Revealing Integrated Thinking through Integrated Reporting- An Exploratory Study within an Australian Context

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Declaration

I certify that the work in this thesis entitled "**Revealing Integrated Thinking through Integrated Reporting- An Exploratory Study within an Australian Context**" has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree to any other university or institution other than Macquarie University.

I also certify that the thesis is an original piece of research and it has been written by me. Any help and assistance that I have received in my research work and the preparation of the thesis itself have been appropriately acknowledged.

In addition, I certify that all information sources and literature used are indicated in the thesis.

The research presented in this thesis was approved by Macquarie University Ethics Review Committee, reference number: **5201400642** on **24/6/2014**

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Abstract

Purpose: Whilst integrated thinking is a core concept within the integrated reporting framework issued by the IIRC, it remains unclear how stakeholders and practitioners understand this concept in either theory or practice. This paper aims to explore: (1) how stakeholders and companies interpret integrated thinking; (2) how integrated thinking is being applied within pilot organisations, and (3) changes that have been made – or should be made – to facilitate integrated thinking within organisations.

Design/methodology/approach: The study was conducted in Australia and includes two pilot organizations involved in the IIRC project, one professional association, an accounting professional body, an accounting firm, and two IIRC officials. The study covers representatives of key groups who are either directly involved in the implementation of integrated reporting and integrated thinking within their organization, or who are responsible for its promulgation. In so doing, the study incorporates a range of corporate reporting and governance perspectives. Primary data is collected through semi-structured interviews with senior managers, CFOs and CEOs of these organizations.

Findings: Two main findings are presented in this study. First, reporting organizations and stakeholders consider that integrated thinking occurs at the management level, while the IIRC thinks that integrated thinking should be a cultural change that is undertaken by each individual within the organization. Second, the mutual relationship between integrated reporting and thinking that the IIRC intended has not been achieved by reporting organizations or stakeholders to date. The IIRC has not fully defined and articulated, with examples, the concept of integrated thinking.

Research limitations/implications: The interviews were conducted within Australia, which limits the generalizability of the findings, as the IR experience may differ across geographical contexts. Further interviews with a larger sample of investors and employees would enrich our understanding of the role of integrated thinking in implementing the objectives of integrated reporting.

Originality/value: Despite the centrality of integrated thinking to IR, there has been almost no research to date focused on this concept. Due to the lack of research into integrated thinking within integrated reporting context, this study provides an initial reflection on how integrated thinking is defined by key interest groups and practitioners. This study also attempts to identify the possible indicators of whether, and how far, integrated thinking is being implemented in a business environment, which may help enable more effective integrated reporting in the future.

Keywords: Integrated Thinking, Integrated Reporting, Sustainability, and Accounting.

Abbreviations and Acronyms

ASIC:	Australian Securities and Investments Commission
A4S:	Accounting For Sustainability
BRLF:	Business Reporting Leaders Forum
CDSB:	Climate Disclosure Standards Board
CIMA:	Chartered Institute of Management Accountants
GRI:	Global Reporting Initiative
G250:	The World Largest 250 global company
IDSA:	Institute of Directors of South Africa
IFRS:	International Financial Reporting Standards
IIRC:	International Integrated Reporting Council
IR:	Integrated Reporting
JSE:	Johannesburg Stock Exchange
NGO:	Non-Government Organization
TBL:	Triple Bottom Line
WICI:	World Intellectual Capital Initiative

Chapter 1 Introduction to the Study

1.1 Introduction to the Topic

This thesis will examine: (1) how organizations and various stakeholders interpret and align the concept of integrated thinking with the definition given by the International Integrated Reporting Council (IIRC); and, (2) how integrated thinking is manifest through integrated reporting from the perspective of practitioners, stakeholders and the IIRC. Integrated reporting is a new type of reporting which aims to provide a holistic and concise depiction of a company's performance via disclosure of material information related to sustained value creation over six categories of capitals (see Table 1) – financial, social and relationship, intellectual, manufactured, human and natural (IIRC, 2013).

Table 1: Six capitals of Integrated Reporting

Capitals	Definition
Financial capital	The pool of the funds that is available to an organization for use in the production of goods or the provision of services, obtained through financing of, or generated through, operations/investments.
Manufactured capital	Manufactured physical objects that are available to an organization for use in the production of goods or the provision of services.
Intellectual capital	Organizational, knowledge-based intangibles.
Human capital	People's competencies, capabilities and experience, and their motivation to innovate.
Natural capital	All renewable and non-renewable environmental resources and processes that provide goods or services that support the past, current or future prosperity of an organization.
Social & relationship capital	The institutions and the relationships within and between communities, groups of the stakeholders and other networks, and the ability to share information to enhance individual and collective well-being.

Source: The International Integrated Reporting Council, 2013, P11-12

Some scholars argue that this new reporting regime is a product of extensive demands from both investors and stakeholders for increased accountability and transparency to rebuild public confidence from financial crises and address concerns emanating from a multitude of environmental and societal issues such as water scarcity, climate change and governance (Krzus, 2011). Others argue that integrated reporting is a new "brand" of reporting created intentionally to balance the different interests between various actors involved in voluntary corporate reporting, including professional firms, professional bodies, and regulators (Rowbottom & Locke, 2013).

The International Integrated Reporting Council (IIRC) was formed in 2010 by the Prince's *Accounting for Sustainability* (A4S) project, the Global Reporting Initiative (GRI), and International Federation of Accountants (IFAC) whose became the third founder in late 2010. A4S is a project aiming to;

> "catalyse action by the finance, accounting and investor community to support a fundamental shift towards resilient business models and a sustainable economy" (A4S, 2010, "Mission", para 2),

with its base primarily in the UK. GRI is a leading not-for-profit organization whose aims are to provide guidance and support regarding standards of practice in sustainability reporting. The IIRC is "a global coalition of regulators, investors, companies, standard-setters, the accounting profession and NGOs" (IIRC, 2013, p.2). The organization is lead by Professor Mervyn King as Chairman and Paul Druckman as CEO. The IIRC designed IR to address the gap between the existing corporate reporting system and the current business environment. These include: (1) more intricate business transactions brought about by globalization; (2) the increasing needs of various stakeholders for comprehensive information on business performance that is future oriented; and, (3) an awareness of information fragmentation within the current framework for financial and sustainability reporting (IIRC, 2011). The purpose of IR is on:

> improving the quality of information for resource allocation, promoting a cohesive and efficient approach to corporate reporting, enhancing accountability and stewardship for the broad base of capitals, and supporting integrated thinking, decision-making and actions that focuses on the creation of value over the short, medium and longer term (IIRC, 2013, p3).

The long-term mission of the IIRC is to embed IR within mainstream business practice. To achieve its goal, the IIRC established four Pilot Program networks including business, investor, public-sector organisations and pension funds, which aim to create a platform for businesses and investors to share experiences in IR and to create an environment for further adoption. Organizations within the Pilot Program allow for a robust test of the framework's principles and concepts prior to the final edition. The Pilot Programme is active in 25 countries with over 100 businesses ranging from multinational corporations to public sector bodies and investors organizations. The program ended in September of 2014, which signals the start of the wider adoption of the <IR> framework.

The IIRC released the Integrated Reporting Framework-*<IR>* Framework in 2013. It is principles-based and provides basic guidance for organizations to create their own integrated reports. The framework sets out the definition of IR, explains its fundamental concepts and details the six categorizations of capital that help organizations explain their value-creation processes. It further outlines the following seven guiding principles (2013, p.17):

- Strategic focus and future orientation;
- Connectivity of information;
- Stakeholder relationships;
- Materiality;
- Conciseness;
- Reliability and completeness;
- Consistency and comparability

IR should be concise by providing reliable information that focuses on only material matters, and which includes a balance of positive and negative perspectives. The information in an integrated report should be consistent over time and comparable with other organizations. An integrated report should demonstrate how a company's strategy affects its use of capitals and its ability to create value in the short, medium and longer-term. The report should also be based on integrated thinking by illustrating the interdependence between factors that affect a company's value creation processes. An insight into the nature and quality of a company's relationship with its key stakeholders, and how it understands and responds to stakeholder needs and interests, should also be included in an integrated report.

In addition to the above seven principles, the framework also stipulates seven elements of the integrated report (See Figure 1), being:

(1) "*Organization overview and external environment*", which explains the nature of the business and environment in which the company operates.

(2) "*Governance*", which includes the corporate governance structure that supports value-creation;

(3) "*Business model*", which describes the inputs, business activities, outputs and outcomes;

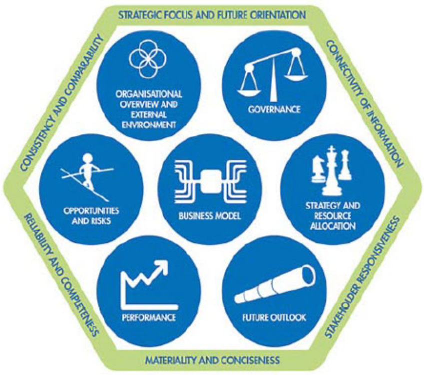
(4) "*Risks and opportunities*" that affects a company's ability to create value;

(5) "*Strategy and resource allocation*" which represents the company's goals and how to achieve them;

(6) "*Performance*", which stipulates the extent to which the company achieves its strategic goals and how the outcomes affect capitals;

(7) "*Outlook and basis of presentation*" that outlines the challenges and opportunities in pursuing its strategy and the levels of materiality (2013, p. 24).

Figure 1: Integrated Reporting Guiding Principles and Content Elements



Source: International Integrated Reporting Council (2013)

In the Framework, the IIRC specifically highlights that "integrated thinking" is the core concept of IR, and claims that the overarching purpose of IR is to promote integrated thinking within organizations.

1.2 Motivation for the Study

Integrated reporting is being used, in varying degrees, by an increasingly large number of companies internationally. According to a survey conducted by the Global Reporting Initiative (2013), 20% of organisations registered in GRI's publicly available Sustainability Disclosure Database self-declared that they were issuing integrated reports[1]. South Africa has mandated integrated reporting[2] for companies listed on the Johannesburg Stock Exchange (JSE) since 2009 (IDSA, 2009). Integrated reporting is also mandated by public companies in Denmark (Sierra-Garcia et al., 2013), and a number of large organizations in the United States, France, Germany and

[1] Integrated report here is not referring to particular type of report following the IIRC's guidance or certified to be <IR>. It can be range from simply combined report to fully integrated report.
[2] Integrated reporting here is the report issued according to the guidance of integrated reporting council in South Africa, which might be different from the official framework issued by the IIRC in 2013.

Switzerland have also begun to implement integrated reporting voluntarily since 2008 (Eccles, 2011).

However, the concepts and contents of integrated reporting were diverse at the early stage of development. The IIRC established itself as a global authority on IR, which it defined as:

> "a process founded on integrated thinking that results in a periodic integrated report by an organization about value creation over time and related communications regarding aspects of value creation" (IIRC, 2013, p.34).

The IIRC sought to use this brand to facilitate IR 'becoming the norm in corporate reporting' (IIRC, 2013). The IIRC also established its long-term goal of "a world in which integrated thinking is embedded within mainstream business practice" (2013, p3). For IR to be widely accepted, the IIRC sees it as vital that organizations and stakeholders realize one key concept of IR; namely: integrated thinking. Therefore, organizations need to recognize what integrated thinking is, and how to apply it within everyday decision-making (IIRC, 2013).

Based on the IIRC's latest framework, *The International <IR> Framework* (IIRC, 2013), integrated thinking is one label that ideally distinguishes IR from other existing reporting agendas (IIRC, 2013). The shift of mind-set from 'silo thinking' to 'integrated thinking' aims at encouraging senior management to actively re-think their strategy, business model and basis of corporate governance. According to the IIRC, integrated thinking is the "active consideration of the relationship between different factors affecting the company's value-creation processes" (IIRC, 2013, p2).

With the goal of integrated thinking in mind, IR also helps managers make strategic integrated decisions to effectively use all the capitals and resources (CIMA, 2014).

Integrated thinking might also encourage organisations to incorporate notions of sustainability into strategy and daily operations, especially environmental and social perspectives, thereby embracing a commitment to sustainability into mainstream reporting (A4S, 2010). However, although the IIRC's long-term vision is to use the "cycle of integrated thinking and reporting to achieve financial stability and sustainability" (IIRC, 2011), to date, integrated thinking has only been minimally defined by the IIRC and the fundamental meaning of integrated thinking is still obscure to practitioners and stakeholders alike. There is also no further practical guidance from the IIRC to confirm how integrated thinking operates across the business world. Robust systems and procedures to guide organisations in conducting integrated thinking have yet to be developed (A4S, 2010).

Without a fundamental agreement on what integrated thinking is, IR cannot effectively be implemented within organizations, leading to both a costly failed reporting exercise for the organisation itself, and confusion for stakeholders regarding information content and purpose. Therefore, this study aims to explore how organizations embrace the concept of integrated thinking, through behaviour and practice within the integrated reporting process, and how stakeholders interpret integrated thinking compared to practitioners.

1.3 Research Question

The research questions of this study are:

(1) How should the organization interpret integrated thinking within an IR context from different stakeholders' perspectives?

(2) How do organizations interpret integrated thinking through the practice of IR?

(3) How should integrated thinking permeate through different levels of the organization from different stakeholder perspectives?
(4) What initiatives do organizations undertake that represent an integrated thinking approach to IR?

The study included the following participants: pilot organizations, professional bodies, accounting firms within an Australian context and two IIRC officials. These participants were interviewed to assess how they and their organisation interpreted integrated thinking and the degree to which IR encouraged integrated thinking within their organizations.

1.4 Contributions

As research into integrated reporting is still at an early stage, this paper will study key concepts surrounding IR and integrated thinking. More specifically, it will analyse what organizations should, and are, doing to implement integrated thinking. IR requires integrated thinking, which should be reflected through the level of integrated decision-making by senior management. Although integrated thinking requires individuals to take responsibility for information flows to undertake integrated reporting, the role that each individual plays in achieving integrated thinking during the integrated reporting process within organizations has yet to be explored. Therefore, this study will conceptualize key elements of integrated thinking, including employee responsibility at different levels of organization and new management practices to implement IR. This will provide guidance for companies willing to engage with IR, but who fail to understand how to achieve it.

This thesis will also provide an insight into how companies and other interest groups have responded to the IIRC's work so far, and the extent to which the intentions of the

IIRC have been interpreted in practice. Thus, this study also can inform the IIRC on the extent to which IR is achieving its intended purpose. By examining relevant stakeholders, including professional groups, large accounting firms and other interest groups, this study explores the attitude of IR stakeholders toward the IIRC's pronouncements on IR. As these stakeholders play an important role in helping organisations prepare voluntary reports with significant information content, the voices of key influential stakeholders matter in how well IR is accepted. Two senior management employees from the IIRC were involved in this study to provide an in-depth opinion on integrated thinking from the global authority's perspective.

The remainder of this thesis is structured as follows. Chapter 2 will review the emergence of integrated reporting and identify its three approaches: the IIRC's IR, South Africa's integrated reporting and Eccles and Krzus's One Report. This chapter will further review the concept of integrated thinking in other disciplines and the relationship between integrated thinking and integrated reporting from the IIRC's perspective. Chapter 3 will outline the research design, including how the interview questions were developed, the selection of interviewees and the data analysis. Chapter 4 analyses the interview data in two main areas: (i) the individual's role in IR; and (ii) management practices implementing IR. The final chapter – Chapter 5 - will present two implications of this study drawn from the interview results in Chapter 4. This chapter will discuss the differences between the IIRC's expectation of integrated thinking with the practice carried out by reporting organizations and stakeholder views. In this chapter, the limitations of this study and future project are also articulated.

Table 2: Chapter 1 Research Objectives and Outcomes

Objectives	Outcomes (sections)
To briefly outline the development of integrated reporting.	Section 1.1 overviews the emergence of integrated reporting and its global authority, the IIRC.
To outline the motivation for a study on exploring the concept of integrated thinking within an integrated reporting context.	A lack of clarity regarding the interpretation of, and practice guidance for, integrated thinking may lead to integrated reporting being implemented without sufficient understanding of its purpose This can lead to information duplicity and overlap, and a lack of relevant information to benefit the organisation and it stakeholders (1.2).
To outline the contribution to integrated reporting research.	Section 1.4 outlines the contribution of this study both to the field of integrated reporting research, and as feedback to the IIRC as to how organisations implement integrated thinking.

Chapter 2 Literature Review

2.1 Historical Development of Integrated Reporting

2.1.1 Emergence of integrated reporting

According to prior literature, a key reason for the development of integrated reporting is due to short-comings or criticisms within the existing reporting system (Strong, 2014; Owen, 2014). Demands for a more concise and holistic report have been based on criticisms regarding the complexity of both financial reporting and corporate social responsibility reporting (Eccles & Krzus, 2010; IIRC, 2013; Eccles & Saltzman, 2011). Prior reporting has also been criticised for being incomplete, with the absence of information on intangible value drivers[3] that contribute significant value to the business (Krzus, 2011; Adams & Simnett, 2011). To better evaluate the ability of a company to develop in the longer term, shareholders often require future oriented information, as opposed to current historical information on financial reporting (IIRC, 2011; Adams & Simnett, 2011; Hampton, 2012). The tensions between different actors involved in the voluntary corporate reporting sphere also ‘clutter’ the reporting market, resulting in a single-audience oriented report that seeks to serve a multitude of purposes (Rowbottom & Locke, 2013). From the IIRC’s perspective, IR is a new and independent reporting regime that has evolved out of the limitations of, and to overcome the disadvantages inherit in, the existing corporate reporting framework. The IIRC also aims to produce a platform to connect and inspire communication between different professional firms, professional bodies and users through Memorandums of Understanding (MoU) with a number of organizations.

[3] Intangible value drivers include human resources, systems, networks, structures and intellectual property.

In response to the limitations of both financial reporting and sustainability reporting, the IIRC argues that a new type of report is required to provide a concise and holistic view of a company's financial, social environmental and governance performance. The idea of a combined report can be traced back to PWC's *Value Reporting Framework*, which was issued in 1999 (Eccles & Krzus, 2010). This framework aimed to describe the performance of organizations through four categories of information: Market Overview; Strategy; Value-creating Activities; and Financial performance. Later, the Danish company Novozymes attempted to merge its financial and sustainability report; and this report is considered to be the first integrated report in the business world (Eccles & Krzus, 2011). Subsequently, an increasing numbers of companies have started to engage with integrated reporting, including Novo Nordisk in 2004, and Natura, United Technologies and Philips in 2008. A survey from KPMG & SustainAbility (2008) revealed that readers prefer to have corporate reporting include both sustainability and financial information. In 2009, the Institute of Directors of Southern Africa (IDSA) issued the *King Report on Governance for South Africa 2009* (King III) following the first and second reports on corporate governance. In this report, integrated reporting became more prominent publicly. IR also gained its first legislative mandate, which helped stimulate academics, professional bodies, large companies, regulators and investors to draw attention to integrated reporting.

2.1.2 Approaches to integrated reporting

Although the IIRC's version of integrated reporting has become increasingly prominent since 2010, there are in fact at least three different models of integrated reporting: (i) in King III; (ii) the IIRC's framework; and (iii) Eccles and Krzus's book *One Report: Integrated Reporting for a Sustainable Strategy.*

2.1.2.1 One Report: Integrated Reporting for a Sustainable Strategy

Eccles and Krzus (2010) define integrated reporting as a merging of financial and non-financial information in a way that communicates with stakeholders (including shareholders) using the Internet or other advanced web based tools. To prepare an integrated report, Eccles and Krzus require companies to identify how financial and non-financial information is interdependent. In so doing, companies commit to a path of continuously improving performance to achieve sustainability from both financial and social and environmental perspectives. Eccles and Krzus (2010) emphasize that integrated reporting is not only for communication between companies and stakeholders, but also provides stakeholders with a holistic perspective by which to clarify the interests of each stakeholder group, and to see how their activities and interests "complement…and compete against each other" (Eccles & Krzus, 2010, p11). Their requirement that integrated reports be issued online using web tools, aims to create an accessible platform for all stakeholders. The web-based strategy also enables a continuous reporting system through daily updating and customisation of the reports for each individual by allowing the selection and combination of different types of report information online. The IIRC and King III also support adopting advanced technology to improve the reporting format (IIRC, 2011; IDSA, 2009).

2.1.2.2 The Third Report on Governance in South Africa

The IDSA defines integrated reporting as "a holistic and integrated representation of the company's performance in terms of both its finance and sustainability" (IDSA, 2009, p55). King III (IDSA, 2009) states that the aim of integrated reporting is to enable stakeholders to make a more informed assessment of the economic value of a company by linking organizational strategy, risk, performance and sustainability. The intention of integrated reporting in a South African context is to ultimately benefit all categories of stakeholders through an easily understandable report (ACCA, 2014). IR also has the broader social objective of helping South Africa shift toward a ‘stakeholder society’ which integrates social and environmental issues into company operations. In contrast to Eccles and Krzus’s viewpoint, integrated reporting is the tool for an organization to improve its corporate governance. Eccles and Krzus see integrated reporting as the communication tool not only between the organization and its different stakeholders, but also between these stakeholders. By understanding different stakeholder interests, others can understand how the interests of one group may affect others, especially with respect to resources allocation among environmental groups.

2.1.2.3 <IR> and the International Integrated Reporting Council

The terms ‘integrated reporting’ and ‘integrated report’ are differentiated in the IIRC’s Framework. The IIRC’s definition of an integrated *report* is:

> a concise communication about how an organization’s strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term” (IIRC, 2013, p7).

The IIRC defines integrated *reporting* as “a process founded on integrated thinking that results in a periodic integrated report by an organization about value creation over time and related communications regrading aspects of value creation” (2013, p. 34). For the IIRC, the IR process should result in deeper internal changes within the organization than simply the preparation of one more report. The main objective of integrated reporting under the IIRC’s framework is to demonstrate the unique value-creation story of the company. The conceptual basis of this goal is that value is not created by the organization alone, but is influenced by the external environment, the relationship with stakeholders as well as shareholders and other resources. However, it is hard to define “value” because of various corporate objectives and measurements.

To describe how value is created in the organization, the IIRC's distinctive approach is to report on non-financial 'capitals' that "present stocks of value that are increased, decreased or transformed through the activities and outputs of the organization" (2013, p. 12). The IIRC has distinguished six categories of 'capital' – financial, manufacture, intellectual, human, social and relationship, and natural – to explain how the external environment, relationships and resources interact (IIRC, 2013).

Table 3: Summary of Three Approaches to Integrated Reporting

	Eccles & Krzus	King III	IIRC
Definition of integrated reporting	A merging of financial and non-financial information, constructed as a new way of communicating to stakeholders including shareholders using the Internet or other advanced tools (Eccles & Krzus, 2010).	A holistic and integrated representation of the company's financial and sustainability performance (IDSA, 2009, p55).	A process founded on integrated thinking that results in a periodic integrated report by an organization about value creation over time and related communications regarding aspects of value creation (IIRC, 2013,P7).
Aim	Identify the interdependence of financial and non-financial information (Eccles & Krzus, 2010).	Enable stakeholders to make a more informed assessment of the economic value of a company through a linkage of strategy, risk, performance and sustainability (IDSA, 2009)	Demonstrate the unique value-creation story of the company (IIRC, 2013)
Application	All stakeholders to clarify the interests of each category and how their activities and interests complement and compete against each other	Benefit all stakeholders	Integrated thinking is highlighted by the IIRC in the framework as the core concept of integrated reporting and mainly generated within organization to break silos between different departments.

2.1.3 Challenges for Integrated Reporting

As a new reporting regime, integrated reporting is still not without its detractors. In an interview conducted by *The Business Times* in Singapore in April 2014, a number of CFOs state that they are still not ready to "jump into the bandwagon although the concept of integrated reporting sounds appealing to them" (Singapore Press, 2014). Strong scepticism exists as to whether integrated reporting can achieve the IIRC's goals of "efficient and productive capital allocation and financial stability and sustainability" (IIRC, 2013, p. 2). The field of social and environmental reporting is still not mainstream within the business world after three decades of development. Therefore integrated reporting, being an even more contemporary report requiring advanced strategies and skills, is likely to face an even greater barrier for organizational adoption, especially from a practitioner standpoint (Welford, 2012). Empirical studies have also found that managers are still unsure when and how to adopt IR, not to mention integrated thinking (Sierra-Garcia et al., 2013; Josh et al., 2013; Jensen & Berg, 2012). Public discussion suggests that businesses are holding back and waiting for further results regarding IR's benefits before committing (Borneo Post, 2013).

As integrated reporting is at an early pilot stage, its benefits are too early to assess from both an academic or strategic standpoint. IR will require time to permeate through organisational strategy for there to be clear comprehensive outputs. Despite that, based on practitioner feedback from early adopters, there is indicative evidence that integrated reporting may enable managers to develop a better understanding of the relationships between factors that influence short, medium and long-term value creation (IIRC, 2014). The 'Integrated thinking' that is created through integrated reporting processes may encourage managers to improve communication between different departments, and may potentially improve the internal management accounting system to provide more relevant and accurate information to undertake better decision-making (Soyka, 2013). If such integrated thinking enables more efficient information collection and analysis, managers can then allocate resources more efficiently. The contents of integrated reports may enable organizations to clarify their value-creation processes by considering organizational strategy, corporate governance and performance measurement.

In order to create an integrated report, the organization should embed integrated thinking at various stages of the organisational process. It is critical that integrated thinking occur to avoid the possibility that the integrated report becomes a waste of time due to duplicity of existing information, and a lack of tailored content toward important issues surrounding each of the capitals.

2.2 Integrated Thinking

This section explains how the concept of integrated thinking has developed in the extant literature through prior concepts, and then documents how it has been defined and applied in different contexts. The section then contrasts these with the definitions of integrated thinking provided by A4S and the IIRC within an integrated reporting context. Comparing common concepts used in documentation by A4S and the IIRC, this section identifies nine key themes that traversed both of these organisations' concepts of integrated thinking. The research questions for this study were then based on these themes.

2.2.1 Origins of Integrated Thinking

'Integrative' thinking was first mentioned within a business leadership context in the Choice cascade model developed by Martin & Austen (1999). They used Integrative Thinking as a framework for business leaders to adopt new solutions to contemporary management challenges (Martin & Austen, 1999). Their model of integrative thinking in leadership aimed to guide managers to solve the tension between two (often conflicting) choices. It can be applied to deal with the tension between profit maximisation and social and environmental sustainability. Future research may wish to develop an integrated thinking framework through this choice cascade model.

In management literature, Tingey-Holyoak and Burritt (2012) interpret integrated thinking as a “transdisciplinary perspective on problem solving” (p.93). Transdisciplinary is the collaboration between different disciplines that combine knowledge to create a new perspective. Scholz et al. (2000) argues that transdisciplinarity is a key factor in assisting businesses to move towards sustainability. Following this approach, integrated thinking – defined as transdisciplinary problem solving – has been applied in carbon management accounting (Burritt et al, 2011). Integrated thinking has also been applied in water resource management (Mcdonnell, 2008) as a tool to integrate data, information and multi-variables together to present a holistic picture of water resource management.

Although the origins of the integrated thinking concept was found in leadership and management literature throughout the early 1990’s, the concept of integrated thinking was seldom mentioned in literature on corporate reporting during this period. The IIRC initially applied integrated thinking within a corporate reporting context and promoted it through IR. The A4S, as one of the joint initiators of the IIRC, works closely with the IIRC and promotes integrated thinking to enable organizations to achieve IR.

2.2.2 Integrated Thinking within Integrated Reporting

According to the IIRC, integrated reporting aims to establish a new way of thinking in business practice called integrated thinking. In turn, the IIRC defines integrated thinking as the;

> "active consideration by an organization of the relationships between its various operating and functional units and the capitals that the organization uses or affects" (IIRC, 2013, p2.).

One purpose of integrated thinking is to "break down silos" between different functions and units within the organization. With tighter connections between different departments, the flow of information becomes more smooth and efficient, and as a result, communication is improved. By preparing integrated reports, the IIRC claims that organizations will continuously develop integrated thinking to better communicate with stakeholders how value is created and sustained in their organization. In the IIRC's background paper on Connectivity (WICI, 2013), the IIRC's illustration of the mutual relationship between integrated thinking and integrated reporting (See Figure 2) shows how this new reporting agenda intends to improve the transparency of corporate reporting by reflecting internal management process to external audiences. The IIRC further distinguishes four elements or aspects of the integrated thinking process:

1) how an organization uses, affects and makes trade-offs in relation to the six categories of capitals;
2) clear analysis of the organizations' capacity to respond to the legitimate needs and interests of key stakeholders (including shareholders);
3) how an organization structures its business model and strategy to deal with challenges from its external environment, including the risks and opportunities it faces;
4) the past, present and future activities, performances and outcomes regarding to the six capitals (IIRC, 2013).

However, despite the abstract nature of the integrated thinking concept, the IIRC actually offers little additional elaboration of this concept or how it should be implemented.

Figure 2: The Mutual Relationship between Integrated Thinking and Integrated reporting

Source: World Intellectual Capital Initiative (2013)

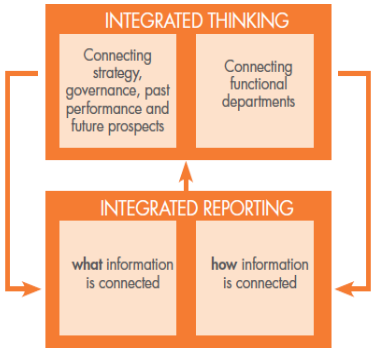
They intend to use integrated thinking to influence organizational behaviour. From the IIRC's perspective, one purpose of IR is to break down barriers of communications between different organizational functions and departments, especially financial and non-financial departments.

Although the IIRC views integrated thinking as vital to achieve integrated reporting, it is interesting that only a brief definition is provided by the IIRC in its framework. Even though the IIRC has provided the definition and four elements of integrated thinking in its framework, integrated thinking is currently a highly theoretical and abstract concept, lacking specific practical guidance. The IIRC states that;

> "integrated thinking leads to integrated decision-making and actions that considers the creation of value over the short, medium and long-term" (IIRC, 2013, p3).

From the IIRC's point of view, the most direct purpose of integrated thinking is to enhance the communication between different departments (See Figure 3). With a better flow of information within organizations, top management is then able to develop a better understanding of the interdependence of the different factors that determine the organization's ability to survive in the long-term. Consequently, managers are able to make more strategic and integrated decisions and embed short, medium and long-term value-creation into strategy. The next step is to transform strategy into daily operations and devolve responsibility and workload to individuals within the organization. Therefore, another purpose of integrated thinking is to assist top management in formulating a better strategy for decision-making, which incorporates sustainability.

Figure 3: Integrated Thinking and Integrated Reporting



Source: World Intellectual Capital Initiative (2013)

Although Accounting for Sustainability (A4S) was one of the founders of the IIRC, and has a significant role in promoting integrated thinking, the concept of integrated thinking is different to the IIRC's version. From A4S's perspective, integrated thinking is "embedding sustainability into decision-making and strategy" (A4S, 2010, para 1). Since the mission of A4S is to balance environmental sustainability with a sustainable economy at a social level, A4S focuses its programs on promoting environmental sustainability within the finance, accounting and investment community. A4S aims to achieve "future-proofed decision making" through integrated thinking by integrating environmental and social elements into decision-making, strategy and finance.

To explore the concept of integrated thinking, A4S conducted case studies into how organizations integrated sustainability into decision-making using integrated thinking

(A4S, 2010). Based on the case studies, the Accounting for Sustainability project recommends 10 steps to build integrated thinking, in relation to natural and social & relationship capital, into mainstream decision-making and strategy. These are:

1. Board and senior management commitment
2. Understanding and analyzing the key sustainability drivers for the organization
3. Integrating the key sustainability drivers into the organization's strategy
4. Ensuring that sustainability is the responsibility of everyone in the organization and not just of a specific department
5. Breaking-down sustainability targets and objectives for the organization as a whole into targets and objectives which are meaningful for individual subsidiaries, divisions and departments
6. Processes that enable sustainability issues to be taken into account clearly and consistently in day-to-day decision-making
7. Extensive and effective sustainability training
8. Including sustainability targets and objectives in performance appraisal
9. Champions to promote sustainability and celebrate success and
10. Monitoring and reporting sustainability performance in an integrated way.

Integrated thinking from the IIRC's perspective is much broader than just a sustainability concept, as all of the capitals that organizations use to create value are considered in the IR Framework. Compared with A4S, the IIRC considers environmental sustainability at the organizational level as a means by which to achieve financial sustainability (Tweedie & Martinov-Bennie, 2013). Regardless of the different views regarding integrated thinking, the core concepts, strategy, financial department involvement, and benefits of integrated decision-making, remain the same. For example, both organizations see strategy is a key element of integrated thinking. The IIRC, in its *Business Case for Integrated Reporting* (2012), specified that articulating strategy is essential for commencing integrated thinking, which then leads to integrated decision-making. The A4S reasons that business strategy and decision-making processes will benefit from a process of integrated thinking (A4S, 2010, para 2).

Although integrated thinking is a core concept in IR from both an IIRC and A4S standpoint, the existing IR literature has rarely explored the issue surrounding how organizations understand or apply integrated thinking. This includes how an organization commences integrated thinking; what evidence indicates that integrated thinking is being undertaken, and most importantly, how integrated thinking is embedded within integrated reporting procedures. Dumay and Dai (2014) conceptualize integrated thinking as a management control mechanism. They conducted a case study of one of the pilot organizations in Australia, and found that integrated thinking was interpreted as part of the organization's existing culture rather than a new concept embraced through IR. They argued that the organization should consider the necessity of embracing integrated thinking, and the IIRC might review the position of integrated thinking within the organization. Although some of the extant literature argues that integrated reporting will benefit organizations (e.g. Adam & Simnett, 2011), it is integrated thinking that provides the impetus for integrated reporting (IIRC, 2013). Without effective integrated thinking, the application of IR may differ from what is stipulated by the IIRC, and may not be able to meet stakeholder expectations. Therefore, it is valuable to study how organizations and stakeholders interpret integrated thinking, how organizations embed integrated thinking into their business and how stakeholders react to integrated thinking. This thesis will explore the concept of integrated thinking and the mutual relationship between integrated reporting and integrated thinking from the IIRC, key stakeholders and reporting organizations' perspective.

Table 4: Chapter 2 Research Objectives and Outcomes

Objectives	Outcomes (sections)
To outline the motivation of integrated reporting	Four major motivations of integrated reporting are summarized in section 2.1.1
To outline three different approaches to integrated thinking	A comparison of three different approaches to integrated reporting is explored in section 2.1.2.
To outline integrated thinking within a different context	In section 2.2.1 Integrated thinking in leadership literature represents a possible solution in that managers should develop a holistic view of the problem and consider any possible consequences. Integrated Thinking in management literature represents a new management method that managers should consider knowledge from different disciplines to develop the most optimal solution.
To summarise the literature of integrated thinking in an integrated reporting context	In Section 2.2.2, according to the IIRC, integrated thinking has two component objectives, to – connect different departments & connect strategy, performance and corporate governance. IIRC and A4S publications were examined to identify the gap. The gap is founded in the lack of clarification surrounding the fundamental concept of what is integrated thinking. Only one paper has investigated integrated thinking as a management mechanism in prior research.

Chapter 3 Research Design

This chapter will outline the research method this study applies, and justifies the appropriateness of the method to the study's objectives. The main purpose of the study is to explore how the concept of integrated thinking is understood by organisations and stakeholders alike, and how it permeates – or should permeate – through the organization. To achieve this goal, the study conducts a comparative analysis of practitioner, stakeholder and IIRC standpoints. This chapter provides details of the research and interview process, including: the criteria for selecting interviewees; how the interview questions were constructed; and, how the interview transcripts were analysed.

3.1 Research Method

Since academic research on integrated thinking in an integrated reporting context is still in its infancy, the concept of integrated thinking has not been investigated in-depth, either to clarify what the fundamental concept means or to determine how it is applied in practice. Limited prior studies in integrated thinking show a strong preference for qualitative methodology. Dumay & Dai (2014) undertook a case study of an Australian pilot organization to explore the concept of integrated thinking as a type of cultural control mechanism. Qualitative methodology supports researchers who seek to develop a text-based narrative explanation of a phenomenon or human behaviour, through an in-depth study of a small number of cases (Morgan & Smircich, 1980). Since this research is an exploration of the concept of integrated thinking, the study adopts a qualitative research method using in-depth, semi-structured interviews to discover the process by which organizations seek to both identify and implement examples of integrated thinking through IR. The interview method enables a more detailed and deeper response from interviewees without limiting their answers to particular choices (Mack et al., 2005).

As the main purpose of the study is to explore how the concept of integrated thinking is understood, and how it permeates – or should permeate – through organizations, the thesis seeks to conduct a comparative analysis of the perspectives of practitioners', key stakeholders' and the IIRC itself. This study conducted seven x 45 to 60 minute semi-structured interviews. Interviewees included two senior managers of two pilot organizations, one director from a professional association practicing integrated reporting, two representatives of professional bodies and accounting firms respectively and two senior managers from the IIRC. Interviews were conducted between July and August 2014, and were undertaken face to face at the interviewees work premises, or via telephone. This study particularly chose a "localist" approach to conduct interviews. The "localist" approach to semi-structured interviews opens up an "interpersonal talk" between researchers and interviewees (Qu & Dumay, 2011, p247). This technique enables researchers to modify interview questions according to the responses of interviewees, and to adjust the terms they use to capture the interviewees' view of the world. Thus, it allows a "flexible, accessible and intelligible" approach to discover the hidden side of organizational behaviour (Qu & Dumay, 2011, p246). Researchers are able to unpacking reporting organizations' and stakeholders' attitudes towards integrated thinking, and how an organization operationalizes integrated thinking into daily operations.

3.2 Interview Design

This study aims to explore the concept of integrated thinking and the extent to which organizations and stakeholders embrace and implement ideas and actions on IR that are representative of an integrated thinking approach within the organization. Due to the lack of a clear concept of integrated thinking in the existing IR framework, researchers need to design a set of themes that can be used as indicators to signal whether or not integrated thinking is occurring in an organization in order to structure interview questions. By examining the publications[4] issued by the IIRC, this study found that with respect to the <IR> framework, the term "integrated thinking" was repeatedly mentioned. In fact the whole concept of integrated reporting proceeds on the basis that there is integrated thinking at the individual and organisational level. Despite the absence of an explicit definition of such an important concept as 'integrated thinking', examining the various instances where it was mentioned and the context surrounding this discussion provides clarity regarding the processes and elements which constitute this term. As the information on Integrated Thinking in the <IR> Framework is too brief to enable researchers to clearly explore the IIRC's own concept of integrated thinking, this thesis constructs the interview questions by looking for shared concepts of Integrated Thinking that are explicit or implicit in the related documentation by both A4S and the IIRC.

This thesis will focus in particular on the application of integrated thinking to natural and social & relationship capital, based on the A4S focus on these 2 capitals and the contemporary nature of their use, as evidenced in similar reporting including sustainability, triple bottom line, corporate social responsibility and the generic social and environmental reporting format. According to the IIRC's framework, natural capital includes all environmental resources an organization uses to create value; social and relationship capital is the relationships between various interest groups as stakeholders of the organisation which affect the organisations ability to create value (IIRC, 2013, p13). Sustainability reporting frameworks, such as the Triple Bottom Line and GRI's G3 have addressed environmental and social issues separately and provide index and key performance indicators in their frameworks to assist organisations to disclose related information. Compared with other capitals, natural and social and relationship capitals are better understood by organizations based on their previous sustainability reporting experiences. However, in IR, capitals are interrelated, and integrated thinking aims to inspire managers to discover the connection between capitals. Therefore, combined with the existing knowledge of environmental and social issues disclosed in sustainability reports, it

[4] Publications includes: <IR> Framework, IR Discussion Paper, Basis for conclusions, Summary of significant issues, Building the Business Case for Integrated Reporting, IR Background Paper Capitals, IR Background Paper Connectivity, The pilot programme 2012 & 2013 yearbook.

is relatively easy to study how organizations use, affect and make trade-offs, and how their strategy is tailored to respond to the risks and opportunities that arise from these capitals.

Narrowing down to two particular capitals – on which the A4S's guidance of integrated thinking also focuses - this thesis finds that the features of integrated thinking implicit in the IIRC's publications share certain common elements with A4S. Following this method, this thesis linked A4S's 10 steps to integrated thinking with the IIRC's publications on <IR>, and identified 9 themes identified as common elements, particularly concerning natural, and social & relationship capital. The details will be released in Appendix A.

3.3 Development of Interview Questions

The IIRC emphasises the mutual relationship between integrated thinking and reporting, given that "IR demonstrates the extent to which integrated thinking is occurring within organization" (IIRC, 2012, p8). This thesis constructed questions around integrated reporting, rather than directly 'alerting' interviewees to the focus of the study being on integrated thinking. The thesis assumes that interviewees might not use the term "integrated thinking", yet may behave in a way consistent with the concept of integrated thinking. This study deliberately posits that the interviewees would naturally outline examples of "integrated thinking" in their response to questions, as opposed to being prompted to by the interviewer to specifically highlight "integrated thinking" during the interviewee. This was to ensure that interviewees displayed a degree of 'self-awareness' as to what 'integrated thinking' was, rather than being 'led' by the interviewer. This was in line with the purpose of this study, which is to explore the cycle of integrated reporting and thinking.

In this study, two sets of interview questions were designed for pilot organizations and stakeholders & the IIRC respectively, based on the table of nine themes identified in the above section. The interview questions are constructed in “a consistent and systematic manners interposed with probes designed to elicit more elaborate responses” (Qu and Dumay, 2011, p246). The questions were modified or adjusted based on the situation of actual interviews. The first set of questions was for the two pilot organizations and one professional association who applied IR according to the <IR> Framework (see Appendix B). These questions require the interviewees to describe the processes and individual roles they used in developing their IR report. In Theme 1 *Board and Senior management*, the interview questions are:

1) What involvement **has** the board had in integrated reporting; and
2) What **resources has** the board allocated to integrated reporting?

Since the professional body, accounting firm and IIRC were not necessarily directing engaging in preparing IRs, the second set of questions focused on their opinions as to how organizations should implement IR (see Appendix C). In Theme 1 *Board and Senior management*, the interview questions are:

1) What involvement **should** the board have regarding integrated reporting; and
2) What **resources should** the board allocate to integrated reporting?

As outlined, answers to interview questions were probed. Once interviewees mentioned the term “integrated thinking”, the researchers will probe an interview question, for example “what do you think integrated thinking is?” to elicit a deeper understanding of the interviewees’ understanding of integrated thinking. Alternatively the probing questions were also raised at the end of interviews.

One purpose of designing two sets of questions is to capture whether there are differences between what people *expect* organizations to do from the IIRC and professional body standpoint as stakeholders, and what organizations *actually* do (the pilot organisations) in practice, and whether they follow the IIRC’s guidance. The study then analyses the differences or consistencies among the respondent groupings, to identify potentially different understandings, interpretations or applications of how the organization manages the mutual relationship between integrated thinking and reporting, and whether integrated thinking is in fact preceding IR.

3.4 Criteria for Selecting Interviewees

The sample in this study includes: two managers/CFOs from two Australian organizations that have been members of the IIRC's Pilot Program since 2012; two directors/managers from an accounting professional body, a 'Big 4' accounting firm, and two director/ senior manager from the IIRC. Seven senior/middle managers involved in this study are familiar with the IR concept and are directly linked to the integrated reporting process in their organisations. The study has a small sample size of seven in depth interviews, given that it is an initial exploratory study of integrated thinking, which has been undertaken during the 'pilot' phase of the <IR> framework. Interviewing managers/executives who are responsible for key decisions surrounding the implementation of IR and integrated thinking within their organisation allows researchers to gather valuable data around the whole processes of IR. The result will be a more informed understanding of the perspectives and experiences of those decision-makers who are responsible for delivering integrated thinking and IR.

Five Australian organizations are participating in the IIRC's Pilot Programme Business Network (IIRC, 2014). All five organizations were sought for contact at the beginning of the interview period (July-August). However due to the busy corporate reporting period (July-September), only two organizations were available for interview. One interviewee from each organization was selected to participate in the study. The pilot organizations have worked closely with the IIRC and are under the supervision of the IIRC throughout the IR pilot process. As such, researchers expect, firstly, those organizations have a more mature understanding of integrated thinking and reporting compared to other Australian firms. This suggests that those two firms possibly have better operational practice embedding integrated thinking into IR. Secondly, their understanding of integrated thinking and processes of IR should at least partially match with the IIRC's intentions. Therefore, researchers are able to form a picture of how organizations practice integrated thinking and reporting through the lens of the IIRC.

Pilot Organization 1 (PO1), as a commercial company, joined the Pilot Program in 2012 and issued its first fully integrated report in the same year. The organization has more than 300 staff across Australia. For PO1, a middle manager (P1) who has been the key team member in charge of integrated reporting since 2012, was interviewed. Being actively involved in integrated reporting, he has worked over 10 years in community development in PO1, and was qualified to provide reliable and detailed information about his organization's processes of integrated reporting, and the extent to which integrated thinking permeates different levels of the organization. Pilot Organization 2 (PO2) is an Australian professional accounting organization that issued its integrated report in 2013. For PO2, a senior manager (P2) was selected, who had been a long-term employee, and who had significant knowledge of integrated reporting. With an expertise in financial reporting, he provided insights into integrated report assurance, and first-hand information of his organization's experience in integrated thinking and reporting. The third reporting organization (PA) was an independent not-for-profit corporate governance professional body. Although the organization did not participate in Pilot Program, it has been actively involved in the IIRC's activities and pronouncements, including a submission on the Consultation Draft of the Framework in 2011. The interviewee (PA1) involved in this study is the National Policy Director who, since 2012, has been responsible for the organization's commentary and pronouncements surrounding integrated reporting. As a member of the Australian Business Reporting Leaders Forum (BRLF) PA1 attends conferences and actively participates in on-going discussions related to integrated reporting. Being the National Policy Director who develops the integrated report for her organization, her view of integrated reporting and thinking will provide insights into how small organizations engage with IR, given that the audience consists of members as opposed to shareholders.

The views of stakeholders are collected primarily from two sources: a professional accounting body (PB) and a large 'Big 4' accounting firm (AF). The first step in selecting interviewees to represent key stakeholder attitudes was to examine the submissions made on the consultation draft of the IIRC by Australian organizations (including Big 4 accounting firms), via the online IIRC database[5]. From the 24 organizations that had made submissions, one professional accounting body was selected to explore the views of qualified accountants on integrated reporting, and a 'Big 4' accounting firm located in Australia was also selected to solicit views on IR from both an auditor standpoint, and one who is advising clients that may be implementing IR. Both organizations are 'critical players' who have the ability to influence the corporate reporting environment. The interviewees were the managers who made the submissions to the IIRC's draft framework from each organization. Due to their involvement in the submissions, they will possess knowledge and experience regarding the development of IR and the IIRC's <IR> framework compared to others within their organization. The nature of this study requires rich descriptive responses from key decision-makers in the IR process, to ensure that responses are informed and to explore the core issues surrounding the operation of IR and integrated thinking prior to the full implementation of the framework post-pilot.

The Manager (A1) from the big accounting firm (AF) had two years work experience in the IIRC as a member of a working group developing the <IR> Framework. Her expertise from both an auditing and IR standpoint provides a dual insight into how IR and integrated thinking are interpreted by auditors from an assurance perspective. The Director (PB1) from the Australian professional accounting body (PB) has assisted his organization transform from sustainability reporting to integrated reporting. He is also responsible for the organisations submission to the IIRCs consultation draft framework. Based on experience and position, he provides in-depth knowledge on how to engage in integrated thinking from an accounting education perspective. Consequently, this organization's interpretation of IR and integrated thinking influences its professional education

[5] The submissions to the Consultation Draft of the International <IR> Framework was held during 16th of April to 15th of July in 2013. 359 submissions were made around the world The website for all the submissions: http://www.theiirc.org/consultationdraft2013/

programs, which effect members who are qualified accountants. In turn these members then have the potential to impart their knowledge of IR and integrated thinking into the organizations they are employed at, thereby broadening the influence of IR across the globe.

As the nine themes identified in this study do not cover all issues in the IIRC's publications, the study sought insights from the IIRC, and as mentioned one director and one senior manager were interviewed. The senior manager (I1) manages IIRCs relationships in East Asia and Australasia, and has in-depth experience on IR and integrated thinking within an Australian context. The director (I2) who is employed at the IIRC head office in the UK, leads global policy development of IR, and is therefore able to provide an 'insider' perspective on the IIRC's official interpretation of integrated thinking and how it should be applied.

Table 5. Summary of interviewees

Pseudonym	Positions	Organization	Perspectives
P1	Manager	Pilot Organization 1 (PO1)	Practitioners' view
P2	Deputy CFO	Pilot Organization 2 (PO2)	
PA1	Director	Professional Association (PA)	
PB1	Director	Professional Body (PB)	Stakeholder's view
A1	Manager	Accounting Firm (AF)	
I1	Director	IIRC	Official view
I2	Senior Manager	IIRC	

3.5 Data Analysis

All interviews were audio recorded, transcribed and checked by the principal researcher, whilst another two researchers sample checked the transcriptions to ensure accuracy of content. After transcription, interview transcripts were open-coded by the principal researcher to identify shared themes that emerged in response to each of the nine categories of interview questions. The categories that resulted from the coding process where then reviewed by all three researchers, and differences discussed and resolved, to minimise potential biases or subjectivity in the coding analysis.

Table 6: Chapter 3 Research Objectives and Outcomes

Objectives	Outcomes (sections)
To outline research methods	Semi-structure interview is applied in this study to conduct the exploratory study of integrated thinking in an IR context. (3.1)
To outline interview design and interview questions construction.	This thesis creates the theme through reviewing the documents from the IIRC and A4S and categorizing common elements. 9 themes have been outlined in the Appendix A. (3.2) Two sets of interviews were constructed according to the nine themes identified in section 3.2 to collect data from reporting organizations and stakeholders' representatives (includes the IIRC) respectively in section 3.3.
To outline interviewees selecting criteria	All seven managers were interviewed in this study including three managers from reporting organizations, two managers from professional association and accounting firm and two managers from the IIRC. (3.4)
To explain data analysis	Open coding was used to analyse transcript. With all three researchers checked the result to ensure the reliability. (3.5)

Chapter 4 Analysis of Interviews

As the interview questions focus on the integrated reporting process, this chapter will present summaries of the key interviews. The analysis of the interviews and implications for integrated thinking will be discussed in Chapter 5. Following the nine (9) themes tabled in Chapter 3, the results are divided into three main sections. Section 4.1 presents the results of the first four interview themes, which are: (i) board and senior management involvement; (ii) department/divisional involvement; (iii) middle management involvement; and (iv) individual responsibility for IR. Section 4.2 provides summaries of five themes, namely: (1) key elements in natural and social & relationship capital, (2) key elements and strategy integration, (3) training and education programs, (4) performance evaluation related to the two capitals and (5) monitoring, benchmarking and continuous reporting. Section 4.3 contains interview questions relating to perceptions regarding the definition of integrated thinking. The following table shows the structure of this chapter.

Table 7: Section and Theme Identification

<table>
<tr><td rowspan="4">Section 4.1 Individual roles in developing Integrated Reporting</td><td>Theme 1. Board and senior management involvement</td></tr>
<tr><td>Theme 2. Department/divisional involvement</td></tr>
<tr><td>Theme 3. Middle management involvement</td></tr>
<tr><td>Theme 4. Individual engagement and responsibility</td></tr>
<tr><td rowspan="5">Section 4.2 Management practices implementing integrated thinking</td><td>Theme 5. Identify key elements affecting business value creation</td></tr>
<tr><td>Theme 6. Integrating key elements into business strategy</td></tr>
<tr><td>Theme 7. Education and training</td></tr>
<tr><td>Theme 8. Performance Evaluation</td></tr>
<tr><td>Theme 9. Monitoring, benchmarking and continuously reporting</td></tr>
<tr><td colspan="2">Section 4.3 What is integrated thinking?</td></tr>
</table>

4.1 Individual roles in developing Integrated Reporting

4.1.1 Board and senior management involvement

This section explores the organization's attitude towards board and senior management involvement in IR and the reasons underlying involvement. The first common theme is that seven interviewees all agreed that board involvement is "*very much*", "*definitely*" critical to the success of IR. In particular, interviewees believe that as the head of the organization, the board should have "*automatic responsibility*" (PB1, I2) for the Integrated Report. The Directors from the professional association (PA1) and the Manager from the IIRC (I2) also recommended that the board should "*sign off*" on the report to ensure that their involvement is reflected toward the audience. All three organizations interviewed in this study had the board sign off on the report.

Some interviewees believe that one reason why the board should be involved is that the awareness and support of the board for integrated reporting is crucial to making IR transpire within organizations. The Director from the professional association (PA1) raised the issue that integrated reporting should be different from the sustainability report, which has tended to lack engagement from the board. In PA1's view, only when the board is involved, can organizational "*integration*" occur as they "*bring together the sustainability elements in with the financial report and the annual report, which talk about this from an operating and financial viewpoint*". The manager from the accounting firm (A1) recommends that the board "*need to be visually leading and supporting*" the integrated reporting process. Another reason interviewees believed the board necessary for the integrated reporting process to succeed is that IR is a strategic document, and the board owns strategy. Since the board decides "*what the [organization] is doing, where it is going, what risks might be posed to those objectives*" (PA1), integrated reporting has "*triggered the discussion between board members*"(I1) about the strategy of the organization. This strategic emphasis was echoed by the director of the IIRC (I1):

> *Our Chairman, Mervyn King says what integrated report should be as it is the simplest it's the express of the compelling voice of the board.*
>
> *….what integrated reporting seeks in the organization is to communicate [the] strategy of the business, and the board should own the strategy of the business, and the risks and opportunities flow [from] the strategy….. if the business has a compelling strategy, which it should,…..the[n] business should reflect the strategy of the business, which the board and director[s] should [then] own.*

The manager from the IIRC suggested that the board should allocate "*at least…one board member who is involved with [the] steering committee*" (I2) to integrated reporting. I2 further highlighted that "*the board should be enrolled right from the planning process*", because the board owns the strategy. The Director recommends that the person who owns the integrated reporting should be the one "*who actually owns the relationship with the providers of the financial capital and in a long-term strategy [with] the business"*(I1) which "*has to be the board*". This "*leadership*" role allows the board to use management control mechanisms such as the "*tone at the top*" (I1) to send a message that signals the value of integrated reporting through the organization. They also argue that having one board member in charge of integrated reporting enables the member to "*communicate with the rest of the board*" (I2), which will enhance the boards understanding of IR. As the manager of the IIRC mentioned, in the final version of <IR> Framework the IIRC suggests that those who are charged with governance should provide a statement to demonstrate their collective mind regarding the integrated report, and also to acknowledge their responsibility for ensuring the report's integrity. Therefore, the IIRC sees that signing-off on this document reflects the board's involvement with a broader audience.

The two interviewees from the IIRC also question whether an organisation without complete commitment from the board can embed IR internally:

> *I wonder how successful the organization can be with integrated reporting, if that tone isn't coming completely from the top, [….] I think you certainly can still make good progress in terms of having a great report, but it's got to flow down to*

the point where your integrated thinking is reflected in the actual culture of the organization. I think for many organizations, they are not getting that point yet, but now we do expect them to…,because you are not going from your current reporting stage to [a] fully integrated report within a 12-month period, for example. So it is a process, but that is…what you expect to see. [Getting]… the tone right from the top is actually part of their culture, that's why the NAB said that this isn't a pilot for us now, this is the way we do business, and that's where [we] should get to.

In practice, the organizations undertaking integrated reporting stressed that the boards should work with senior management to achieve better involvement. To make the organization feel that the whole idea of the integrated report is not just "*one more report*" (PA1), the manager of the accounting firm (A1) suggested that "*buy-in from senior management*" is vital to show the internal value of integrated reporting. The Deputy CFO from pilot organization 2 (P2) notes that:

..senior management needs to be very clear and needs to guide the board in setting the expectation[s] of the board about what the board will see when the report comes. So some of the things we have done…is actually [to] provide the board with samples of the content.

Interviewees whose organizations practice integrated reporting added that the people who lead the integrated reporting process within organizations should have "*long-term work experience with their organization*", the "*ability to think about the whole business*" and the "*right skills*".

Pilot organization 1 and 2 are relatively larger organizations. Pilot organization 1 (PO1) appointed a sustainability manager to coordinate the information involved in the report, and placed a middle manager with over 10 years experience in the organization from community development, to be in charge of the integrated reporting processes. When the organization is progressing integrated reporting, their board "*does play a role in setting the broader objectives of the business*" (PI) whilst the senior managers "*recommend [an] integrated reporting approach to the board*" (P1). In Pilot Organization 2 (PO2), the working team of integrated reporting involves both the Deputy CFO from a finance background who has a long term association with the organization, and the manager of risk and planning. The relationship between the board and senior management requires that "*senior* *management need to…guide the board in setting the expectations of the board*" (P2). The Corporate Governance Professional Association, which is smaller in size, has one senior manager leading the integrated reporting process, who consults with the board regarding the integrated reporting processes. As PA1 described her organization's planning stage of integrated reporting:

> *….. [At the] start of the meeting with the CEO, our CFO and all of our directors and heads of our units basically are sitting around this table, having a discussion about what did we think our integrated report would be…*

This indicates that the board has a more direct participation at the planning stage of the reporting process.

In summary, the reporting organizations' perception of the relationship between management and the board is that the board should support management in initiating integrated reporting, and that the management team who are responsible for constructing the report then guides and informs the board about their work, including the stage of the integrated reporting process, and what it looks like during each stage. The board then agree or disagree on the information that the management team decide to put into the report, with the board finally signing off on the report before it is released to the public.

Compared with the general guidance given by the IIRC about the board's involvement, in practice the three practitioners implement the board's involvement in integrated reporting through a team based approach with senior management. The interviewees representing key stakeholder viewpoints, also support this argument. The manager from the large Accounting Firm (AF) views the board as "*not generally involved in day-to-day integrated thinking and reporting*" (A1), but only involved in the 'big picture' of the organization. Therefore, senior management's involvement in integrated reporting strengthens the support of the board towards integrated reporting and thinking and most importantly, transfers the board's will and intent on IR into operational practice within the organisation.

4.1.2 Department/divisions involvement

Under this theme, interview questions aim to explore what department/divisions should be involved in the integrated reporting process, and how in practice, these departments are involved across the three reporting organizations; pilot organization 1 (PO1), pilot organization 2 (PO2) and the professional association (PA).

Interviewees generally agreed that most parts of the organization should be involved in integrated reporting processes, including finance, risk management, human resources, sustainability, and internal audit. Further, interviewees particularly emphasized that departments, units and functions related to business strategy or governance should be the key players within the integrated reporting process, which is consistent with the requirement that integrated reporting should connect with organizational strategy. The Director of Professional Association (PA1) proposed that "*each organization [needs] to decide for itself*" each department's role based on how material each department is to the overall corporate strategy. A clear theme emerging at this early developmental stage, was that all interviewees viewed integrated reporting as being about strategy, which contrasts with perceptions about sustainability reports lacking "*a direct correlation back to strategy*" (I2).

From the IIRC's perspective, a key objective of integrated thinking is to break down the 'silos' or barriers between departments. The example given by the manager from the IIRC is China Light and Power (CLP) Company. CLP

> *actually takes teams off-site and pulls different people within the organization to work together [….] so they actually understood what other colleagues are doing. These off-site meetings [are able to] foster collaboration and break down silos.*

She also provided another example of how different departments are involved in integrated reporting.

> *The NAB's annual review steering committee have [the] right representatives from all different departments across the business. When it actually comes to*

> *producing their report, they sit [down] and they work with that document together.*

In the IIRC's view, the working team with representatives from all departments is crucial in breaking down the silos between different departments, and such collaboration is a critical part of integrated thinking. The manager (A1) from the accounting firm who also represents a stakeholder viewpoint, also emphasizes that unless it talks to the business as a whole, the organization cannot effectively write up an integrated report.

The three organizations that conducted integrated reporting have involved all departments in their integrated reporting processes despite applying different detailed approaches. The manager from Pilot organization 1 said that "*all departments*" are involved with the working team in integrated reporting in his organization, with team members being from different departments. He described one approach to preparing IR as follows:

> *.....the sustainability manager will send out regular emails saying we need to compile which data [should] get chosen to report with commentary added, and then that goes out to the relevant departments and then it gets back to the sustainability manager.[..] and all departments are very much on board.*

He also used his work as an example to describe how individual work was co-ordinated through integrated reporting:

> *... [In regard to] the Community Investment Program, I may report the figures on a month-for-month basis to [the sustainability manager]. And then at the end of the year, I sit down and verify those figures and then report them in a final way [to the sustainability manager].*

The director from the professional association (PA) described the processes in her organisation as follows:

> *..... [At the] start of the meeting, the CEO, our CFO and all of our directors and heads of our unit basically sit around this table, having a discussion about what*

> *did we think our integrated report would be; what did we think it will report on, try to think beyond what [a] normal annual report was, try to think about those key issues of what do our members need to know, but also our other stakeholders, what's the information that they need to know to get a really fully rounded picture of what it is that we are doing.*

At the planning stage, the organization also takes a time horizontal approach to review previous reports to figure out "*why [the information reported] year-on-year was important*" (PA1) and a rethinking of how past business activities affect our future plans from a more holistic viewpoint.

The director suggests that there should be a time to bring the financial and sustainability people together to develop a balanced and integrated view of reporting rather than leaning integrated reporting toward a financial report or sustainability report format. The challenge at this stage is "*finding the common language*" to allow departments to understand each other. As PA1 explains:

> *often they have never spoken to each other and often they don't have the same language…..They might use words that mean completely different things to each of them.*

Different departments start to talk about themselves during the integrated reporting processes, and sitting around the table can allow them to listen and know that what other departments are doing, and to understand how other departments' work interacts with their own. After clarifying the reporting language and processes in this way, the organization then started to allocate responsibility to someone to write up the report and leave space so that "*everyone can review and comment on it in a constructive fashion*".

Compared with the IIRC's instructions, Pilot Organization 1 (PO1) and the Professional Association (PA) have had processes that involved all departments sitting down and working together. Only Pilot Organization 2 (PO2) applied a different approach in involving departments into the integrated reporting process. While the Professional Association opens up the dialogue for all managers, executives and board members to decide the purpose and content of IR, Pilot Organization 2 relies more on certain people within the reporting team to determine the key issues around IR. The heads of each department follow the instructions given by the working team and accomplish their work by reporting the data back to the team. The Deputy CFO from Pilot Organization 2 explains the processes of integrated reporting as such:

> *Through myself, [the] risk manager,[and] two COOs of the organization, we determined, from the available IIRC framework aspects, what is material. Then we validate that through our key stakeholders-employees, members and suppliers. [….] After we have done that process, we determined materiality within different areas of the business and asked [each department] to begin collecting data that will represent our report and align with what is material. So [eight different parts of the business] do not necessary come together to decide the processes that have been done effectively of what's material. We feed it back down to them. So they understand integrated reporting, they understand their part in it. They have a broader context from the whole business, but they are not working together to determine which is material. So they have input, but they are not deciders.*
>
> *Eight different parts of the business who are individual owners of the information […] crunch the data and they provide the insight into the data. What we then do [is] to bring it together and try to integrate [it] through the document.*

Pilot organization 2 also runs monthly-based reporting to help each department understand how to collate data to feed the need of the annual integrated report.

From the IIRC's perspective, the manager (I2) from the IIRC argues that finance personnel may have the most benefit from implementing integrated reporting into the organization. Through participating in integrated reporting, the finance team is forced to expand their narrow financing perspective to take a more holistic view of the organization and its environment. Therefore, integrated thinking can assist them in transferring their role to finance advisory instead of one of "*straight finance*" (I2). The IIRC (I2) also acknowledges:

> *In many organizations, integrated reporting is driven by the sustainability function. Often it has been the sustainability teams who understood the broader implication of the non-financial information across the whole business. Whereas*

[in] other parts of the business, unless the financial dollar amount is attached to something, [they] disregard it. So I think that's been sort of natural starting point for where many of these reports are coming from. […] But I think that is definitely changing.

The three reporting organizations show some evidence in the interviews that demonstrate that they understand that integrated reporting is different from sustainability reporting or the financial report. The Director from Professional Association (PA1) was concerned that if integrated reporting is:

…driven purely by someone from sustainability or purely someone from financial reporting, there is a risk that you are going to get a view [of] things that are already deeply familiar, and [it] might be hard for them to shift out of that mode into a broader picture. [….]It really depends on the individuals, depends on their own capacities.

Regarding her organization's integrated reporting processes, no clearly evidence shows that the finance people are involved in IR procedures, except the "*sitting around the table*" (PA1) meeting of all management and executives mentioned in the earlier section. In Pilot Organization 2, the Deputy CFO who has the finance background leads the working team and is joined by another managers from the sustainability department. During the interview, he mentioned how the organization learnt the experience through sustainability reporting and applied similar mechanisms when constructing the first integrated report. Integrated reporting in Pilot Organization 1 is driven mainly by the 'sustainability people' with the finance personnel involved in the cross-functional meetings during the reporting processes. In general, three reporting organizations all have managers with sustainability backgrounds proving the primary role in constructing the integrated report.

4.1.3 Middle management involvement

Under this theme, the interview questions focus on what middle management should and actually do, to facilitate integrated reporting within daily workflow. The distinction between middle and senior management's responsibility to integrated reporting and thinking will be discussed below.

Compared with the board's role in establishing strategy and providing "*general governance*" (A1) and senior management's role in leading the IR process, interviewees see middle management as being responsible for "*day-to-day critical business decisions*" (PB1). Regarding the barriers existing within the organization, manager (A1) from the accounting firm pointed out that "*historically, [the] organization has been structured around functional silos, which is still the case in many [areas] of the organization today.*" The Director (PB1) from the professional body took it further explaining that "*typically many of those business decisions are in isolation of understanding the wider impact[s] [on the] organization*". In the opinion of key stakeholders', middle management is responsible for "*looking [at] how [an organization is] structured and then trying to increase communication across the silos*" (A1). Therefore, they believe that middle management "*is where the idea of integrated thinking has the most residence*" (PB1). The director of the professional body also reported that his organization has benefited from integrated thinking in this operational sense at the middle management level. In the project of "*capital investment appraisals*", the work:

> *….typically sits within the organization either around [the] management accounting function or around [the] treasury function. By taking [an] integrated thinking approach, [it] helps us to look beyond the financial matrix we use and understand a wider range of issues associated with our capital investment appraisal decisions.*

A similar argument can be found in interviews with the two senior managers from the IIRC (I1, I2). From the IIRC's perspective, "*middle management can be helped by thinking beyond their department and thinking about [the] implications of their work on other divisions*" (I2). The IIRC also pointed out that middle management has a key role in communicating vertically through the organization. For example, as I1 described, if middle management "*spotted something strategic and [any] risks and opportunities*", the responsibility of middle management is to send this message up through integrated reporting processes to senior management to enable correct decision-making.

Three interviewees from reporting organizations have similar attitudes toward the role of middle management as "*Champions*" (P2) of IR within the organizations. They argue that in order to achieve the expectations of senior management, middle management needs to understand the impact of their own work on other departments, and go back to their own unit to "*get the buy in from their own individual[s]*" (PA1) to better develop interactions between individuals for the benefit of the organization as a whole.

Comparing the arguments of both stakeholder and practitioner interviewees, it is found that the primary role of middle management is perceived to be one of implementing integrated thinking at the operational level. As mentioned in Section 4.1.1, integrated reporting is primarily about strategy. Interview data demonstrates that it also provides a platform for middle management to examine how their role is linked to the strategic planning of the organization that an IR is meant to set out. In summary, at the operational level, middle managers can commence conversations between different departments about what their impact is on other organizational groups, and how the information from their department affects other departments. Middle management has a central role to play from an integrated thinking standpoint in that they can 'break the silos' between departments at lower organizational levels through integrated reporting processes.

4.1.4 Individual engagement and responsibility

Under this theme, the interview questions centred on individual employee involvement in IR and their role in integrated reporting and thinking. In particular, interview questions aimed to explore how front-line employees deal with integrated reporting, and how organizations take these employees into account when seeking to extend integrated thinking from senior management to middle management to the individual employee level.

Several interviewees stated that employees are one of the most important internal stakeholders for the organization, as well as the biggest readers of integrated reports. The Professional Body Director (PB1) saw the value of employees as similar to the providers of financial capital, to which the IIRC intended the primary audience of the integrated report to be. He also believed that employees understand how organizations create value better through participating in IR processes, and/or by reviewing the integrated report. The accounting firm manager (A1) has a similar view regarding employee involvement in integrated reporting:

> *I think for many employees, conceptually thinking about the […] integrated report […] might not have too much impact on them. [however] through the report, and through the reporting processes, [they] might become more aware of what their colleagues in another department are doing. Or reading the report at the end, they will have a better idea of the company they work for and how their company creates value.*

The Director of the professional association (PA1) also notes that employees, as report readers, tend to provide a more critical view of the integrated report. Her organization made a conscious effort to engage employees, where they will have "*staff meetings a few times a year when [the] CEO talks to the entire staff [where he will] talk about [the] integrated report both in [terms of the] processes of developing it, but also after its published*". PA1 explained the reason behind the engagement as being to:

> *….. get people involved, because reporting to the board can feel very separate. We also have a longer [term] view trying to make some board reporting accessible to*

> *our staff generally, not everything of course, but some of it. So we have had a long history of making sure our employees understand how central reporting is to governance…but also in this instance, why this information is about us…that's actually [being] quite...transparent and [displaying] steward[ship] to our members.*

However, this method of involving employees in IR might not be applicable to pilot organizations who had substantially more employees. The Deputy CFO from Pilot organization 2 emphasized that "*…employees get the real value is if they do actually take their time to read the report, better understand the organization and what the organization stands for, and how does it create value*". Indeed, because only around 2% of their employees are involved in IR processes, other employees will rely on reviewing the report to get a better knowledge of the organization. In his organization, the employees receive a copy of the Integrated Report after it is published. The organization did not mandate that employees read it though, so it is difficult to examine whether or not the organizations' intentions in sending out a copy were achieved.

In this study, the size of the organization appears to affect the scope of the employees' role in integrated reporting and integrated thinking. For larger organizations like Pilot Organization 2, the majority of employees are simply receivers of messages or reports about integrated thinking from the top, which should be reflected, in integrated reporting. Where employees take time to read IRs, they may engage in integrated thinking by gaining a more holistic view of the organization. The problem is that the organization finds it hard to assess how many employees actually read IR, and thus, employee engagement in IR is unclear. Since the IIRC expects the ideal scenario be that "*every individual within organization should understand the process*" (I2), the fact is that employee engagement in organizations is limited due to size and resources. The IIRC also intends that integrated thinking be the culture of the business through integrated reporting. For those employees who actually participate in IR processes, it seems that there is a higher likelihood that they will develop a more holistic view of the organization through their experience of IR. Therefore, the smaller organizations with more employees directly involved in IR tend to have higher employee engagement in integrated reporting and thinking. Larger organizations might have more difficulties in permeating integrated thinking through different layers of the organization from the board to 'shop floor'.

4.2 Management practices implementing integrated thinking

4.2.1 Identify key elements affecting business value creation

Under this theme, the interview questions explore what elements organizations include in two key types of capitals within the IIRC's framework – natural and social and relationship capital, and how organisations view their management and reporting of these capitals as affecting value creation.

The two interviewees (I1, I2) from the IIRC point out that the organization needs to determine which capitals are material to an integrated report, rather than reporting on all six capitals. The IIRC intends to see "*the full processes that go into materiality determination, and how the capitals actually relate to them*" (I2). In this case, the organizations' review of their "*business model*" and "*strategy*" will affect how they report upon the two capitals noted above. As a consequence, each organization will have a unique perspective on the role of natural and social and relationship capitals in their organizations and reports. The director of the IIRC (I1) also talks about how natural capital affects an organizations ability to create value:

> *…increasingly business became too aware [of] the fact that they operate within [a] boundary, therefore, [the business] has to understand the natural resources and their ability to manage those [resources]. Potentially we use, we recycle and reduce the usage. …[This] has to play part in their strategy.*

The Director of the IIRC (I1) addresses a point relating to how social and relationship capital contributes to value creation for the business. He argues that "*collaborations and relationships between companies in the same sector*" (I1) create advanced value for the whole sector. One example is the collaborative mix of a pharmaceutical company, a biotech company and a University, within a research park. Through collaborative relationships, those three companies are able to provide extraordinary value-add and innovation for society. However, "*the value of pooling expertise for the greater good of that industry in the future and society potentially*" (I1) is hard to measure in monetary terms within any financial report or other existing reporting mechanism, as it is future oriented, whereas financial reports are historical in nature. The IIRC believes that the <IR> Framework provides the opportunity to articulate that value.

All other interviewees shared a similar perspective to the IIRC on this issue. The Professional Body Director (PB1) provided comments that "*it is unwise to be prescriptive on this matter*". Regarding natural capital, he believes that "*the understanding of corporate strategy and how value is created will inform [the organization] as to what natural capital [the organization can] draw upon*" (PB1). Because "*different types of organizations will have different dependencies and impacts upon natural capital*" (PB1), he suggests the organization take a wider view or "*a longer-term time horizon*" to look at future impacts and dependencies. The same suggestion is applied to social and relationship capital.

With respect to the three reporting organizations, the director of the Professional Association provided an example of how her organization had decided that natural capital was not especially material as:

> *We had a good look at [natural capital], [and] we don't really have an environmental footprint……we had a very clear conversation right from the beginning. We say that in our report. We don't report on this because it's not really material to what we do, because I think in fact, one of the worst things you can do is start to talk about the low energy light bulbs if they aren't material. [……]*

In contrast, she saw social capital highly material which related closely to the organization's strategy.

> *……social capital is quite important to us about how we manage our stakeholder relationships and again that's part of what we are going to report on, how we develop those stakeholder relationships and the value that we place on them. So that's absolutely central, whereas natural capital just doesn't [have the same value, or is] worth [reporting]. Social capital, that's material to us.*

The different attitudes of the Professional Association (PA) to each of the two capitals were because the organization had actively considered the impact of capitals to business value creation. In particular, the Professional Association (PA) had been through processes to determine whether natural capital or social & relationship capital is material to the business. Due to the natural capital's limited impact on value creation, the organization decided to exclude natural capital information from IR. These processes are what the IIRC expects, and also reflects integrated thinking in as much as it reflects the organizations (PA) active consideration of the relationship between the capitals and value creation by the organization.

The two Pilot Organizations have also considered the role of natural capital and social and relationship capitals in their organizations through their integrated reporting processes. Pilot Organization 1 has quite an advanced natural capital component in their report, which reflects their belief in the strategic link between economy, environment and society. For example, the "*Conservation Landbank*" (P1) represents property bought by the organization to offset damages to the environment resulting from new homes and cars it finances. Through this land deposit, the organization aims to achieve its operational carbon neutrality commitment. This illustrates how the organization's financial activities can be linked to natural capital, and how the organization brings their business culture and strategy to create a shared value for its entire customer base, and achieve a sustainable future. Another project relating to social and relationship capital is the "*Community investment Program*" (P1), which aims to use a certain percentage of annual after-tax profits to develop a more resilient community. Both projects are reflected in the organization's strategy of investing on the behalf of customers to benefit customers in a profitable and sustainable way.

Pilot Organization 2 has a similar approach to natural and social & relationship capitals with the Professional Association (PA). Although the organization has been through the processes and concluded that natural capital is not material to their business, it still reports on natural capital because the organization aims to illustrate to its members what a natural capital component of an integrated report looks like. However the organization has the view that:

> *Social and relationship capital is fundamental to our ability to create value and is one of the most important inputs into our business model – without the relationships we form and the trust in our brand, designation and the work our members do, we would not be able to operate effectively.*

The similarities between the perspectives of Pilot organization 2 (PO2) and the Professional Association (PA) are derived from the natural similarity of their business practices or models. The two organizations are all member-based organizations, and their members and employees are their key stakeholders. Due to the importance of stakeholders to the organizations strategy, both organizations strengthen their stakeholder engagement processes.

The Professional Association (PA) viewed the gap within their employee engagement when the organization is processing data collection regarding to social and relationship capital. Its director stated that:

> *One of the things [that] came up for us was that we realized we probably don't do enough in training our own staff and develop our own staff as we could do. Because we came to report on them, [we found] that we don't have lots to report here. So we are acting on that now. We got a project under way this year in strategic planning to actually bring in some external person [……] which involve all of our staff, talking about things we can do better around our work practices and areas where we could make changes that would actually allow our staff to feel their [value]. So it is interesting for us to review the gap.*

The organization also viewed integrated reporting as tool for stakeholders to examine "*whether that engagement is actually just rhetoric or whether there was something that actually was real and you are articulating its outcomes and engagement*" (PA1). Because:

> *..you are engaging with your stakeholders and you are reporting back to them on what you are doing. The [organization] cannot report to [stakeholders] about what the impacts might be if [the organization] has already been engaging with them. (PA1)*

Pilot Organization 2 (PO2) faced a different problem to the Professional Association's perceived lack of engagement with staff. For PO2, a significant issue was the difficulty in conducting materiality reviews with its suppliers, staff and members. These stakeholders seem to lack awareness about integrated reporting. As the Deputy CFO from the Pilot Organization 2 stated:

> *If you take our suppliers for example, we worked out who the material suppliers were, we then interview[ed] them to understand their roles in our business and how they view integrated reporting and how they operate, so we can better understand that input. And across all of those suppliers we interviewed, [there was] very much a lack of understanding about what integrated reporting was and they are quite concerned that the content of the interview was actually going to be articulated in the documents. So they were not relaxed [enough] to provide us with the information that we want to get to understanding how our suppliers understand the integrated reporting framework.*
>
> *Also staff [as well], the people who are involved understand [integrated reporting] more broadly, but they don't understand the concept. So it's hard to actually go and have a conversation about a material aspect with somebody who doesn't understand the whole [integrated reporting] concept.*
>
> *All the same for members. We have got lots of members; 15400 members. Typically they are not that keen on responding to surveys and providing input [into the integrated report]. We have got an environment and sustainability group which is a group of members who do work in this area and so they will meet four or five times per year and provide input into the report. But they are also members. So we engage with them to get the sense of what they thought was material to the organization, but it is hard.*

Pilot Organization 2 found difficulties in the stakeholder engagement processes mainly because of the lack of awareness among stakeholders about IR. This raised the issue of whether the education of stakeholders needs to be a part of a stakeholder engagement program in order to be able to communicate with them and address their legitimate needs and interests. In this case, stakeholders' lack of knowledge of integrated reporting, and their hesitancy in willing to share their needs with organizations, affects the capacity of integrated reporting and thinking within organization.

As the IIRC stated in its framework, "the more integrated thinking is embedded in business, the more likely it is that a fuller consideration of key stakeholders legitimate needs and interests is incorporated as an ordinary part of conducting business" (IIRC, 2013, p18). The organizations above seem to be heading toward embedding integrated thinking into their business, although this has not been fully realized.

4.2.2 Integrating key elements into business strategy

This theme and interview questions aim to explore the relationship between natural and social relationship capitals as inputs into the business model and strategy. However, the interviewees have discussed the relationship between capitals and strategy in the previous section. In their response, the interviewees focused on the relationship between integrated reporting as a whole and business strategy. As such, this theme is not restricted to only two capitals, but also provides insights into how integrated reporting, integrated thinking and business strategy interact through IR processes.

The interviewees from the IIRC and accounting firms have a similar view on the relationship between capitals and strategy. Three interviewees (I1, I2, A1) suggest that the organization should articulate the organizations' strategy first and then subsequently decide whether natural or social and relationship capital management are the key strategic issues in light of this strategy. The IIRC's director (I1) recommends the following processes to link capitals with strategy:

> *First of all, you got the process of articulating what your strategy is, and then management should have done the process of connectivity by [informing] all the different operating units within the business. [They] must be aware of what that strategy is and they must work to that strategy and speak to each other as well. [Then] you end up with delivery and articulation of one strategy.*
>
> *You start from a position that 'it is or it isn't'. Is it a part of strategic issues for these natural capital management or measurement, or is it not. Then connecting the departments within the organization and coming out with something. It is truly cohesive.*

For the three IR practitioners, since social and relationship capital is material to their businesses, all three organizations see strategy as tightly connected with it. The Professional Association Director (PA1) viewed social and relationship capital's strategic value in her organization, which is all about the mission of continuously articulating the role of the profession, being to provide expertise to members. Pilot Organization 1 identified customers as its key stakeholders as well as shareholders. Their business strategy has a direct link with their stakeholder engagement program. Therefore, social and relationship capital and strategy, has a mutual effect on each other. As the organization has the slogan "*customer owned bank*" (PI), the organization's strategy all relates to value creation for customers. In this case, the strategy is shaped through managing social and relationship capital. The single direction from strategy to capitals, as the IIRC recommend, might not be applied.

In terms of the relationship between integrated reporting and strategy, the IIRC Director (I1) sees strategic benefits in implementing IR:

> *Over 95% of managers of the pilot program said that, or the participants in the pilot program said, what integrated reporting delivered for them was a better articulation and understanding of a cohesive sense of what business modelling strategy is*.

The director of the professional body (PB1) argued that the integrated reporting process had helped inspired the view that business strategy should be "*wider in terms of scope and more extensive in terms of time horizons*" (PB1). He believed that integrated reporting enables organizations to:

> *….look at wealth in different terms. Whose wealth it is? How wealth is created and how wealth is shared? What are the stakeholder's interests in wealth generating capacity, the business model and business strategy?*

Pilot organization 2 also viewed integrated reporting as having direct benefits to organizational strategy. He states that:

> *What we found after we developed this integrated report in Feb, we actually went through the process of assessing our risks, see where we have new risks, is the risk increasing or decreasing, [….] It actually informed our thinking around risk management and made us think about integration, about the whole business and how the reputation of one member can actually impact upon the whole organization.*
>
> *So it gave us a better position to more critically think about the risks and create new risks. It also made us become more realistic about whether something is a risk or not. So the environment, it's not a risk, but we need to acknowledge that and articulate why we see that is not a risk and it's not material. This is how it has changed the way people think and integrate this into decision points for the organization. Some of that thinking will flow into a new strategic plan.*

The experience of Pilot organization 2 provides evidence that the integrated reporting process can inspire integrated thinking in the IIRC's sense. In their case, the processes the organization engaged in when reviewing risk management provided a structure for thinking beyond their own department to the whole business. The benefits of this type of more integrated thinking is reflected in the integrated reporting process that require organizations to decide whether or not particular issues (such as environmental issues) are business risks. Finally he mentioned, "*some of that thinking will flow into a new strategic plan*" (P2).

4.2.3 Education and training

Some interviewees raised education and training issues as part of the discussion of board, senior and middle management involvement, as well as stakeholder and individual engagement. They highlighted the necessity of educating people before allocating responsibility to them. To some interviewees, integrated reporting and integrated thinking are not easy concepts. They take time to learn and practice in order to understand the purpose of a more integrated business practice. The Deputy CFO from Pilot Organization 2 stated that the board needed to be educated, as does senior management. To have stakeholders engaged with the organization, he also finds that a lack of understanding of what integrated reporting is will be the challenge at this stage in terms of "*broader understanding of integrated reporting across the business world*" (P2).

From the Professional Body's point of view, the necessity of educating and training employees is because integrated thinking challenges convention, and well established routines of work and thought. The IIRC director stated that "*training can play a huge role in bringing other departments on board*" to "*build capacity throughout the business*" which will "*really help to facilitate integrated thinking*" (I1). He also suggests that people need to be prepared to "*swim against the tide*". "*Encouraging innovation, encouraging people to challenge the way things have always been done*" (I2) is where the organization sees the benefit of integrated thinking. The accounting firm manager (A1) also elaborated that senior and middle management are two key levels that need to be especially well trained to accomplish the objectives of integrated reporting and thinking.

The IIRC representatives were more concerned about the board's engagement with internal stakeholders and employees to "*promote integrated reporting and integrated thinking*" (I2) through the whole organization. One key issue is around understanding strategy at the employee level. I2 pointed out that "*the board level understands strategy very well, but that doesn't mean that [situation] flows down to employees*" (I2). As discussed in Section 4.1.4, employee engagement in integrated reporting is quite poor, particularly in larger organizations.

Against this background, one significant finding is that none of the interviewees recommended training or education programs for all staff within their organization. In their opinion, having key (senior) individuals equipped with knowledge of IR is enough to achieve the objectives of integrated reporting and thinking. In Pilot organization 2, the organization only educates staff who are directly involved in the IR process to ensure they can perform their tasks. As the future goal of IIRC is to embed integrated thinking into mainstream practice, it seems that each individual within the organization should have a sound understanding of integrated reporting and integrated thinking. However, in this study, organizations are still cultivating 'champions' who will lead others to engage in integrated reporting and thinking.

The interviewees provide several examples of training and education within their organization. Some organizations send employees in charge of IR to conferences, presentations or short courses relating to IR. Others work closely with large accounting firms or other associations to explore IR together. The IIRC gave the simplest suggestion for educating employees into integrated thinking, which is that one department within an organisation provides a presentation to other departments on a regular basis.

4.2.4 Performance evaluation

This theme explores whether individual performance targets should be set for natural and social & relationship capitals. The IIRC has no suggestions around how performance evaluation will help IR or integrated thinking within the organization. The motivation for including this theme is driven by A4S's view of integrated thinking. A4S aims to use the performance measurement to influence behaviour and inspire integrated thinking. The interview questions were constructed to explore whether interviewees held similar or different views with A4S.

The interviewees provided contradictory opinions on this topic. While the director (PB1) from the Professional body believes that performance measurement should be set according to management practice more generally, interviewee (PA1) from the professional association gave the opposite view that performance measurement will threaten people's passion and belief in what they are doing. The director argued that:

> *I wouldn't do [this] at this point in time. What you want is passion and belief […] if I am tying it [integrated reporting] to people's performance plans, I am sort of seeing it as something like a task which is supposed to be part of who we are and what we represent.*

The two interviewees from the IIRC were neutral on this issue. They believe it a matter for business to determine. Organizations can use IR as a "*tool for management*", but also as a "*way for communicating what the board is thinking about.*" They gave the following example:

> *Regarding a South African mining company, the managers of the mines used to only get paid according to the production rate, how much they are producing. Now they are paid according to safety records as well, because safety is a strategic issue for the company. Therefore, […] the board is responsible for day-to-day safety, so it has to then go into the KPI of the people who are actually managing mines. So there are factors, other than simply the financial factors that we are also managing now…safety as well."*

Although the IIRC's example shows KPIs can positively affect business activities, the Deputy CFO from Pilot Organization 2 raised concerns that:

> *Whatever you choose to measure will influence the outcome of what has been measured. [….]..So anything negative that is in the natural space, you [ask] someone to improve that, [so] that you should see…improvement. That is the positive side of providing incentives based on individual capital. There is a negative side [in] that whenever you implement measures or KPIs, or targets that are related to remuneration, [which] is an attempt to influence them positively there will be unintended consequences where people are making decisions to try to influence the outcomes that you didn't foresee when you implemented… the framework.*

His concerns suggest that it might be too early to introduce performance measures relating to integrated reporting into organizations. As organizations are piloting integrated reporting, the risk is that KPIs might drag employees back to a more self-interested way of thinking by narrowing IR down to their own specific work, rather than considering the organisation as a whole. Integrated thinking is challenging to organizations, as it requires both a mindshift, as well as a rebalance in workload for all employees. The negative consequences the Deputy CFO mentioned above may weaken motivations to embrace integrated thinking.

The IIRC's view was that "*a good combination of good data and good high quality narrative information*" will help organizations achieve "*a better articulation of company strategy*" which is directly linked to integrated reporting and integrated thinking. Another issue is that KPIs may be difficult to measure when using qualitative data, which is often subjective and difficult to categorize. In this case, KPIs may not be able to assist integrated reporting and thinking in the same way as they do for financial or sustainability reporting.

4.2.5 Monitoring, benchmarking and continuously reporting

All interviewees perceive internal systems and management processes as being valuable in terms of integrated reporting processes. Three interviewees (PB1, A1, PA1) have mentioned adequate and appropriate business systems and processes when asked about what resources boards should allocate to integrated reporting. The manager from accounting firm (A1) identifies the reasons in having structured systems to enable IR:

> *To get really good quality output and get the benefits of integrated reporting internally, it is about that alignment starting in [..] strategy, [..] business modelling, [..] identifying key risks, [..] internal factors, and […]external factors that all affect your organization. Do you have systems and processes in place to capture that relevant information which feed up to your managers, to your executive, to your board? Then, internally, you got this structure going up and taking this core thing the board is concerned with, looking at the strategy, looking at the risks, and that forms the basis of your integrated report, which is then the line that goes to the public.*

A1 sees setting up the appropriate systems as a complex project:

> *Before implement[ing] a new system, you want to know what the objective of this system is, […] So you work out what you want to be able to report and in order to do that, you work out what your stakeholders want you to report. Then you won't be able to report KPIs that are more than these three things, [and] then you design your system in order to capture the information from the relevant sub-systems or the relevant teams.*

Contrasted with the view from stakeholders' regarding the systems that capture the information that goes into the integrated report, interviewees from reporting organizations see management processes as being more important to integrated reporting and thinking. Among the three reporting organizations, two of them (PO2 & PA) have significant changes in their processes that further lead to changes in applying their information systems after they commenced the integrated reporting process. The professional association (PA), as a small organization, already has systems in place for data collection for integrated reporting. As the director said:

> *We found that all of the information that we wanted to report, we were already collecting. But we won't necessarily collect it in the form that allowed us to easily report on it, but we were collecting it. So we were lucky, we didn't have to set up all new information collection systems.*

PA1 suggests that the organization needs to think through the processes of IR before it actually starts. Instead of investing additional resources into IR, the right processes are the key elements to fulfill integrated reporting requirements. In practice, using existing systems and data, her organization developed further analysis on how the content in IR relates to the organization's strategy and mission. Since the Professional Association aims to "*assist members through their professional [development throughout their career]*", the organization considers "*how do we report back to members on how the [organization] supports them as a professional*" in order to fulfill our mission. As a result, the organization found that "*it is really important to report to members on the life journey*" of how our PA helps them develop professional practice, whereas in fact, the organization "*never actually reported on that before to members in that holistic way*". Therefore, changing to a different process during integrated reporting actually enables the organization to identify a better way to communicate with members by "*giving a very clear and transparent picture of how we do things*" (PA1). Pilot Organization 1 sees "*system as one of the things where [the organization] is always looking to improve and the areas for internal development*" (P1).

Regarding the benchmarks the organization used to implement natural and social & relationship capitals into integrated reporting, most interviewees mentioned the GRI G4 framework including: Pilot Organization 1, Pilot Organization 2, the professional body and accounting firm. Some of them raised issues around the appropriateness of applying a sustainability reporting framework to integrated reporting. The manager from Pilot Organization 1 considered that following GRI methodology might guide "*reporting for GRI purposes rather than the [IR] audience purposes*" (P1). The organization's customers "probably wouldn't want to know all the aspects included in GRI". The director from the Professional body suggests, "*GRI provides a resource that introduces [an] understanding of*" issues around natural capital while the social & relationship capitals might rely more on systems to capture qualitative data.

However, the IIRC actually "*wouldn't recommend specific international benchmarks*" (I2) to organizations. As the manager from the Accounting Firm (AF) who has participated in developing the <IR> framework explained:

We purposely left out KPIs from the framework, because as soon as you put in KPI examples, everyone uses it as the checklist, and want to report against those KPIs regardless of whether they are the right ones for their organization.

A1 recommended two ways to develop KPIs for organizations:

Looking at what the competitors do, it's probably a really good way for [the organization] to benchmark, the level of their reporting and the sort of things they are reporting against, [and] what could be reported.

What's probably the most relevant [way to set up KPIs] is through your interaction and your engagement with your stakeholders. What information do they want, and based on what they want, [the organization] develops KPIs that gives them the information to meet their needs. There is no point in disclosing something because you think it will help people in their decision-making, [when] in fact they don't think twice about it.

It seems stakeholder engagement might provide deep insights into what information integrated reporting will bring to the audience. However, the Australian Securities and Investments Commission has released *Regulatory Guide 247: Effective disclosure in Operating and Financial Review*, which requires listed entities to disclose effective and useful information about business operations, financial position, strategy and future prospects (ASIC, 2013). The manager from the Accounting Firm argues that:

…[much of] the concept of integrate reporting aligns very much with the new Regulatory Guide 247 (RG247) so things like [the] business model, your strategies, your future prospects, your material business risks and how you mitigate them [will all be included in Operating and Financial Review].

The interviewees all raised issues around the reporting format. Both the IIRC and three reporting organizations have highlighted online-reporting and disclosure as the derivatives or supplement information to IR. On the other hand, Pilot Organization 1 has updated its website to disclose information relating to business activities. Periodic integrated reporting to them is an integrated source to share with customers annually.

Consequently, the organizations challenge is to neither let the GRI approach lead IR toward the sustainability reporting side, nor let it replicate the information within the integrated report. This raises questions surrounding integrated reporting, as to what empowers both integrated reporting and integrated thinking, and how it differentiates and makes a clear distinguishing case from other new forms of reporting that go beyond the pure economic and quantitative focus, including GRI, sustainability reporting, and Triple Bottom Line (TBL) reporting, to name just a few.

Section 4.3 What is integrated thinking?

From the IIRC's perspective, integrated thinking is "*actively break[ing] down the silos within organizations*" (I1) enabling "*better communication between different operating units*" (I1). The manager from the IIRC believes that the <IR> Framework is a useful tool for organizations to "*develop a holistic understanding of all aspects of business*" (I2). Integrated reporting provides the opportunity to examine whether the organization has "*gone through the full processes to determine what is not material [to the business] or whether [the managers] just haven't considered it before*" (I2). The IIRC suggests that "*all employees [should] engage*" in integrated thinking, because employee engagement relates to human capital and further interacts with other five capitals. Through integrated thinking, the IIRC expects to the organization to be able to "*speak with one voice*" (I1). The manager from the accounting firm also indicates a similar interpretation of integrated thinking to that of the IIRC's view. In her opinion, integrated thinking is "*for individuals thinking outside of their narrow job description and thinking where do I [effectively] sit in the business model*" (A1).

The director from the Professional Body (PB1) thought integrated thinking is "*a source of controlling IR*". He argues that there is a gap between integrated thinking and reporting, despite the IIRC holding the view that IR should reflect integrated thinking. He questioned, "*whose integrated thinking is reflected in IR? The board? Middle management? As integrated thinking is an attitude, a way of looking, it should be different from people to people.*"

For three reporting organizations, integrated thinking seems to work better at the managerial level. The deputy CFO from Pilot Organization 2 emphasises that the concept of integrated thinking and reporting are not easy. Only based on a "*far better understanding of different [corporate reporting] frameworks*", can the organization truly appreciate the value of integrated thinking. He believes that integrated thinking is not only about the report, it's about "*bringing that thinking into decision-making*" (P2). Even through at the organization the CEO drives integrated thinking from the top, he admitted, "*it's too early on in our journey to claim that the whole business is thinking integrated*" (P2) as currently this holistic thinking exists only with "*key decision makers*". Pilot Organization 1 sees integrated thinking as more relating to the culture of the business and integrated reporting becomes part of that culture. Integrated thinking from the managers' (P1) view is the consideration of how decisions that individuals make within their role, relate to other parts of the business as well as stakeholders. As a small organization with all employees have worked closely as a whole, the Professional Association sees integrated thinking as the biggest challenge to integrated reporting. PA1 considers that the size and structure of a business will have an impact on the extent to which integrated thinking is implemented. The manager agreed with the silo-breaking purpose of integrated thinking from the IIRC's viewpoint, but she sees that "silos have a role to play" within an organization. Integrated thinking to her is about making the "*wall a bit permeatable*".

Table 8: Chapter 4 Research Objectives and Outcomes

Objectives	Outcomes (sections)
To present the result of interviews regarding the individual employee role in IR.	Individuals at different levels within the organization have their unique role in integrated reporting and integrated thinking. In general, representatives of stakeholders have a similar view with practitioners. It is clear that there is a disparity between IIRC's intention and practice. The major different relates to employee and senior management involvement.
To present the results of interviews regarding changes in management practices after IR adoption .	Based on the results, integrated thinking links integrated reporting with business strategy. The reporting organizations see that strategy will affect the capital the organization uses and which then further affects reporting content. In order to achieve integrated reporting, both the IIRC and stakeholders require extensive education while the reporting organization perceives that education is necessary only to participants responsible for integrated reporting within the organization. Most interviewees suggest that it is premature at this stage to link integrated reporting with performance evaluation despite the IIRC providing examples, within a South African context, indicating the positive influence that performance evaluation has on integrated reporting.
To present the view of integrated thinking from all interviewees.	The interpretation of integrated thinking varies among the IIRC, stakeholders and reporting organizations.

Chapter 5 Implications and Limitations

Based on the results presented in the previous chapter, this chapter aims to discuss and contextualise how the IIRC, key stakeholders and reporting organizations demonstrate their understanding of integrated thinking and the relationship between integrated thinking and IR. Section 5.1 links the concept of integrated thinking presented in section 4.3 with the results from the nine themes listed in Chapter 4. Those themes will be pooled together to present two main implications: 1) that different stakeholder groups have different concepts of who should be involved in integrated thinking; and, 2) that more clarity is required on whether or how the process of 'integrated thinking' in integrated reporting presents a holistic picture of organisations. Section 5.2 outlines the main contributions and the limitations of this study, and highlights potential avenues for future research.

5.1 Revealing Integrated Thinking from Integrated Reporting

The IIRC stated in its Discussion Paper (2011) that "integrated reporting demonstrates the extent to which integrated thinking is occurring within [the] organization" (p6). This study aims to explore how organizations interpret integrated thinking and how they reflect this concept through integrated reporting processes. Two main results are drawn from this study. First, integrated thinking mainly exists at management level or above, as a relative lack of employee engagement in integrated thinking is still an obstacle to embedding integrated thinking within the culture of business. Second, the organization's approach to integrated reporting will affect the concept of integrated thinking. There is a gap between integrated thinking and integrated reporting due to the different narratives of integrated reporting.

5.1.1 Whom should be involved in integrated thinking?

The IIRC has presented contradictory views regarding who should be involved in integrated reporting in its various publications and during this study's interviews. In the IIRCs discussion paper, integrated thinking is defined as:

> *The application of the collective mind of those charged with governance (the board of directors or equivalent), and the ability of management, to monitor, manage and communicate the full complexity of the value-creation process, and how this contributes to success over time. (IIRC, 2011, p6)*

This evidence clearly shows a preference for a managerial-level approach to integrated thinking from the IIRC's perspective. In the <IR> Framework, the IIRC did not emphasis which people are responsible for integrated thinking, but only briefly described the concept. In this study, two interviewees from the IIRC pointed out the need for individual engagement in integrated thinking, which denotes a holistic-level approach to integrated thinking. On this view, Integrated thinking should motivate all employees and managers to break the silos and communicate with others to develop a holistic view of the organization.

The IIRC also identifies the responsibility of each level of the organization toward integrated thinking. As the board owns strategy, they should also own the integrated report. The board's role in integrated thinking is to ensure that integrated thinking is embedded into business strategy, which in turn should inspire a more integrated decision-making process. The IIRC suggests that the organization allocate a board member to take responsibility for integrated reporting and sign-off on the statements in the integrated report to reflect the board's involvement. As integrated thinking requires breaking silos between departments or operating units, a cross-sectional team should be constructed that involves representatives from different department to contribute to the report. The working team should consist of a balance between finance and sustainability personnel in order to develop a neutral but holistic view of the reporting approach. Middle management is critical to integrated thinking, serving as a ‘transit point’ for vertical communication through the organization. ‘Champions’ within middle management also lead lower level employees to think beyond their own department to achieve integrated thinking. Individuals within organizations should benefit from integrated thinking and reporting, as they are able to see a clearer picture of the strategy, objective and activities of the organization. In this study, integrated thinking, in the IIRC’s view, should start from the top and reach each individual within the organization. All employees should benefit from integrated thinking. In a summary, although at times the IIRC suggests a managerial approach, a more detailed analysis of their perspective suggests a holistic approach.

However reporting organizations and representatives of key stakeholders’ groups present a managerial view of integrated thinking as found throughout this study. They recognized that the board’s role in integrated reporting and thinking in terms of strategy is absolutely critical. Reporting organizations implement the board’s involvement through cooperation with senior management. As senior and middle managers normally work as the reporting team, the board achieves their involvement requirement by providing a general governance role that regularly oversees the integrated reporting process. With regard to individual departmental involvement within the various organisations examined in this integrated reporting study, only one organization established a cross-sectional team. The size of the organization seems to contribute to team composition. As illustrated in this study, the larger the organization is, the more difficulties in constructing a cross-functional team to implement integrated reporting. This also raises the issue of whether establishing a cross-functional team for integrated reporting is the only way to organize the reporting process within organizations, regardless of size, industry or sector (public/private), in order to signal that integrated thinking is occurring throughout the organization.

Organizations also rely on their reporting team to decide the materiality or the content of their reports. Therefore, the background of the team members will affect the organization’s approach to integrated reporting and thinking. In three reporting organizations, the sustainability managers have been major actors in the integrated reporting process. The reporting organizations in this study indicate results consistent with Stubbs and Higgins' (2014) study, who found that sustainability managers or teams still 'own' integrated reporting, just as they tend to 'own and operate' sustainability reports. As Integrated reporting is still in an early stage of evolution, it has not stimulated innovations in disclosure mechanisms. This also partially explains why some reporting organizations choose to use the GRI G4 Framework to measure their natural and social & relationship capital, as they normally do in sustainability reporting. The stakeholder's representatives and the IIRC in this study expressed the necessity of people within the finance departments to be involved in integrated reporting if integrated thinking is to achieve a balance between finance and sustainability. However, all interviewees agreed that sustainability reporting will build a foundation for integrated reporting in terms of the development of systems for capturing data, resources and for personnel to adopt these changes. In this case, the organizations interviewed are still at the beginning of their "integrated reporting journey", which generally commences with sustainability reporting. To fully embrace integrated reporting or integrated thinking may be more challenging than initially intended. The confusions and various interpretations of integrated reporting and integrated thinking by different players in the business world create barriers for the IIRC to promote IR.

Regarding middle management's role in integrated thinking, the reporting organizations and stakeholders have the same view as the IIRC. Middle managers who are undertaking daily decision making also need to embrace integrated thinking when developing and working on integrated reporting. They need to transmit the idea of integrated thinking from senior management to their own divisions and to provide guidance to lower level employees about integrated thinking. To complete this process, interviewees believed that senior management should empower middle management to engage in the processes of integrated thinking. The main distinguishing aspects between the practitioner viewpoint and the IIRC's approach is the extent of individual engagement in integrated thinking. Employees of reporting organizations are recipients of integrated reporting and thinking. For larger organizations, only a small percentage of employees are involved in the integrated reporting process. Therefore, the organization tends to permeate integrated thinking to employees by sending out copies of the report. Employees are not actively participating in integrated thinking unless they read the integrated report. Therefore integrated thinking might not be able to benefit employees as the IIRC expects. Furthermore, the organizations lack the necessary education programs to improve individual understanding of integrated reporting and thinking. As education and training is focused at the management or key decision-maker level, it appears that organizations to date do not intend to actively involve employees in the integrated reporting and thinking process. This may be due to financial and human resource constraints (lack of available resources) or a general resistance by employees to embrace change or 'mindshift'. Accordingly, it may take time to coordinate the differences between the IIRC's expectation and the actual practice of organisations.

5.1.2 Revealing integrated thinking through IR

The IIRC intends integrated thinking to be part of a cultural change within business. It requires the organization to "speak with one voice" and to reflect this change in the congruence of strategy in integrated reporting. The tone of integrated thinking is about communicating vertically through the organization, horizontally between different departments around strategy, governance and performance. Due to the mutual relationship between integrated reporting and thinking, another important finding from this study is that what the term "integrated reporting" means to organizations depends on how integrated thinking is perceived.

A study conducted by Higgins et al. (2014) distinguishes two different narratives that organizations might use to interpret integrated reporting: as either "strategic story-telling" (p1103) or "meeting expectations" (p1105) from internal and external stakeholders. The former narrative aims to use integrated reporting to solve strategic communication challenges. Integrated reporting can be a tool to inspect the organization’s activities internally and to communicate the strategy from top to bottom, as well as to communicate externally to stakeholders through stakeholder engagement. The organizations using this narrative tend to see integrated reporting as far more valuable than just a report. They expect integrated reporting to achieve innovation in communication to solve the challenges organizations are facing. Another narrative interpretation for integrated reporting is for organizations to respond to ‘peer pressure’ and meet expectations that arise from stakeholders who then influence CEO behavior which then guide reporting managers. This will turn embed integrated reporting into organizational procedures only for the purposes of periodic reporting. In this study, for all interviewees (including the IIRC’s senior manager), integrated reporting is viewed as a process that an organization develops to construct its integrated reports during the corporate annual reporting period. This indicates that the term “integrated reporting” reflects the processes of preparing an integrated report, which align with the “meeting expectation of stakeholders” narrative of integrated reporting that Higgins et al. (2014) outlines.

In order to issue the report, organizations bring the board and senior management, different departments, middle management and some individuals into integrated reporting processes. The education about integrated reporting is also limited to personnel who participate in these reporting processes. The organizations modify the information systems and procedures in order to better capture data going into integrated reports. Therefore, at this stage, organizations see IR as another report. During these processes, integrated thinking is only reflected in the board’s support for issuing the integrated report and the cross-functional team which brings financial, sustainability, accounting, strategy, risk management departments together.

However, according to the definition in the <IR> framework, integrated thinking should occur daily, and integrated reporting is a process that is built upon integrated thinking. In this study, when asked questions around the concept of integrated thinking, all organizations see it as an internal tool to shift people's thinking, communicate strategy and to affect decision-making. If it is indeed built upon integrated thinking, then integrated reporting should be more valuable in improving strategy, communication and decision-making than just being a process of producing another 30 or 40 page report which addresses similar issues to existing reports. As a consequence, there is actually a gap between integrated reporting and integrated thinking. Though the evidence of integrated thinking is reflected in some activities during integrated reporting processes, it is unclear as to whether senior management, middle management and employees consider integrated thinking in their activities outsides of the reporting period. Theoretically, if integrated reporting is interpreted as a strategic communication tool, integrated reporting might support integrated thinking better than only serving as a report to pacify stakeholder expectations.

Evidence also shows that at certain phases of the integrated reporting process, the reporting organization sees IR as a strategic communication tool. The interviewee from Pilot organization 1 provides evidence that integrated thinking is embedded into daily decisions, rather than only for reporting purposes. In his view, thinking in an integrated way has been embedded into the organization's culture and mind through everyday behavior, even though reporting only occurs at certain times. This interviewee stated that:

> *For reporting, [integrated reporting] probably doesn't flow down to daily decision-making by middle managers in terms of other reports. [...] In terms of the way I think on a daily basis, my thinking [already] occurs in an integrated way, but [..] I am not [consciously] thinking specifically about [integrated] reporting [in my daily integrated thinking].*

In summary, neither integrated thinking nor IR is being achieved by reporting organizations in the way the IIRC originally envisaged. Indeed, there is no agreed definition of integrated thinking among the IIRC, stakeholders and practitioners alike. The IIRC expects that there is a mutual relationship between IR and integrated thinking, and believes that through the cycle between thinking and doing, organizations will finally achieve financial sustainability and stability (IIRC, 2013), However, it appears that it is not only the practitioners in this study, but also the IIRC and other stakeholders, who have not clearly thought through how IR and integrated thinking stimulate and encourage each other.

Integrated reporting is therefore a journey, in which both reporting practices and how they are conceptualized need to change and develop over time. Integrated thinking, as the core concept of IR, also changes over time through ongoing cooperation between practitioners, stakeholders and the IIRC. Organizations intend to improve the reporting process year by year by learning from prior year experiences. IR, as an under-developed reporting mechanism, still requires further articulation and refinement as to whether the IIRC's work will guide practitioner and stakeholder understanding and behavior, or whether practitioners and stakeholders in fact guide the IIRC, or whether the process is one of mutual collaboration.

5.2 Limitations, contribution and future study

The major limitation of this study is the small sample size. Although an initial exploratory study, research into qualitative methodology suggests that major themes typically start to emerge after six interviews (Guest et al, 2006). Nonetheless further interviews with other pilot organisations may elicit different experiences than those detailed in this study. Furthermore, the interviews were conducted within a single-country, which also limits the generalizability of the findings. Experiences within other cultural contexts that have different organisational dynamics may find integrated thinking permeates the organisation differently based on decentralised or centralised mechanisms, contrasting both Western and Eastern philosophies. As all the interviewees have worked closely with the IIRC's version of IR, with some being 'pilot' organisations who support the current rhetoric, there is a risk that their attitudes contain an inherent or embedded 'bias' in favour of the IIRC's approach. Interviewees from non-pilot organizations are needed to enrich the sample size and to examine various ‘alternate’ views of IR and integrated thinking. Further interviews with a larger sample of investors and employees would provide a more complete understanding of the role of integrated thinking in implementing the objectives of integrated reporting. Therefore, the results of this study are tentative and exploratory, and should be interpreted as such given that IR is still in its pilot phase.

This study contributes to early research into integrated thinking on IR. Specifically, this study brings the IIRC, stakeholders and reporting organizations together to compare their views regarding integrated thinking and IR. Whereas prior research has focused more on reporting organizations’ interpretation of IR and on the content analysis of IIRC publications and reports, this study has directly focused on integrated thinking by communicating with senior managers from the IIRC and key stakeholders who play a vital role in corporate reporting. This study found that the IIRC is still clarifying their understand of their <IR> framework, while the reporting organizations and stakeholders are also on a journey of implementing and interpreting IR. One key issue found in this study is the potential gap between these interpretations and agendas. The IIRC (2011) intends IR to provide a more effective reporting regime for organizations to adapt to a 21^{st} century environment (IIRC, 2011). Moreover, from its publications, it is clear that the IIRC has a much larger objective of reengineering thinking on what constitutes organisational value and accountability across the business landscape through the IR process. The question is, as this study shows, whether business actors are willing and ready to embrace fundamental changes in the accountability relationship that enhance organisational value through a more holistic as opposed to a silo approach.

As the IIRC’s Pilot Program concludes at the end of 2014, Integrated Reporting will then move into mainstream adoption. Ongoing issues around integrated thinking, such as the problems raised in this study about the gap between IR and integrated thinking, can be subject to future research. Future research on the concept of integrated thinking might examine the following questions;

1. How does integrated thinking occur within different industries or sectors characterised by different business and social pressures?
2. Do certain cultural elements facilitate or impede the extent to which integrated thinking infiltrates the organisational structure?
3. How do employees at different organizational levels interpret integrated thinking?
4. How do organizations themselves change over time by embracing integrated reporting?
5. How does an organization's understanding of integrated thinking change over time?

Addressing these questions would allow researchers to further examine the processes by which integrated thinking permeates - or does not permeate – throughout organisational decision making and reporting, and the contextual factors that may expedite or impede this process. This can be a potential topic for a longitudinal case studies in future projects.

Table 9: Chapter 5 Research Objectives and Outcomes

Objectives	Outcomes (sections)
To outline the findings regarding the concept of integrated thinking.	Section 5.1.1 discusses individual roles in integrated thinking. Two different approaches to integrated thinking emerge within the organization; (1) managerial approach and (2) holistic view. Although the IIRC anticipates that integrated thinking is a component of the entire business culture, stakeholders and practitioners see integrated thinking as only being evident at the management level.
To outline the findings regarding the mutual relationship between IR and integrated thinking.	Section 5.1.2 reviews to what extent integrated thinking is reflected through integrated reporting. In summary, all three perspectives (IIRC, stakeholders, reporting organizations) have not found a common understanding as to how to reflect integrated through integrated reporting.
To outline future research in integrated thinking	A longitudinal case study might be useful to explore the progress of implementing integrated thinking within organizations in the future study, alongside studies with different industry, cultural and geographic contexts.

Reference:

ACCA, (2014), South Africa's pioneering introduction of integrated reporting has had far-reaching consequences, available at: http://www.accaglobal.com/gb/en/member/accounting-business/south-africa.html (accessed at 16 March 2014).

Accounting Securities and Investments Commission (ASIC), (2013), *Regulatory Guide 247 Effective disclosure in an operating and financial review*, available at: http://www.asic.gov.au/asic/asic.nsf/byheadline/Regulatory+Guide+247+Effective+disclosure+in+an+operating+and+financial+review?openDocument, (accessed at 16 September 2014)

Adam, S & Simnett, R., (2011), "Integrated Reporting: An Opportunity for Australia's Not-for-Profit Sector", *Australian Accounting Review,* Vol21 (3), pp.292-301.

Businesses holding back on integrated reporting, March, (2014). *Borneo Post*, viewed at 6th April http://www.theborneopost.com/2014/03/04/businesses-holding-back-on-integrated-reporting/

Business Times Singapore, (2014), Integrated reporting: a strategic review. 4th April, 2014.

Burritt, R.L., Schaltegger, S. & Zvezdov, D. (2011),"Carbon management accounting – Practice in leading German companies" *Australian Accounting Review*, Vol21(1), pp. 80-98.

Dumay, J., & Dai, T. (2014) *Integrated thinking as a culture control?* Paper presented at Critical Perspectives in Accounting Conference 2014. Toronto, July 7-9, 2014

Eccles R., & Krzus, M.P. (2010). *One Report: Integrated Reporting for a Sustainable Strategy*, Wiley Publisher, 1st Edition.

Eccles, R, G., and M, P. Krzus. (2011), "Novo Nordisk: A Commitment to Sustainability." Harvard Business School Case 412-053, October.

Eccles, R. & Armbrester, K. (2011), "Integrated Reporting in the cloud", *IESEinsight* Vol8(1), pp. 13-20

Eccles, R. & Saltzman, D. (2011), "Achieving Sustainability Through Integrated Reporting." *Stanford Social Innovation Review*. pp. 56-61

Guest, G., Bunce, A., & Johnson, L. (2006). "How many interviews are enough? An experiment with data saturation and variability". *Field methods*, Vol18(1), pp.59-82.

Global Reporting Initiative (GRI) (2013), The sustainability Content of Integrated Reportings-a survey of pioneers, available at: https://www.globalreporting.org/resourcelibrary/GRI-IR.pdf (accessed at 11th March 2014)

Hampton, R., (2012). "Brace yourself more regulatory changes", *Accountancy SA*. May: 22-23

Higgins, C., Stubbs, W., & Love, T., (2014). "Walking the talks: Organizational narratives of integrated reporting", Accounting, Auditing &Accountability Journal, Vol 27 (7), pp. 1090-1119.

International Integrated Reporting Council (IIRC) (2011), Towards integrated reporting. Communicating value in the 21st century, available at: www.iirc.org (accessed 28 January 2014).

International Integrated Reporting Council (IIRC) (2012), Understanding Transformation: Building Business Case for Integrated Reporting, available at: http://www.theiirc.org/resources-2/other-publications/building-the-business-case-for-integrated-reporting/ (accessed 16 June 2014).

International Integrated Reporting Council (IIRC) (2012), Pilot Program Yearbook 2012, available at: http://www.theiirc.org/resources-2/other-publications/2012-yearbook/ (accessed 16 June 2014)

International Integrated Reporting Council (IIRC) (2013), Pilot Program Yearbook 2013, available at: http://www.theiirc.org/resources-2/other-publications/iirc-pilot-programme-yearbook-2013-business-and-investors-explore-the-sustainability-perspective/ (accessed 16 June 2014)

International Integrated Reporting Council (IIRC) (2013), The International <IR> Framework, available at: http://www.theiirc.org/international-ir-framework/ (accessed at 16 March 2014)

International Integrated Reporting Council (IIRC) (2014), Realizing the benefit: the Impact of Integrated Reporting, available at: http://www.theiirc.org/wp content/uploads/2014/09/IIRC.Black_.Sun_.Research.IR_.Impact.Single.pages.18.9.14.pdf (accessed at 26 September 2014)

Institution directors of Southern Africa (IDSA) (2009), “King Code of Governance for South Africa 2009”, South Africa,

Integrated reporting: a Strategic view, April 2014, *The Business Time Singapore.*

Jensen, J. & Berg, N. (2005), “Determinants of Traditional Sustainability Reporting Versus Integrated Reporting: An Institutionalism Approach”, *Business Strategy and the Environment* 21, pp. 299-316

Josh, Setia & Abhayawansa, (2013), “Integrated reporting under a mandatory disclosure regime: Evidence from South Africa”, conference paper

Kaplan, R.S. & Norton, D.P. (1996), *The Balanced Scorecard.* Boston: Harvard Business Press.

KPMG & SustainAbility, (2008), Count me in: The leader’s take on sustainability reporting, available at: http://www.sustainability.com/downloads_public/insight_reports/Count_Me_In.pdf (accessed at 6 April 2014)

Krzus, M.P., (2011), “Integrated reporting”: if not now, when?”, *IRZ (6).* Pp. 271-276.

Mack, N., Woodsong, C., McQueen, K. M., Guest, G., & Namey, E. (2005). Qualitative research methods: A data collector’s field guide. Research Triangle Park, NC: Family Health International. Available at http://www.fhi.org/en/rh/pubs/booksreports/qrm_datacoll.htm (accessed at 20 June 2014)

Martin, R., & Austen., H. (1999), “The Art of Integrative Thinking”, *Rotman Managemen*t, Fall, pp.4-5

Mcdonnell, R. A. (2008). “Challenges for integrated water resources management: how do we provide the knowledge to support truly integrated thinking?”. *Water Resources Development*, Vol24(1), pp.131-143.

Morgan, G., & Smircich, L. (1980), “The Case for Qualitative Research”. *Academy of Management Review*, Vol5(4), pp.491-500.

Owen, G., (2014), “Integrated Reporting: A review of Developments and their Implications for the Accounting Curriculum”, *Accounting Education: An International Journal,* Vol22(4), pp.340-356

Qu, S., & Dumay, J. (2011), “The Qualitative Research Interview”. *Qualitative Research in Accounting & Management,* Vol 8 (3), pp.238-264

Scholz, R. W., Mieg, H. A., & Oswald, J. E. (2000). “Transdisciplinarity in groundwater management—towards mutual learning of science and society”. *In Environmental Challenges* pp. 477-487. Springer Netherlands.

Sierra-Garcia, L., Zorio-Grima, A., & Garcia-Benau, M. (2013), “Stakeholder Engagement, Corporate Social Responsibility and Integrated Reporting: An Exploratory Study”, *Corporate Social Responsibility and Environmental Management, DOI: 10.1002/csr.1345*

Sikka, P. (2006), "The internet and possibilities for counter accounts: some reflections", Accounting, Auditing & Accountability Journal, Vol19 (5), pp.759-69.

Strong, P (2014), “Integrated Reporting in Australia: Past, Present and Future”, Presented at 16th June 2014, Macquarie University.

Stubb, W., Higgins, C. & Milne, M. (2013), “Why do companies not produce Sustainability Reports?”, *Business, Strategy and the environment*, Vol22, pp. 456-470.

Stubbs, W., & Higgins, C. (2014). “Integrated Reporting and internal mechanisms of change”, Accounting, Auditing & Accountability Journal, Vol27 (7), pp. 1068-1089.

Tingey-Holyoak, J., & Burritt, R. (2012). “The transdisciplinary nature of accounting: a pathway towards the sustainable future of the profession”. *Emerging Pathways for the Next Generation of Accountants*, Vol3, pp.93-103.

Tilley C, (2014). "CIMA CEO Column: In Order to Write an Integrated Report, Organisations Must Apply Integrated Thinking." *Financial Management (UK)*. Chartered Institute of Management Accountants (CIMA). Retrieved October 06, 2014 from HighBeam Research: http://www.highbeam.com/doc/1G1-364438570.html

The Princes’ Accounting for Sustainability Project (A4S), (2010), Integrated Thinking, http://www.accountingforsustainability.org/embedding-sustainability, accessed at 16 March 2014.

Tweedie, D., & Martinov-Bennie, N. (2013), *Shifting sands: the new model of social and environmental accountability in integrated reporting*, Paper presented at Australasian Centre on Social and Environmental Accounting Research Conference, Hamilton, NZ, December 2013.

Welford, R. (2012), “Integrated Reporting – Time for a Reality Check?”. *Keeping Good Companies* 64(4), pp. 151-154.

World Intellectual Capital Initiative. (2013). Connectivity: Background Paper for <IR>. London,: International Integrated Reporting Council.

Appendix A: The Table of Nine Themes of Integrated thinking

Common Themes	Sources
1.Board and senior management involvement	The IIRC particularly emphasises the importance of management supporting IR for the successful implementation of integrated thinking (IIRC, 2012). In their view, the engagement of senior management or higher levels will encourage an integrated strategy within the organization and the awareness of avoiding silo thinking between different departments (IIRC, 2013). The A4S also highlights a "tone at the top" in its publications. "Only when the enthusiasm and motivation comes from the top will sustainability become an essential and unquestioned part of an organization's procedures" (A4S, 2013, p1). The IIRC stated that integrated thinking should be reflected in the integrated reporting process once senior management are involved. Therefore, in this study, the first sign of the potential implementation of integrated thinking is the involvement of the board and senior management.
2.Departmental/divisional involvement	According to the IIRC, an Integrated report should be the product of collaboration between different departments rather than only relying on the sustainability department or a single person (IIRC, 2012). A4S (2013) also states in their 10 steps that sustainability that remains isolated from other department will lead to a failure of sustainability to be integrated into main management practice. Therefore, integrated thinking requires organizations to form a team that includes representatives from each department or divisions, or take one department as the leader to co-ordinate the involvement of other departments in integrated reporting processes. All departments or divisions of business should be included in the process, and collectively work out which elements are materials for the report.
3.Middle management involvement	Middle management play a vital role in implementing integrated thinking into daily decision making and connecting the strategy from to management to the frontline (A4S, 2013). In an IR background paper on connectivity (IIRC, 2013), the IIRC argue that

	departmental managers can improve communication within the department if information is transferred clearly from the top. The importance of middle management is also mentioned in the NAB's case study in the IIRC's pilot program (IIRC, 2013).
4.Individual responsibility and engagement	Once materiality level is determined, the responsibility of the data collection and collation process should be clearly assigned to individuals to accomplish the task (A4S, 2013). This is where integrated thinking permeates into day-to-day operations. Employees at the base level of the organization might not be able to see the holistic picture during the preparation of the report, but they would see the connection between departments from reviewing the report (IIRC, 2013).
5. Identify key elements within the two capitals affecting business value creation	The key elements (including stakeholders) that affect business value-creation will also be important elements of integrated thinking. As organizations have limited resources to create value and achieve long-term survival and success, business leaders should recognize the key elements affecting business value creation in order to manage these resources. As the IIRC's <IR> Framework provides six categories of capitals to assist managers to identify, allocate and maintain resources, organizations who start integrated thinking should be capable of locating the key elements and how these elements affect the ability of value creation in the longer-term. A similar view can be found in the IIRC's 2013 Year Book, which states that the more integrated thinking permeates through the organization, the more the legitimate needs of the key stakeholders who affect organization's value creation will be incorporated within daily operations.
6.Integrating key elements into business strategy	Once organization decide the material components of the capitals, top management then need to consider how to integrate the key elements into organizational strategy. According to the IIRC, "a clearer articulation of an organization's business model and strategy" is needed to commence integrated thinking (IIRC, 2012, p17). According to A4S (2013), one reason for previous failures in integrating sustainability into organization is that sustainability is

	not a stand-alone objective, but rather an integrated part of organization's strategy (A4S, 2013). Managers should also acknowledge that the "organization's business model and strategy is an iterative process" (IIRC, 2012, p.17). The process of clarifying reflects and reinforces any existing integrated thinking, which then helps to drive integration further (IIRC, 2012). Through integrated reporting, the audience should be able to identify the level of integration of financial and non-financial issues into strategy.
7.Education and training	As integrated reporting and thinking are new concepts without detailed guidance, the actual procedures of how to prepare an IR, and the extent to which the cycle of integrated reporting generates integrated thinking, will be to some extent unique to all organizations. Thus, education and training for managers is particularly important if integrated thinking is to be implemented. Conversely, an unclear or confused understanding or IR amongst senior management might cause the implementation of IR to fail.
8.Performance evaluation related to integrated reporting	A4S (2013) suggests that individual sustainability targets should be included in performance appraisal to encourage employees to think about sustainability issues during their work process. This will reward good performance and can encourage further support for reporting goals. Although not explicit in the IR framework, case study evidence from the IIRC's Pilot Program shows that some organizations are improving their performance management as part of the <IR> reporting process (Blacksun, 2012). Establishing performance measurement systems signal to employees overall expectations from senior management, which in turn guide the employees to change behaviour in their daily work schedule.
9.Monitoring, benchmarking and reporting	The last theme is monitoring, benchmarking and reporting integrated reporting. To accomplish the cycle of integrated reporting and integrated thinking, the organization needs to have systems and information to support, follow-up, monitor, and continually report on IR data (IIRC, 2012, p28). A HSBC case study shows that integrated reporting changes the system for collecting data (IIRC, 2012, p28). This learning experience of reporting, evaluating the

	report and asking for feedback from stakeholders could embed integrated thinking within the organization. As integrated thinking embraces all organizational issues, staff attitudes within organizations can be better calibrated and coordinated (IIRC, 2013, p22).

APPENDIX B: Interviews with Managers/CEOs of Pilot Organizations

1. Board and senior management commitment

1. What involvement **has** the board had in integrated reporting?
2. What **resources has** the board allocated to integrated reporting?

2. Departmental/divisional involvement in integrated reporting

1. Which departments/divisions **are** actively involved in integrated reporting in your organization?
2. What mechanisms **are in place** to facilitate the involvement of these department/divisions in integrated reporting?

3.Middle-management involvement in integrated reporting

1. What **should** middle management do to facilitate integrated reporting within daily decision-making in your organization?
2. What currently **do** middle management do to facilitate integrated reporting within daily decision-making in your organization?

4. Individual engagement with and responsibility for integrated reporting

1. How should employees are involved in integrated reporting? Can you give me an example?
2. Which employee/s **are currently** responsible for integrated reporting?

5. Key elements (including stakeholders) affecting business value creation

1. *Is social and relationship capital or natural capital involved in your integrated report?*
2. *IF it is;*
3. In integrated reporting, what **is included in** natural capital for your organization?
4. How **do you** see natural capital **affecting** business value creation?
5. In integrated reporting, **what is included in** social and relationship capital for your organization?
6. How **do you** see social and relationship capital **affecting** business value creation? Which stakeholders **should be** involved in integrated reporting?
7. Which stakeholders **are** involved in integrated reporting?
8. IF not, why?

6. Integrating the key elements into organizational strategy

1. To what extent **is natural** capital **integrated into** your organization’s strategy? Can you give some **examples**?
2. To what extent **is social and relationship** capital **integrated into** your organization’s strategy? Can you give some **examples**?

7. Education and training for managers and employees

1. What training programs do you think **should be** provided to management and employees regarding integrated reporting?
2. What training program/s **are you providing** to management and employees regarding integrated reporting?

8. Performance evaluation related to integrated reporting

1. **Should** individual performance targets be set for natural, social & relationship capital?
2. **Should** individuals be **rewarded and/or penalized** for natural, social & relationship capital performance?
3. **Are** individual performance targets being set for natural, social & relationship capital?

9. Monitoring, benchmarking and reporting integrated reporting

1. Do you **have systems and technologies** to support consistent reporting and monitoring of natural, social & relationship capital performance?
2. Do you **currently use international benchmarks** to capture qualitative and quantitative factors relating to natural, social & relationship capital performance?

APPENDIX C: Interviews with investors, professional bodies, accounting firms and other interest parties

1. *Board and senior management commitment*

    1. What involvement **should** the board have regarding integrated reporting?
    2. What **resources should** the board allocate to integrated reporting?

2. *Departmental/divisional involvement in integrated reporting*

    1. Which departments/divisions **should be** actively involved in integrated reporting?
    2. What mechanisms **should be used** to facilitate individual involvement in integrated reporting?
    3. In your experience, what do organizations **do** to involve departments/ divisions into integrated reporting?

3. *Middle-management involvement in integrated reporting*

    1. What **should** middle management do to facilitate integrated reporting within daily decision-making?
    2. In your experience, what do organizations do to help middle management facilitate integrated reporting within daily decision-making?

4. *Individual engagement with and responsibility for integrated reporting*

    1. How should employees are involved in integrated reporting? Can you give me an example?

5. *Key elements (including stakeholders) affecting business value creation*

    1. In integrated reporting, what **should** be included in natural capital?
    2. In what way/s **will** natural capital affect an organizations' ability to create value?
    3. In integrated reporting, what **should be included in** social and relationship capital?
    4. In what way **will** social and relationship capital affect the organization's ability to create value?
    5. Which stakeholders **should be** involved in integrated reporting?

6. Integrating the key elements into organizational strategy

1. How should natural capital be integrated into business strategy?
2. How should social and relationship capital be integrated into business strategy?

7. Education and training for managers and employees

1. What training or education program/practices **should** be conducted within the organization to promote integrated reporting/thinking?

8. Performance evaluation related to integrated reporting

1. **Should** individual performance targets to be set regarding to natural, social & relationship capital? Can you provide an example?

9. Monitoring, benchmarking and reporting integrated reporting

1. How **should** organizations implement systems and technologies to enable consistent reporting, benchmarking and monitoring of natural, social & relationship capital performance?
2. Which international benchmarks **do you recommend** to help organizations capture qualitative and quantitative factors relating to natural, social & relationship capital performance?

Appendix D: Information and Consent Form for Interviewees

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Chief Investigator's / Supervisor's Name: Prof. Lorne Cummings

Participant Information and Consent Form

Name of Project: **Creating Integrated Thinking Through Integrated Reporting - An Exploratory Study within an Australian Context.**

You are invited to participate in a study on how (1) organizations and stakeholders align and interpret integrated thinking based on the definition provided by the International Integrated Reporting Council (IIRC), and (2) integrated thinking is promoted through integrated reporting from a practitioner and stakeholder standpoint. The purpose of the study is to explore the concept of integrated thinking, and how integrated reporting affects integrated thinking within organisations in terms of being a transformative process.

The study is conducted by Tianyuan (Sherry) Feng (e-mail: tian-yuan.feng@students.mq.edu.au) to meet the requirements of Master of Research under the supervision of Prof. Lorne Cummings (Ph: (02) 9850 8531 e-mail: lorne.cummings@mq.edu.au) and Dr. Dale Tweedie (Ph: (02) 9850 8462, e-mail: dale.tweedie@mq.edu.au) in the Faculty of Business and Economics at Macquarie University.

If you decide to participate, you will be asked to participate in an interview of approximately 45 minutes. Interviews will be audio-recorded for the purposes of an accurate transcription of the interview only. No remuneration will be provided, but the findings of the study will be available to all participants on request.

Any information or personal details gathered in the course of the study are confidential, except as required by law. No individual will be identified in any publication of the results. Only the Chief and Co- investigators will have access to the interview recording and transcripts. A summary of the results of the data can be made available to you on request through e-mail or telephone contact.

Participation in this study is entirely voluntary: you are not obliged to participate and if you decide to participate, you are free to withdraw at any time without having to give a reason and without consequence.

I, *(participant's name)* have read *(or, where appropriate, have had read to me)* and understand the information above and any questions I have asked have been answered to my satisfaction. I agree to participate in this research, knowing that I can withdraw from further participation in the research at any time without consequence. I have been given a copy of this form to keep.

Participant's Name:____
(Block letters)

Participant's Signature:___________________________ Date:____________________

Investigator's Name:____
(Block letters)

Investigator's Signature:_______________________ __ Date:____________________

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics (telephone (02) 9850 7854; email ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

(INVESTIGATOR'S [OR PARTICIPANT'S] COPY)