, 04.12.2016).

A concern within DigiStart regarding the board approvals and business case reviews is the speed: *“When you are a start-up, you are used to a fast pace and executing on whatever you want, but now we have to wait X months before we have a clear go-ahead. ... New competitors enter the market every day, so every day [that passes waiting for CorpInvest’s approval] is a lost day. We*

want to execute but we do not have the mandate to do so” (Middle Manager 1 DigiStart, 29.03.2016). Major strategic changes can take time: *“If [DigiStart] wants to pursue a new strategic initiative it needs to present business cases showing how the market has changed and that the current product is no longer suitable. It first needs to be signed-off by [CorpInvest] before being presented to the Board of Directors”* (Portfolio Manager 2 CorpInvest, 03.05.2016). Since the board of DigiStart only meets four times per year, the process can be quite cumbersome. This problem is acknowledged also within CorpInvest, but seen as inevitable: *“We are a corporation, and we have to do things in a certain way. The reviews they have to do of course take a lot of time, but it helps them in the end”* (Employee 2 CorpInvest, 07.04.2016).

Exploitative learning Through Business Case Reviews

The change in DigiStart’s board composition leads to DigiStart having to formulate business cases to CorpInvest, which acts as a filter to the board. This facilitates exploitative learning within DigiStart as it effectively forces the organization to make choices. DigiStart needs to carefully select which cases to present to CorpInvest. The development of businesses cases is time consuming, and the decision making process at CorpInvest is extensive. Within DigiStart, *“...the aspect of time is crucial”* (Management Team Member 1 DigiStart, 14.12.2016). Only cases that have been given due consideration and those likely to be approved will be presented. Yet, not all business cases are approved by CorpInvest: *“When we reject a business case, it is often because we do not believe that the actions presented are the right things to do from a strategic and long-term perspective. If such is the case, we let DigiStart know”* (Head of Investments CorpInvest, 04.12.2016). CorpInvest claims that business cases are often rejected due to lack of long-term perspective. Yet, DigiStart appears to have a different opinion. Before CorpInvest became majority owner, DigiStart had begun to develop a new product. A member of the management team describes the process as being smooth because of CorpInvest’s non-involvement: *“It was a continuous investment and in case we needed more money, we just allocated more money to the process and advanced the development. The product has yielded zero return today. If we were to do the same thing today with CorpInvest, they would require it to make money the same day it was launched”* (Management Team Member 1, 14.12.2016). Thus, the highly selective decision-making process causes DigiStart to present business cases focusing on low risk and short-term projects, further enforcing exploitative behaviour.

4.2.2.2 Reporting Requirements

“I mainly notice the presence of CorpInvest by the fact that a lot of numbers have to be reported, much faster than before” (Middle Manager 2 DigiStart, 20.04.2016).

By the introduction of detailed reporting requirements and strict deadlines, CorpInvest guides the behaviour of DigiStart in a direct and concrete manner. Many regulations regarding financial reporting are imposed on DigiStart, as it is now effectively part of CorpInvest’s parent company, which is listed on the stock exchange. Since the requirements are caused by factors outside CorpInvest’s control, i.e. due to market regulations, CorpInvest does not regard them as a control mechanism: *“The financial reporting is not really a way of controlling, it is a must. Since [CorpInvest’s parent company] is a publicly listed company, DigiStart has to deliver financial statements every month”* (Head of Investments CorpInvest, 04.12.2015).

The change in the level of detail required in the financial information and the speed of which it has to be reported are noted by employees at DigiStart: *“Before we were majority owned by CorpInvest, we only reported quarterly figures to their finance department and there was a quarterly lag in the reporting. Q1 was reported in the end of Q2, so we got a lot more time than we do now”* (Middle Manager 1 DigiStart, 29.03.2016). According to an employee at DigiStart, they have been given reporting deadlines for the full financial year. Even though the deadlines are tight, there is a general understanding for the need to have it that way: *“There are so many companies within [CorpInvest’s parent company] that have to report, so there has to be strict deadlines”* (Employee 2 DigiStart, 08.03.2016).

Reporting Requirements Do Not Lead to Learning

By imposing rigid reporting requirements, CorpInvest largely affects DigiStart’s ways of working. Yet, there does not appear to be any learning evolving from these. The process of preparing the financial statements is not seen by any of the organizations to have a higher purpose than to comply with market regulations. Both DigiStart and CorpInvest are aware that the financial reporting needs to be done, on time. CorpInvest also realizes that the information requirements may be extensive: *“[DigiStart] often becomes overwhelmed by the information needed. Maybe the information requirements of a public company are too much compared to where [DigiStart] is today”* (Head of Investments CorpInvest, 04.12.2016).

By having made the requirements clear from the start, CorpInvest has averted any questioning from DigiStart in these matters: *“We have been very clear with the reporting requirements from the beginning. It is a must and they know it”* (Head of Investments CorpInvest, 04.12.2015).

4.2.2.3 Company Policies

Following the acquisition of the majority stake, DigiStart needed to adopt the parent company's policies. These involve guidance on how to act regarding anti-bribery, environmental “green initiatives” and reduction of CO₂ emissions. The initiative did not originate from CorpInvest but rather from the parent company. CorpInvest was only responsible for implementing the policies. Their compliance is given little attention: *“We have to educate them [Digistart] on these [policies], and then ask them to sign off on them. From then on it is their responsibility to care for them, we do not really monitor it”* (Employee 2 CorpInvest, 07.04.2016). The policies have to be implemented in all the holdings of the parent company, regardless of their relevance to the individual organization: *“Introducing these kinds of things is of course always a hassle, because employees of start-ups do not see the need of having a compliance workshop on anti-bribery laws”* (Employee 2 CorpInvest, 07.04.2016). The difficulty in implementing what is requested by the parent company, but not deemed necessary by DigiStart, is further exemplified: *“I usually feel like Tom Cruise in Mission Impossible, that is like my daily job. ... On one hand, there are the entrepreneurs. They want us to support them but at the same time let them be. On the other hand, there is the corporate world. [The parent company] wants to control and bring them [the portfolio firms] into its thinking, processes, timelines and everything. You cannot do either or”* (Management Team Member 1 CorpInvest, 26.04.2016).

Company Policies Not Anchored in Operations Have No Effect On Learning

The attitude from both DigiStart and CorpInvest regarding the policies is that they might be redundant for the stage DigiStart is currently at. This might explain why neither company expresses any type of learning gained from the specific action control: *“All these policies they have to follow, like compliance, take time from [operational] things they [DigiStart] could do. They are like ‘I do not care that much about bribery, I just want this person for one of my videos.’ Well, you cannot do certain things when you work with [CorpInvest's parent company]. ... And I guess these processes slow them down”* (Employee 2 CorpInvest, 07.04.2016). The introduction of the policies appears to be aimed at protecting the parent company rather than providing any benefit for DigiStart: *“Even if they [DigiStart] did it [not comply with the*

policies], it is [CorpInvest's parent company] that gets into trouble" (Employee 2 CorpInvest, 07.04.2016).

4.2.3 Personnel/Cultural Controls

4.2.3.1 Suggestion of Recruitment

"They [CorpInvest] have not imposed their values on us. We do not share a mission statement; they have not implemented any such controls" (Employee 3 DigiStart, 21.04.2016).

The culture at DigiStart is one where everyone feels like they are at the front-line of the industry. This instills a deep sense of pride across the start-up: *"People are crazy [positive tone]. It is an awesome environment; kind of avant-garde. Culturally it is really contagious to be at the cutting-edge"* (Management Team Member 1 DigiStart, 03.03.2016). This culture makes DigiStart persistent in keeping a distance from CorpInvest: *"We never bragged about being owned by [CorpInvest]. We wanted to show that we could stand on our own two feet. It has permeated through the entire company culture"* (Management Team Member 1 DigiStart, 14.12.2015). DigiStart emphasizes the desire of not letting CorpInvest have an impact on the company's culture: *"It is important that we have a unified picture of DigiStart. Because otherwise I am afraid that they [CorpInvest] will ruin that picture and turn us into a [CorpInvest's parent company] company"* (Management Team Member 4 DigiStart, 21.04.2016).

Recently, however, there have been hints about an increased influence by CorpInvest on the hiring processes. The former portfolio manager of DigiStart explains the need for this: *"The start-up mentality works really well until you reach a certain scale. After that you realize that you cannot be the sales manager, CEO, financial manager and strategist at the same time"* (Head of Investments CorpInvest, 04.12.2015). CorpInvest has indeed had some influence on the hiring process at DigiStart, suggesting employees to move from the parent company/CorpInvest to DigiStart. One person that moved from CorpInvest to DigiStart currently holds a top management role. Following the move, new training initiatives between DigiStart and the parent company are in the pipeline: *"With the appointment of [the new management member], there are more talks about educational programs. For example, [the new management member] has set up a training day for me at the Finance Department of [the parent company]"* (Employee 2 DigiStart, 08.03.2016).

Exploitative Mind-Set Transferred Through Recruitment Suggestion

“Now there is a cost-consciousness, especially since [the new management member] was appointed, who know what CorpInvest and the parent company expect of us” (Employee 2 DigiStart, 08.03.2016).

Through the suggestion of the management member, CorpInvest has indirectly introduced a cost-consciousness at DigiStart, which transcends throughout the organization. Consequently, DigiStart has become more structured around numbers. It is explained how country managers have recently been educated on the initiative of the previous employee from CorpInvest, now a management member at DigiStart: *“They have been trained to understand what actually drives revenue, as well as the importance of having a budget and what that means”* (Management Team Member 2 DigiStart, 29.03.2016). The current change towards becoming more efficiency-minded has been met with some resistance by some management people at DigiStart: *“This has introduced tensions, where we might not be 100% on the same page. But I will not let us introduce a new product unless we have a sound business case for it. It does not work in the long-run”* (Management Team Member 2 DigiStart, 29.03.2016). The appointment of the management member can be seen as an effort by CorpInvest to balance the underlying exploratory mentality of DigiStart, with an awareness of efficiency and exploitation.

5 Discussion

This chapter provides further analysis of the findings, comparing them to previous literature. Section 5.1 discusses the empirics in relation to literature on MCS in VC-backed start-ups. Section 5.2 presents and analyses the findings in relation to earlier studies on MCS and learning. In 5.3, we attempt to give an explanation to the results observed.

The analysis in this chapter follows the same outline as the empirical section. Each part will assist in answering our refined research question:

How does the MCS implemented in a start-up by a CVC investor facilitate exploratory and exploitative learning?

We will apply our analytical framework to guide the discussion of the results. Through Merchant & Van der Stede's (2007) object-of-control framework, we first classify the control mechanisms implemented by CorpInvest in DigiStart. Drawing upon March's (1991) framework of exploration and exploitation, we then examine the control mechanisms' role in facilitating learning for both organizations. The discussion is concluded with an attempt to explain the results by examining the characteristics of CorpInvest.

5.1 Management Control Systems Implemented by CorpInvest in DigiStart

Literature on the impact of external investors on MCS within start-ups has predominantly examined the role of VC investors. It has been found that these largely affect the control mechanisms in their portfolio firms (Davila & Foster, 2007; Granlund & Taipaleenmäki, 2005; Mitchell et al., 1997; Silvola, 2008a&b). We have empirically shown that, in the case of CorpInvest and DigiStart, the CVC unit, similar to VC, had a strong impact on the controls implemented. We add to the literature by showing that CorpInvest and VC investors are similar in the configuration of MCS, despite the claimed differences in structure and investment rationale (Chesbrough, 2002; Weber & Weber, 2007). Although the control mechanisms implemented are similar, there seems to exist differences in the controls *emphasized* by the two types of external investors. In the following discussion, we will put our findings in a broader context by comparing them to those from the literature on VC investors.

5.1.1 Results Controls

Our empirics show that CorpInvest implemented substantial results controls in DigiStart. Many employees at DigiStart stated that CorpInvest presence was mainly noticed through extensive budget processes and the introduction of clear financial targets with accompanying reward systems. Despite the strategic focus, CorpInvest introduced similar controls as VC investors. In line with findings of Davila & Foster (2007) and Mitchell et al. (1997), increases in level of detail and frequency of budgets were also noted in our case. The emphasis on compensation programs for both management and lower-level employees at DigiStart, suggest that Wijbenga et al.'s (2007) findings hold true also in our setting. There seems to be a vested interest by external investors to make their start-ups more results-oriented (Granlund & Taipaleenmäki, 2005).

While many control mechanisms implemented by CorpInvest were similar to those in VC-backed firms, others emanated from CorpInvest's strategic investment rationale. These were characterized by a future-orientation and focus on the long-term strategic goals for DigiStart. According to Basu et al. (2011), the primary purposes of CVC units are to facilitate innovation and appropriability of new technology for the parent company. CorpInvest's focus on industry metrics, instead of accounting figures within the KPIs, is in line with the strategic aims of CVC investments. Through the KPIs, CorpInvest identified market trends and learned about DigiStart's industry. The five-year plan was also used for strategic purposes, emphasising long-term goals. While it was essentially formulated as a comprehensive budget, CorpInvest used it primarily as a guiding tool. In this sense, the control mechanisms implemented by CorpInvest appears to differ from those by VC investors, which are based on shorter time horizons and financial metrics, often connected to specific milestones for subsequent seed rounds (Granlund & Taipaleenmäki, 2005; Mitchell et al., 1997; Pahnke et al., 2015). On a similar note, we did not find any evidence of cash flow reports, often cited as the most important financial report requested by VC (Davila & Foster, 2007; Mitchell et al., 1997; Silvola, 2008a). Davila et al. (2010) stated that this is imperative for VC as they need to manage the cash-burn rate in order to have enough time for negotiation about subsequent rounds of financing. Indeed, as CVC base their attention on strategic, long-term outcomes, thus being considered "patient capital", the same focus on liquidity is not apparent (Pahnke et al., 2015). The absence of cash flow reports in DigiStart can thus be seen as another illustration of the differences in the investment rationales of CorpInvest and VC firms.

5.1.2 Action Controls

CorpInvest put significant emphasis on action controls. This was illustrated by, for example, its impact on DigiStart's Board of Directors. Members of the management team of the parent company as well as personnel from CorpInvest were appointed seats. Evidently, unlike VC investors, CorpInvest did not select people outside the company sphere to become board members (Clarysse et al., 2007). This could potentially be explained by CorpInvest, and the parent company, seeing the board meetings as a platform for gaining insight into the start-up, and thus unwilling to outsource the opportunity. Further, the increased control of CorpInvest over the Board of Directors resulted in the board meetings becoming platforms for decision-making - approval regarding investments and strategic changes now became responsibilities of the board. With regards to these changes in the Board of Directors (Sapineza et al., 1996; Fried et al., 1998) and the formalization of approval process (Davila & Foster, 2007), the action controls implemented by CorpInvest are quite similar to those of VC investors.

Our results also show that CorpInvest implemented action controls not discussed in the literature on the impact of VC investors in start-ups. Being part of a large corporation entailed the need for DigiStart to comply with the company-wide policies of CorpInvest's parent. Also, since the parent company is publicly listed, a number of reporting requirements were imposed on DigiStart following the majority acquisition. These types of controls have not been found in VC-backed start-ups (Davila & Foster, 2007; Granlund & Taipaleenmäki, 2005; Mitchell et al., 1997; Silvola, 2008a&b). It is evident that the different structures of VC-and CVC investors (Chesbrough, 2002) result in somewhat different control mechanisms being emphasised. As CVC units are part of larger corporations, these can induce controls on the units, which then have to be implemented also in the start-ups. The independent fund structure of VC investors naturally does not result in this type of chain reaction.

5.1.3 Personnel/Cultural Controls

Our findings show that CorpInvest did not implement extensive personnel/cultural controls. This might have been an active choice by CorpInvest in order to sustain the innovative start-up mentality in DigiStart, as such controls could have introduced a corporate mentality. Large corporations typically establish CVC units to battle the status quo and to drive innovation (Dushnitsky & Lenox, 2005), thus such control mechanism may be goal counteractive. Our findings are in line with Davila (2005) and Davila & Foster (2007), who did not find any evidence of these types of control mechanisms in VC-backed firms. Nonetheless, CorpInvest

influenced the selection of DigiStart's employees by giving suggestions on the recruitment of a top management member previously employed at CorpInvest. In contrast to the other line of the research claiming a substantial influence by VC investors on recruitment policies (Hellman & Puri, 2000), the impact of CorpInvest was more subtle.

In conclusion, our study indicates that CorpInvest to a large extent, implemented similar control mechanisms as VC investors, the major differences being an emphasis on action controls. Overall however, both investor types seem to formalize MCS in their start-ups.

Differences in Emphasis of MCS Between CVC and VC

<i>Object of Control</i>	CVC	VC
	<ul style="list-style-type: none"> - Long-term horizon - Income statements & Balance sheets - KPIs focussed "soft" figures 	<ul style="list-style-type: none"> - Short-term horizon - Cash flow reports - KPIs focussing on financial ratios and metrics
	<ul style="list-style-type: none"> - Company policies - Stock market reporting 	

Figure 4: Overview of differences in emphasis of implemented MCS by CVC & VC investors, respectively

5.2 Exploratory & Exploitative Learning in CorpInvest and DigiStart

Previous literature has shown that control mechanisms can facilitate learning *within* organizations. Depending on the formation of the control, as well as its application, the mechanisms can either facilitate discovery of new opportunities or increase efficiency of current resources (Batac & Carassus, 2009; Kloot, 1997; McCarthy & Gordon, 2011). In this study, we show that MCS can also be implemented to enable learning *between* organizations. Focusing on exploratory and exploitative learning, we respond to the call by Lavie et al. (2010) to conduct

research on such learning across organizational boundaries. We have made efforts, similar to Yang (2012), in uncovering the “black box” of learning within CVC, which previous researchers have overlooked by focusing on the *outcome* of learning, but not the *process* behind it (Benson & Ziedonis, 2009; Dushnitsky and Lenox, 2005; Gompers & Lerner, 2000). After having classified the control mechanisms in the previous section, we now analyse their corresponding effects, if any, on exploration and exploitation.

5.2.1 Results Controls

The results controls mechanisms implemented were used to facilitate both exploratory and exploitative learning. However, the type of learning enabled through the controls varied between CorpInvest and DigiStart. For CorpInvest, results controls generated exploration while they were only used exploitatively in DigiStart.

The budget introduced exploitative learning in DigiStart. As a result of the stretched targets, employees sought short-term gains to fill their quotas. The revenues for each product line were rigidly set once the budget had been approved. This prevented the employees from adapting to market demands and searching for new opportunities. The notion that budgets counteract strategic renewal seems to be true also in our empirical setting (Kloot, 1997). The author suggested that when control mechanisms can be used to question existing goals and to learn about when to shift the course, exploratory learning can be achieved. The static and predefined nature of the objectives and directions of DigiStart, which have been established through the budget, might offer some explanation to why these controls did not facilitate exploratory learning.

We found that exploitative learning was reinforced by both the incentive systems and the KPIs. Through the incentive system implemented by CorpInvest, DigiStart’s management team was rewarded for achieving certain sales and EBIT-targets. This drove managers to focus on increasing sales and improving profitability, while losing track of creating new product developments. Our findings support those of McCarthy & Gordon (2011), indicating that reward systems connected to measureable outcomes induce exploitation. Kloot (1997) claimed that performance measurement controls, which put less emphasis on vertical control structures i.e. financial metrics, facilitate exploratory learning. We found that the opposite is true for DigiStart; controls that reinforced vertical structures lead to exploitative learning. With regards to the KPIs, DigiStart used them to detect inefficiencies and identify misguided initiatives. The KPIs enabled the company to redirect their business and improve operations, thereby facilitating exploitative

learning. In CorpInvest, the KPIs did not serve the same purpose since these were used to measure performance of DigiStart's operations. Thereby, CorpInvest could not use the identification of inefficiencies to improve its own business.

Instead, in CorpInvest, the KPIs served another purpose. The KPIs enabled the company to gather data about current market trends, upon which long-term strategic decisions were based. The findings of McCarthy & Gordon (2011), suggesting that control tools that enable analysis of market trend facilitate exploratory learning, appear to hold true also in this setting. Notably, the KPIs did not facilitate exploration in DigiStart. One explanation could be that the market information provided to CorpInvest by the KPIs was already known to DigiStart. By being present in the actual market and through informal mechanisms such as discussion with other market participants, the trends might be evident for DigiStart before being put down on paper.

Another type of results controls, which facilitated exploratory learning in CorpInvest was the five-year plan. Its application was similar to that of the KPIs – to assist in strategic decision-making. Contrary to the KPIs, the five-year plan in itself did not foster exploratory learning. Rather, it was the process behind it. For CorpInvest, the process of developing the five-year plan served as a platform for discussion regarding market trends and strategic initiatives. DigiStart, on the other hand, strongly questions its usefulness and simply filled in the numbers asked for. This attitude and behaviour could potentially inhibit the start-up from learning from the process.

5.2.2 Action Controls

The majority of the action controls implemented by CorpInvest did not lead to any type of learning for either company. The controls were mainly a consequence of CorpInvest being part of a larger, publicly listed, corporation. Both CorpInvest and DigiStart were aware of that the control mechanisms might be redundant for a small company like DigiStart. Yet, they were not implemented to support either company but rather to follow market requirements and to comply with CorpInvest's parent company's demands. Nonetheless, some action controls did indeed facilitate learning. Through the shift of control to the Board of Directors and the consequent need to present business case to CorpInvest that acted as a filter for the board, DigiStart became more exploitative. It resulted in the start-up choosing to present less risky projects and only putting forward cases which quickly could become profitable. This is in line with the findings of McCarthy & Gordon (2011), who showed how resource allocation decisions drove the focus towards risk-averseness and consequently facilitated exploitative learning. Further, our findings

showed that non-participative decision-making enabled exploitative learning. Thus, we also see Kloot's (1997) findings from another perspective. The author stated that "true participative decision making" leads to exploratory learning. We demonstrate that the opposite is true for exploitation.

5.2.3 Personnel/Cultural Controls

CorpInvest was careful not to disturb the entrepreneurial spirit of DigiStart. As a consequence, personnel/cultural controls were subdued. However, there were some attempts by CorpInvest to influence the recruiting processes by suggesting a current management member at DigiStart to move from CorpInvest. By having a former employee as part of the management team, CorpInvest effectively influenced the start-up from within. The management member previously held a position within the finance department. Thus, the person had the same financial mind-set as CorpInvest, which became instilled in DigiStart through the recruitment. For example, the management member initiated education programs for country-managers on the importance of budgets, in addition to accounting training for lower level employees. Thus, the subtle personnel/cultural controls implemented by CorpInvest facilitated a certain degree of exploitative learning in DigiStart. They made the company's employees more cost-conscious and knowledgeable around financial metrics. Our findings speak in favour of another type of learning facilitated by personnel/cultural controls than the one suggested by McCarthy & Gordon (2011) and Kloot (1997), who showed how recruiting processes and employee training encourage exploratory learning. This could suggest that the learning outcome of control mechanism depends on how it is applied, not the type of control.

Interestingly, while the primary aim of CVC investments usually is to explore new markets and technologies, the control mechanisms implemented in DigiStart did not appear to be focused on exploration. Instead, the control mechanisms mainly contributed towards facilitating exploitation in DigiStart. Below, we attempt to explain the seemingly counter-intuitive results by looking at the characteristics of CorpInvest.

5.3 Parent Company Inhibits Exploratory Learning

Existing literature outlines several factors affecting the characteristics of CVC units. For example, involvement in a corporate hierarchy has shown to limit the autonomy of CVC. This

can be illustrated by e.g. approval processes, company-wide policies and compliance & stock-market regulations imposed by the parent company on the CVC (Chesbrough, 2002; Dushnitsky & Lenox, 2006; Pahnke et al., 2015). The concern of the parent company to present positive earnings to the stock market is also claimed to impede the CVC's decision-making authority (Gompers & Lerner, 2000). We show that such characteristics of CorpInvest, as outlined above, impacted the control mechanisms implemented in DigiStart, and the effect on learning.

As was explained by CorpInvest, there was a feeling of being constrained by two inherently different organizations, effectively being squeezed by the corporate behaviour of the parent company and the innovative nature of DigiStart. On one hand, the corporate mind-set and the public characteristics of the parent company drove the implementation of significant action and results controls. In particular, CorpInvest highlighted the parent company's substantial influence on implementing controls required to comply with stock-market regulations and company-wide policies. Through numerous approval processes, the parent company was also highly involved in setting the overall goals of the financial plans and budgets to satisfy market expectations. On the other hand, DigiStart had an inherently explorative willingness, eager to take on new markets and develop new products. CorpInvest, supposedly the filter between these two organizational idiosyncrasies, lacked the ability to facilitate DigiStart's exploration. The parent company's need to deliver on targets communicated to the market led to pressures on CorpInvest to realize these. CorpInvest had to set clear and stretched targets for DigiStart, restricting the organization's ability to engage in experimental, uncertain and future-oriented initiatives, ultimately leading to a dominance of exploitative learning.

While the task of CorpInvest was to transform the parent company's business and move into a new industry segment, one can hypothesize that exploratory learning was primarily achieved in conjunction with the sourcing and selection of DigiStart. After the investment, the continuum of organizational learning (March, 1991) appears to have been weighted towards exploitation. We attribute this shift in learning to the parent company being highly involved in the CVC program, limiting the ability of CorpInvest to implement control mechanisms facilitating exploratory learning. This is in line with findings of McCarthy & Gordon (2011), suggesting that a strong association with a public company shifts the learning from exploratory to exploitative.

6 Conclusions

This paper illustrates and discusses the complexity for CVC in implementing MCS within start-ups. We find that depending on the formation and application of the control mechanisms, different learning outcomes, both *between* and *within* the organizations, may be achieved.

Through a single case study, we investigated the control mechanisms implemented *by* the CVC investor, CorpInvest *in* its start-up, DigiStart. The method chosen enabled us to closely examine the impact of the controls on exploration and exploitation both *between* and *within* the organizations. Drawing upon Merchant & Van der Stede's (2007) object-of-control framework and March's (1991) concept of learning through exploration and exploitation in our analytical framework, we found that CorpInvest implemented extensive results and actions control, while personnel/cultural controls were kept at a minimum. Our results showed that some control mechanisms facilitated either exploratory or exploitative learning in one of the organizations, while others did not lead to any learning outcome. Despite CVC investments usually being an initiative aimed at exploration (Lee & Klang, 2015), the empirical evidence indicates that the controls implemented by CorpInvest primarily facilitated exploitative learning in DigiStart and only limited exploration in CorpInvest.

The findings of this study contribute to the research on MCS within start-ups by exploring the implications of CVC investors in such companies. Previous research has mainly examined the MCS implemented by another type of external investor, namely VC (Davila & Foster, 2007; Granlund & Taipaleenmäki, 2005; Mitchell et al., 1997; Silvola, 2008a&b). However, CVC differ from VC in some significant aspects, specifically with regards to the investment rationales and structures (Pahnke et al., 2015). Nonetheless, we found that the control mechanisms implemented *by* CorpInvest *in* DigiStart were largely similar to those in VC-backed start-ups, the difference primarily being the emphasis on action controls.

Similar to Kloot (1997) and Batac & Carassus (2009), we found that MCS played an important role in facilitating learning within the organizations. Studying learning through March's (1991) concept of exploration and exploitation, we observed results in line with those of McCarthy & Gordon's (2011) regarding the role of MCS in facilitating the two types of learning. Responding to the call by Lavie et al. (2010), we examined how control mechanisms can facilitate exploration and exploitation also *between* organizations.

Our study may be of interest both for CVC investors and for entrepreneurs. As mentioned above, the findings suggest that the control mechanisms implemented by CorpInvest primarily facilitated exploitative learning in DigiStart, while their contribution to exploration for was limited. To ensure that CVC acquire new knowledge and start-ups continue to seek for new opportunities, portfolio managers in CVC may need to adjust their control mechanisms to facilitate exploratory learning. Also, for entrepreneurs debating whether to raise capital from a VC or CVC, the observed emphasis on action controls by CorpInvest and possibly also other CVC investors, relative to VC investor, could be a decisive factor. Our findings could also have implications for the structuring of CVC units. The strong influence by the parent company pushed CorpInvest to implement results controls, in addition to extensive action controls, that primarily facilitated exploitative learning. Assuming the parent company wants to emphasize exploration, this could potentially be enabled by organizing the CVC as an autonomous unit.

7 Limitations and Suggestions for Future Research

There are a number of factors limiting the conclusions that can be drawn from the study. Nonetheless, the observations may serve as food for thought for both CVC investors and entrepreneurs, as well as offer some new perspectives for future research.

It must be emphasized that conclusion are drawn from a single-case study conducted within one particular industry. Both case companies operate in a high velocity market undergoing significant changes, strongly impacted by digitalization. The formation and application of MCS may vary depending on competitive forces and market dynamics. The conclusions can therefore not be assumed to be applicable to other industries. It could also be that the findings are idiosyncratic for the companies studied, regardless of their industry belonging. Thus, attempts to generalize our conclusions must be made with caution. Besides the limitation of a single-case approach, also data gathering primarily based on interviews poses some restraints as it relies heavily on personal experiences and testimonies. Some of the interviewees at DigiStart may have felt uncomfortable speaking about their owner, CorpInvest, and its staff, therefore providing a somewhat indulgent or benevolent picture. By interviewing several people at DigiStart, we attempted to obtain a broader overall picture. Guaranteeing respondent anonymity was another means to overcome this potential problem of biased responses.

Future research could address some of the aforementioned limitations. Conducting a multiple-case study on CVC investors and start-ups in various industries could contribute to establishing whether industry dynamics impact the implementation of MCS, and consequently also learning. A multiple case study approach would also facilitate distinction between idiosyncratic firm characteristics and those typical of CVC investors. Further, a comparative study of VC and CVC would more clearly discern the difference between the investors' formation and application of MCS, and effect on learning. Obviously, such approaches would offer more solid data and conclusions, but would require resources and time beyond the scope of this study. It remains that the present study has raised several questions that cannot be answered by our data.

Another issue of interest for future research concerns the scope of controls investigated. We limited our definition of controls only to formal processes and procedures. The presence and potential impact of informal controls on learning have therefore been overlooked in the study. By examining also informal controls, future research may detect additional important control

mechanisms and their effects on learning. Also, to fully understand the impact of MCS on exploratory and exploitative learning, a longitudinal case study should be conducted. This would enable examination of whether, and how, the controls change over time depending on varying organizational learning objectives.

8 References

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9 Appendix

9.1 Common Management Control Systems Classification in the Literature

Object of Control	Results	Action	Personnel/Cultural
Control Mechanism			
Financial Reporting	5		
Budgeting	7		
KPI	6		
Financial & Strategic Planning	3	2	
Incentive Systems	3		1
Limited Decision-Making		5	
Capital/Investment approval		4	
Rules & Policies		4	
Training		1	3
Selection & Placement		1	4
Mission Statement			2
Core Values			1
Regular Socialization			2

Based on following literature: Abernethy & Brownell, 1997; Bourguignon, 2004; Chenhall, 2003; Davila, 2005; Heinicke et al., 2016; Jaworski, 1988; Malmi & Brown, 2008; Merchant & Groot, 2000; Otley 2016; Sandelin, 2008; Silvola, 2008; Van der Stede, 2000

9.2 Interview Overview

#	Position	Company	Date	Location	Communication Mode	Duration
1	Head of Investments	CorpInvest	04.12.2015	Stockholm	Face-to-face	57 min
2	Management Team Member 1	DigiStart	14.12.2015	Stockholm	Face-to-face	57 min
3	Employee 1	DigiStart	21.01.2016	Stockholm	Face-to-face	30 min
4	Employee 1	CorpInvest	03.03.2016	Stockholm	Face-to-face	53 min
5	Management Team Member 1	DigiStart	03.03.2016	Stockholm	Face-to-face	38 min
6	Employee 2	DigiStart	08.03.2016	Stockholm	Face-to-face	66 min
7	Portfolio Manager 1	CorpInvest	09.03.2016	Stockholm	Skype	60 min
8	Head of Investments	CorpInvest	11.03.2016	Stockholm	Face-to-face	47 min
9	Middle Manager 1	DigiStart	29.03.2016	Stockholm	Face-to-face	53 min
10	Management Team Member 2	DigiStart	29.03.2016	Stockholm	Face-to-face	55 min
11	CVC Expert	N/A	06.04.2016	Stockholm	Face-to-face	60 min
12	Employee 2	CorpInvest	07.04.2016	Stockholm	Face-to-face	65 min
13	Management Team Member 3	DigiStart	07.04.2016	Stockholm	Face-to-face	44 min
14	Middle Manager 2	DigiStart	20.04.2016	Stockholm	Face-to-face	70 min
15	Management Team Member 4	DigiStart	21.04.2016	Stockholm	Face-to-face	48 min
16	Employee 3	DigiStart	21.04.2016	Stockholm	Face-to-face	57 min
17	Employee 1	DigiStart	22.04.2016	Stockholm	Face-to-face	50 min
18	Management Team Member 4	DigiStart	25.04.2016	Stockholm	Face-to-face	43 min
19	Management Team Member 1	CorpInvest	26.04.2016	Stockholm	Face-to-face	65 min
20	Portfolio Manager 2	CorpInvest	03.05.2016	Stockholm	Skype	39 min