PREVENTING A "DERAILMENT" OF STRATEGY

A SINGLE-CASE STUDY ON HOW GREEN EARLY-STAGE COMPANIES CAN DRIVE A PROACTIVE SUSTAINABILITY STRATEGY USING MCS

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Preventing a "derailment" of strategy: A single-case study on how green early-stage companies can drive a proactive sustainability strategy using MCS

Abstract

This paper aims to fulfill two interrelated purposes by investigating (i) how green early-stage companies can use MCS to maintain a proactive sustainability strategy in a high-growth setting, and (ii) how green early-stage companies can design MCS to maintain employees' intrinsic motivation for sustainability. By applying the theoretical lens of the Object of Control framework and intrinsic motivation, the single-case study explores how sustainability-related MCS is employed to drive sustainability strategy and how controls can be designed to maintain employees' intrinsic motivation for sustainability. The study contributes to three research areas. Firstly, we contribute to the commercially focused literature on early-stage firms by addressing how MCS can support objectives beyond profit. Secondly, we contribute to research on the interplay of MCS design and employee motivation, finding that employee intrinsic motivation for sustainability in purpose-driven companies, such as green early-stage firms, is critical for strategy maintenance. In addition, we find how MCS design can be tailored to promote employee intrinsic motivation for sustainability. Thirdly, we contribute to the scarce and ambiguous research on the role of MCS in driving a proactive sustainability strategy by providing a new and contrasting empirical setting that evidences a supportive role of MCS.

Keywords:

MCS, proactive sustainability strategy, intrinsic motivation, formal controls, informal controls

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1. Introduction

"GreenTech is one of the biggest growth areas in the innovation and startup space, on a global level. It is a market area that has the potential to shape and influence our future for the better, and investors and entrepreneurs are actively promoting development in this space" (Allen, 2023). An interesting trend to observe on the back of the growing societal focus on sustainability is the increased monetary flows towards green early-stage companies, in particular Green- or Clean-Tech startups (Dhayal et al., 2023). These companies have been advocated for matters that relate to climate change mitigation due to their technological capabilities (Dhayal et al., 2023). The president of the European Commission, Ursula von der Leyen, added to this by reiterating her strong support for clean technology in driving the sustainable transition by noting that *"the road to net zero means developing and using a whole range of new clean technologies across our economy: in transport, buildings, manufacturing and energy"* (European Commission, 2023). In addition to environmental aspects, an increased regulatory pressure to respond to social concerns has emerged in parallel (Lueg & Radlach, 2015), creating a need for green early-stage companies to adhere to all aspects of sustainability (Bocken et al., 2014). Hence, an increasing investor and policymaker focus on green early-stage firms that manage all aspects of sustainability, i.e., driving proactive sustainability strategies, have led to large-scale growth for companies within this sector (Dhayal et al., 2023).

However, with growth comes increased organizational complexity, which is an effect that is particularly interesting to study in the case of green early-stage companies. The proactive sustainability strategies that these companies manage are challenged when organizational and people growth as well as profit arise, creating strong tensions between the sustainable purpose and commercial objectives. In terms of maintaining strategy and aligning the workforce towards organizational objectives, research has shown that the employment of Management Control Systems (MCS) can act as an effective tool (Malmi & Brown, 2008). Scholars however take an ambiguous stance on the role of MCS in driving proactive sustainability strategies. Some studies indicate a supportive role (Albertini, 2019) while others point to a "derailing effect" where MCS in itself, coupled with an underlying profit-focus among studied firms, promote profit over sustainability (e.g., Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Contrafatto & Burns, 2013). Therefore, although necessary to use when experiencing organizational growth, employing sustainability-related MCS may in parallel have detrimental effects, especially for green early-stage companies where the foundational business model revolves around sustainable objectives.

With the growth of green early-stage companies coupled with their central role in contributing to the sustainable transition, it is of practical importance to further investigate how the use of sustainability-related MCS can allow these firms to maintain their proactive sustainability strategy without suppressing it for conflicting financial

forces. Furthermore, from an academic standpoint, there are no studies on green early-stage companies nor on the strategic interplay of MCS and sustainability in the early-stage company literature. Although the literature on large corporations provides some guidance on the supportive role of MCS in driving a proactive sustainability strategy, it remains ambiguous in nature which is why scholars within this domain have called for more practical observations of this relationship (Thomson, 2007). Accordingly, the first research question that this study seeks to answer is:

1) *How can green early-stage companies use MCS to maintain a proactive sustainability strategy in a high-growth setting?*

While imposing more control is necessary, literature suggests that MCS have the capabilities of undermining employee intrinsic motivation (Deci et. al, 1999). This can be argued to have detrimental strategic effects on green early-stage companies for several reasons Firstly, early-stage companies are generally characterized by high employee autonomy with few formal controls in place that steer the direction of decisions (Miller & Friesen, 1984). When financial interests arise in conjunction with growth, we hence draw on the idea that the intrinsic motivation for sustainability among employees is important to safeguard to ensure that such concerns are prioritized in decision making. Furthermore, compared to solely profit-driven firms, purpose-driven firms such as green early-stage firms have shown to attract employees which are more genuinely driven by the purpose of the firm (PwC, 2019), and not the reward obtained from performing the job (Carsrud & Brännback, 2011). This indicates that intrinsic motivation for sustainability is important to safeguard to attract existing as well as potential employees. Lastly, research has shown that low levels of employee intrinsic motivation generate an adoption of a short-term mindset (Debrulle et al., 2021). Given that sustainability embodies a long-term perspective, such an employee mindset could switch the focus towards shorter-term concerns such as profitability in decision making processes. With these three reasons in mind coupled with Adler and Chen's (2011) call for a deeper understanding of the relationship between MCS design and employee motivation in early-stage settings, the second research question to be examined is:

2) *How can green early-stage companies design MCS to maintain employees' intrinsic motivation for sustainability?*

To answer these research questions, we draw on the theoretical lens of the Object of Control framework by Merchant and Van Der Stede (2017) and further mobilize literature on intrinsic motivation. This enables categorization and identification of controls used to support a proactive sustainability strategy with a simultaneous analysis of their implications on employee intrinsic motivation for sustainability. Empirical data is collected through a qualitative single-case study where interviews with a wide scope of employees allows for a deep understanding of how sustainability-related MCS can be used to maintain both sustainability strategy and employee intrinsic motivation for sustainability.

With our findings, we contribute to current academic literature in three ways. Firstly, we extend the commercially focused literature on early-stage firms (e.g., Davila et al., 2015; Miller & Friesen, 1984) and suggest that the use of informal control is more dominant when driving a proactive sustainability strategy. With successful creation of congruence between employee and organizational values, sustainability strategy can be maintained without dominant use of formal control. Secondly, our findings contribute to research on the interplay of MCS design and employee motivation and indicate a strong relationship between driving a proactive sustainability strategy and having employees that are intrinsically motivated for sustainability. Furthermore, our findings show how MCS design can be tailored to induce employee intrinsic motivation for sustainable decision making, which contrasts the rather unambiguous literature in this domain (van der Kolk et al., 2019). We also extend the findings in Deci et al., 1999 and van der Kolk et al., 2019 by showing a flexible relationship between formal control and employee intrinsic motivation for sustainability. In addition, this study identifies how the strength of informal controls can reduce the effect of financially focused formal controls, supporting the findings by Norris and O'Dwyer (2003). Thirdly, our study contradicts previous pessimistic studies on the role of MCS in driving sustainability strategy and find that MCS can support a maintenance of the sustainability strategy (Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Contrafatto & Burns, 2013). The discrepancy in findings is described by a different use of MCS and different interpretive schemes. We find that a dominant use of informal control generates an interpretive scheme which better aligns with sustainability, enabling MCS to be supportive.

The remainder of this thesis is structured as follows. Section 2 frames previous relevant research, our method theory and theoretical framework. In section 3 we outline our methodology followed by section 4, where our empirical analysis is presented based on the theoretical framework. In section 5 we discuss the findings and their relationship with previous research. Lastly, in section 6, we outline our study's limitations and suggestions for future research.

2. Theoretical background

The following section will present some institutional background and relevant previous research. Section 2.1 presents a brief review of the interplay between MCS and sustainability. Section 2.2 outlines a review of previous research on the role of MCS in maintaining a proactive sustainability strategy. Lastly, section 2.3 presents our method theory and theoretical framework.

2.1.   MCS and sustainability

With increasing organizational focus on sustainability on the back of societal pressure, literature has directed a great deal of attention against the development of sustainable capabilities (Lueg & Radlach, 2015; Bouten & Everaert, 2015). The academic framing of sustainability closely revolves around the balancing of the social, environmental, and economic dimensions, a definition that Elkington (1994) frames as the Triple Bottom Line. While sustainability represents the outcome, *"Sustainable Development"* relates to the process of moving towards such an outcome. Hence, a development is sustainable if it manages to satisfy *"the needs of the present generations without compromising the ability of future generations to meet their own needs"* (WCED, 1987). This further illustrates the long-term considerations that sustainability embodies.

Related to this, academic literature means that there are certain accounting mechanisms, such as Management Control Systems (MCS), that can facilitate the development of organizations' sustainable capabilities by directing attention towards strategic priorities (Arjaliés & Mundy, 2013). The concepts of MCS are rooted in the management control literature and involve a wide array of tools and processes for steering employee behavior towards organizational objectives and goals (Merchant & Van Der Stede, 2017). Chenhall (2003) argues that MCS is a versatile tool that encompasses Management Accounting Systems, but also draws on additional personal and clan controls to achieve organizational goals. Furthermore, Malmi and Brown (2008) develop on organizational alignment, and claim that MCS represents "*systems, rules, practices, values and other activities management put in place in order to direct employee behavior*" (Malmi & Brown, 2008), encompassing both formal and informal controls. With this in mind, MCS is an accounting mechanism that directs attention towards organizational objectives and can support organizational development of sustainable capabilities.

Shedding further light on the academic framing of MCS and sustainability, a substantial part of the existing domain literature is focused on the interplay between sustainability and MCS (e.g. Arjalies & Mundy, 2013; Gond et al., 2012). Yet, researchers call for more practical observations of such a relationship since results differ across companies, industries, and geographies (Thomson, 2007). Digging deeper into the academic domain, Lueg and Radlach (2015) find that organizations employ a wide range of controls to

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enforce sustainable development, where cybernetic controls remain the preferred choice when outlining the design of the MCS related to sustainability. Crutzen et al. (2017) elaborates further on a similar topic by emphasizing the importance of balancing and incorporating sustainability in both formal and informal control to minimize the risk of employee conflicts in terms of pursuing sustainability goals. In contrast, academic research also critically reflects on the strength of MCS, claiming that it is unable to holistically target all relevant aspects of sustainability, where the social component is often suppressed. Although companies create interplays between formal and informal controls (Crutzen et al., 2017) and design sophisticated risk management processes (Arjaliés & Mundy, 2013), the relationship between MCS and sustainability will remain weak if they do not communicate and inform each other (Gond et al., 2012). Hence, literature points to the fact that MCS can support organizations in developing sustainable capabilities, but the efficiency of the relationship is contingent on the communicative interplay between them.

2.2. The role of MCS in maintaining a proactive sustainability strategy

2.2.1. The paradoxical control challenge in green early-stage companies

Although the aforementioned studies indicate that MCS can support organizations in developing sustainable capabilities, scholars' calls for more empirical research on the interplay between MCS and sustainability across more industries, geographies and company sizes since results appear to differ depending on the empirical setting (Thomson, 2007). To shed further light on this, an interesting context to investigate is the emergence of green early-stage companies. On the back of global commitments such as the Paris Climate Agreement in 2015 and the Kyoto Protocol in 1997, a distinct societal focus on the environmental aspects of innovation has emerged (Albertini, 2019). These commitments have received major global attention, causing Venture Capital investors to allocate an increasing amount of funds towards early-stage companies in the green technology sector throughout the past decade (Gaddy et al., 2017). Companies that operate under a green technology business model are founded with a purpose that goes beyond profit. Allen (2023) means that examples of business models could be the commercialization of technological capabilities that relate to the reduction of carbon emissions or waste management, i.e., business models that support the journey towards making life on earth sustainable. In addition to the distinct environmental and technological capabilities that green early-stage firms possess, they are also pressured to respond to growing regulations related to social concerns (Lueg & Radlach, 2015), which pushes them to drive a strategy that adheres to all aspects of sustainability (Bocken et al., 2014). In summary, the increased investor and regulatory attention to green early-stage companies that capture all aspects of sustainability have resulted in large-scale growth for firms within this sector (Dhayal et al., 2023).

The swift organizational and headcount growth that green early-stage companies have witnessed (Dhayal et al., 2023) however give rise to challenges of paradoxical nature in terms of MCS, which is particularly apparent for these types of companies. Therefore, the relationship between MCS and sustainability is particularly interesting to investigate in the context of green early-stage firms. Elaborating further on this paradoxical control challenge, the green purpose on which these companies are founded runs the risk of being diluted by other interests when managing organizational growth and headcount expansion. For instance, when profitability and growth come into play, a distinct tension between the financial and sustainable objectives emerges. To deal with rapid organizational growth and strengthen employee alignment to mitigate the risks of undermining the foundational sustainability agenda, green early-stage firms can use sustainability-related MCS in accordance with Miller and Friesen (1984), just as any other early-stage company can do to align its workforce towards organizational objectives.

However, while imposing sustainability-related MCS is necessary to drive strategy when growing (Miller & Friesen, 1984), formal controls such as result and action controls have the capabilities of undermining employee intrinsic motivation (van der Kolk et al., 2019) for making sustainable decisions. This can be argued to have detrimental strategic effects on green early-stage companies for several reasons. Firstly, the generally autonomous and informal nature of MCS in early-stage settings (Miller & Friesen, 1984) relies on having employees in place that understand and support the sustainable cause. As few formal controls are in place to steer employee behavior towards specific decisions in early-stage settings (Miller & Friesen, 1984), employee intrinsic motivation for sustainability is critical to safeguard to ensure employee prioritization of sustainability in decision making when growth and financial objectives come into play. Secondly, purpose-driven companies such as green early-stage firms, in contrast to pure profit-driven companies, have shown to attract people that are more passionate about their work and motivated by the purpose of the company (PwC, 2019). Therefore, based on this, in combination with the idea of Carsrud and Brännback (2011) that individuals commit to entrepreneurial settings without the need for rewards except task-enjoyment, it is important to maintain employee intrinsic motivation for sustainability in this specific setting. Thirdly, with low levels of intrinsic motivation among employees in entrepreneurial settings, Debrulle et al. (2021) mean that employees *"adopt a shorter-time horizon and are willing to use any available means of production without much consideration of the longer-term business impact"*. With the long-term considerations that sustainability embodies in mind (WCED, 1987), such a short-term employee mindset would be detrimental, particularly for green early-stage companies where sustainability is part of the core business strategy. With the aforementioned problematization of the paradoxical nature of MCS apparent in green early-stage firms, this empirical setting is of particular interest to investigate further.

2.2.2. MCS development and driving strategy in early-stage companies

With the lack of studies targeting the interplay of sustainability-related MCS and sustainability in early-stage settings, diving deeper into the commercially focused literature on early-stage firms can provide a frame of reference of the role of MCS in driving such a strategy. Davila et al. (2015) show that MCS plays a central role in driving financial performance and top-line growth for early-stage companies. In a similar vein, Miller and Friesen (1984) developed a five-stage model (birth, growth, maturity, revival, and decline) describing each stage of organizational development, and since firm features vary across stages, different controls are employed to fit the organizational context. Organizations in the birth stage are young and small in nature with a limited number of employees, causing top management to undertake full responsibility of strategy, directly supervising subordinates (Miller & Friesen, 1984). In line with Su et al. (2013), the authors mean that firms' employment of informal controls in the "birth stage" is not expected to be prevalent due to the founders' involvement in almost every decision across the organization. Hence, focus on staff experts, recruiting and training as means of control is expected to be low (Kallunki & Silvola, 2008). In pursuit of establishing reputation through providing value to customers, result controls are essential for birth stage firms in reaching organizational objectives (Abernethy et al., 2007). However, Liao (2006) means that the birth stage is characterized by high creativity and ambiguous goal setting, causing the availability of result controls, such as KPIs and other measures, to be low, and thus implementing them remain inappropriate. Action controls are however emerging in this stage where a few formal policies and procedures are employed (Miller & Friesen, 1984; Simons; 1995).

Approaching the growth stage, the organization develops in line with a function-based structure with underlying teams that are provided with a larger amount of autonomy to manage an increasingly dynamic environment (Ciavarella, 2001). Similarly, as in the birth stage, result controls remain less likely to be employed. Since well-working result controls require knowledge about which results are required in the areas in scope of control, and how to measure such results adequately, the prevailing uncertain and dynamic environment in the growth stage makes result controls difficult to implement (Merchant & Van Der Stede, 2017). However, action controls become critical in the growth stage. With increased employee autonomy, action controls act as means to ensure employee alignment with the strategy and that decisions are made in the best interest of the organization (Simons, 1995; Moores & Yuen, 2001). The same goes for informal controls in the growth stage where the search for innovation and product development puts pressure on employees' knowledge and attitude towards their roles, placing controls related to recruitment, culture, and training programs at the forefront. This is also supported by Jensen (1998), who means that organizations are more likely to rely on the capabilities of employees when operating in a dynamic industry environment. Overall, Samagaio et al. (2018) and Davila and Foster (2007) conclude that early-stage firms in this setting put a larger emphasis on informal MCS to remain flexible and dynamic in this

stage. Beyond the earlier stages of MCS development, Miller and Friesen (1984) demonstrate that controls are formalized, with measures for result controls becoming more available and procedures becoming more specified.

Overall, the literature on firms in the birth stage indicates that there are generally few controls in place due to the founders' involvement in almost every strategic decision. Moreover, the literature suggests that MCS becomes more informal and focused on personnel and culture controls when entering the growth stage, while a formalization of control takes place beyond this stage. Therefore, Miller and Friesen (1984), along with the other aforementioned studies, have the potential of outlining the role of MCS in driving sustainability strategy in early-stage firms.

2.2.3. The role of MCS in maintaining a proactive sustainability strategy in the large corporate literature: a "derailing effect"?

Although research on the role of MCS in driving strategy in early-stage companies can provide some inspiration for driving a proactive sustainability strategy, no distinct studies have directed attention towards this domain. However, the large corporate literature provides some additional interesting observations, even though it is scarce. Most authors agree that sustainability-related MCS has a supporting role in driving strategic agendas in pursuit of reaching commercial ambitions (Abernethy & Brownell, 1999; Burns & Vaivio, 2001; Chenhall & Euske, 2007). However, when it comes to MCS' capabilities in supporting a proactive sustainability strategy, literature remains ambiguous. On the one hand, there are studies claiming that MCS can act as a catalyst to support objectives towards sustainable development (Albertini, 2019; Arjaliès & Mundy, 2013; Gond et al., 2012). For instance, Albertini (2019) demonstrates how MCS can be used to achieve a stronger sustainability strategy, and in turn gain financial advantages. On the other hand, a considerable number of studies find conflicting results (e.g., Contrafatto & Burns, 2013; Narayanan & Boyce, 2019; Narayanan & Adams, 2017). These studies argue that a dominant economic focus present in profit-maximizing organizations hinders the ability to integrate sustainability, causing the strategic plan to "derail" and revert to a profit-focus. An additional argument provided by some of the opposing authors is that MCS represents practices used by professionals to make decisions that maximize profits, which in turn only reinforces the commercial agenda. Hence, the ambiguous findings in the literature regarding what role MCS plays in driving a sustainability strategy motivates further research within this academic domain.

According to Contrafatto and Burns (2013), integrating sustainability into an organization is challenging and must be viewed in a larger context. The profit-seeking mindset and "*the way we do things around here*" inhibit sustainability integration according to the authors. The only sustainability controls that gained prominence in the business were those associated with financial aims, suggesting that MCS may reinforce economic forces. Narayanan and Adams (2017) similarly found that sustainability efforts were

limited to what was good for business. Although the organization for instance created a sustainability committee, partnered with an NGO and considered sustainability in decision-making by creating a tool for this, all changes were profit-driven and fitted within the organization's interpretive schemes i.e., the underlying values and beliefs of the organization. The authors demonstrate that the organization's interpretive schemes must be modified to deepen sustainable integration since the financial focus prohibits it. In line with the aforementioned studies, Narayanan and Boyce (2019) found how MCS first embraced sustainability but then reverted to a profit-centric attitude. However, the early MCS reforms before the reversion did not fully integrate sustainability into company activities either. For instance, the generated sustainability discourse was mostly recognized in external communication, such as annual reports, and merely treated as a formality in internal meetings. In addition, the policies were reduced to vague declarations of the company's aim to become more sustainable, with merely "*statements regarding a commitment to sustainability*", and no specified objectives, measurable targets, or policy-related commitments. Thus, the policies had little impact on daily decision-making. Moreover, internal sustainability reporting became more of a PR exercise than a tool for strategy and decision-making. Hence, the discourse and sustainability measures did not lead to interactive use that corrected the information. Hence, the findings by Narayanan and Boyce (2019), Narayanan and Adams (2017) and Contrafatto and Burns (2017) indicate that MCS lacks the supporting capability in the context of supporting a proactive sustainability strategy.

Interestingly, Norris and O'Dwyer (2003), studying the influence of MCS on managerial internal motivators that promote decision-making in line with a proactive sustainability strategy found both supporting and conflicting evidence. The authors identified informal controls as motivating for socially responsive decision-making, which was supported by a strong perceived congruence between managers' individual values and those encouraged by the organization. This congruence was particularly strengthened through selection of staff whose personal interests align with those of the organization and an imprinted organizational culture. While the informal controls promoted socially responsive decision making, the formal control system only advocated commercial objectives, which created confusion for some managers. As sustainability performance was not evaluated or rewarded, managers became confused, which led them into prioritizing financial targets when conflicts arose between the profit and sustainability. These results hence align with the aforementioned studies (Narayanan & Boyce, 2019; Narayanan & Adams, 2017; Contrafatto & Burns, 2017), showing signs of a "derailing effect". However, this prioritization of financial objectives also met resistance from some managers since socially responsive decisions were so strongly promoted by the informal control system. Hence, the tendency of a "derailing effect" was mitigated through strong informal controls that led many managers into resisting decision making that aligned with the financially focused formal control system.

The findings in Contrafatto and Burns (2013), Narayanan and Adams (2017) and Narayanan and Boyce (2019) as well as in Norris and O'Dwyer (2003), indicate that there is a "derailing effect" at play over time. This effect is partly explained by the underlying profit focus among the firms studied. Another argument brought forward is that MCS represent practices used to make decisions that maximize profit and hence only reinforce the profit focus, in turn contributing to a "derailing effect" (Narayanan & Boyce, 2019; Narayanan & Adams, 2017; Contrafatto & Burns, 2017). Norris and O'Dwyer (2003) add to this, arguing that an incongruence between sustainability-related formal and informal controls explained a "derailment" of sustainable decision making. The "derailing" tendencies identified in these studies shed further light on the paradoxical control challenge elaborated on in the previous section. Although MCS can support sustainability strategy (Albertini, 2019), research also notes that there are certain forces at play that pull organizations towards decision-making that is unaligned with the sustainability agenda.

Nevertheless, the nature of the studied empirical settings leaves many questions unanswered. Firstly, the studied firms operate in conventional and "brown" industries such as Construction, Retail and Financial Services (e.g. Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Norris & O'Dwyer, 2003) where sustainability is not part of the foundational business strategy. Furthermore, the studied case firms are publicly listed with tens of thousands of employees (e.g. Narayanan & Adams, 2017; Narayanan & Boyce, 2019). In line with Miller and Friesen (1984), this would indicate that the studied firms are located within the later stages of the corporate life cycle, characterized by more complex and bureaucratic organizational structures, potentially causing sustainability to be more cumbersome to operationally ingrain. The role of MCS in driving sustainability could therefore be dependent on the inherent setting, which is supported by Narayanan and Boyce (2019), claiming that MCS is not a context-neutral tool. Accordingly, prior research calls for more practical observations of the role of MCS in driving a proactive sustainability strategy across different companies, industries, and geographies (Thomson, 2007) to further problematize the findings in the literature.

2.2.4. Identified needs for further research in literature

Based on the literature presented previously, there are several identified potential academic contributions. Firstly, the literature on early-stage firms is scarce and is currently only focused on driving strategy towards commercial ends (e.g., Davila et al., 2015; Miller & Friesen, 1984). Therefore, we aim to contribute to the commercially focused literature by exploring what role sustainability-related MCS plays when driving a strategy towards sustainability. Due to the increased organizational attention towards sustainability (Albertini, 2019), this further emphasizes the need for further research within this domain. Secondly, we aim to contribute to further research on the interplay between MCS design and motivation for sustainability in early-stage settings, responding to calls for further research (Adler & Chen, 2011). Within this literature field, there are several indications of a relationship between MCS design and intrinsic motivation. Deci

et al. (1999), in line with van der Kolk et al. (2019) suggest that formal controls have the capabilities of reducing intrinsic motivation. In addition, the findings by Norris and O'Dwyer (2003) demonstrate that informal controls play a critical role in influencing internal motivators that promote sustainable decision-making. Based on this, our study aims to investigate the relationship between MCS design and employee intrinsic motivation for sustainability, and further extend current research by discussing its connection to the maintenance of a proactive sustainability agenda. Thirdly, the literature on the role of MCS in integrating sustainability is scarce, where e.g., Narayanan and Boyce (2019), Narayanan and Adams (2017) and Contrafatto and Burns (2013) have expressed a pressing need for additional research on this topic. In addition, this literature remains ambiguous related to the role of MCS in supporting objectives towards sustainability, where several studies demonstrate that MCS contributes to a "derailing effect" (Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Contrafatto & Burns, 2013; Norris & O'Dwyer, 2003). Given that research indicates that controls are not context-neutral tools (Narayanan & Boyce, 2019), observing the use of MCS in driving a proactive sustainability strategy in new and contrasting empirical settings is highly relevant.

An empirical setting which, to the best of our knowledge, is neglected in the research field is early-stage firms with green business models. This context provides an interesting addition to current research on the role of MCS in maintaining a proactive sustainability strategy, which today is highly focused on traditionally "brown" firms with a strong underlying profit-maximization logic. What is particularly interesting in this setting is that green early-stage companies face a strong paradoxical control challenge when managing organizational growth, as described in section 2.2.1. In conjunction with organizational growth and new employees with diverse interests joining the company, formal controls can be employed to maintain the strategy and align the workforce (Malmi & Brown, 2008). In this vein, scholars have presented an ambiguous view on how effective sustainability-related MCS is in maintaining a sustainability strategy. Although some authors take a positive stance on its supporting role (Albertini, 2019), others point out that MCS in itself, coupled with an underlying profit-focus among studied firms, can induce a "derailment" of the sustainability strategy. This effect is particularly detrimental for green early-stage companies where sustainability is part of the foundational business model. In pursuit of more formal control, a new complex challenge emerges since formal controls have the capabilities of undermining employee intrinsic motivation (van der Kolk et al., 2019) for sustainability, which is essential to safeguard in a green early-stage setting as elaborated on in section 2.2.1.

The above theoretical background motivates further research on how green early-stage companies can manage this paradoxical control challenge. Accordingly, this study intends to answer the following research questions:

1) *How can green early-stage companies use MCS to maintain a proactive sustainability strategy in a high-growth setting?*

2) *How can green early-stage companies design MCS to maintain employees' intrinsic motivation for sustainability?*

2.3. The interplay of MCS and intrinsic motivation

To investigate this paradoxical control challenge further, the focus of this study will be how different types of control mechanisms interplay to drive a proactive sustainability strategy, and how such controls at the same time enable maintenance of employee intrinsic motivation for sustainability. Several authors have discussed different frameworks for classifying management control mechanisms, where the Object of Control framework by Merchant and Van Der Stede (2017) is widely mentioned. Merchant and Van Der Stede (2017) enable classification of management control practices focusing on the objects to which control is directed, and the conceptualization of the interrelation between different control mechanisms. This study makes a distinction between results control, action control, personnel control and cultural control, and will further mobilize literature on intrinsic motivation to enable interpretation of the implications of the current as well as future control landscape on employee intrinsic motivation for sustainability at our case company.

Motivation among employees refers to "being moved to do something" (Ryan & Deci, 2000), and academic literature has directed a great deal of attention to the concepts related to intrinsic motivation (van der Kolk et al., 2019). Intrinsic motivation mainly refers to people engaging themselves in activities since they find it interesting and can derive pleasure from conducting the activity (Gagné & Deci, 2005). Against this background, several studies draw on the relationship between MCS and its implications on intrinsic motivation (Deci et al., 1999, van der Kolk et al., 2019; Frey & Jegen, 2001). Both the studies by Deci et al. (1999) as well as van der Kolk et al. (2019), for instance discuss how formal control or using extrinsic rewards for tasks may impair employee intrinsic motivation. These interventions may be perceived as controlling and undermining employee autonomy, further reducing the intrinsic motivation to complete tasks (Frey & Jegen, 2001). Frey and Jegen (2001) further explain that management control fundamentally embodies controlling aspects, which is problematic since employees' feeling of being controlled undermines the intrinsic motivation for conducting specific tasks. However, they also add that formal control has the capabilities of inducing intrinsic motivation given that such control efforts are perceived as supportive rather than controlling among employees.

Below we will further elaborate on the relationship between the different controls presented by Merchant and Van Der Stede (2017) and their implications on intrinsic motivation. According to Merchant and Van Der Stede (2017), personnel controls are put

in place to facilitate employee performance and make sure that they can conduct the tasks that their role demands. This highly relates to "self-management" and that employees fulfill their tasks due to a feeling of self-realization and satisfaction. Examples of personnel controls could be training programs and processes for selection of candidates (van der Kolk et al., 2019). From a motivation point of view, personnel controls could enhance capabilities as well as evoke a sense of autonomy among employees, which according to Deci and Ryan (2000) strengthens intrinsic motivation.

Furthermore, cultural controls are interventions that are employed to promote an organizational environment of mutual monitoring and where employees influence the behavior of each other in pursuit of establishing corporate values and social norms. Examples of culture controls are established core values and the tone set at the top of the organization (Merchant & Van Der Stede, 2017). These are interventions that focus on promoting a sense of common ground among employees by strengthening emotional connection towards others and the organization as a whole. In line with Ryan and Deci (2000), when employees are provided with forums where they can relate to the organization and its individuals, intrinsic motivation is facilitated. In summary, literature points to the fact that both personnel and cultural controls are facilitators of intrinsic motivation among employees.

Literature however has diverging views on how the employment of action and results controls affects intrinsic motivation (van der Kolk et al., 2019) as they are used to guide employee behavior and decision-making, but simultaneously motivate employees to perform (Hood, 1995). Action controls, such as pre-action reviews, protocols, and procedures, are mechanisms that are designed to ensure that employees take actions that align with some required behavior that is pre-specified (Pfister & Lukka, 2019). Formal controls and extrinsic rewards have a controlling and an informing component, where the former promotes a sense that the employee is forced from the outside, while the latter facilitates competence and a feeling of freedom of choice over actions (Frey & Jegen, 2001). Therefore, depending on which component a control adheres to, intrinsic motivation will be undermined or promoted (Osterloh & Frey, 2000). van der Kolk et al. (2019) mean that action controls have distinct controlling characteristics that limit employee autonomy, which accordingly undermines intrinsic motivation. Naturally, action controls give rise to an external employee pressure to behave in line with pre-specified procedures, which reduces the intrinsic motivation since the satisfaction obtained from completing the task is indirect and not due to the completion of the activity itself (van der Kolk et al., 2019).

Finally, results controls can be employed to monitor and compare actual performance with expected performance and can include metrics such as number of activities completed or customer satisfaction (Pfister & Lukka, 2019). According to Frey (2012) result controls can be problematic to use for motivational purposes since such formal interventions move the locus of control to the outside, thus potentially undermining

employee intrinsic motivation. The informing capabilities of results controls are however evident since they may contribute to a feeling of decision-freedom for employees on how to satisfy targets, which holds if corrective actions are not employed. In a similar vein, results controls also have the capabilities of providing a feeling of proficiency when actual results meet or exceed expected, which boosts intrinsic motivation. However, the opposite prevails if performance is below target, which undermines employee intrinsic motivation (Osterloh & Frey, 2000). Although results controls can have informing traits, controlling elements are evident. Result controls can be perceived as controlling in that they steer employee actions towards tasks in scope of the target, further undermining decision-freedom. The controlling component is also strengthened by connecting rewards to desired outcome, which undermines intrinsic motivation. Accordingly, van der Kolk et al. (2019) argue that results controls have the capabilities of both undermining and including intrinsic motivation.

In summary, the aforementioned literature shows that different combinations of controls have different implications on employee intrinsic motivation. Therefore, to guide the empirical analysis, this study will observe the findings through the lens of the Object of Control framework by Merchant and Van Der Stede (2017) and further mobilize the literature on intrinsic motivation to help us answer the two interrelated research questions. This theoretical lens will provide us with a better understanding of what kind of controls are effective in maintaining the sustainability strategy, but also how sustainability-related MCS can be designed to simultaneously maintain intrinsic motivation for sustainability.

3. Method

The following section describes the research methodology and design. Section 3.1 motivates our choice of study and empirical setting. In section 3.2, the data collection process is described. Section 3.3 outlines the data analysis process. Lastly, section 3.4 explains how data quality was ensured throughout the research process.

3.1.   Research design

3.1.1. Choice of study

To investigate our area of study, a qualitative study was conducted. This type of study allows for a deeper analysis of the research issue and to capture the context explored itself since it permits researchers to also investigate the social and cultural elements that may influence the attitudes and behaviors of individuals (Pratt, 2009; Vaivio, 2008). This is something that cannot be captured to the same extent by quantitative analysis. In addition, we have decided to perform a single case study based on Eisenhardt's (1989) logic. She explains in her study how such a single case study allows for a more in-depth investigation of the phenomenon and its underlying causes, as well as a better contextual comprehension of the specific issue. Moreover, Eisenhardt (1989) references Yin (1984), demonstrating how researchers can choose to conduct an analysis on different levels when a case study is the chosen research method. We found the most appropriate level to be the organizational level given the nature of the research questions.

Furthermore, the choice of research design is congruent with prior research and selected theories. Prior research on the role of MCS in driving proactive sustainability strategy in the large corporate-literature, as well as on how MCS can drive commercial strategy in early-stage companies have also conducted single case-studies due to the in-depth examination that this research approach entails. Moreover, according to Hall (2016), the case study method is ideally suited for analyzing psychological processes, such as intra-organizational interactions, in the management accounting literature. Since this study seeks to understand how an organization's MCS interplays with employee attitudes towards their roles as well as how such controls are perceived from a motivational standpoint, this study can be considered examining psychological processes. Hence, there is a congruence between the research design and the theories employed in the study.

In addition, the study design will employ an interpretative approach. This methodology is also congruent with the employed theoretical concepts. Interpretive research emphasizes the subjective experiences of individuals and is therefore appropriate for investigating complex social issues, such as individuals' values and attitudes (Neumann, 2000). Since the research focus and the applied theoretical concepts aim to gain a deeper knowledge of the subjective attitude, values, and perceptions of the interviewees in our case company, this is an applicable methodology foundation for this study.

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3.1.2. Choice of empirical setting

Our case organization is EnergyCo, a Sweden-based early-stage company active in the Green Technology space. EnergyCo was founded in 2015 with the ambition to support the clean energy transition and provide cutting-edge technology to a wide range of industries and geographies. The reason why EnergyCo is an interesting case firm to study in the context of driving a proactive sustainability strategy using MCS is threefold.

Firstly, EnergyCo operates within an industry characterized by high regulatory pressure from a sustainability point of view due to its key role in driving the green transition. Although EnergyCo' service and product offering can be categorized as "green", the company operates under an asset-heavy business model that is dependent on scarce and finite natural resources and a global supply chain. Therefore, EnergyCo is an interesting firm to academically observe from a sustainability perspective considering the nature of the industry that the company operates within. Secondly, EnergyCo provides a new academic context in relation to previous studies on MCS and sustainability (e.g., Narayanan & Boyce, 2017; Narayanan & Adams, 2017; Contrafatto & Burns, 2013). Previous studies within the sustainability and MCS domain have, to the best of our knowledge, heavily relied on empirical material where case firms are large multinational corporations with a dominant underlying profit focus, generating similar results in terms of a reversion back to a profit focus. In the context of EnergyCo, such an underlying profit focus is different considering their strong purpose-driven ambition alongside commercial objectives. Accordingly, EnergyCo provides an interesting empirical setting in relation to previous studies. Thirdly, the culture of EnergyCo is very entrepreneurial and innovative, with employees that are intrinsically motivated by tasks that contribute to the sustainable purpose. EnergyCo has an ambition to safeguard these cultural traits to drive the sustainability strategy when growing. With this in mind, EnergyCo provides an interesting empirical setting to investigate in terms of employee intrinsic motivation for sustainability since this seems to be of critical importance to maintain and drive their strategy.

Furthermore, we chose EnergyCo as the case firm for this study due to other more practical reasons. In selecting empirical setting, Emmel (2013) underscores the importance of identifying a context that is proportional to the specific phenomena that the study intends to investigate and can generate purposeful data for the research process. Accordingly, a critical reason for choosing EnergyCo was that they are in an ongoing process of formalizing more controls, hence they have a self-interest in engaging in the research topic. Furthermore, in line with Emmel (2013), EnergyCo is relatively small in terms of e.g., revenue, employees etc. compared to previous studies within the MCS and sustainability domain. This is advantageous in answering the research question since it will allow us to study the firm more holistically without the risk of overlooking meaningful data.

3.2. Data collection

3.2.1. Interviews

The empirics have mainly been collected through interviews. This method of collecting data is appropriate as it facilitates digging deeper into the research topic and through this gain nuanced and detailed data. Also, interviews can induce participant engagement and control, which can make the interviewees more willing to share their thoughts and experiences (Edmondson & McManus, 2007; Eisenhardt, 1989). Based on the reasoning by Edmondson and McManus (2007), this way of collecting data was also found appropriate since it enables gaining interpretive insights from analyzing non-verbal cues, such as tone and body language. These kinds of insights are also meaningful as they give further meaning to the data. In addition, interviews have been a well-used approach for data collection in previous studies within our research field (e.g., Contrafatto & Burns, 2013; Narayanan & Adams, 2017; Narayanan & Boyce, 2019). The interviews were held with people with managerial positions from different functions. This enables a collection of more meaningful and informed data related to their respective function, which altogether provides a holistic view of the firm. Even though the selection of interviewees was wide in terms of the role and function they operated within, we were selective about the fact that the interviewees should be able to provide valuable input and insights to the study. In Table 1 below, a list of the interviews conducted is presented.

Furthermore, the interviews were conducted through a semi-structured approach. This approach allowed for flexibility in the interviews where we could adjust our questions depending on the answers received and hence focus on the findings deemed most interesting in terms of our research scope. In addition, a semi-structured approach is a suitable structure in a social science research such as our study since it is very valuable to be able to ask clarifying questions and follow-up questions when you want to get a better understanding of the beliefs, values, and attitudes of the interviewee (Bryman & Bell, 2011). In terms of the interview questions, some of the questions were given to all interviewees, while some questions were changed and added to be more role- and function-specific. Also, the interview guide was developed under the research process which is elaborated on further in section 3.3.

As noted in Table 1, and illustrated in more detail in Appendix A, 17 interviews were conducted, where two of the interviewees were interviewed more than once. The interview process occurred during the months February, March, and April 2023 at regular intervals to enable us to adjust the interview guide in relation to the research process, which was highly iterative. The interviews were all held in Swedish and varied as to whether they were performed digitally or in-person. Every interview was then recorded and transcribed instantly to increase the data quality.

Table 1. Overview of interviews and interviewees

Interviewee	Date
	2023-02-09
EVP Sustainability	2023-02-16
	2023-03-07
Director of Supply Chain	2023-03-16
	2023-04-06
VP Europe	2023-03-16
Business Development Manager	2023-03-16
Head of Business Development	2023-03-17
VP Business Control and Business Systems	2023-03-24
VP Manufacturing and Supply Chain	2023-03-24
EVP People and Culture	2023-03-27
VP Product and Solution	2023-03-28
Senior Specialist Internal Control	2023-03-30
CFO	2023-03-30
Sourcing Engineering Director	2023-03-30
VP Sourcing	2023-04-04
Logistics Manager	2023-04-06
Total	**17 interviews**

3.2.2. Additional data

In addition to the interviews, internal and external documents have also been gathered and analyzed during the research process. The external documents were mainly press releases, sustainability reports and news articles whereas the internal documents were investor presentations, ESG-related strategy documents as well as an organizational chart. These additional documents were valuable to use as complement to the empirical material gathered through the interviews since they provided a deeper understanding of the organization and supported in verifying the quality of the data (Yin, 2009).

3.3.   Data analysis

During the time that interviews were conducted, the process of data analysis was initiated. The research methodology adopted an abductive approach. We deemed it to be the most

appropriate approach to use since it would allow us to better leverage theory and move away from empirical descriptions to theoretical explanations (Pfister et al., 2023). The application of an abductive research method necessitated a highly iterative procedure in which we moved back and forth between the empirical setting under study and finding a relevant theoretical lens. This meant that we began with our initial empirical findings and then used theory to formulate additional questions and to theorize the findings (Bryman & Bell, 2011; Dubois & Gadde, 2002; Lukka & Modell, 2010). Such an approach required us to stay open and analyze different potential paths to take, and further accept the ambiguity of how the process would unfold.

Specifically, the abductive process began with a kick-off interview with the EVP of Sustainability, in which we asked various questions about the sustainability strategy and the controls in place to support the sustainability strategy. Following this initial interview, the recorded interview was transcribed and discussed in effort to identify any noteworthy findings. According to the initial interview, there were numerous informal controls in place but few formal ones. A further finding was the apparent tension between profitability and sustainability, as well as the necessity of not suppressing sustainability in decision-making processes. These findings influenced the questions and interview guide for the forthcoming interviews, in which we inquired more about the efficacy of the current mode of controls in managing the tension and maintaining a proactive sustainability agenda. In addition, sensemaking theory was in mind at this point, thus we also aimed to gain a deeper understanding of the interviewees' definition of sustainability in the context of EnergyCo. After conducting a few more interviews, it became clear that sensemaking theory was not the most applicable theoretical lens to employ. However, these subsequent interviews supported the notion that an area worthy of further investigation was the way the control mechanisms supported sustainable decision-making, in accordance with the proactive sustainability strategy. The iterative procedure continued, and after conducting additional interviews, we identified a phenomenon that attracted our interest. Specifically, we gained a deeper understanding of how informal controls maintained high levels of intrinsic motivation for sustainability among the interviewees, which played a crucial role in supporting the strategy. Thus, at this stage, we chose the theoretical concepts that could explain how MCS can maintain the sustainability strategy, and simultaneously maintain intrinsic motivation for sustainability, namely the Object of Control framework by Merchant and Van Der Stede (2017) and how it relates to intrinsic motivation. These concepts are also closely related, which further supports the use of both these concepts in our chosen theoretical lens.

After all interviews were conducted, the coding process of all empirical findings started. In this process we aimed to identify common themes in the interviews. The coding process started with several parameters being identified, where we as a next step tried to identify themes among these parameters. The coding of the empirics made us identify two distinct two control challenges which EnergyCo faced, which in addition appeared to be paradoxical in nature. The first challenge was how a green early-stage company like

EnergyCo can maintain the proactive sustainability strategy using MCS when managing swift organizational growth. The other challenge was that in order to manage the first challenge, and also given their lifecycle stage, more formal controls needed to be implemented. However, the addition of more formal controls implies a risk of undermining intrinsic motivation for sustainability among employees. With this paradoxical control challenge in focus, we could identify several themes in the empirics, around this challenge. More specifically, these themes concerned the role of the current MCS in managing this paradoxical control challenge, the limitations of its role, as well as how the future MCS should be designed to better manage the challenge. See Appendix D for an overview of these coding parameters, and appendix E for identified themes.

3.4.   Data quality

When writing a qualitative academic paper there are numerous quality-related aspects to consider related to the collection and processing of empirical data. Lukka and Modell (2010) suggest making use of the concepts of authenticity and plausibility to assess the quality of the data. Case studies tend to be subject to personal bias (Messner et al., 2017; Yin, 2009), which is why authenticity needs to be built by the authors through holistically describing the studied empirics and involve a level of detail that convinces the reader that the authors are true to their empirics. Our objective throughout the study is to provide comprehensive illustrations and minimize personal bias in the data by including many quotes provided by the interviewees as well as using examples of operational processes of the case firm to reach a deeper level of detail. To further increase authenticity, all interviews are recorded and transcribed with the ambition to truthfully process as much empirical data as possible. Also, we observe issues relevant to our study from different angles by including several interviewees' perspectives, which further increases authenticity.

Furthermore, Lukka and Modell (2010) mean that researchers can strengthen the plausibility of the findings by utilizing a wide range of data sources, engaging in careful data analysis and interpretation, and presenting the empirical findings in a structured and transparent manner. In this respect, the research process relies on interview material with employees, internal documents provided by the firm and external material such as news articles, enabling the study to leverage multiple sources of information. To engage in a rigorous process of data analysis and interpretation, Lukka and Modell (2010) emphasize the use of abductive reasoning, which is why this study employs an abductive research process that acted as a guide during the interviews and in the empirical analysis process (see further descriptions in section 3.3). To ensure transparent and structured presentation of the empirical material, we involve tables and charts that clearly and coherently visualize the findings to minimize the risk of misinterpretation. In conclusion, we argue that the validity of our research study is substantial considering that both authenticity and plausibility are maintained throughout the research process.

4. Empirical analysis

The following section presents the empirical findings analyzed through the theoretical lens of Merchant and Van Der Stede's (2017) Object of Control framework and literature on intrinsic motivation. Section 4.1 presents the paradoxical control challenge evident in EnergyCo. Section 4.2 presents how EnergyCo's current control landscape manages the paradoxical control challenge. Section 4.3 discusses employees' perceived limitations of EnergyCo's current control landscape in managing the control challenge. Lastly, section 4.4 brings up how EnergyCo plans to design future MCS to approach the perceived limitations and better manage the paradoxical control challenge.

4.1. The paradoxical control challenge at hand in EnergyCo

EnergyCo was born out of the founders' vision to empower the sustainable energy transition, where integrating sustainability and having it as a key part of the strategic agenda has been prioritized since inception. Up until 2020, EnergyCo was largely and informally managed by *"the mind of the CEO"* and his ambitious plan with regards to both business and sustainability. On the back of client accounts starting to commit to larger product volumes, the Head of Business Development mentioned that *"it eventually got to 'wow, this is going great, now we have to hire a lot of people'"*. With top management becoming unable to be part of every decision, the company involved itself in a "concretization exercise" of the CEO's mind, resulting in an updated strategic direction in 2021.

This new agenda involved setting new organizational targets covering all areas of the Triple-Bottom Line with a particular focus on environmental objectives by for instance committing to a net-zero emissions target in 2026. Before the updated strategic direction, the company considered itself "sustainable" due to its substantial external handprint contribution, leaving the internal control perspective rather neglected. The VP of Europe added to this, *"we have a sustainable product, but then she [EVP of Sustainability] joined and claimed that we are not sustainable internally"*. Although EnergyCo has undertaken efforts to enforce sustainability to ensure decision-making resonates with the CEO's vision, the company is still in the process of imposing formal controls to support this integration. Considering the company's rapid organizational and employee growth along with formal controls that are yet to be implemented, there is a growing concern among senior managers that decisions made in lower levels of the organization are too spontaneous, solely profit-focused, and unaligned with the company's sustainability agenda. This shows how the senior managers in EnergyCo see challenges in maintaining the proactive sustainability strategy caused by rapid organizational growth as well as headcount expansion.

Therefore, employees of EnergyCo expressed that the company needs to impose more sustainability-related formal controls to prevent the company from losing its green touch and maintain the proactive sustainability strategy. In pursuit of increased formal control, EnergyCo simultaneously has a strong ambition to safeguard the entrepreneurial and sustainability-committed culture that keeps the workforce agile and motivated for committing to sustainability efforts.

> "The entrepreneurial spirit at EnergyCo makes me very motivated to work with sustainability." - VP of Manufacturing and Supply Chain

Moreover, task-enjoyment and sustainability engagement among employees were seen as important in ensuring sustainability considerations in decision making. The Director of Supply Chain mentioned that a genuine interest enables a *"willingness to go that extra mile to support sustainability"*. These quotes hence demonstrate the comprehensive reliance on employees' genuine interest and intrinsic motivation for sustainability to drive the proactive sustainability strategy.

Finally, a Business Development Manager added that *"EnergyCo is not, and will not be, a top-lead American company"*. Accordingly, the company faces the challenge of imposing formal controls that enable a successful management of the tension between sustainability and profitable growth without undermining employee intrinsic motivation for sustainability tasks.

4.2.   The current control landscape supporting a proactive sustainability strategy

4.2.1. The role of cultural and personnel controls

Applying the object of control framework (Merchant & Van Der Stede, 2017) there are several indications of strong cultural controls in place at EnergyCo supporting a maintenance of the proactive sustainability agenda. One of these is the existence of strong core values which permeate the culture and are well integrated in the day-to-day work. The core values *"We are One, We Take Charge, We Think Big"* were referred to constantly by the interviewees as facilitators of the strong sustainability culture they have today. According to the EVP of People and Culture, these core values were formulated bottom-up through workshops where all employees were involved in the formulation process, which enabled employees to find congruence between individual and organizational values. In addition, the core values are integrated into operating processes and interactively used during recruiting interviews and internal meetings. Also, in the individual performance reviews, all three core values are broken down for the employees to reflect on how well they work according to these and for the manager to give feedback accordingly.

> "The fact that all employees had been involved in this journey of formulating new core values was what made it so successful. People confronted me

afterwards saying that 'this is really us, this is spot on'." - EVP of People and Culture

Employees further expressed how each of the three core values were considered to support sustainable decision making. *"We are One"* promotes a collaborative internal culture which interviewees claimed to be important for supporting the sustainability agenda.

> "The encouragement of horizontal collaboration is key to ensure an alignment of the sustainability agenda. Our close collaboration with the EVP of Sustainability has made us come far in relation to sustainability metrics and reporting." - VP of Sourcing

The second core value, *"We Take Charge"*, reflects the entrepreneurial culture at EnergyCo and encourages a proactive sustainability mindset. The adoption of such a mindset in decision making was exemplified by the VP of Manufacturing and Supply Chain. When he was approached with a cost-reduction demand in the budget, he proposed to use parts of the proceeds to invest in renewable energy at production sites which was approved. He concluded how this initiative was undertaken due to his strong commitment to sustainability and further explained that *"having people in managerial positions who value sustainability ensures that such decisions are made."*. The last core value "*We Think Big*", reminds employees that EnergyCo's business goes beyond solely profit which is enforced in the external communication stating that *"what is good for the planet is also good for business and what is good for business is also good for our planet"*. The EVP of People and Culture added that this core value reminds employees of the goals beyond profit and that sustainability *"is so imprinted in us now"*.

Another strong cultural control (Merchant & Van Der Stede, 2017) employed by EnergyCo is the sustainable tone set at the top of the organization. Firstly, the CEO regularly hosts town halls, talking about their vision and how sustainability is at the core of the organization. The Head of Business Development added that *"Everyone knows that sustainability is at the heart of the organization, it is the reason why our CEO founded EnergyCo in the first place"*. Secondly, the leadership of the CEO was described as "*visionary*" by many interviewees, where the VP of Manufacturing and Supply Chain mentioned that "*he [the CEO] is a very charismatic leader that genuinely cares about sustainability*". He further elaborated how the CEO's visionary leadership and interest for sustainability *"rubs off"* on the employees. Thirdly, other forms of sustainability-focused communication such as town-halls and other social forums hosted by management further enforced a sustainable mindset among employees. The VP of Manufacturing and Supply Chain referred to an emergence of a *"resonance effect"* where the top-down communication around sustainability made it a high priority.

> "I see a very clear resonance effect. It is based on us saying what we do, perhaps a bit exaggerated. However, the more often we say it, the more likely it feels that we will eventually end up there." - VP of Manufacturing and Supply Chain

From a motivational standpoint, EnergyCo's core values and tone set at the top, which represent cultural controls (Merchant & Van Der Stede, 2017), enables employee intrinsic motivation for sustainability to be induced. Observing the core values through the lens of intrinsic motivation literature, this congruence enables employees to find common ground with the company's values and engage in sustainability activities due to self-interest. Therefore, in line with Ryan and Deci (2000), this increases the intrinsic motivation for sustainability among employees which the interviewees deemed to be critical in encouraging a sustainable approach in decision making. In a similar vein, the tone set at the top can also be considered to facilitate intrinsic motivation for sustainability. By imprinting a sustainability mindset among employees through top-down communication, the employees come to more easily relate to the communication which reaches them. This enabling of congruence facilitates intrinsic motivation for sustainability as a common ground among the employees is created with what is communicated from the top (Deci & Ryan, 2000).

In addition to the cultural controls, several personnel controls (Merchant & Van Der Stede, 2017) were also identified. Many interviewees emphasized the importance of having the "*right*" people in leading positions, which is why selection of staff and recruiting processes were considered important controls to maintain a sustainability focus in decisions. The EVP of People and Culture expressed how *"a genuine interest for sustainability is highly valued"* in the recruiting process and that candidates' sustainability interest is asked about in interviews. This candidate profile could be observed among this study's interviewees, where many had professional backgrounds related to e.g., sustainable sourcing or impact investing before joining EnergyCo. The Director of Supply Chain explained that the genuine interest for sustainability played a key role in driving the proactive sustainability strategy and maintaining a sustainable focus in decision making.

> "It is very important that you on a personal level are driven by making an impact, because then it becomes more of a natural dimension considered in the decision you make. I can see this among my colleagues, how many are willing to go that extra mile to support sustainability." - Director of Supply Chain

Lastly, the external employer branding is another personnel control in place (Merchant & Van Der Stede, 2017) which is important in ensuring a prioritization of sustainability among employees. The EVP of People and Culture mentions how their external branding contributes to a natural selection of candidates. Hence, the VP of Manufacturing and Supply Chain demonstrated how the resonance effect from the internal top-down communication also can be seen in the external employer branding, *"the same image and approach we have internally, emphasizing how sustainability is in our DNA, is also an approach which we keep externally to achieve a natural selection of people"*. With this said, external branding is an effective tool in ensuring the employment of sustainability-committed people, which they deem to be important in maintaining the proactive sustainability agenda.

Observing the personnel controls through the lens of motivation literature, these controls provide evidence of an inducement of employee intrinsic motivation for sustainability. Regarding the recruiting process as well as the external branding towards potential candidates, both controls ensure a selection of employees who genuinely enjoy conducting sustainability tasks and who relate to the company's sustainable objectives. With sustainability-committed employees in place, EnergyCo can better ensure feelings of satisfaction and self-realization when these employees are approached with tasks that relate to sustainability, which according to van der Kolk et al., (2019) facilitates intrinsic motivation for sustainability. Furthermore, since employees are generally interested in sustainability, they can more easily find common ground with the company's objectives where sustainability is highly promoted. In line with Ryan and Deci (2000), this further strengthens the intrinsic motivation for sustainability.

To summarize, the cultural and personnel controls are the dominating controls in place in EnergyCo to support the maintenance of the proactive sustainability strategy. We observe a strong interplay between the cultural and personnel controls, where their relationship enforces each other. The effectiveness of the cultural controls in promoting a sustainable approach in decision making can be argued to be dependent on the company's use of personnel controls. Since the personnel controls promote the employment of candidates that are intrinsically motivated by sustainability, the culture controls such as the top-down communication and core values, which are highly focused on sustainability, generate a strong congruence between individual and organizational values. This congruence, created by the interplay of personnel and cultural controls, in turn led to employees acting upon the sustainable decision making that is promoted by the company. Lastly, the fact that these informal controls enable employees to find common ground with the company and find sustainable matters genuinely interesting, employee intrinsic motivation for sustainable tasks is promoted. In the empirical material, we can also observe that the intrinsic motivation for sustainability among employees allows for prioritization of sustainability in decision making.

4.2.2. The role of result and action controls

In the company's supply chain operations, which include Planning, Order and Delivery, Logistics and Purchasing, individual managers have developed result controls (Merchant & Van Der Stede, 2017) for their respective function in the form of sustainability linked KPIs. The entire function has around five distinct KPIs related to sustainability alongside cost-driven metrics that are tracked, evaluated, and taken into consideration through an internal ERP system when making decisions. For instance, Logistics has implemented KPIs related to emission impact of the company's freight operations. The total CO_2 emissions are broken down to shipping level where EnergyCo can identify deviations in relation to the emission target and take further action. The cost- and sustainability-linked KPIs are separated, which according to the interviewees enables sustainability to be

prioritized although cost-efficiency programs are imposed. Hence, its design enables the sustainability strategy to be managed side-by-side profitability.

> "Although we have a target on some reduction of cost, the sustainability KPIs are maintained, so they are separated in that respect." - Director of Supply Chain

Similar result controls are also involved in the budget work which relates to the ratio of renewable energy used at production sites. The VP of Manufacturing and Supply Chain imposed KPIs that each production site manager reports on, which relates to the ratio of renewable energy used at EnergyCo's respective production sites. He added that the KPI enables production site managers to be encouraged to make decisions that align with the company's net-zero target in 2026.

> "The budget says that we should be carbon neutral when it comes to our production. We have solar- and wind-power at one production site and we have invested in solar panels at another one. Then we are above 50% renewable energy usage across all our production sites, which was the target this year." – VP of Manufacturing and Supply Chain

From a motivational standpoint, EnergyCo's result controls related to sustainability are designed in a way that allows for employee intrinsic motivation for sustainability to be maintained. For instance, although corrective action is taken upon unsatisfactory results, the design of the emission related KPI has strong informing characteristics since it does not steer employee behavior towards any specific action besides minimizing emission impact. Therefore, it provides a platform for innovation and decision-freedom for managers in how to satisfy the target, which in turn increases the intrinsic motivation for sustainability (Frey & Jegen, 2001). Similarly, regarding the KPI on the ratio of renewable energy used at production sites, each manager is provided with autonomy with regards to how to reach a certain level of renewable energy, generating similar effects on employee intrinsic motivation for sustainability as above (Frey & Jegen, 2001).

On action controls (Merchant & Van Der Stede, 2017), EnergyCo has imposed a few policies and processes that allow sustainability to be further strengthened in decision-making alongside the company's growth agenda. For instance, EnergyCo has a process for the preferred mode of transfer that requires proposals for using transport by air to be processed in group councils. The Director of Supply Chain noted that *"during the pandemic for instance, sea freight was more expensive than air, but in such a situation we still chose sea freight due to sustainability aspects".* This quote shows that such an action control supports the use of more sustainable modes of transfer although it is not financially ideal, enabling a maintenance of the proactive sustainability agenda.

Another type of action control (Merchant & Van Der Stede, 2017) identified in EnergyCo is the establishment of the EVP of Sustainability role and its inclusion in the Executive Leadership Team (ELT). The team consists of Executive Vice Presidents (EVPs) from all functions and includes eight members, including the CEO. Having the EVP of Sustainability included in the ELT facilitates sustainability discourse across all functions

and puts the topic higher on the agenda. Interviewees mentioned that this allows for the sustainability department to be part of core operations and act as a *"sustainable sounding board"* for other VPs in their efforts to incorporate sustainability in their respective functions.

> "The fact that the EVP of Sustainability is included in the ELT is a very contributing factor, it gives more airtime to sustainability and also facilitates for different functions to incorporate it better." - VP of Business Control & Business Systems

EnergyCo also has strict policies and implemented processes related to Business Ethics, Responsible Supply Chains, Human Rights and Diversity. As an example, the company has imposed preferred component and supplier lists which should guide employees in discussions with external parties and vendors. These action controls allow for making sure that operating decisions and partnerships live up to the expectations of EnergyCo. The EVP of Sustainability mentioned that the company views the action controls that relate to the social components of sustainability more as a "*ticket to play*" and that EnergyCo "*does not aim at being market leaders but must follow it*". Such controls are hence employed to ensure regulatory alignment.

Observing EnergyCo's action controls through the lens of intrinsic motivation literature, the environmental action controls are designed in a way that allows for preservation of informing characteristics in line with Frey and Jegen (2001). For instance, as claimed by the senior Specialist of Internal Control, the final decision related to mode of transfer is still up to the accountable manager "*it is still her [Director of Supply Chain] decision. Although we have a policy that effectively says, 'do not use air freight', it is more like 'do not use air freight unless it is the only alternative'*". Hence, this process-related action control shows signs of informing, rather than controlling traits which van der Kolk et al. (2019) deem to be possible, which further increases the feeling of managerial decision-freedom and hence employee intrinsic motivation for sustainability (Osterloh & Frey, 2000). The inclusion of the EVP of Sustainability in the ELT has similar supportive traits in line with Frey and Jegen (2001). Since such an action control indirectly steered VPs actions towards incorporation of sustainability and was perceived as a "sounding board" rather than as a controlling action, the employee intrinsic motivation for sustainability is maintained. Finally, the action controls that related to social concerns were designed as strict ways-of-working which undermines intrinsic motivation (van der Kolk et al., 2019) for conducting such tasks. This indicates that EnergyCo wants to sustain creativity and intrinsic motivation for tasks that relate specifically to the environmental strategy, while the tasks that relate to the social component should be more process-oriented to ensure compliance with regulation.

To summarize, although formal sustainability controls remain scarce, employees of EnergyCo indicated that these controls to a large extent support decisions in line with the proactive sustainability agenda. The result controls on carbon emissions and renewable

energy in production are separated from the cost-driven metrics, allowing for prioritization of sustainability although it is not rational from a financial standpoint. We observe similar tendencies on environmental action controls, where a sustainable mode of transfer as well as the role of the EVP of Sustainability in the ELT "*nudge*" employees towards prioritizing sustainability in decisions. In addition, formal controls related to environmental concerns are designed to adhere to informing characteristics. Result controls rather emphasize desired targets instead of steering employees towards certain actions, making them perceived as less controlling. In a similar vein, we draw the conclusion that the environmental action controls are designed in a way that allows for preservation of informing characteristics, while controls on social concerns represent strict ways of working, hence undermining intrinsic motivation.

4.3. Employees' perceived drawbacks with current control landscape

As demonstrated by the preceding analysis, the cultural and personnel controls are the dominant types of controls currently in place at EnergyCo to support a proactive sustainability strategy. In addition, these controls, along with the formal controls in place, have generally a supporting rather than controlling design, thus seen as enablers of intrinsic motivation (Frey, 2012). However, the non-controlling aspect of these controls, which facilitates a sense of freedom of choice over action, also has limitations when it comes to a maintenance of the proactive sustainability strategy.

The main concern highlighted by the employees was the dominant use of cultural and personnel controls, which in turn had several limitations. One of these limitations was that the reliance on informal controls to drive the proactive sustainability strategy implied a substantial trust in individual employees. This in turn resulted in unaware and spontaneous decisions. A few interviewees emphasized the risk of such a control system when managing swift organizational growth.

> "If you grow more than 100% per year as we do, you cannot only rely on having people that make the right decisions, you also need to have systems and other control mechanisms in place supporting this." - Head of Business Development

This concern was confirmed by many other employees, expressing how decisions lack data-support and other evidence. Instead, gut feeling and self-interest act as individual guides, resulting in unaware decisions. In addition, some interviewees pointed out that these unaware decisions tend to promote profitability over sustainability in some instances. For instance, the Director of Sourcing Engineering underlined *"I still see very much price and profitability focus in the decisions made"*. This clearly illustrates that the dominant cultural and personnel controls in place are not enough to maintain the proactive sustainability strategy, hence leaving sustainability suppressed.

> "What I can see as a risk in having so many spontaneous decisions made is that they also become unaware decisions. Many people join the company and think they know the right direction. There it starts to become dangerous. Then you need some kind of controls as a complement." – CFO

Moreover, as confirmed above, the informal nature of the MCS puts a lot of pressure on finding talent and people that fit, which the interviewees mentioned poses additional challenges in maintaining the proactive sustainability strategy. As the VP of Europe emphasized, not everyone is able to work at EnergyCo, *"the level of ambition of performance is set extremely high, which requires us to work efficiently, but we do not aim at steering ambition, rather it must be present in everyone. The culture is very challenging"*. This indicates a large risk for EnergyCo considering their reliance on hiring competent and suitable candidates to support swift growth, but also with genuine interest in sustainability. This is an apparent limitation of the high reliance on informal controls in the long run.

Furthermore, interviewees argue how the finance function is rather de-coupled when it comes to sustainability. The VP of Business Control & Business Systems expressed the difficulties in quantifying and calculating sustainability initiatives compared to financial ones, which makes it difficult for them to understand how the finance function can contribute to that topic. This signifies how the current MCS, which is to a large extent relying on informal controls, is not enough when sustainability competence and/or interest lack.

> "When it comes to practically applying sustainability, it is still difficult to grasp how we should do it. Also, it has fallen into obscurity a bit since much focus has been on the financials to keep up with the fast growth." - VP of Business Control & Business Systems

In addition to the reflected limitations of the dominant cultural and personnel controls in mitigating a derailment of the proactive sustainability strategy, limitations with the result controls in place were also expressed. Today's ERP system, where sustainability KPIs are tracked and supporting data can be retrieved, promotes a reactive rather than proactive approach to decision making. This is because the supporting data is solely backward-looking where the VP of Manufacturing and Supply Chain explained that this hinders EnergyCo from seeing future sustainability-impact of data-driven decisions, further risking unaware decisions. Moreover, since EnergyCo's current sustainability KPIs are locally developed within functions, their alignment with the overall proactive sustainability strategy is questioned. The CFO added that *"no one knows how they [the KPIs] drill up and affect the company as a whole"*. He further explained how this relates back to their general difficulties in implementing processes top-down in EnergyCo, *"we have always been pretty good bottom-up. Top-down we're not so good since we don't steer our organization like that, but in some respects it may be necessary."*. Hence, an evident limitation related to today's result controls were expressed by the interviewees,

where bottom-up and locally developed sustainability KPIs run the risk of being unaligned with EnergyCo's overarching sustainability objectives.

Furthermore, the employees also expressed concerns regarding the fact that quantitative performance is solely evaluated from a financial standpoint. The VP of Sourcing mentioned that "*in the end, I become very financially focused since I am only measured by price, cash flow, lead times, supply chain performance and similar metrics*". Since employees are not evaluated based on their quantitative sustainability efforts, such as CO_2 emissions, the focus is shifted away from sustainability and to the financials instead. However, an interesting finding was that even though they are solely evaluated and measured on their financial performance, these measures happened to be disregarded by some employees, which could be observed in section 4.2.2. Although this tendency can be observed, the absence of sustainability measures is an expressed limitation as it prevents employees from having an even greater focus on sustainability in their work and decisions.

Lastly, although scarce, the interviewees also emphasized limitations with the action controls in place related to sustainability. Employees highlighted a degree of poor communication and misalignment between functions with regards to sustainability efforts, although this is clearly vouched for in the core values. For instance, although the Supply Chain and Sourcing functions have come further in sustainability integration, the effects of this are diminished due to the interdependence of functions. The problem at hand is that the Product Development function can *"lock in"* a particular supplier or material already in the design phase, which hinders the Sourcing function to make the most optimal decision from a sustainability point of view. Therefore, interviewees express a lack of process-related action controls ensuring that sustainability considerations are incorporated in all functions across the company.

To conclude, most of employees' perceived limitations with the current controls system relate to a lack of formal sustainability controls that enforce sustainability-focus in decision making across the entire organization. One of the main concerns of the interviewees was that the dominant use of informal control can generate spontaneous decisions that are unaligned with the proactive sustainability strategy. This was evidenced by the Director of Sourcing Engineering and could also be observed in the finance function, where a lack of sustainability interest/competence made the informal controls insufficient to support the strategy. Moreover, although somewhat supporting a sustainability-focus in decision making, the result controls promoted a reactive sustainability mindset. Also, since result controls are bottom-up developed, an apparent risk of misalignment with the proactive sustainability strategy was perceived among interviewees. Lastly, the lack of formal procedure related to intra-organizational sustainability discourse undermined some functions' abilities to make sustainable decisions.

4.4. Perceived need of formal controls to better manage the paradoxical control challenge

Given the perceived limitations of the present sustainability-related control landscape in maintaining the proactive sustainability strategy, coupled with the current stage of EnergyCo's life cycle, additional formal controls will have to be implemented. As additional controls seek to address the challenge of a derailing sustainability strategy, the formal controls can simultaneously undermine employee intrinsic motivation (Deci et al., 1999) for sustainability. EnergyCo has acknowledged that their high growth has brought them to a stage where the need for implementing more formal controls is evident and recognizes the paradoxical complexity of such efforts as quoted in section 4.1. As further described in section 4.1, EnergyCo has a strong ambition to safeguard the entrepreneurial and sustainability-committed culture due to its strategic importance. Hence, it is critical for EnergyCo that the additional formal controls will not only support the sustainability strategy but also maintain the intrinsic motivation for sustainability among employees.

One type of control EnergyCo will implement is more result controls. To address the perceived limitation of the bottom-up formulated sustainability KPIs and their risk of being unaligned with the strategy, the interviewees highlighted a need of formulating clear strategic sustainability objectives and developing related KPIs top-down. Such implementation would ensure company-wide alignment with the proactive sustainability strategy. Further, EnergyCo has already taken action to strengthen result control alignment through approaching its forwarders to understand which carbon specification requirements they can impose. In that work, the company has employed external consultants to develop targets and KPIs that align with SBTi. Having SBTi-approved targets and KPIs which are in line with the overall strategy will hence increase the accuracy and alignment of current result controls. These actions can help mitigate the risk of mismeasurement of the currently bottom-up developed sustainability KPIs. Also, such control efforts can enable EnergyCo to better understand how KPIs *"drill up in the organization"* as the CFO claimed that the current result controls lacked evidence of.

Moreover, EnergyCo also aims to change the way they process and analyze data by integrating more forward-looking data in their existing system support. By having more forward-looking data in place, they can ensure that the sustainability decisions they take are more fact and data-based, decreasing the risk of spontaneous decisions. This would also enable EnergyCo to be more proactive, rather than reactive in decision-making since, for instance, forecasted carbon emissions can be extracted and analyzed pre-decision. With accurately developed sustainability KPIs in combination with proactive data-support, EnergyCo can make informed decisions that they know support their targets from the get-go, which further strengthens the sustainability agenda. In a similar vein, the employees demonstrated a lack of regular follow-up and analysis of sustainability performance that related to result controls. Enhancing such efforts would further inform decision-making processes going forward as described above, but most importantly

provide a forum for feedback loops that can further steer actions towards desired sustainability results. The CFO emphasized that *"we need to be much better at following-up on KPI performance to confirm that we are doing the right things"*.

Given that result controls can be perceived as controlling since employees' actions are steered from the outside (Frey, 2012), it is paramount that EnergyCo makes the informing traits of these controls evident. The EVP of People and Culture developed on this by explaining that the sustainability-related controls in place should not be designed in a way that is perceived as controlling since this can have detrimental effects, especially for critical senior managers of EnergyCo. She mentioned that *"I see the largest risk among senior managers who have been with us for many years who really want to maintain this purpose-driven culture around sustainability. I think we will observe a large resistance from those people if decision-freedom is undermined"*. This demonstrates how EnergyCo is determined to make these result controls supportive by adhering to the informing components of result controls (Osterloh & Frey, 2000). The VP of Manufacturing and Supply Chain explained that this could be achieved by maintaining decision freedom in how targets should be satisfied. Through this approach, EnergyCo can "*nudge*" employees towards sustainability without directly forcing them to make certain decisions. On the other hand, the suggested feedback loops could be argued to interfere with autonomy and "self-management" since corrective action would be taken upon unsatisfactory results, which in turn undermines decision-freedom and subsequently the feeling of proficiency (Frey, 2012). However, to address the apparent limitations of relying heavily on informal controls when managing swift organizational growth, coupled with having stretched sustainability targets in place, the CFO mentioned that it is necessary to inform employees if their efforts towards sustainability are *"enough"*. He deemed feedback loops to be essential in this work by mentioning that *"are we really moving towards the right direction at the right pace? To answer that we need to follow-up on our sustainability metrics.*".

In addition to the result controls, action controls in relation to sustainability are also planned to become more prevalent in the future (Merchant & Van der Stede, 2017). One type of action control that EnergyCo plans to implement is a sustainability council. This implies that the sustainability discourse and its consideration in decision making will be further strengthened in processes towards making decisions. In addition, such an effort would create a better alignment of sustainability decisions between functions since employees from the entire company will be members of the council. The VP of Manufacturing and Supply Chain explained how creating a sustainability council *"is a change that will really allow us to calibrate the compass among both existing and new employees"*. This would hence address the limitation of relying heavily on staffing processes and finding sustainability-committed candidates through further informing about the role that sustainability plays in decisions across the entire firm.

An additional example of an action control that EnergyCo is about to introduce is a code of conduct titled "the EnergyCo way". This document was created in collaboration between the EVP of People and Culture, the sustainability function, and the compliance function with the intention to outline the objectives, including sustainability, that employees should strive to achieve when making decisions. So far, the strong informal controls have supported decisions in line with the sustainability strategy, however the EVP of People and Culture expressed how it must be formally enforced given the large number of new employees joining the company. Another example of a policy that will be implemented is the revision of the list of preferred components, which will place sustainable materials in a more prominent position than it has currently. Hence, these action controls are imposed with the ambition to spark further intra-organizational sustainability discourse. Similar to the current action control on the mode of transfer, these action controls will act as decision support, rather than strict ways-of-working, where decision-freedom is sustained for employees. The Head of Business Development added that "*these efforts should be viewed as facilitators for the employees by supporting them in decision making. It is, however, crucial that they still feel ownership.*".

Since the above outlined action controls are not intended to force employees to act in accordance with pre-specified behavior nor restrict specific decisions and actions (Pfister & Lukka, 2019), the employee intrinsic motivation for sustainability can be maintained. Similar to the result controls, it shows how EnergyCo makes the action control perceived less controlling by maintaining the decision freedom among employees. Instead, these action controls would "*nudge*" employees towards sustainable considerations without directly controlling decisions. Hence, this design choice creates a feeling of freedom of choice over actions, making the formal control adhere more to its informing component (Frey & Jegen, 2001).

5. Discussion

In the following section, the findings from empirical analysis are discussed in relation to the literature reviewed in section 2. Section 5.1 summarizes the empirical findings. Section 5.2 discusses our findings around how MCS is developed in green early-stage companies driving a sustainability strategy. Section 5.3 discusses how MCS can be designed to not only maintain strategy but also maintain intrinsic motivation for sustainability. Lastly, section 5.4 discusses the ambiguous role of MCS in supporting a proactive sustainability strategy.

5.1.   Summary of empirical findings

The findings indicate that EnergyCo applies a dominant use of informal controls, such as personnel and culture controls, to maintain its proactive sustainability strategy. The company manages to create a strong interplay between the informal controls where the use of personnel controls strengthens the effect of the cultural controls. This in turn gives rise to a strong congruence between employees' values and those promoted by the organization, which promotes a sustainability focus in decision making processes. From a motivational standpoint, the use of informal controls enables employees to find common ground with the company and a sense of task-enjoyment for working with sustainability. This in turn induces the intrinsic motivation for sustainability which was perceived essential in pursuit of prioritizing sustainability in decisions. The formal control environment in place, which is relatively scarce, also seems to support a prioritization of sustainability and maintenance of employee intrinsic motivation for sustainable decision making due to its adherence to informing components of control. Although the current sustainability-related MCS supports employee intrinsic motivation for sustainability, the dominant use of informal controls along with the insufficiency of formal controls on a company-wide basis has created indications of a "derailing effect" as more people join the company.

The main limitation highlighted by interviewees was the dominant use of informal controls in conjunction with high employee and organizational growth. Several employees expressed concerns that the reliance on employing the "right people" is not enough to maintain the proactive sustainability strategy since spontaneous and unaware decisions prevailed. To address the perceived limitations of the current MCS, additional formal controls will be implemented to maintain the proactive sustainability agenda. In this respect, interviewees proposed to impose a formal control environment that supports further sustainability consideration in decision-making, a better alignment with sustainability strategy across the company and a more proactive approach to sustainability in data-informed decisions. While the additional controls aim to better maintain the strategy, they in parallel aim to safeguard employee intrinsic motivation for sustainability through its design. By designing the formal controls with the same adherence to the

informing component, in line with the current formal controls, EnergyCo can maintain a feeling of decision-freedom while "nudging" employees towards making sustainable decisions.

5.2. MCS development in green early-stage companies driving a sustainability strategy

Several scholars have studied the role of MCS in driving strategy in early-stage companies, where results indicate that it acts as an effective tool in reaching commercial objectives (e.g., Davila et al., 2015; Samagaio et al., 2018). This study extends current literature on early-stage companies by shedding additional light on this scarce research domain, but also how MCS can support strategic agendas towards sustainability objectives. We hence extend the findings in Davila et al. (2015) by confirming that MCS also plays an important role in driving a proactive sustainability strategy where informal controls, in line with Samagaio et al. (2018), remain the dominant mode of control. In contrast to previous research (e.g., Miller & Friesen, 1984, Davila et al., 2015; Samagaio et al., 2018), this study also explores the perceived limitations of controls generally employed by early-stage companies, and also zooms in on the process of managing the relationship between organizational growth and formal control in a green early-stage company setting.

Observing EnergyCo through the lens of Miller and Friesen's (1984) life cycle model, the company's prominent reliance on personnel and culture controls along with its function-based structure and large managerial autonomy indicates belonging to the growth stage (Miller & Friesen, 1984). However, conflicting evidence is found related to the use and efficiency of formal control in the early stages of an organization. According to Miller and Friesen (1984), result controls remain complex to implement and measure in the growth stage, which this study both supports and contradicts. Although bottom-up developed and uncontrolled for alignment with strategy, EnergyCo has result controls in place that support decision-making in line with sustainability. However, our findings also support Miller and Friesen (1984) in their line of argumentation that the complexity to measure result controls in the growth stage makes them hard to implement. This could be observed in the finance function's inability to quantify and measure sustainability KPIs. Overall, the scarce use of result controls in EnergyCo is not surprising since the complexities of implementing them when the market is dynamic and goal setting is ambiguous (Liao, 2006) can explain its non-dominant role. Furthermore, the use of action controls remains low in the current control system, which contrasts Miller and Friesen (1984) who claim that such controls are critical for a growth-stage firm to ensure employee alignment with strategy.

With this in mind, several similarities as well as differences can be observed regarding the role of MCS in early-stage firms in driving a proactive sustainability strategy compared to regular commercial strategy. On the one hand, the informal nature of MCS

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in EnergyCo resonates with the findings in Samagaio et al. (2018), Davila and Foster (2007) and Miller and Friesen (1984) where a dominant use of personnel and culture controls are employed to drive strategy. On the other hand, our findings indicate a particularly strong use of such controls and a minimal use of formal controls such as action controls, which further contradicts the above studies. Having a particular focus on informal controls to drive sustainability strategy would align with Crutzen et al. (2016), claiming that sustainability is a rather novel topic that requires a change of peoples' mindsets. With a strong interplay between cultural and personnel controls, EnergyCo manages to create an environment where employees' personal values become congruent with those promoted by the organization. Based on the strength of this congruence, EnergyCo has therefore enabled to maintain a focus on sustainability with a more dominant use of informal control. A particularly strong focus on culture and personnel controls in this setting to drive strategy could also be explained in line with PwC (2019). Given the purpose-driven nature of sustainability, informal controls become efficient control mechanisms to manage the behavior of employees that are more genuinely driven by the purpose of the firm. Thus, this can further explain why action controls are one of the least dominant modes of control since employees' commitment to sustainability acts as a powerful control mechanism, further decreasing the importance of policies and procedures to promote sustainable decision making.

5.3. The interplay of MCS design and employee intrinsic motivation for sustainability in green early-stage companies

Scholars have called for a deeper understanding of how MCS design interplays with employee motivation (Adler & Chen, 2011), which is an interesting research domain since different controls have varying implications on employee intrinsic motivation (van der Kolk et al., 2019). Our findings support the conclusion in Mores and Yuen (2021) that employee motivation is critical to safeguard in an early stage setting since large reliance is put on the capabilities of individual employees and their attitude towards their role (Jensen, 1998). However, we also extend the findings in Mores and Yuen (2021) by identifying the type of motivation that certain controls relate to and how such a relationship allows for driving sustainability strategy effectively. In our study, employee intrinsic motivation for completing sustainable tasks seems to be of particular importance in driving the proactive sustainability agenda. Considering the lack of formal procedure and controls along with the emergence of conflicting financial forces in conjunction with organizational growth, the employee intrinsic motivation for sustainability acts as a strong contributing force in prioritizing sustainability in decision making. Furthermore, literature shows a strong relationship between reduced intrinsic motivation and imposing formal control (Deci et al., 1999). Also, van der Kolk et al. (2019) mean that external interventions such as action and result controls have strong controlling traits, which in turn obstruct their capabilities of inducing intrinsic motivation.

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This study sheds additional light on those findings in numerous ways. Firstly, in contrast to van der Kolk et al. (2019), we provide empirical evidence of how formal MCS design can embody informing characteristics which allow intrinsic motivation to be maintained. Since the design of formal controls induces a sense of intrinsic motivation for sustainability, such controls are internalized effectively among employees, which aligns with the results in Adler and Chen (2011). Secondly, our case indicates that MCS design is dependent on the strategic importance of an area and that the need for creativity and intrinsic motivation among employees hence varies accordingly. For instance, EnergyCo imposed sustainability-related MCS with strong controlling traits in areas where the organization does not aim at being market leaders, such as Human Rights, whereas environmental-related controls had strong informing traits. This indicates a flexible relationship between the design of formal MCS and intrinsic motivation rather than the literature's rather unambiguous view (van der Kolk et al., 2019; Deci et al., 1999). Thirdly, we extend the findings in Deci et al. (1999) and van der Kolk et al. (2019) by identifying how the strength of the informal control system also has implications on the effect of the formal controls. Although some of EnergyCo's current formal controls are financially focused, such as the company's performance management system, the effectiveness of these controls remains low where employees in many situations resisted decision making promoted by these controls. We observed how the strength of the informal control system, which created a congruence between individual and organizational sustainability values, induced employees' intrinsic motivation for sustainability and further led them into resisting financially supportive decision making. This employee tendency would resonate with the findings in Norris and O'Dwyer (2003). Furthermore, this lack of formal sustainability control may not lead all employees into prioritizing sustainability (Norris & O'Dwyer, 2003), which was observed in our findings as well. When new employees join EnergyCo, interviewees expressed a pressing need to impose more formal control to enforce sustainable considerations in decision making.

5.4. Addressing the ambiguous role of MCS in driving a proactive sustainability strategy

The literature on the role of MCS in driving a proactive sustainability strategy is scarce, and several studies have expressed the need for further research (Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Contrafatto & Burns, 2013). Additionally, the literature presents conflicting views on the role of MCS in supporting objectives towards sustainability, where research also indicates that controls are not context-neutral tools (Narayanan & Boyce, 2019). We complement this literature by providing a new and contrasting setting, which, to the best of our knowledge, is neglected in academic research.

By studying a green early-stage company, we find that sustainability-related MCS can have a supportive role in driving a proactive sustainability agenda, and hence mitigate,

rather than induce a "derailing effect". Our findings contradict prior research (Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Contrafatto & Burns, 2013) which gives a more pessimistic view of the supportive role of MCS. These studies indicate that there is a "derailing" of the sustainability strategy at play over time, explained by the general financial orientation of MCS and an underlying profit-focus among the studied firms. In contrast to these studies, our findings suggest that controls can gain status even though they are not aligned with financial objectives and that sustainability efforts can take place even if they are not in line with economic rationalist behavior. A potential explanation for the discrepancy in the findings is that our studied firm was born out of a green ambition, where sustainability closely relates to organizational identity, hence having a less dominant profit-seeking interpretive scheme. This empirical setting differs from the other studies conducted, where the empirical settings are highly focused on traditionally "brown" firms with a strong underlying profit-maximization logic. Thus, the interpretive schemes of our case company are more closely related to sustainability, making such efforts a better fit within the interpretive schemes compared to previously studied firms. Hence, we provide a new contextuality where our findings support Narayanan and Boyce (2019) in their line of argumentation that controls are context dependent. In addition, our findings also support the prior studies (Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Contrafatto & Burns, 2013) in their line of argumentation suggesting that an underlying profit-focus can induce a "derailing effect", however not the MCS as such.

Our findings suggest that sustainability-related MCS does not induce a derailment of the strategy, arguing against previous studies (Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Contrafatto & Burns, 2013). By using the Object of Control framework (Merchant & Van Der Stede, 2017), we identify how each of the four control mechanisms support EnergyCo in maintaining the strategy. The core values and the tone set at the top influence a substantial sustainability discourse, which imprints sustainability in decision-making. The effect of cultural controls in promoting sustainability is further strengthened by the personnel controls such as careful staff selection, showing how the informal controls strengthen each other. This contrasts previous studies (Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Contrafatto & Burns, 2013) since they only showed evidence of a narrow use of informal controls with a singular focus on promoting a sustainability discourse. Therefore, based on our findings, the limited use of informal controls in these previous studies, resulting in the profit-focused interpretive schemes to be unchanged, may explain the unsupportive role that MCS played. This can also be supported by Crutzen et al. (2016) who point out how MCS in relation to sustainability should be rather informal as it is a novel topic that requires changes of employees' mindsets. Therefore, one could argue that the use of informal controls to drive sustainability strategy is critical in organizations having a strongly profit-focused interpretive scheme. This line of argumentation supports Narayanan and Adams (2017) who demonstrate how a deep integration of sustainability can only be achieved if changes to the interpretive scheme are made. In EnergyCo we can see how the company works

actively with informal controls to create an interpretive scheme which supports their sustainability strategy. Thus, EnergyCo's dominant use of informal controls to promote a sustainability strategy may partly explain our conflicting findings.

Furthermore, although formal controls are scarce, we see indications of how the use of them in EnergyCo differs compared to previous studies, which further may explain our contradictory findings. In the study by Narayanan and Boyce (2019), the authors noted that the changes made in policies and sustainability-reporting efforts were vague. For instance, the policies only acted as abstract boundaries as they lacked objectives, measurable targets, and commitments on how to become more sustainable. Moreover, the authors argued how the sustainability measures and information were not interactively used nor used as input in decisions and activities, hence not being part of any internal feedback loops. We observe a different use of sustainability measures and data in EnergyCo. Although scarce, sustainability related KPIs are monitored, evaluated, and incorporated in the budgeting process and logistics operations. Consequently, although sustainability reporting is limited in EnergyCo, result controls can be argued to be more integrated into activities and decision-making processes. Furthermore, action controls are used differently and go beyond merely *"statements regarding a commitment to sustainability"* as observed in Narayanan and Boyce (2019). In EnergyCo, action controls embody more specific objectives and commitments related to how sustainability can be enforced, which can be seen in the company's policy for preferred mode of transportation and preferred list of components and suppliers. In relation to Narayanan and Boyce (2019), EnergyCo therefore has developed a more distinct strategic direction in terms of sustainability.

However, as elaborated on in section 4.3, interviewees saw tendencies of "derailment" as more people join the company (Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Contrafatto & Burns, 2013). Thus, EnergyCo realizes the need to develop and improve their formal control system in line with sustainability strategy to manage these tendencies. This change is feasible in line with Narayanan and Adams (2017) since EnergyCo's interpretive scheme already is supporting a sustainability agenda through its strong informal control system, which must be changed before imposing other changes (Narayanan & Adams, 2017). This pattern of MCS development can further be observed in Crutzen et al. (2016), claiming that before formal sustainability control can be employed, informal controls must be used to motivate employees to engage with sustainability matters. As demonstrated in section 4.4, some of these additional formal controls include development of top-down sustainability KPIs, related feedback loops and integration of forward-looking data in their ERP system, allowing EnergyCo to use formal controls even more interactively. Thus, even though the current formal control system is more integrated than previous studies, the above changes will further allow EnergyCo to use sustainability-related formal controls more interactively, which previous research (Narayanan & Boyce, 2019; Gond et al., 2012) also deemed essential for achieving deeper sustainability integration.

6. Conclusion

6.1. Main contribution and implications

As a result of growing external pressure, businesses today place a greater emphasis on developing sustainable capabilities. In addition, this pressure has resulted in increased financial flows towards early-stage companies with business models that capture economic, social, and environmental value. Thus, early-stage companies with proactive sustainability strategies have experienced explosive organizational expansion and rapid headcount growth (Dhayal et al., 2023). However, with organizational and employee growth comes increased organizational complexity, meaning that these businesses run the risk of undermining the sustainability strategy when growth and profit emerge as conflicting forces. To maintain the sustainability strategy, sustainability-related formal controls can be implemented (Miller & Friesen, 1984). In parallel, the literature suggests that imposing additional formal controls can have a negative impact on employee intrinsic motivation (Deci et. al, 1999) for sustainability. Intrinsic motivation for sustainability is however of strategic importance to maintain in green early-stage companies due to several reasons. This relates to the informal nature of MCS in early-stage settings, the purpose-driven workforce and the long-term orientation of sustainability that risk losing its value for conflicting forces such as profitability if a short-term employee mindset is adopted. Drawing on the findings of a single-case study, we investigated two interconnected issues:

1) *How can green early-stage companies use MCS to maintain a proactive sustainability strategy in a high-growth setting?*

2) *How can green early-stage companies use MCS to maintain employees' intrinsic motivation for sustainability?*

6.1.1. Contribution to research

The findings of our study contribute to three research areas. Firstly, we contribute to the literature on early-stage companies and the role of MCS in driving strategy. This study extends this scarce literature by providing a new empirical setting on how MCS can support strategic agendas towards sustainable objectives, which to the best of our knowledge is neglected. Our findings on the use of MCS to drive sustainability strategy provide interesting implications for the commercially focused literature. In EnergyCo, informal control systems ensure employee commitment to the sustainability strategy, while formal controls remain scarce. With a strong interplay between cultural and personnel controls, EnergyCo manages to create a congruence between personal and organizational values. This congruence functions as an effective control in maintaining

the proactive sustainability strategy and can hence explain the low use of formal procedure and control to promote sustainability.

Secondly, our findings contribute to research on the interplay of MCS design and employee motivation. Our findings suggest that safeguarding employee intrinsic motivation for sustainability is critical in EnergyCo as it helps to drive the sustainability strategy, extending the findings by Mores and Yuen (2021). Furthermore, our findings contradict previous studies (Deci et al., 1999; van der Kolk et al., 2019) revealing how MCS design can be tailored to promote employee intrinsic motivation for sustainability. We further build on the rather unambiguous view presented by these studies, by showing a flexible relationship between the design of formal MCS and intrinsic motivation. In addition, we identify how the strength of the informal control system induces employee intrinsic motivation for sustainability, which in turn reduces the effect of financially focused formal controls.

Thirdly, we contribute to the scarce and ambiguous research field on the role of MCS in driving a proactive sustainability strategy by providing a new and contrasting setting. Our findings contradict previous studies (Narayanan & Adams, 2017; Narayanan & Boyce, 2019; Contrafatto & Burns, 2013) and show how MCS has a supportive role in maintaining a proactive sustainability strategy. Our findings suggest that the discrepancy in findings is partly due to different interpretive schemes, but also the different use of MCS. Our study suggests that the use of informal controls to drive a sustainability strategy differs where EnergyCo dominant use of such controls have molded a culture and an underlying interpretive scheme which better support the sustainability strategy.

6.1.2. Practical implications

Our study has important practical implications. Firstly, our findings can assist companies that currently drive or intend to drive a proactive sustainability strategy in understanding how MCS can be used to better maintain the strategy. As companies with such strategies have experienced large-scale growth and attention, it is relevant to provide a deeper understanding of this topic. In addition, sustainability is multifaceted and complex, which makes it more intriguing to discover how MCS can assist businesses in reaching objectives beyond profit. Secondly, our study also provides interesting insights on the relationship between intrinsic motivation for sustainability and MCS design. The findings illustrate how the MCS can be designed to better support intrinsic motivation for tasks related to sustainability. This is valuable for purpose-driven companies considering that these firms generally face the paradoxical control challenge that this study addresses. Thirdly, our findings are of interest to external consultants and advisors as they provide further knowledge and clarity on how companies can use MCS to both maintain a proactive sustainability strategy, but also safeguard intrinsic motivation for sustainability.

6.2. Limitations and future research

Lastly, we acknowledge that our study has several limitations. Firstly, there are general limitations associated with conducting a single-case study, such as the possibility of including personal bias and the inability to generate general conclusions relevant to a broader context (Dubois & Gadde, 2002). The geographical presence may not be generalizable since Swedish organizational structures are not hierarchical in nature, and as a result, our findings demonstrating the significance of designing MCS to facilitate intrinsic motivation for sustainability may be biased. Secondly, this study's interview process included a limited number of interviewees. Also, a large number of the interviewees had managerial positions. Even though this limitation was mitigated by the inclusion of external and internal data, it cannot be denied that a broader range of interviewees, particularly lower-level employees, could provide a more thorough understanding. Thirdly, we have to some extent conducted a pre-post study, as EnergyCo is in the process of designing and implementing additional controls. This implies that we include a forecast perspective in our study, preventing us from investigating the full effect of the various controls. Fourthly, this study has focused on how the use of sustainability-related MCS can support the maintenance of the proactive sustainability agenda. Through this research focus, the existence, role and interplay of financial controls have been largely neglected, which is an apparent limitation given the tension between sustainability and financial forces when experiencing organizational growth. Lastly, our study is limited to a qualitative analysis and interpretation of how various controls induce intrinsic motivation for sustainability. Consequently, a subjective interpretation of intrinsic motivation by the interviewees and authors of this thesis may have influenced the results. As described in section 3.4, this limitation has been mitigated by attempting to maintain both authenticity and plausibility throughout the research process.

Considering these limitations, we call upon further research. Firstly, it is crucial to conduct similar studies on other companies and in other geographic areas, given that our findings support the notion that controls are context-dependent, and to compensate for the limitations of this study. Secondly, we propose further research which involves more individuals, and individuals from different hierarchical levels to gain a more widespread and nuanced picture of the role of MCS in supporting a proactive sustainability strategy. Thirdly, we recommend additional research on similar purpose-driven companies, but which are more mature, to better evaluate the supportive role of various controls in strategy maintenance. Lastly, research incorporating a quantifiable measure of intrinsic motivation, as van der Kolk et al. (2019) used in their study of employee motivation, would reduce the risk of personal bias in the findings.

Furthermore, to provide a more enhanced view of the role of MCS in maintaining a proactive sustainability strategy and intrinsic motivation for sustainability simultaneously, we encourage future research on other aspects which were not covered within the scope of this study. One interesting area to investigate is other early-stage

companies where a proactive sustainability strategy is mainly driven by extrinsic motivation instead of intrinsic motivation. This would be of high interest as the literature on early-stage firms emphasizes how these firms are very reliant on the capabilities of individual employees and their attitude towards their role. In addition, we call for additional research on similar studies that analyze the use of MCS in maintaining the proactive sustainability strategy and intrinsic motivation over time to determine whether our findings persist throughout the lifecycle.

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8. Appendix

Appendix A: Comprehensive interview list

Interview number	Role title	Forum	Duration	Date
1	EVP Sustainability	In-person	62 min	2023-02-09
2	EVP Sustainability	In-person	57 min	2023-02-16
3	EVP Sustainability	Digital	51 min	2023-03-07
4	Director of Supply Chain	Digital	48 min	2023-03-16
5	VP Europe	Digital	54 min	2023-03-16
6	Business Development Manager	Digital	55 min	2023-03-16
7	Head of Business Development	Digital	52 min	2023-03-17
8	VP Business Control and Business Systems	Digital	47 min	2023-03-24
9	VP Manufacturing and Supply Chain	Digital	55 min	2023-03-24
10	EVP People and Culture	Digital	51 min	2023-03-27
11	VP Product and Solution	Digital	52 min	2023-03-28
12	Senior Specialist Internal Control	Digital	35 min	2023-03-30
13	CFO	Digital	42 min	2023-03-30
14	Sourcing Engineering Director	Digital	47 min	2023-03-30
15	VP Sourcing	Digital	47 min	2023-04-04
16	Logistics Manager	Digital	35 min	2023-04-06
17	Director of Supply Chain	Digital	30 min	2023-04-06

Appendix B: First version of interview guide for EneryCo

Theme	Example questions
Background	▪ Tell us about your professional background ▪ Tell us about your role at EnergyCo
The sustainability strategy	▪ Please describe the main objectives with the sustainability strategy ▪ How has management communicated motives and content related to the new agenda?
Vision, mission and core values	▪ What are the core values of the organization? ▪ Do you feel that you can relate to the core values in your everyday work? How? ▪ How is EnergyCo's vision and purpose reflected in the daily operations? ▪ How are the vision, mission and core values communicated within the organization?
Making sense of sustainability	▪ What is your interpretation of sustainability? What is the company's? ▪ Is the company's interpretation in line with how you reason? ▪ What kind of connection do you see between taking environmental and social responsibility and focusing on profitability in your role?
Performance and evaluation systems	▪ Externally, you have communicated very ambitious sustainability goals, how much do you and your function work in line with these goals? How do the goals affect the ambition level of employees? ▪ How much do you work with KPIs related to KPIs in your role and within your team? ▪ Do you feel that KPIs relevant to your role encourage management of both financial and sustainable aspects, or are you encouraged to focus on one or the other?

Appendix C: Latest version of interview guide for EnergyCo

Theme	Example questions
Background	- Tell us about your professional background - Tell us about your role at EnergyCo
Entrepreneurial culture	- Please describe the culture at EnergyCo - Do you feel that you have a lot of decision-making freedom in your role? - When can this freedom of decision mean a risk of the right/wrong decision being made?
Sustainable decision-making	- Do you think sustainability is an important consideration in the decision-making process you are involved in? - How is sustainability prioritized in the decisions you take? - Can you tell us about typical situations in your role when you experience a clear trade-off between profitability and sustainability? How do you handle such a situation and what makes you take the decision? - Why do you think EnergyCo's control system that is in place to support sustainability is designed the way it is?
Limitations and further need of controls	- Given EnergyCo's entrepreneurial culture, do you think your ambition level would be affected (better/worse) by the controls you have and will impose? - What additional controls are needed for a stronger focus on sustainability in decision-making processes? - Are there any typical situations where you see that the controls you have today are not enough without additional controls to make a decision in line with sustainability strategy?

Appendix D: Parameters found during the coding process

- High organizational and employee growth risk "derailing" of sustainability strategy

- More formal controls in need to support the sustainability strategy

- Intrinsic motivation is of paramount importance to maintain due to its interrelation with sustainability strategy

- Mostly informal controls in place, limited use of formal controls

- The informal controls motivate employees to make sustainable decisions

- A risk to reduce intrinsic motivation for sustainability when more formal controls are introduced

- Current controls do not fully support the proactive sustainability strategy

- Limitations of relying on informal controls

Appendix E: Illustration of themes found during the coding process

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┌─────────────────────────────────────────────────────────────────────────┐
│              The paradoxical control challenge in EnergyCo                │
└─────────────────────────────────────────────────────────────────────────┘

┌──────────────────────────────┐                    ┌──────────────────────────────┐
│ To maintain the proactive    │                    │ Imposing more formal         │
│ sustainability strategy      │◄──────────────────►│ controls can reduce          │
│ while managing growth,       │                    │ intrinsic motivation for     │
│ EnergyCo needs more          │                    │ sustainability which is      │
│ formal controls              │                    │ essential to maintain in     │
│                              │                    │ EnergyCo                     │
└──────────────────────────────┘                    └──────────────────────────────┘

┌──────────────────────┐    ┌──────────────────────┐    ┌──────────────────────┐
│                      │    │                      │    │ Further formal       │
│ The current controls │    │ Limitations with the │    │ controls needed to   │
│ in place             │    │ current controls in  │    │ manage the           │
│                      │    │ place                │    │ paradoxical control  │
│                      │    │                      │    │ challenge            │
└──────────────────────┘    └──────────────────────┘    └──────────────────────┘

┌──────────────────────┐    ┌──────────────────────┐    ┌──────────────────────┐
│                      │    │ The dominant use of  │    │ Important that the   │
│ The dominant use of  │    │ informal controls    │    │ further controls that│
│ informal controls    │    │ supports intrinsic   │    │ will support the     │
│                      │    │ motivation, however  │    │ strategy do not reduce│
│                      │    │ derailment tendencies│    │ intrinsic motivation │
│                      │    │ are seen             │    │                      │
└──────────────────────┘    └──────────────────────┘    └──────────────────────┘

┌──────────────────────┐
│ Results in high      │
│ intrinsic motivation │
│ for sustainability   │
└──────────────────────┘
```