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How Management Control Systems Enable and Constrain Integrated Thinking

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ABSTRACT

Purpose: This paper examines how Management Control Systems (MCS) can enable and constrain the successful adoption of Integrated Thinking in an organisation.

Design/methodology/approach: The study adopts a case study approach, involving in-depth interviews and documentary evidence.

Findings: The case study organisation perceived trust to be critical to the successful adoption of Integrated Thinking, and informal social controls with strong endorsement from senior management frequently substituted for more formal technical controls in helping to develop a trust-based organisational culture. These cultural changes improved collaboration, and brought economic benefits by encouraging outcome-based rather than capital-based decision making, thereby enabling employees to identify and address poorly-performing projects earlier. However, established performance measurement systems geared towards reporting and rewarding accounting profits created tension, constraining the potential benefits of Integrated Thinking by reinforcing Business Unit protectionism.

Practical implications: Integrated Thinking can be seen as a form of management with the potential to improve organisational outcomes. An improved understanding of factors that might enable or constrain Integrated Thinking could facilitate its spread.

Originality/value: Despite several calls for research on the practical implementation of Integrated Thinking, this has not been studied extensively. This study is one of the first to contribute to a better understanding of the role of management control systems in the successful implementation of Integrated Thinking in an organisation. The study also contributes to the management control systems literature.

Keywords: Integrated Thinking; Integrated Reporting; Management control systems

1. INTRODUCTION

Integrated Reporting (IR) is a recent development in corporate reporting which combines financial and non-financial information in a single, forward-looking performance report (De Villiers et al., 2020). IR responds to growing criticisms of traditional profit-focused annual corporate reporting by focusing on a longer-term, broader notion of sustainable performance (Busco et al., 2013). The International Integrated Reporting Council (IIRC) sees two goals for IR: firstly, improved external information for stakeholders, and secondly improved internal decision making through the adoption of Integrated Thinking (IIRC, n.d.). Considering its ambitious goals to combine both financial and non-financial reporting and to change internal decision-making processes, several practitioners regard IR as one of the most potentially disruptive innovations in corporate reporting (Simnett and Huggins, 2015).

Research on the first goal of IR shows that quality IR leads to improved investor information and firm value (Lee and Yeo, 2016; Cahan et al., 2015; Barth et al., 2017). However, research on the second goal has seen mixed results and has been limited in scope, despite its considerable practical and theoretical significance (Dumay et al., 2016; Berry et al., 2009; Guthrie et al., 2017). If the adoption of Integrated Thinking can lead to better decision-making within organisations resulting in positive economic outcomes, it is important to try to understand how such success can be achieved (Busco et al., 2020). In addition, if there are potential barriers which could limit the realisation of these benefits, these need to be better understood.

The introduction of Integrated Thinking into an organisation may require the business to consider and assess its strategic options in the light of new integrated objectives, which may represent a significant change (Bridges et al., 2020). As Management Control Systems (MCS) are the suite of controls which managers can use to steer organisations towards predetermined strategic goals (Siska, 2015), analysing the adoption of Integrated Thinking using MCS frameworks can provide valuable insights (Gond et al., 2012). The research question for this study is therefore:

How can Management Control Systems enable and constrain Integrated Thinking?

The research question is addressed through a case study of EnergyCo¹. At the time this study was conducted, EnergyCo had recently adopted Integrated Thinking and Integrated Reporting, with the aim of embedding sustainability across the organisation. A series of semi-structured interviews were conducted with managers from different functional areas of EnergyCo, and findings were triangulated with documentary evidence. The study shows that EnergyCo used social controls to develop an environment of trust which improved organisational collaboration, leading to positive economic outcomes. The study also highlights how, even within this supportive environment, established profit-focused performance measurement and reporting systems may constrain the successful adoption of Integrated Thinking, reinforcing a silo mentality and a focus on short-term performance metrics. This tension between control systems could result in organisations not fully realising the potential economic benefits of IR and Integrated Thinking adoption.

This study responds to growing demands for empirical research into the ‘how’ rather than the ‘why’ of adopting IR and Integrated Thinking (Rinaldi et al., 2018; De Villiers et al., 2014;

¹ EnergyCo is a pseudonym in accordance with the wishes of the organisation and the interviewees. The use of a pseudonym served to enhance both the scope of access and the richness of the data (Baez, 2002).

Busco et al., 2014). There is currently limited research into IR and Integrated Thinking and MCS, despite a growing body of research in the closely related field of sustainability and MCS (Crutzen and Herzig, 2013; Gond et al., 2012; Arjalies and Mundy, 2013). This study also considers the appropriateness of existing MCS frameworks for a concept as broad as Integrated Thinking.

2. LITERATURE REVIEW

IR focuses on an organisation's use of six 'capitals' (financial, natural, intellectual, social and relationship, human and manufactured) to create sustainable value. IR has developed following a growing dissatisfaction with traditional profit-focused annual corporate reporting, and differs from annual financial reports and standalone sustainability and CSR reports in having a more strategic, longer-term forward-looking approach (De Villiers et al., 2014). IR has two main goals: firstly, improved information for stakeholders, and secondly improved internal decision making through the adoption of Integrated Thinking. Integrated Thinking describes the "active consideration by an organisation of how its six capitals interrelate to create sustainable value" and is associated with increasing transparency and better, more forward-looking organisational decision making (IIRC, n.d.).

The majority of studies on the first goal of IR (improved external information) show that the adoption of IR (whether mandatory or voluntary) leads to improved understanding by investors of the future risks and cash flows for adopting companies, resulting in improved firm value (Lee and Yeo, 2016; Cahan et al., 2015; Barth et al., 2017). Churet and Eccles (2014) found that companies adopting IR had a higher quality of management and a higher return on invested capital, and Serafeim (2015) found that companies adopting IR were also more likely to attract longer-term investors.

Results from the literature on the second goal of IR (improved internal decision making) are both limited and inconclusive, with many studies focusing on normative arguments for IR rather than empirical evidence (Dumay et al. 2016; Rinaldi et al., 2018). The conceptualisation of Integrated Thinking has been described as "fluid and evolving amongst reporting organisations and key IR actors" (Feng et al., 2017: 332) and even as aspirational or mythical, such is the difficulty in both conceptualising and operationalising it (Gibassier et al., 2018). The IIRC makes the assumption that the adoption of IR and Integrated Thinking is contemporaneous, whereas evidence shows that some organisations adopt IR first (Higgins et al., 2014), and others adopt Integrated Thinking first (Adams, 2017, and Al-Htaybat & Von Alberti-Alhtaybat, 2018). In addition, although the assumption of the IIRC is that "to have done an Integrated Report, the board would have had to adopt Integrated Thinking" (King, 2015: 477), evidence shows a range of scenarios in existence, from aligned reporting and thinking to a decoupling of the two (Dumay and Dai, 2017).

IR is currently only mandatory in South Africa (on an 'apply or explain' basis), where evidence shows that its adoption does not necessarily result in substantial changes to managerial systems (McNally et al., 2017). Voluntary adoption of IR can be driven by a variety of additional determinants such as regulation, political scrutiny or specific event triggers such as environmental disasters (Maroun, 2018; Deegan et al., 2002; De Villiers, 1998). Organisational characteristics such as size, managerial attitude and organisational culture, alongside stakeholder pressure and industry-specific factors will influence the likelihood and success of

any voluntary corporate reporting and internal changes (De Villiers et al., 2016; De Villiers and Vorster, 1995; Knauer and Serafeim, 2014).

Some quantitative studies have attempted to show the internal benefits of IR adoption. Barth et al. (2017) show that internal decision-making, as measured by improved cash flow and investment efficiency, improves with IR quality, and Martinez and Wachira (2016) propose a model showing a causal impact between IR quality and Integrated Thinking, although this is limited by its use of secondary data. A recent experiment by Esch et al. (2019) found that participants provided with linked financial and non-financial information made decisions leading to higher sustainable value creation. However, most quantitative studies suffer from a lack of clear definitions around IR quality and Integrated Thinking, making variable identification and measurement difficult.

Case study evidence on IR adoption shows some positive internal results from the adoption of IR (De Villiers et al., 2016 and Lodhia, 2015), and commitment to Integrated Thinking has also been found to improve the confidence of management in their stakeholder engagement strategy (Knauer and Serafeim, 2014). McNally and Maroun (2018) found that even despite some internal resistance IR had considerable potential to change internal processes. However, another body of case study evidence indicates that the adoption of IR can be superficial. A study of Australian adopters of IR found no significant reconfiguration of business models (Higgins et al., 2014), and Raemaekers et al. (2016) and O'Dwyer (2002) also found that sustainability and CSR reporting was mainly regarded as a compliance exercise. A case study of the Australian banking sector found that IR adoption could clash with an existing corporate culture of sustainability (Dumay and Dai, 2017).

It is useful to consider MCS in the context of Integrated Thinking, as Integrated Thinking can be seen as a form of management, encouraging a broader view of stakeholders and organisational purpose. Management control “is expected to play a key role in shaping processes of sustainability strategy formulation and implementation, often attributed with a high capability to support decision-making” (Crutzen and Herzig, 2013:166). MCS can be used to facilitate a change in strategy, and MCS mechanisms can also change to match a change in strategy (Kober et al., 2007). Norris and O'Dwyer (2004) showed the effects of MCS in motivating a socially responsive strategy, and Riccaboni and Leone (2010) describe how Proctor and Gamble incorporated sustainable thinking into their MCS without the need for radical change. In addition to strategy, organisational culture is seen by many as a significant, if not dominant aspect of any change (Hofstede, 2015), acting as a primary control mechanism (Ahrens and Mollona, 2007). Higgins et al. (2014) found that employee understanding and socialisation could reduce reliance on formal control mechanisms, following Collier (2005) and Chenhall and Euske (2007). Morsing and Oswald's 2009 study of Novo Nordisk A/S, one of the first voluntary adopters of IR, also showed the importance of informal controls. However, despite this recognised capacity for MCS to guide strategy and to promote sustainable business practice (Gond et al., 2012), to date there has been limited research into how MCS are used to achieve Integrated Thinking, and what MCS can enable and constrain this process.

3. METHOD AND DATA COLLECTION

Theoretical Framework

It is unlikely that any conceptual framework will ever fully capture the complex decision-making processes used by organisations, but it is important to consider the most influential frameworks in the light of the broad remit of Integrated Thinking (Malmi and Brown, 2008). Kaplan and Norton's (1996) Balanced Scorecard is used for several studies into management control and sustainability (Woerd and Brink, 2004) but does not include the role played by managers, employees and other stakeholders, making it limiting. Merchant and Van Der Stede's (2017) object-of-control framework captures the richness of control practices, but doesn't explain how control elements link together. Simons' original Levers of Control (LoC) model (Simons, 1995) has a strong focus on business strategy, and has been used for case studies in the related fields of CSR adoption (Arjalies and Mundy, 2013) and environmental accounting (Rodrigue et al., 2013), but its focus on formal controls and senior management is limiting for a broad concept like Integrated Thinking, where informal controls are likely to be influential. Tessier and Otley's (2012) model (see Figure 1) revises Simons' LoC model, allowing for differentiation between managerial intention for controls and employee perception of them. This model has been used for recent studies on sustainability and MCS (Bui and De Villiers, 2018), and is broad enough to be a suitable basis for this study, enabling it to add to the field without the distraction of comparability issues.

The Tessier and Otley (2012) model considers managers to have social controls (those that appeal to employee emotions, such as values, beliefs, norms and symbols) and technical controls (those that consider rules, procedures and standards that govern day-to-day decision-making) at their disposal. As such, the framework incorporates both formal and informal controls and then categorises these controls into four main systems: strategic boundary controls such as mission statements serve as a reminder of the overarching organisational strategy, strategic performance controls such as planning, risk management and managerial engagement ensure strategic alignment, operational boundary controls consider policies, procedures and role definitions, and operational performance controls include performance indicators such as Key Performance Indicators (KPIs). The framework acknowledges that synergies can exist between these control systems. The outer ring of the framework represents the different choices that managers can make regarding the control systems. The labels 'enabling' and 'constraining' describe the dual role of controls in relation to creativity, and 'diagnostic' and 'interactive' describe their use, with this use leading to possible reward or punishment. The explicit separation of managerial intentions for controls and employee perceptions of controls represents one of the key differences between this model and Simon's original LoC framework. The positive, negative and neutral labels describe employee attitudes towards controls, rather than the controls themselves.

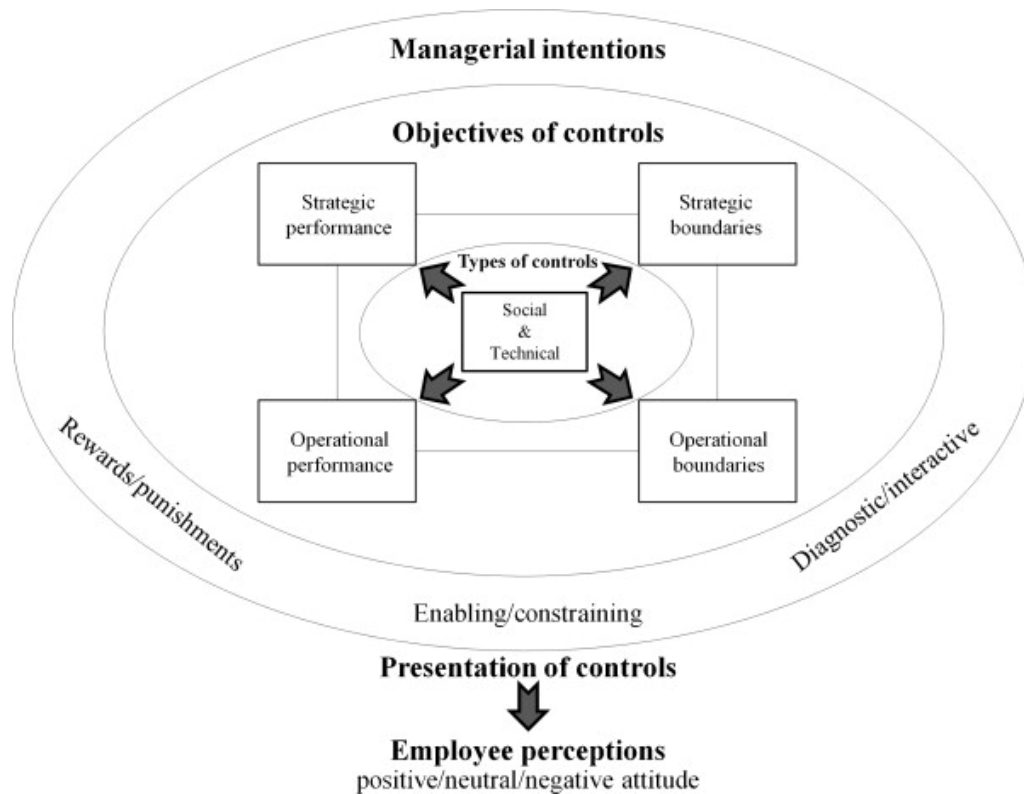


Figure 1 Simon's Levers of Control framework as revised by Tessier and Otley, 2012

Case Study

Case studies enable deeper understanding of the specific issues facing organisations (Scapens, 2011), and can represent a significant contribution both to knowledge and theory building (Yin, 2003). The use of qualitative interview-based evidence rather than the less in-depth methods of surveys also helps to discover employee perceptions of the controls (Marginson, 2002; De Villiers, 1999). Data analysis for this explorative study was an iterative process between theory and data, where patterns emerged and theoretical insights formed after multiple readings, following the interpretive method (Jönsson and Lukka, 2005).

The case study company, EnergyCo, is a renewable energy producer and retailer based in New Zealand. EnergyCo was formed by the part-privatisation of a government-owned energy company, with the government still owning a majority shareholding. EnergyCo underwent a major rebranding in 2015, and is committed to energy sustainability by 2025.

EnergyCo is a useful case study to add to the growing body of evidence in this field for several reasons. Firstly, its core business is based on renewable energy sources, making it an unlikely candidate to adopt IR purely for legitimacy reasons. Secondly, EnergyCo's articulation of sustainability is closely aligned to Integrated Thinking principles, as defined by the IIRC, and the CEO demonstrates a personal commitment to sustainable value creation. Thirdly, in EnergyCo's case, IR had been adopted in 2017, but the external reporting and metrics had not been well understood internally, resulting in a decision to refocus on embedding the necessary thinking first:

The 2017 report ... was driven by reporting frameworks, GRI in particular...it was kind of obvious that it had been done as a reporting exercise and yes [the executive

team] had seen it and read it, but they hadn't really engaged with it... that was the important first step... to get them to take ownership of it. (Participant B²)

This opinion strongly identifies EnergyCo as a company interested in Integrated Thinking as a process, with IR as a by-product of that process. With the exception of Al-Htaybat and Von Alberti-Alhtaybat's 2018 study there are few case studies that look at the adoption of Integrated Thinking as the driver of IR. That study considered an organisation and industry on the brink of major disruption, whereas in EnergyCo's case a slower, more thoughtful and deliberate strategic change can be observed. In particular, EnergyCo is an interesting case site as it has all of the hallmarks associated with successful Integrated Thinking in prior research, namely an underlying business model based on sustainability, a committed CEO and no external 'trigger' for the voluntary adoption of IR. Therefore, although it is a single case study, difficulties faced by EnergyCo in its adoption of Integrated Thinking may well be experienced by other organisations.

The semi-structured interviews, as detailed in Appendix 1, provide the core data for the analysis. Interviewees were mid- to senior managers from a range of different functional disciplines, having a range of tenures at EnergyCo. Focus on a mid-to senior managerial level was deliberate, as these individuals are most likely to see the tensions between the strategy outlined by the board and its practical ramifications within business units (following Marginson, 2002 and Mundy, 2010). Feng et al. (2017) also found middle managers to be critical to the internal communication and adoption of Integrated Thinking. The aim of the interviews was to identify which MCS influenced management behaviour, how and why this was occurring, and what the nature of the effect was. Interview questions were planned based on guidance from Ghauri and Grønhaug (2010).

The questions initially clarified the following for each participant:

- Their role within the organisation, their prior roles and tenure.
- Their role in the incorporation of Integrated Thinking into the business planning process.

The remaining interview questions were based on the 12 areas of Ferreira and Otley's (2009) framework, namely: Organisational vision and mission, Key success factors, Organisation structure, Strategies and plans, Key performance measures, Target setting, Performance evaluation, Rewards, Information flows, systems and networks, Types of use of control systems, Changes in the performance management and control systems, and Strength and linkages between MCS components. This list of questions yielded useful insights into different aspects of MCS.

Interviews were conducted either on EnergyCo's premises, at a nearby café, or on Zoom between November 2018 and May 2020. Interviews were recorded and transcribed, and sent back to each participant for review and editing, thereby reducing the likelihood of interviewer bias.

Interview data was coded into the following categories to map the data to the Tessier and Otley (2012) framework:

- (i) Types of control: social or technical

² The participant identification codes do not correspond to the order of interviewees given in Appendix 1 in order to preserve participant anonymity, following Ghauri & Grønhaug (2010).

- (ii) Control systems: strategic boundary, strategic performance, operational boundary or operational performance
- (iii) Use of control: interactive or diagnostic, enabling or constraining, and reward or punishment
- (iv) The intention of the control compared to employee perceptions

Table 1 in Section 4.4 shows the results of this initial categorisation. Following this process, key themes emerged, and are discussed in Section 4.

4. FINDINGS

This section provides evidence that EnergyCo uses different types of control systems to embed Integrated Thinking, showing in general a dominance of social controls over technical controls, and how “informal cultural, personnel, and action controls, if they are internally consistent and hence functional, form a substitute for the need to adopt more formal control systems.” (Sandelin, 2008: 339). The controls that enabled Integrated Thinking to be embedded are discussed in Section 4.1. This dominance of social controls sometimes resulted in less focus on technical controls, specifically performance management and reward systems. This constrained Integrated Thinking, and is discussed in Section 4.2. Section 4.3 considers the impact of the tensions between the control systems, and Section 4.4 gives a summary of the findings, along with a discussion on control categories.

4.1 *Enabling controls*

The adoption of Integrated Thinking at EnergyCo was enabled by informal controls which focused on providing a simple and consistent corporate purpose and developing an organisational culture of trust and teamwork. This encouraged the breakdown of traditional organisational silos, improved the flow of information, and had tangible business benefits both internally and with improved external stakeholder relationships.

Clear and consistent corporate purpose

A company’s vision and mission statement is used to communicate information to external stakeholders about the purpose of the organisation, and to guide employees towards the desired outcome, with many organisations including some mention of sustainability in their mission statements (Gond et al., 2012). EnergyCo’s purpose is communicated using a single diagram and statement that represents a sustainable energy production and consumption story for a broad stakeholder base including customers, partners and the environment. The corporate vision is supported by five ‘pillars’ which underpin the mission, determine the strategic priorities of the organisation and are embedded into the strategic planning process. These five pillars map closely to the six capitals of IR, and show that EnergyCo’s conceptualisation of sustainability is broad, and in line with IIRC principles. EnergyCo’s management team undertook a deliberate exercise to ensure that their five pillars mapped to the six IR capitals, and subsequently decided that their five pillars were more representative of the organisation, in particular their relationship with the natural environment, and would be more easily understood further down the organisation. The iconography associated with the five pillars is distinctive and is also replicated on EnergyCo’s website, in their offices and in other internal and external communications, enabling socialisation of EnergyCo’s values. Sustainability being in EnergyCo’s ‘DNA’ was mentioned by several interviewees, and this value statement

is also visible in the entrance lobby of their new office building and on the company website. The concept of sustainability being a core part of EnergyCo was well understood by interviewees:

[It] isn't... 'here is EnergyCo, and sustainability is [over] here', but 'this is EnergyCo, and sustainability is everything'. (Participant F)

The vision diagram was well known: "this diagram....is on the wall in every office", but interviewees were mixed in their opinions of how well the corporate vision was really understood further down the organisation. Certainly at a middle management level and above, the vision was well understood and repeatedly referenced in internal presentations:

This is always the second slide that is presented....we just reorient ourselves to that constantly...it is emphasised by management fairly repetitively which is good. (Participant D)

Participants saw the CEO as instrumental to the adoption of Integrated Thinking principles, and to the clear communication of the overall mission of the organisation both internally and externally, consistent with the findings of Knauer and Serafeim (2014):

Our CEO is incredibly strong about this bigger nuanced view of our place in the system and of the role and opportunity that we have as a business to be successful by the rest of the system being successful. (Participant C)

The CEO had led the focus on the development of people as the key competitive advantage for the organisation. A series of internal workshops were conducted to develop individual people leaders, which subsequently led to work to develop High Performance Teams. Workshops focused on concepts such as "trust, healthy conflict and accountability" and teams were supported with practical tools and activities to support them through behavioural change, and methods of assessing their relative success. EnergyCo's focus on people-led initiatives is consistent with the view that fundamental organisational change needs to be delivered by people and teams (Higgins et al, 2014) and that socialisation is a key part of that process, a view also supported by Collier (2005). Recruitment agencies had been briefed on the goals of the organisation and encouraged to focus on interviewees exhibiting the right kind of behaviours, resulting in improved time to hire statistics and a more personal connection to the organisation's values:

One of the reasons why I was interested and took the role, [was] because I am a strong advocate for that kind of thinking that doesn't sit in silos. (Participant C)

The cultural change resulted in some employees leaving (but not in significant numbers) and this was accepted by EnergyCo as a necessary part of the process.

Sustainability is seen as every employee's responsibility at EnergyCo, from the main board downwards. EnergyCo had reviewed the main board skills matrix for sustainability, but to date had chosen not to establish a separate sustainability forum:

Sustainability is fundamental to the way we are operating the business. It is not going to be added on to [power] generation, because that is where the environmental team

sits, it is not going to be in customer because it is just related to an opportunity to promote our brand in a particular way, it is actually the whole thing. (Participant B)

At EnergyCo, the business planning process for 2019/2020 was done in reference to the vision and the five strategic ‘pillars’. This was the first time that sustainability was so formally incorporated into the planning process, and this helped to create awareness and formulate strategies for sustainability (Galbreath, 2010). Business units, supported by finance business partners, developed three year capex and EBITDAF plans aligned with the vision and pillars. This focus on linking the planning to the vision statements helped to embed a shift in thinking from capital-led decision-making to outcome-led decision making:

In the last four years there has been a metamorphosis - we have moved away from ‘so you spent x last year, so in this year you will need ‘x plus a bit’....towards ‘so what are you going to do? What is your activity set, and then we’ll shape your finances to fit your activity set’. (Participant D)

By the end of June each year, the board approved a three year plan, which was communicated using an ‘A3 scorecard’ containing financial and non-financial measures for the whole organisation, supported by individual scorecards specific to each business unit. These scorecards are used interactively to discuss performance, in contrast to Kerr et al. (2015)’s finding that adopting scorecard measures led to more diagnostic use of the control. These scorecards did have some limitations though, which are discussed in Section 4.2. Following the Covid-19 outbreak, comments from one manager indicated that the longer-term three-year planning process had helped to ‘ground’ the organisation in terms of overall strategic planning, as business units were still working towards the longer-term targets and had them in their sights, even though the immediate focus was on scenario planning for the next 12 months.

Developing an organisational culture of trust and teamwork

The organisational vision discussed above was supported by a significant change in corporate culture, with a strong focus on collaboration and developing an enterprise-level mindset. Firm culture is viewed as a social control (Malmi and Brown, 2008), covering the collection of beliefs, values and assumptions which define the extent to which business is conducted responsibly or irresponsibly (Schein, 1996).

The most visible example of EnergyCo’s dedication to cultural change was the combination of several offices (including the former ‘head office’) into a single central office. The new building was carefully designed by both employees and external contractors to encourage collaborative working, with employees having lockers rather than fixed desks for example, being encouraged to work in different, less traditional meeting spaces, and to use collaborative tools such as OneNote and OneDrive. The move was presented to employees as a change to their ways of working, rather than just a physical move:

It is really not about the building it is actually about how we work together and the way in which we work. (Participant A)

Organisations often create visible expressions to develop a particular type of culture (Schein, 1996), and EnergyCo's served as a way of reinforcing a broader, more integrated organisational perspective for employees, which was generally well received:

We've got all the tools we need here and it's got a nice positive vibe to it...I think everybody being within one building helps to 'de-silo' people. (Participant E)

The Covid-19 lockdown led to observations that the focus on 'ways of working' had been considerably more important than the physical move into the new office, which was now described by one observer as a "white elephant". One manager indicated that the transition to home working would have been far more difficult had it happened 12 months earlier before the organisational focus on teamwork, and expressed surprise at how smoothly it had gone, and how many benefits were being realised by improved collaboration and productivity through technology with employees working remotely.

Another initiative aimed at breaking down the culture of business unit silos was the expansion of business partnering throughout the organisation. EnergyCo describes its business units which produce power and sell to both wholesale and retail markets as 'verticals'. Supporting these are the 'lateral' functions which include People and Performance, Finance, Corporate Affairs and Information Systems. As EnergyCo started to focus on Integrated Thinking, this distinction started to shift:

Over the last few years we have moved a lot of the support functions, be they accountants or analysts etc., out of those businesses in the verticals and put them into lateral functions to work across the organisation. (Participant F)

There was also increasing recognition that good integration of lateral functions, in particular the finance function, could help to drive organisational outcomes, in contrast to Higgins et al. (2014) who found the finance function resistant to IR:

Finance has that group wide view on things... and if they're well-functioning, a finance team should have the commercial understanding as well as the financial. (Participant E)

Top management engaged interactively with the rest of the business using a variety of methods, and this helped to improve trust and communication. One key initiative was the formation of an 'Enterprise Leaders Team' comprising approximately eighty senior people managers who meet a few times a year. The team has no hierarchical function, but acts in addition to usual cascading forms of communication to encourage cross-functional discussion at an enterprise-wide level and to discourage the silo thinking that is a recognised issue with the traditional business unit structure (Guthrie et al., 2017, and Feng et al., 2017). This helped with appreciation of the wider business goals and the importance of collaboration:

In the last four years we have had a massive push around what we call 'sharing and connecting', and breaking down this culture of 'this is my stuff and I'm not going to play with you'..... notions of territory and that kind of stuff are not cool anymore. (Participant F)

Employees were also more likely to share their successes with one another in these sessions, with a focus was on the benefit to the entire organisation:

An example being sharing of maintenance lessons at one [power] station being applied to save money and time on decisions made at an adjacent one, whereas in the past that may not have happened. (Participant C)

Interviewees attributed business successes directly to the recent improvements in trust and collaboration. This suggests that developing a culture of trust not only provides employees with a feeling of individual safety that is likely to engage them (Schein, 1996), it can also give employees a feeling of trust towards organisational change (Busco et al., 2006). In particular, it led to examples of teams highlighting issues with projects earlier and thereby avoiding later complications and expense:

There was a history of some projects that had been over time and over budget, potentially because people weren't signalling early if something was potentially going off track...whereas now there is a lot more 'well, I see something going wrong I'm going to call it', and things are being addressed more quickly. (Participant C)

Barth et al. (2017) found an improvement in investment efficiency and operating cash flow associated with quality IR. Based on the evidence above this improvement could be as a result of identifying poorly performing projects earlier and then either terminating them or steering them towards more positive outcomes.

EnergyCo's tangible measures of Integrated Thinking included an employee feedback survey conducted every year which provided lead indicators in key areas, indicating positive results for efficient working and addressing conflict. In addition, EnergyCo was using employee-led storytelling (facilitated by Yammer) to capture success stories resulting from improved teamwork, for example improved time taken to complete projects:

We measure the impact and have evidence to show that it is adding the value needed to drive the business forward...we are actually being more efficient... we are making better smarter decisions faster. (Participant A)

In addition to internal benefits, interviewees mentioned that the benefits of teamwork within the organisation were also starting to be recognised by external stakeholders, with potential long-term economic benefits in terms of contract renegotiations:

Anecdotally we have heard [that] instead of normal contract negotiations with a supplier it has been about people sitting down and getting to know one another, because it is all about relationships and trust. (Participant A)

Following the Covid-19 outbreak, top management were keen that the treatment of external stakeholders continued to meet EnergyCo's commitment to its five pillars. Conversations with suppliers and customers were focused on enabling them to continue in business with EnergyCo's support, with a focus on preservation of customer and supplier relationships rather than on credit limits and contractual obligations. This provides evidence, discussed further in Section 4.2, of cultural controls overriding policy controls at EnergyCo in the pursuit of Integrated Thinking.

The focus on the cultural environment and on enabling collaboration both inside and outside the organisation shows the potential for informal controls such as culture and teamwork to deliver positive economic outcomes, and to be of considerable importance in

the adoption of Integrated Thinking. The coordinated commitment of the CEO, the establishment of cross functional teams and an increase in business partnering was also critical in this case.

4.2 Constraining controls

Controls that constrained the successful adoption of Integrated Thinking were mainly technical controls, the most significant being performance management systems that failed to adapt to broader, softer measures of performance. A lack of clear policies, and a lack of rewards and incentives for Integrated Thinking also indicated potential future areas of conflict.

Performance management systems

Most lateral functions, in particular the finance function, were aware of a strong level of protectionism remaining within the business units despite the cultural push towards trust and transparency. Even though the Enterprise Leaders Team discussed earlier encouraged sharing of experiences and potential cost-saving initiatives, the existing performance management and reward systems meant that these were not always realised. For example, when asked how willing business units were to offer up any efficiency savings they had made to the wider group, the following statement was typical:

Actually what's happening at the moment is if [x business unit] saved \$2 million, it would just be re-spent within [x business unit]. And so they wouldn't actually make any saving. (Participant F)

The pervasive business unit protectionism meant that identified cost savings were unlikely to be realised without deliberate intervention by the finance team. This meant that despite the commitment to longer-term targets at a strategic level, the focus was often on shorter-term metrics at an operational level. Budgeting and forecasting processes were managed by SAP, with P&Ls and capex plans for each business unit sitting within separate SAP company codes. The business unit mentality was also reinforced through the use of A3 scorecards capturing monthly business-unit specific financial and non-financial metrics, which were used for management discussion. Although attempts had been made to move towards quarterly internal financial reporting, rather than the usual monthly reporting, they had been abandoned as it was deemed to be incompatible with existing financial reporting systems. This provides evidence to support the concern voiced by Atkins et al. (2015) that the institutionalisation of accounting systems and methods could limit the development of MCS frameworks that champion sustainability initiatives. Concerns were also raised that the links between the data in the accounting systems and the overall strategic goals of EnergyCo were tenuous, particularly when it related to the selection of non-financial measures:

There is a very soft measure associated with some of these and I think that is a tricky thing from an accounting perspective. (Participant C)

Either right at the start choosing something easy that will show it, or even at the end then we'll find something retrospective that will tell it, even if we doubt it ourselves. (Participant C)

Measurement was a problem not only with internal managerial information, but also the information provided in the external Integrated Report. EnergyCo was not sure of the best way of capturing appropriate external performance measures, particularly for non-financial metrics:

We ... refer to government and industry so how do we measure that? Is it in terms of the number of submissions we make to the government on different things, or is it the number of partnerships that we get involved with specifically within the industry?
(Participant B)

A number of interviewees also expressed doubt as to the actual and perceived authenticity of the information contained within the Integrated Reports:

There are a lot of people who think of this as greenwashing and...I think people are quite wary of big corporates. (Participant E)

The interviewees were predominantly senior managers, who were most likely to experience this tension between overall strategy and its operationalisation. The majority of interviewees expressed personal commitment to the organisation's goals and intentions, but were aware that this could be viewed differently by other stakeholders. They could also see how the need for non-financial metrics introduced new challenges for the organisation. Although there was an abundance of information available internally, much of the non-financial information was collated manually using spreadsheets, as there was no ability for the internal accounting system to manage it. This is a common problem with IR (SAICA, 2015, Rodriguez-Guiterrez et al., 2019), and as there is no existing mainstream accounting system currently available to deal with this issue (Stroehle and Rama Murphy 2019), this study demonstrates that it is likely to continue to be a constraint in the successful adoption of IR and Integrated Thinking. In this case, not only did it provide challenges for internal reporting and accountability, but also the potential to reduce the buy-in from middle managers if they started to doubt the non-financial metric choices.

Rewards and incentives

Rewards and incentives should ensure that employee behaviour is consistent with overall goals and plans, and can help to demonstrate a commitment to sustainability (Knauer & Serafeim, 2014). For the senior team at EnergyCo, incentives were changed in 2018/19 so that EBITDAF and High Performance Teams both represented an equal 30% of the overall incentive structure. The importance of holding senior management to account was considered important to employees:

There is real value in the pressure in these areas to think and measure integration. To support executives and leaders in holding them account for integrated behaviours themselves, rather than falling into the thing that gets a bonus.
(Participant C)

Further down in the organisation, however, there was no formal incentive structure in place to encourage collaboration or to consider an enterprise-wide view, and this was serving to reinforce a silo approach within the business units, a challenge recognised by many:

We are doing this for EnergyCo, we are not going to argue about where it sits or who owns it or whatever. But our challenge, and this is coming to a head right now, is that when we crystallise savings or the desired benefit, that it is baked in. (Participant F)

The lack of reward structure further down the organisation contributed to the business unit protectionism, as many employees considered their primary goal to be delivering business unit targets, predominantly EBITDAF, rather than being explicitly rewarded for collaboration with the rest of the organisation.

Policy

Several interviewees mentioned that there was an expectation that because EnergyCo had a culture of sharing information, employees should not need to be driven by policy in their day-to-day business decisions:

We don't like to tell people to do stuff, we prefer to collaborate and work together... you shouldn't need to be driven by policies. (Participant F)

Compliance with policy was considered to be burdensome, requiring more manpower and less flexibility, which was not viewed as compatible with EnergyCo's ways of working. However, recent strong financial performance and the lack of a burning platform meant that some areas may not have been stress tested:

There has never been a contextual scenario that's meant... 'you are bloody well going to do this, you are going strip cost out everybody. And this is what it's going to look like. And there will be consequences if you don't.' We are just not in that territory. (Participant F)

The attitude of the organisation towards formal policy provided the strongest evidence of informal controls such as culture overriding more technical controls such as policies and procedures. However, even after the Covid-19 outbreak, when asked if this could potentially be problematic, interviewees still considered collaboration to be critical, and policies to be bureaucratic and to potentially limit organisational agility. This indicates that they perceived the social controls to be of overriding importance in the adoption of Integrated Thinking.

4.3 Tensions between enabling and constraining controls

The evidence above indicates areas of tension between enabling and constraining controls. The clearest example of this tension is the conflict between a culture of collaboration and transparency and the internal financial reporting systems. Potential economic benefits created by enabling controls, such as the sharing of best practice in the Enterprise Leaders Team or identification of poorly performing projects through earlier and more honest communication could easily remain unrealised as business units continued to be monitored using traditional profit-focused monthly reporting systems. In addition, although the organisation was developing long-term strategic plans, and encouraging a longer-term mindset, the focus of many business units was still on much shorter timeframes, again driven by institutionalised reporting systems and a lack of incentive to change. Mundy (2010) discusses how a good balance between control systems can facilitate creative dynamic tension within organisations, but also how insufficient attention to one control (in this case formal controls over performance management systems) can lead to

imbalances overall. These tensions also demonstrate the necessity of informal and formal control systems needing to complement and support one another (Riccaboni and Leone, 2010), as in the case of EnergyCo the informal controls such as culture needed more support from formal ones such as performance measurement systems. Again, the findings from the EnergyCo study suggest that a broad MCS framework is therefore necessary when investigating Integrated Thinking as a form of management.

4.4 Control definitions

Regarding the four control systems identified by Tessier and Otley (2012) (see Table 1), several examples illustrated that synergies exist between control systems, and also that the definitions of the systems themselves are open to interpretation. The Enterprise Leadership Team, categorised in this study as a social control, could also be seen as a technical control, as although it acts as a discussion forum and communication channel it does not independently help to develop the corporate culture. Although it is classified in this study as being part of the strategic control system, it also has operational functions, with practical problems from the business units were being discussed and addressed. However, for the purposes of this study the definitions of the control systems themselves are less critical than their use and their perception by employees.

Table 1: Summary of key findings

<i>Strategic boundary controls</i>				
Control	Control type	Control use	Enabling or constraining	Consequences
Organisational culture of trust and transparency	Social	Interactive	Enabling	Sharing of best practice and increased honesty around poor performance led to improved project NPV.
Developing High Performance Teams	Social	Interactive	Enabling	Improved project delivery. Improved relationships with internal and external stakeholders.
A new open plan office	Social	Interactive	Enabling.	Improved collaboration and communication. Reduced silo mentality.
<i>Strategic performance controls</i>				
Control	Control type	Control use	Enabling or constraining	Consequences
Clear mission statement	Technical	Interactive	Enabling	Improved communication and alignment. Improved strategic planning process.
Sustainability embedded into strategic planning processes	Technical	Interactive	Enabling	A shift from capital-focused to outcome-focused planning, combined with a longer-term outlook.
Top management engagement	Social	Interactive	Enabling	Better communication of organisational goals. Reduced silo mentality.
<i>Operational boundary controls</i>				
Control	Control type	Control use	Enabling or constraining	Consequences
Policies	Technical	Diagnostic	Constraining	Culture overrode policy, with policy viewed as constraining.
Roles and responsibilities	Technical	Diagnostic	Enabling	Placing the sustainability manager in the finance function allowed organisation-wide impact.
Realignment of shared service functions	Technical	Interactive	Enabling	Increased business partnering and alignment of shared functions improved organisational awareness of IR and IT.
<i>Operational performance controls</i>				
Control	Control type	Control use	Enabling or constraining	Consequences
Performance measurement	Technical	Diagnostic	Constraining	Measurement of intangible benefits of IR was prone to subjectivity Business unit targets and scorecards reinforced existing budget protectionism and short-termism.
Rewards and incentives	Technical	Diagnostic	Constraining	Integrated Thinking was not directly rewarded or incentivised throughout the organisation, contributing to protectionism.

5. NEW INSIGHTS FROM THIS STUDY, FUTURE RESEARCH, AND CONCLUSION

EnergyCo, with its sustainable and profitable business model and senior executive commitment to a longer-term focus, is an ideal case site to study how MCS can be used to embed Integrated Thinking. This case study is one of the first to consider an organisation specifically focused on the internal benefits of embedding Integrated Thinking, rather than the externally-focused benefits of IR.

The findings above improve our understanding of the internal consequences of the adoption of IR and Integrated Thinking in several ways. Firstly, the findings indicate positive internal outcomes, showing that Integrated Thinking has the potential to transform organisations, supporting McNally and Maroun (2018). In EnergyCo, top management used social controls such as beliefs and values to engineer organisational change (following Marginson, 2002) and to develop an organisational culture of trust and transparency. As a result internal communication improved, in particular honest conversations about projects not going according to plan, leading to earlier intervention by management in poorly performing projects. This shows the mechanism whereby the improved investment efficiency identified by Barth et al. (2017) in an archival study might be achieved in practice. Positive internal outcomes are also evidenced by the motivation of staff and their desire to work for an organisation focused on sustainability, directly measurable by improved staff recruitment, retention, satisfaction and engagement statistics. There was also evidence of improved relationships with external stakeholders such as customers and suppliers. These positive internal outcomes are likely to be of interest to managers and entrepreneurs, in particular for non-listed companies and not-for-profit organisations considering the adoption of IR. These organisations may be less concerned with the capital market implications of IR adoption, and more focused on the potential internal benefits than can be realised by using Integrated Thinking as a form of management. This paper highlights that even for an organisation committed to the successful adoption of IR and Integrated Thinking, managers need to be mindful of how MCS can both enable and constrain success.

This study also highlights the importance of the CEO and senior management team in driving sustainability to be a force for change inside the organisation, consistent with the findings of Knauer and Serafeim (2014). The development of cross-functional teams is also shown to be important in embedding an enterprise-wide mind-set that enables the adoption of Integrated Thinking, supporting Guthrie et al. (2017). There are many parallels between the findings in this study and the findings of the IIRC pilot programme, in particular the necessity for strong links between financial and non-financial teams to deliver longer term outcomes consistent with the IIRC goals (IIRC, 2013). The findings in this study also add specific insights into the role of the finance function in the successful adoption of Integrated Reporting. Although Higgins et al. (2014) found the finance team could be resistant to the adoption of Integrated Thinking, this study indicates that it might be the accounting systems themselves that are resistant, struggling to cope with softer, more integrated measures of performance. This study shows that the concerns raised by Atkins et al. (2015) and Oliver et al. (2016) around the institutionalisation of profit-based performance measures seem of particular importance in the context of Integrated Thinking. This study highlights the tension between control systems, and how this tension can potentially lead to a reduction of economic benefit if not managed carefully. It shows the need for the development of mainstream performance management systems that can manage both financial and non-financial information successfully, and suggests that early gains for organisations in terms of culture and collaboration may not continue without the support of such systems.

This study shows the importance of MCS in achieving organisational outcomes, and the importance of continuing to study them in the context of IR (Gond et al., 2012). The paper makes a theoretical contribution by showing how the comprehensive MCS model developed by Tessier and Otley (2012) can be used as a framework to study the adoption of a concept as broad as Integrated Thinking. The extensive use of social controls in this study demonstrates the importance of studying both informal and formal controls in the context of IR and Integrated Thinking, as identified by Riccaboni and Leone (2010), and also considering how they interact. Studies in values-led organisations have also shown social controls to be used extensively to drive the strategic agenda (Norris and O'Dwyer, 2004, and Morsing and Oswald, 2009), indicating that broader definitions of success and performance may require the use of different control systems. Social controls acted in many situations as a substitute for more formal technical controls and procedures, consistent with the findings of Sandelin (2008) and Norris and O'Dwyer (2004). However, this study identified areas of tension between control types, specifically between social and technical controls, which could lead to an organisation not fully realising the potential benefits from IR and Integrated Thinking adoption.

Avenues for further research

This research indicates several avenues for further study. More longitudinal studies of organisations adopting Integrated Thinking would help to capture the dynamic nature of MCS in use, and further insights could also be gained by interviewing employees at all hierarchical levels. Other methodologies that consider organisational change (for example Huy's 2001 organisational change framework) or institutional theory could also offer insights.

The controls that constrain the successful adoption of Integrated Thinking are also worthy of further investigation. In particular, performance measurement systems and accounting systems that were developed for the measurement of more tangible costs and benefits along more traditional business unit lines may no longer be suitable for organisations with shared ownership of objectives, and where intangible costs and benefits also need to be taken into consideration, along with a longer-term view of performance. The role of the finance function and accounting systems in relation to the embedding of IR and Integrated Thinking therefore also merits further study.

Conclusion

The aim of this study was to investigate how MCS are used to embed Integrated Thinking in an organisation, and to identify which MCS might enable or constrain Integrated Thinking. The results show that successful adoption of Integrated Thinking can be achieved through the interactive use of social controls, focusing on the development of a culture of trust. In the case company, the use of controls in this way helped to break down the silo mentality of business units and to improve relationships with key stakeholders, including employees. This led to demonstrable examples of improved internal decision-making, consistent with the second major goal of Integrated Reporting. However, institutionalised performance measurement systems encouraged a reversion to business unit protectionism and a focus on short-term performance which was at odds with the overall corporate sustainability agenda.

APPENDIX 1: Information regarding the interviews

Job Title and Department	Tenure	Interview duration*	Interview date
Sustainability Manager (Corporate Finance)	2 years	49 min	19 Nov 2018
Head of Communications (Corporate Affairs)	2 months	60 min	29 Nov 2018
Group Commercial Services Manager (Finance)	11 years	50 min	29 Nov 2018
Head of Organisational Development (People and Performance)	6 years	62 min	17 Dec 2018
Financial Controller (Commercial)	10 years	58 min	7 Jan 2019
Financial Controller (Hydro and Wholesale)	8 years	52 min	9 May 2019
Sustainability Manager (Corporate Finance)	2 years	51 min	15 Apr 2019
Head of Organisational Development (People and Performance)	6 years	51 min	15 Apr 2019
Group Commercial Services Manager (Finance)	11 years	44 min	15 Apr 2019
Sustainability Manager (Risk and Assurance)	2 years	49 min	23 April 2020
Group Commercial Services Manager (Finance)	11 years	36 min	4 May 2020
<i>Mean</i>	6 years 10 months	51 min	
<i>Median</i>	6 years	51 min	

Note:* The times indicated exclude introductions and explaining the research and interview process.

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