

# The role of integrated thinking in corporate governance during the COVID-19 crisis: perspectives from South Africa

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## Abstract

**Purpose** – This study aims to examine how integrated thinking principles can be used to assist those charged with governance during and after a crisis.

**Design/methodology/approach** – An autoethnographic approach was used to collect and reflect on information related to the economic, social and environmental impact of COVID-19. This was complemented with a bibliometric analysis of academic articles including “corporate governance”, “integrated thinking” and “crisis” as a keyword. This information was used to produce a data mind map of core themes. This was supplemented with a qualitative exploratory approach based on semi-structured interviews with 16 participants comprising preparers of financial statements, board members and corporate governance specialists to obtain insights into using integrated thinking in corporate governance during a crisis.

**Findings** – The results of the study indicate that those charged with governance can use integrated thinking to repurpose their business model by considering a multi-capital and multi-stakeholder perspective to value creation. The study highlights the importance of implementing a holistic capital integration process to gauge risks, capitalise on opportunities and improve business processes in response to a crisis. This can be leveraged by both the private and public sectors to manage a crisis and deal with the long-term indirect impacts of a crisis.

**Social implications** – An integrated thinking approach can be used by both the private and public sectors to bolster confidence, tackle pressing social and environmental challenges and contribute to improved performance relative to the sector.

**Originality/value** – The expert interviews contribute empirical evidence to the profile of mainstream social and environmental accounting literature and offer a practical contribution by offering insights that can directly be used by organisations’ investors, non-governmental organisations and other stakeholders to manage a crisis. This paper also advances the sustainability agenda by assessing how a crisis can be managed in the context of a developing economy and advancing normative recommendations which will be broadly applicable to an international audience.

**Keywords** Corporate governance, Integrated thinking, Multiple capitals, COVID-19, Crisis

**Paper type** Research paper

## 1. Introduction

In early January 2020, China announced the first deaths attributable to COVID-19. On 5 March 2020, South Africa confirmed the first case of COVID-19, with the World Health Organisation declaring COVID-19 a pandemic only a few days later on 11 March 2020. On 23 March 2020, a state of disaster was declared by South Africa, resulting in a 21-day national lockdown being announced (SAcoronavirus, 2020).

The COVID-19 pandemic is a health crisis which could not have come at a worse time for South Africa. The pandemic exasperated other long-standing social, environmental and economic challenges. For example, environmentalists have been raising the alarm about carbon



emissions from the mining, mineral, energy and transportation sectors (Helm, 2020). Income inequality, access to health care and structural weaknesses in the education system remain severe challenges (Kollamparambil, 2020). On the economic front, investor sentiment and capital investment have been adversely affected by corporate scandals, public infrastructure problems (Binge and Boshoff, 2020) and rampant government corruption (Hope, 2020). Fiscal pressure, political uncertainty, load shedding, credit downgrades and job cuts (de Villiers *et al.*, 2020a) continue to impact the South African economic environment (Saadat *et al.*, 2020).

As a result of COVID-19, organisations [1] have been faced with further unprecedented threats to their immediate operations and, in several cases, their ability to continue as going concerns (Atkins *et al.*, 2020). This raises the question: how can those charged with governance use integrated thinking principles to respond to the impact of COVID-19? Addressing this question makes an important theoretical and practical contribution to literature on the impact of corporate governance practices.

There has been some research on the history of South African corporate governance (Vaughn and Ryan, 2006); the relationship between specific governance characteristics and local firm values and possible drivers of corporate governance disclosures by South African listed companies (Ntim *et al.*, 2012). Interpretive research dealing specifically with the operationalisation of corporate governance is rare (Brennan and Solomon, 2008). Studies on how corporate governance principles are actually *applied* when dealing with international disasters are extremely limited (Yoshikawa and Chua, 2020). There have also been studies exploring how a company reports after a crisis (Maroun, 2020), but this does not necessarily provide the tools to adapt to a crisis and navigate the unique challenges posed by each crisis.

The demand for non-financial reporting increases after a crisis (financial or environmental) as these disclosures play a role in stakeholder relations management by adopting an integrated thinking mindset to enhance the decision-usefulness of the reported information (Velte and Stawinoga, 2017). In this context, this research solicits the views of preparers of financial statements, board members and corporate governance specialists to identify focal points for the consideration of governing bodies and their committees during a crisis.

This study aims to answer the question of how the integrated thinking principles and the corporate governance principles outlined in the *King-IV Report on Corporate Governance for South Africa* (King-IV) can be applied and modified during the COVID-19 crisis. While the research focusses exclusively on COVID-19, the findings should be relevant for organisations dealing with other major crises. Nevertheless, that the current study deals with a single crisis and how it can be managed in a South African setting is an inherent limitation.

The research responds directly to calls from international standard-setters (such as the International Sustainability Standards Board) for additional research on how best to understand “sustainability” and “integrated thinking” and implement changes which can be used to effect positive change at the organisational level (ISSB, 2021). The amalgamation of prior literature on this topic, in conjunction with interviews with experts, contributes to the profile of mainstream social and environmental accounting literature. This also offers a practical contribution by offering insights that can directly be used by organisations’ investors, non-governmental organisations and other stakeholders to manage a crisis. Despite the direct impact of the COVID-19 crisis subsiding globally (with some exceptions where countries do still implement various levels of lockdowns), many indirect consequences have continued almost two years after the start of the crisis (refer to Grossi *et al.*, 2020). This includes economic recessions, budgetary constraints, shifts in political and social ideologies, income and health inequalities and mental health impacts (ibid). The lessons from the COVID-19 crisis are still relevant and can be used to develop more robust corporate governance and integrated structures to manage the long-term indirect impacts and to capitalise on the opportunities that are inevitably also created by way of a crisis.

Much of the literature dealing with integrated thinking and governance is based on experiences in developed countries such as the USA, the UK, Europe and Australia (Ecim

and Maroun, 2022). This is even though most of the world’s population lives in developing countries. To advance the sustainability agenda, researchers need to broaden their scope to deal with how South Africa (and other developing nations) should be tackling pressing social and environmental challenges and how the mechanisms of accountability work. Despite the fact that South Africa has one of the most sophisticated economies in Africa and is well-regarded as a corporate governance and reporting pioneer (Solomon, 2013), little research has been performed with regard to using corporate governance and integrated thinking as a tool to manage a crisis. The study offers empirical evidence through the insights obtained by way of detailed interviews with experts from South Africa and advancing normative recommendations which will be broadly applicable to an international audience.

Finally, the study offers a theoretical contribution by blending well-known theoretical frameworks used to explain the functioning and impact of accounting and auditing with practical insights and primary evidence collected from subject matter experts. The aim is to combine theoretical perspectives on accounting and auditing with normative insights which expand the boundaries of knowledge.

The remainder of this paper is organised as follows: Section 2 outlines South Africa’s response to the pandemic and how South Africa’s corporate governance code (King-IV) is aligned with a stakeholder theory perspective on corporate governance. The code’s outcomes-based governance model and the relationship with integrated thinking is presented. Section 3 discusses the method. The suggested governance response to COVID-19 is outlined in Section 4. Section 5 provides recommendations and Section 6 provides a summary and presents areas for future research.

## 2. Background – scopus database

The three core aspects of this paper are crisis management (with a focus on COVID-19), corporate governance and integrated thinking. To assess the literature on these topics, a search was performed on the Scopus Database for academic literature relating to the core topics in combination with each other (approach as per Dumay *et al.*, 2016; Rinaldi *et al.*, 2018). The authors and researchers focussed on internationally-recognised journals; however, rather than limiting the search to only top-tier journals according to certain rankings, the Scopus Database was used to obtain academic sources. This database was selected because of the quality of its filtering criteria and the fact that it includes journals of good standing with robust peer-review processes in place (Rinaldi *et al.*, 2018).

A search was performed for articles published in the Scopus Database with a combination of “integrated thinking”, “crisis” and “corporate governance” in their titles, keywords or abstracts. The subjects were filtered and limited to incorporate “business, management and accounting” and “economics, econometrics and finance”. All document types were assessed and included “final” and “in press” publications for all years available. This is not intended to provide an exhaustive list of publications, but rather, to give a sense of the current literature and identify gaps. The results of the literature are also used to develop thematic clusters, as discussed further in Section 3.

Results of the search are presented in Table 1.

**Table 1.**  
Number of academic publications per search combination

Combination of search items	Number of academic publications
“crisis” and “integrated thinking”	5
“crisis” and “corporate governance”	1,973
“integrated thinking” and “corporate governance”	19
“crisis” and “integrated thinking” and “corporate governance”	1
<i>Total</i>	<i>1,998</i>

Although there has been significant attention devoted to using corporate governance as a tool to manage a crisis (1,973 documents), there is a gap both in using integrated thinking to manage a crisis (five documents) as well as the relationship between integrated thinking and corporate governance (19 documents). Importantly, there may be similarities and differences in how a “CSR-orientated” [2] organisation (Miras-Rodriguez *et al.*, 2019) and an “integrated thinking-orientated” organisation (VRF, 2021) respond to a crisis.

The three concepts have only been explored in combination in one paper. This study (see Velte and Stawinoga, 2017) found that the financial crisis of 2008/2009 resulted in an increased demand for extra-financial reporting where integrated thinking can be used as a management control tool and to manage stakeholder relationships. This combination of traditional financial accounting with sustainability and corporate governance-related issues can enhance the decision usefulness of modern business reporting to navigate a crisis (Velte and Stawinoga, 2017). Given the lack of research that blends how integrated thinking and corporate governance can be used to manage a crisis, it is necessary to explore the interrelationships between these concepts. Each core theme is explored in more detail below.

### 2.1 South Africa's response to the COVID-19 crisis in the context of emerging economies

South Africa's response to the COVID-19 pandemic was quick (Ramaphosa, 2020). Within weeks of the first confirmed case of COVID-19, the President announced that (1) ports would be closed, (2) certain visas would be revoked with travel bans imposed, (3) a state of national disaster had come into effect and (4) a 21-day full national lockdown would be imposed (Ramaphosa, 2020). Various levels of lockdown measures continued from March 2020 to 2022. Restrictions in 2021 included, *inter alia*, bans on the sale of alcohol, limitations on public gatherings and the closure of certain public spaces (SAcoronavirus, 2020).

Early in 2020, Statistics South Africa announced that South Africa is in a technical recession after a 1.4% contraction of the economy in the fourth quarter of 2019, following a 0.8% contraction in the third quarter (StatsSA, 2020b). Unemployment figures were estimated to be close to 30% in February 2020 and a number of South Africans dependent on social grants is on the rise (StatsSA, 2020a).

In terms of support, a fiscal and monetary package valued at roughly ZAR800bn was announced at the onset of the pandemic in March 2020. This is being funded by (1) reallocating from non-urgent and non-priority projects, (2) providing government guarantees, (3) transferring money from social security funds, (4) borrowing additional funds and (5) altering interest rates (National-Treasury-SA, 2020).

Table 2 provides a breakdown of how the R800bn was to be utilised. Over 72% of the package will not require direct cash disbursements. This also reduces the administrative burden (and costs) required to operationalise the package. Subsequent allegations of corruption have impacted the ability to effectively utilise these funds (Hope, 2020).

Figure 1 illustrates South Africa's COVID-19 position in the context of other emerging economies [3] as at 30 June 2021.

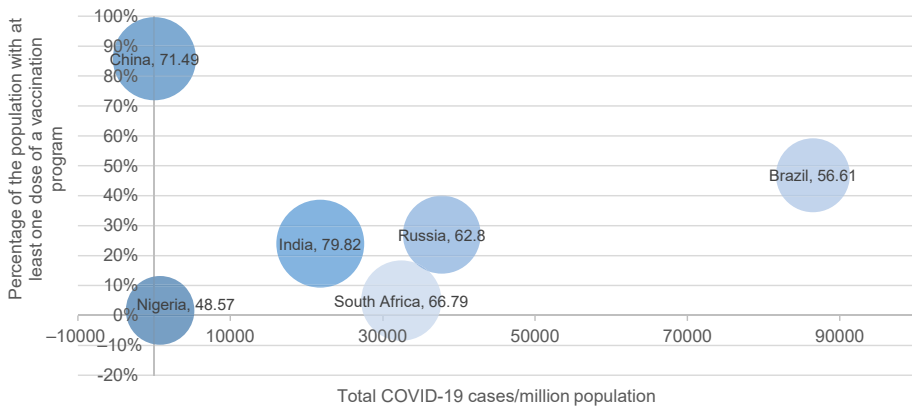
The y-axis demonstrates that South Africa has been slow in terms of the vaccination rollout, with less than 5% of the total population vaccinated as 30 June 2021 (Hale *et al.*, 2021). This will slow down the ability for the economy to reopen as transmissions and cases (x-axis) continue to rise and social and economic restrictions continue to be prevalent. The size of each bubble represents the Containment and Health Index Score. This is a composite measure based on specific policy response indicators such as school closures, workplace closures, travel bans, testing policy, contact tracing, face coverings and vaccine policy rescaled to a value from 0 to 100 with 100 being the strictest policies (Hale *et al.*, 2021). This illustrates that South Africa's response to COVID-19 has been relatively strict and is in line with other emerging economies. This also continues to impact the ability of companies to operate under

**Table 2.**  
Breakdown of SA's  
fiscal and monetary  
response to COVID-19  
in 2020

Allocation	Amount (ZAR million)	Amount (USD million equivalent) <i>Converted at the average ZAR/USD rate for 2020</i>	Percentage
South Africa Reserve Bank interventions	300,000	18,213	38%
Credit guarantees scheme	200,000	12,142	25%
Job creation and support for SME and informal businesses	100,000	6,071	13%
Tax and other levy payment holidays	70,000	4,250	9%
Vulnerable household support (six months)	50,000	3,035	6%
Wage protection (UIF)	40,000	2,428	5%
Health and frontline services	20,000	1,214	3%
Municipality support	20,000	1,214	3%
<i>Total</i>	<i>800,000</i>	<i>48,568</i>	

**Source(s):** Adapted from National-Treasury-SA (2020)

**Figure 1.**  
Emerging economies  
COVID-19 statistics  
and response index  
(Data adapted from  
(Hale *et al.*, 2021;  
Worldometer, 2021) as  
at 30 June 2021)



normal measures, reduces tourism, has resulted in decreased consumer disposable income and has increased the unemployment rate (de Villiers *et al.*, 2020a). The impact on the budgetary response can continue for many years after the inception of the crisis (see Grossi *et al.* (2020) for budgetary responses to a global pandemic).

From an organisation perspective, research finds that companies use primary communication platforms, such as official announcements on the Stock Market Exchange News Services (SENS) and integrated reports, to communicate the financial implications of a crisis to providers of financial capital (Ecim *et al.*, 2020). In contrast, companies use secondary platforms such as websites to deal with disclosures dealing with the broader governance implications of the issue, which targets stakeholders other than providers of financial capital (Ecim *et al.*, 2020). Integrated thinking and corporate governance can be leveraged to communicate material issues, responses, strategies and outcomes more effectively.

Without an appropriate corporate governance structure in place, the management of an organisation during a crisis and, more broadly, the management of public service provisions and budgetary considerations, cannot be realised effectively (Grossi *et al.*, 2015). The impact

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of COVID-19, as depicted in [Figure 1](#), emphasises the need for South African organisations to implement robust corporate governance processes and integrated thinking within their operations, decisions, business models and communication channels at both the private and public sector levels respectively.

### 2.2 Corporate governance in South Africa

The development of corporate governance is often explained using agency theory. In the context of information asymmetry between agents and principals, a system of checks and balances is required to regulate management's behaviour and reduce residual losses for shareholders ([Jensen and Meckling, 1976](#)).

A broader view of corporate governance emphasises the efficient use of resources under an organisation's control ([IOD, 2016](#)). Monitoring and control systems remain important, but effective governance is also about providing strategic direction which allows an organisation to achieve its long-term objectives ([Demirag et al., 2000](#)). If this position is combined with stakeholder theory, corporate governance can be understood as the management of constraints to maximise the quasi-rents and other benefits resulting from relationships between an organisation and its stakeholders ([Claessens and Yurtoglu, 2013](#)).

In keeping with a stakeholder theory perspective, [Solomon \(2013, p. 14\)](#) defines corporate governance as:

the system of checks and balances, both internal and external to companies, which ensures that companies discharge their accountability to *all their stakeholders* and act in a *socially responsible* way in *all areas of their business activity* (emphasis added).

This definition is consistent with the view that organisations will only be able to operate as going concerns if they focus on responsible value creation for the benefit of stakeholders in the short-, medium- and long-term ([Rossouw, 2005](#)). Organisations cannot operate independently from the broader economic, environmental and social context. Those charged with governance have moral and legal responsibilities to ensure that their organisations are managed responsibly and in the interest of sustainable development ([King, 2018](#)). The emphasis must shift from focussing exclusively on financial performance to a holistic perspective on value creation for the benefit of all stakeholders, characterised by the responsible management of different types of resources or capitals on which the organisation is dependent ([IOD, 2016](#)).

Similarly, the key processes to be considered for a public organisation and the public sector are the ability to create value, manage stakeholder engagements and adopt an integrated thinking mindset ([Iacuzzi et al., 2020](#)). However, how to account for this "public service logic" in terms of stakeholders' inputs, outputs and outcomes to the value creation process has not been explored in detail in the current academic literature ([Iacuzzi et al., 2020](#)). This study aims to highlight how governance becomes focussed on outcomes and is characterised by an integrated thinking philosophy.

### 2.3 Integrated thinking and outcomes-based governance

Per King-IV, governing bodies should take a multi-capital approach to governance informed by an integrated thinking philosophy and the overall objective of achieving sustainable development. The [IIRC \(2021, p. 3\)](#) 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. Integrated thinking leads to integrated decision-making and actions that consider the creation, preservation or erosion of value over the short-, medium- and long-term.

Given concerns about the limitations of traditional financial reporting, the state of the environment, social challenges, repeated corporate failures and, more recently, global health

threats, organisations are coming under increasing pressure to apply an integrated thinking philosophy (IIRC, 2021; Malafronte and Pereira, 2021; Atkins *et al.*, 2020).

To give effect to integrated thinking, King-IV calls on the governing body to recognise the importance of, and actively manage, economic, environmental and social metrics or the “triple context” in which an organisation operates (IOD, 2016). Those charged with an organisation’s governance should recognise the interdependencies between different types of capital and the implications for the organisation’s business model (De Villiers *et al.*, 2020b; Malafronte and Pereira, 2021). Effective corporate governance should monitor and provide direction on strategy development, risk identification and mitigation, performance evaluation and the implications of an organisation’s activities and outputs for the broader stakeholder community (IOD, 2016; IIRC, 2021).

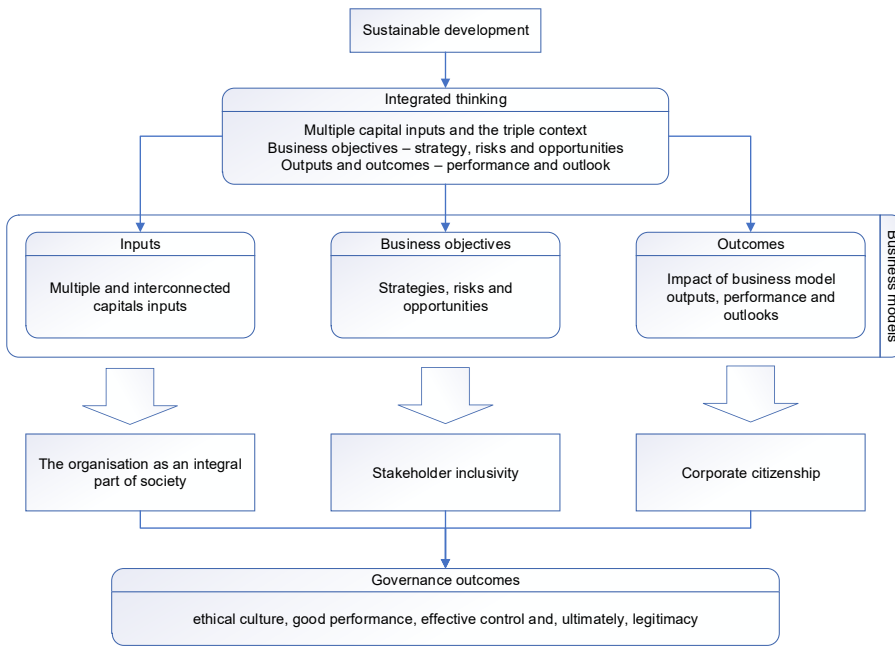
Addressing environmental issues promotes the long-term viability of a company and maximises benefits for shareholding and non-shareholding stakeholders (IIRC, 2021). Concurrently, social issues must be addressed to mitigate adverse impacts on communities, ensure the development of essential skills and maintain access to human capital (Atkins *et al.*, 2020; de Villiers *et al.*, 2020a; Helm, 2020). Integrated thinking ensures that there is a holistic process to gauge risks, capitalise on opportunities and improve internal processes leading to financial stability, social and environmental responsibility and legitimacy in the eyes of key stakeholders (Beck *et al.*, 2017).

Providing strategic direction on, and actively monitoring core inputs, business objectives and outcomes is an essential aspect of stakeholder-centric governance. Organisations provide important benefits to society, but they are also reliant on a broad group of stakeholders for their continued existence (King, 2018). This means that the organisation must act as a responsible corporate citizen (IOD, 2016). These “underlying philosophies” (IOD, 2016) or “fundamental concepts” (IIRC, 2021) are at the heart of outcomes-based governance which is governance characterised by an ethical business culture, the quest for improved economic, environmental and social performance, a robust system of internal control and, ultimately, legitimacy in the eyes of key stakeholders (IOD, 2016). Figure 2 illustrates the outcomes-based governance.

Governance needs to be informed by an integrated thinking mindset to address emerging risks, capitalise on opportunities and respond to difficult circumstances which arise unexpectedly (Ghio and McGuigan, 2020; IRC, 2018). Principles such as multi-capital relevance, stakeholder-centrism and ensuring positive outcomes must be institutionalised across all levels in the organisation (King, 2018; IRC, 2018). The integrated thinking approach will need to be driven by way of enlightened leadership and corporate culture, assessing the needs of stakeholders and resource availability, adaptability and a risk management process (SAICA, 2021).

Integrated thinking is inextricably linked to a company’s purpose and values (IOD, 2016; IIRC, 2021). Where policies, mission statements and the organisation’s culture are imbued with the principle of sustainable development, it is more likely that integrated thinking is taking hold than in cases where the focus remains entirely on achieving short-term economic targets. An organisation guided by integrated thinking will interact purposefully with its stakeholders (Rinaldi, 2020). The organisation will have policies and processes for identifying and ranking stakeholders, evaluating their expectations and responding to their legitimate needs (Atkins *et al.*, 2020; De Villiers *et al.*, 2020b; IIRC, 2021). In addition to what is disclosed in corporate reports, stakeholder engagement will inform the development of and refinement to strategies, risk management practices and operating protocols (Rinaldi, 2020; CIMA, 2017). Ultimately, entities which are committed to integrated thinking will be well-positioned to respond to challenges such as climate change, inequality and global health issues. This is because integrated thinking allows an organisation to be more proactive and innovative (Atkins *et al.*, 2020).

Evaluating an organisation’s commitment to and application of integrated thinking is, however, no easy task (McNally *et al.*, 2017). The internal mechanisms which simultaneously support and are changed by the application of integrated thinking cannot be observed



**Figure 2.** Outcomes-based governance

Source(s): Adapted from (IIRC, 2021) and IOD (2016)

directly by external stakeholders (McNally *et al.*, 2017). Integrated thinking can also be hindered by a strong financial capital focus (Dumay *et al.*, 2016), a prescriptive approach to reporting (Atkins and Maroun, 2015), communication deficiencies (Atkins and Maroun, 2015), data collection issues (IRC, 2018) and difficulties understanding the connectivity amongst different capitals and their relevance for the business model (La Torre *et al.*, 2019).

An emerging body of work suggests that an integrated approach to managing economic, environmental and social considerations can be a strategic advantage (De Villiers *et al.*, 2020b). If this is the case, integrated thinking may be more prominent where the business environment is characterised by higher levels of competition, significant uncertainty and the need for continuous improvement and innovation (Malafrente and Pereira, 2021). Public organisations may, however, only find incremental benefits to this model rather than a radical change, given the nature of the public sector (Iacuzzi *et al.*, 2020). Business models will need to be refined to ensure that the overall objective of sustainable development is embedded in an organisation’s policies and practices (CIMA, 2017; De Villiers *et al.*, 2020b).

Entities need to have systems in place to overcome the above challenges (IRC, 2018). These include appropriate strategies, risk management and IT governance mechanisms. The business objectives, supported by strategies and risk assessments, need to be adaptable and aligned with the entity’s core values and principles of the entity. The broader governance model (outlined in Figure 2) must be able to deal with unexpected events and circumstances which impact the business model by modifying strategies, the approach to risk management and IT governance processes.

The role of the governing body in directing and monitoring the organisation’s approach to risk management and mitigation is especially important in the context of the ongoing COVID-19 pandemic (El Baz and Ruel, 2021). The increased reliance on technology for supply chain

management presents IT-related risks which must be mitigated and overseen by the governing body (Gu *et al.*, 2021). At the same time, IT should be seen as an integral part of companies' strategy and not just a support function (ibid). Despite pressures to respond to short-term issues, the governing body should take a long-term view of the integration of IT into existing business models and its potential to create new lines of business (Harrast and Swaney, 2019).

Maroun *et al.* (2023) suggest five principles that can be used to refine integrated thinking. To add to the discourse around how corporate governance and integrated thinking can manage a crisis, these principles are applied to corporate governance and crisis management in Table 3. This will be used as a basis to show how integrated thinking can be applied to corporate governance and crisis management.

Principle per Maroun <i>et al.</i> (2023)	Application to corporate governance and crisis management
<p><b>Principle 1: Integrated awareness and understanding</b> The organisation demonstrates clear awareness and understanding of the connectivity and interdependence of matters material to its ability to create value over time</p>	<p>The entity needs to use corporate governance structures to establish cross-functional teams that share information across the organisation. These teams need to collaborate and develop responses to present and future internal and external risks that may arise. A risk committee will need to be charged to assess the likelihood and magnitude of risks and develop strategies to adapt in times of a crisis. Technological innovation and adaptability need to be embedded in the organisation's strategies to be proactive in managing a potential crisis rather than only reactive</p>
<p><b>Principle 2: Integrated leadership commitment and capability</b> Leadership provides the mandate for integrated thinking and makes a deliberate and coordinated effort to connect and integrate matters material to organisational sustainability</p>	<p>The board of directors and those charged with governance need to develop a strong culture of corporate governance that permeates through multiple levels of the organisation. Clear disaster recovery plans need to be in place. The organisation should consider the use of a Chief Value Officer (CVO) (King and Atkins, 2016) as part of the organisational structure. Adding a CVO to the governance structure can allow the organisation to oversee the management of multiple types of capital and apply outcomes-based governance to emerging issues such as COVID-19 or climate change</p>
<p><b>Principle 3: Integrated structures</b> Organisational structures and systems are conducive to integrated decision making and reporting</p>	<p>The governance structure needs to establish robust management control systems that are used to collect, analyse and use financial and non-financial data throughout the year. Strong governance structures that support a well-functioning control environment can allow an entity to properly analyse the impact of a crisis and put well-considered measures in place to reduce the adverse impacts on multiple capitals which will include financial capital</p>
<p><b>Principle 4: Integrated organisational performance management</b> Performance management of targets and KPIs is balanced and integrated to express the holistic and comprehensive performance of the organisation over the short, medium and long term</p>	<p>The remuneration committee of the organisation needs to implement a remuneration structure that takes cognisance of multiple capitals in performance measurement. This promotes a multi-capital outlook which is essential for long-term value creation and navigating a crisis This principle also includes assurance of extra-financial disclosures and corporate governance structures. The organisation and CVO can facilitate the role of external assurers in the preparation of integrated reports and the relevance of assurance for the broader value creation process</p>
<p><b>Principle 5: Integrated External Communication</b> Communication to external stakeholders offer an accurate, holistic, balanced and integrated view of the organisation's performance and ability to create value over the short-, medium- and long term</p>	<p>The organisation should make use of various communication channels to inform stakeholders of how a crisis is being managed. This should include disclosures focussed on both financial implications as well as disclosures dealing with the broader governance implications of the crisis</p>

**Table 3.**  
Applying integrated thinking principles to corporate governance and crisis management

The preceding literature review is used to inform the next section and the discussions around the role of integrated thinking in corporate governance during a crisis.

### 3. Method

A qualitative exploratory approach was adopted. The research method involved two stages.

#### 3.1 Stage 1

A type of analytic autoethnographic approach was used in the first stage of data collection and analysis (see [Anderson, 2006](#)). An autoethnography approach is a widely used qualitative research method in business whereby the researcher uses their personal experiences to contribute to a social understanding ([Murphy et al., 2022](#)). Two researchers collected and reflected on recent articles in the popular press, details on corporate webpages and publications produced by professional bodies on the economic, social and environmental impact of COVID-19 (adapted from [Venter and de Villiers, 2013](#)). Qualitative methods benefit from this reflective process which improves the data communicated by researchers ([Murphy et al., 2022](#)).

Researchers used their professional experience in corporate governance to collect and code data into merging principles, concepts and themes and define the open and axial codes. Autoethnography is often criticised for biases and lacking context; however, this research uses guidance by [Murphy et al. \(2022\)](#) on steps to achieve objective findings using the autoethnography method.

- (1) Define the project – Evaluate how can those charged with governance use integrated thinking principles to respond to the impact of COVID-19.
- (2) Understanding the researcher’s profile [4] and knowledge – Reporting on this profile improves the readers’ understanding of the context of decision-making made and the implicit biases by the researchers when they were reflecting on the reports analysed. Researchers obtained corporate governance and integrated thinking knowledge through years of practical and professional experience and through their current position as advisors to international standard-setting bodies. The profile of the researchers improves the quality of the reflection as they are experts in the integrated reporting and corporate governance area. Refer to [Table 4](#).
- (3) Understanding where the data came from – The search happened between June 2020 and August 2021. This was used to develop a practical understanding of the impact of COVID-19. The breakdown in [Table 5](#) summarises the practical sources analysed:

Researcher	Previous role	Company	Years of experience	Standard setting body
Researcher 1	Associate Director (Risk and corporate governance advisory)	Big four audit firm	17 years	Independent Regulatory Board for Auditors (IRBA) Committee Integrated Reporting Committee of South Africa
Researcher 2	Corporate reporting technical advisory	Big four audit firm	12 years	International Auditing and Assurance Standards Board (IAASB) Integrated Reporting Committee of South Africa

**Table 4.**  
Primary researchers’ profiles

Publication	Number of sources	Analysis
News articles	50	The top 50 news articles were selected that dealt with the topic of COVID-19 and business-related themes to develop core insights and themes. Once the 50th article was coded, a point of saturation was met and no further articles were analysed
Corporate webpages (JSE Top 40)	40	The corporate webpages of the JSE Top 40 entities by market capitalisation was assessed and coded according to content. Examples of codes include details on financial results, COVID-19 updates, operational updates and compliance with corporate governance principles. The disclosure codes were recorded on a theme register and aggregated by principle/theme. The frequencies of disclosures themes were recorded. To retain an exploratory focus, scientific text analysis and inferential statistics were not run; instead, companies were ranked according to the amount and type of information provided on COVID-19
SENS <sup>a</sup> announcements dealing with COVID-19	307	A total of 9 865 SENS announcements were downloaded and a search function was used to extract all announcements related to COVID-19. This resulted in a total of 307 announcements for the period under review
Publications by professional bodies	4	Four professional publications were used to supplement the search above. These include: (SAICA, 2021; Atkins <i>et al.</i> , 2020; Adams <i>et al.</i> , 2020; IRC, 2018)

**Table 5.**  
Sources analysed

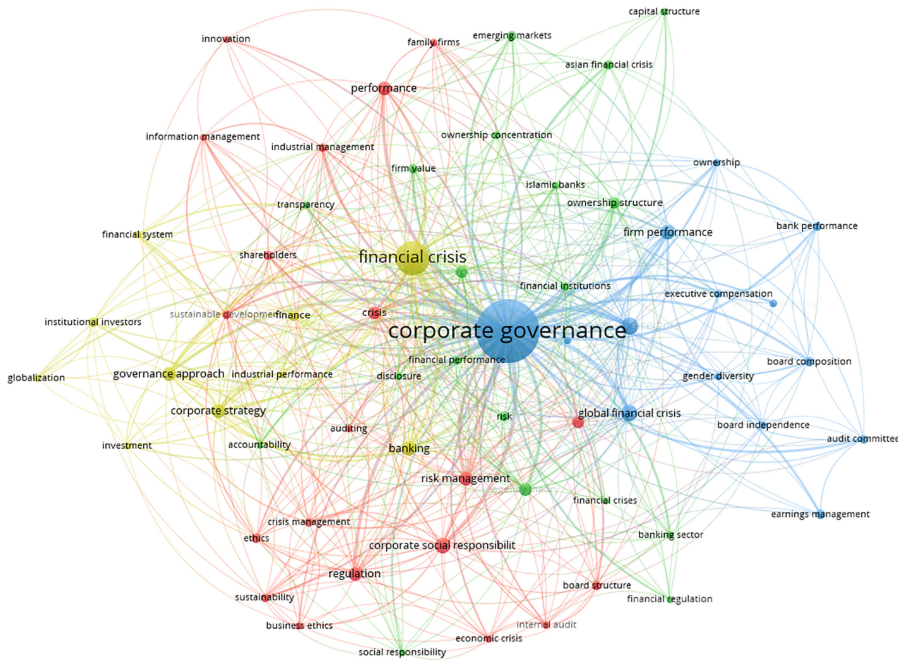
**Note(s):**<sup>a</sup> The JSE offers a service for companies to issue announcements with regard to key topics which have an impact on the market movement. This service is known as the Stock Exchange News Service (SENS)

To avoid an autoethnography that is based on self-narratives, the researcher’s data collection and analysis were aided by the integrated thinking principles identified from the prior literature and from the governance principles outlined by King-IV (see Figure 2). This was supported by the Scopus Database search (Section 2). The 1 998 academic publications (Table 1) were amalgamated with the practical sources to perform a bibliometric analysis (Snyder, 2015).

The bibliometric analysis provides an overview of the relationship, volume and impact of the research (Lopes and Penela, 2022). Bibliometric tools, including keyword co-occurrence analyses, are applied to the practical and academic sources (Van Eck and Waltman, 2017). Keyword co-occurrence analysis maps the frequency of articles with the same keywords (ibid). This is indicative of articles which have connected themes (Caputo *et al.*, 2021). In line with other bibliometric studies (Lopes and Penela, 2022), VOSviewer software (see Van Eck and Waltman, 2017) is used to generate textual and graphic representations of the results. The connected keywords resulted in three clusters of themes developing and these points served as open codes and were recorded in a “data mind map” (adapted from: Holland, 1998). Results are presented in Figure 3.

The cluster themes are analysed in Table 6.

While inherently subjective, the autoethnography allows for analytical reflexivity and the incorporation of the researchers’ judgement, experience and professional expertise as an integral part of evaluating how corporate governance is operationalised in the context of COVID-19 (see Anderson, 2006). This should not be seen as a threat to validity and reliability but an inherent feature of the subjective sense-making and analysis process which characterises exploratory research executed in the interpretive tradition (see, for example, Laine, 2010). This process allows the researchers to identify trends in how organisations have



**Figure 3.** Data mind map cluster analysis of top keywords

Cluster	Examples of core themes
Blue and green – corporate governance principles	Board composition, firm performance and assurance
Yellow – crisis analysis	Multiple capital approach, governance approach, corporate strategy, accountability, sustainable development and transparency
Red – management practices	Risk management, emerging opportunities, strategic response, stakeholder engagement, sustainability and innovation

**Table 6.** Data mind map of core themes

disclosed their response to COVID-19, which is applied to a broader governance framework in line with Figure 2. The coding process was analysed by the third author and all differences were discussed and resolved.

- (4) Problems uncounted – Integrated thinking is a relatively new concept in practice and research, therefore, there is no consensus on how integrated reporting principles can be operationalised by organisations to respond to a crisis. Data collection reflection also presented challenges at the early stages due to the large size of possible themes that were determined through the thematic analysis. Researchers needed to have multiple meetings to discuss the emerging themes and to cross-check each other’s data collection instruments.
- (5) Lessons learnt for practitioners – Researchers having in-depth practical and research knowledge in integrated reporting and corporate governance does not guarantee that they will be able to identify all the possible themes in all reports. This was then supplemented with Stage 2 of the methodology, which included interviews with subject experts.

3.2 Stage 2

The absence of direct academic research in a South African context necessitated an interpretive research design (Maroun, 2017). As corporate governance and integrated thinking is a specialist area, the research method relied on a qualitative method because feedback from governance, auditing and business experts to inform the debate surrounding this topic. This allows the researcher to gain an in-depth understanding of the impact of corporate governance and integrated thinking during a crisis. The internal knowledge required to understand how organisations applied integrated thinking and corporate governance principles necessitate the use of experts who are the best placed to provide views due to their involvement in organisations that were directly impacted by the crisis. All interviewed candidates are classified as experts in their field and the research was conducted in South Africa which has a reputation for having well-developed corporate governance practices (Maroun and Cerbone, 2020).

Potential interviewees were purposefully selected from the database of professionals at the researcher’s home institution. This ensured that research participants have at least ten years of experience in their respective fields and a detailed understanding and appreciation of integrated and sustainability reporting and corporate governance frameworks. The authors and researchers contacted potential interviewees (via email) and invited them to be participants in this research study. After eight interviews, a point of saturation in the responses was achieved. To ensure that no insights were omitted, a further eight interviews were added for a total of 16. Data saturation was obtained by relying on a smaller number of industry-leading participants producing interviews of the highest quality, rather than simply a case of trying to maximise the number of interviewees. Nonetheless, the relatively small absolute number of participants may be perceived as a limitation of this research (interview method adapted from Segal, 2019).

The semi-structured interviews were conducted to “calibrate” the main points identified during the first stage of data collection and analysis. Participants included preparers of financial statements (five), board members (three) and corporate governance consultants (eight). Nine of these interviews were conducted virtually during 2020 and the rest were conducted in person in 2021 and 2022. The sample was selected purposely by the researchers to include all participants who have in-depth knowledge and working experience in corporate governance, to add to the validity of the analysis. The interviews were left open-ended in order to obtain more detailed insights into the corporate governance mechanisms and integrated approaches adopted. Table 7 provides a summary of interviews.

Details	Number of interviews	Average experience in years	Duration	Affiliation <sup>a</sup>
Preparers of financial statements/business leaders	5	15	30–90 min	Audit managers and partners in Big 4 and mid-tier firms
Board members	3	13	30–90 min	Listed and unlisted JSE entities
Corporate governance consultants	8	19	30–90 min	Various consulting companies and practicing academics
<i>Total</i>	<i>16</i>	<i>16</i>	<i>30–90 min</i>	

**Table 7.** Summary of interviews **Note(s):** <sup>a</sup> Direct affiliations are not provided for the purposes of retaining the anonymity of interview participants

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Participants were asked five core questions which were purposefully focussed on the themes that emerged from the analysis of articles.

- (1) How were different capitals of the value creation processes considered by those charged with governance when making strategic decisions during the COVID-19 pandemic?
- (2) How were integrated thinking principles applied to deal with the risks that emerged during the COVID-19 pandemic?
- (3) How were integrated thinking principles used to take advantage of the opportunities resulting from the COVID-19 pandemic?
- (4) How were integrated thinking principles used to engage with stakeholders during the COVID-19 pandemic?
- (5) How were business processes modified using integrated thinking principles to respond to the changes presented by the COVID-19 pandemic?

Experienced participants were selected from a range of organisational exposure to ensure different and rich perspectives are included in the analysis, which would ultimately further enhance content validity and reduce researcher bias (Rowley, 2012).

Interviews were recorded and transcribed after each interview. Transcripts were then analysed and grouped into the open codes identified in stage one, as detailed above. Researchers re-evaluated each other's coding to reduce biases and ensure the accuracy and consistency of the data analysis (Leedy and Ormrod, 2015).

The respondents (R) answers in the second stage, in conjunction with the first stage analysis are then used to discuss how integrated thinking principles can be leveraged to manage a crisis. A multi-capital approach is explored by assessing the emerging trends in governance responses.

The autoethnographic analysis and interview responses are not intended to be a complete list of integrated thinking implementation in corporate governance actions during a crisis. Rather, this analysis reveals key themes and responses that can be institutionalised as an entry point to establishing a holistic and robust response. Future research can then expand on these responses in light of the progression of organisations responding to the different stages of the crisis.

#### **4. Discussion on corporate governance during the COVID-19 crisis**

Data from the autoethnographic analysis and semi-structured interviews revealed three focal points for those charged with governance in the context of COVID-19.

- (1) Multiple capital inputs and the triple context
- (2) Strategy, performance, risks and opportunities – promote the achievement of business objectives
- (3) Performance and outlooks

Each area is discussed in more detail below with reference to the relevant autoethnographic source or respondent discussion.

##### *4.1 Multiple capital inputs and the triple context*

The ongoing COVID-19 pandemic iterates the importance of an integrated approach to developing strategies, managing risks and reporting to stakeholders. As explained by the

IIRC and King-IV, a multifaceted approach to doing business is essential for generating value and ensuring business continuity (IIRC, 2021; IOD, 2016). It is necessary for entities to support business models with an integrated thinking ethos (see Figure 2). This involves three pillars, namely, understanding the role of the organisation as part of the society, promoting the achievement of business objectives and promoting corporate citizenship (IOD, 2016). Developing and enhancing these three pillars can unlock the benefits of integrated thinking (Section 2.3) and facilitate positive governance outcomes to assist in managing a crisis.

*4.1.1 Understanding the role of the organisation in the societal context.* The pandemic has impacted consumers' needs, behaviour, rationalisation, spending patterns and interactions with, and expectations of, an organisation (see Section 2.1). In light of the pandemic, consumer spending is expected to remain depressed and long-term economic recovery will be slow (Deloitte, 2020). The organisation has an obligation to maintain business viability, ensure long-term sustainability and protect the interests of the wider society (Section 2.2).

Integrated thinking allows a company to understand the financial needs during the crisis and how this will link and impact the other capitals (see IIRC, 2021). For example, understanding how executive remuneration policies may be impacted through revised key performance indicators is important both for those who are driving the company and those who are at a lower level. Disclosing executive pay cuts has been a common trend amongst listed entities and this speaks to an example of the governance processes that are actively being managed to ensure business continuity (R3; R7). This links to the board's responsibility to manage an organisation in the interest of sustainable development (see Section 2).

Respondents' general view was that resources should be understood as scarce and finite. Given the further deterioration across the economic and social environment, those charged with governance need to respond appropriately to ensure the survival of the business (R3; R4; R6; R9). As such, it is imperative to focus on a holistic capital integration that creates value across the different time horizons (IIRC, 2021). The importance of continuous evaluation of the business model in response to the uncertain economic conditions resulting from COVID-19 was a key issue raised by all interviewees. Respondents stressed that the organisational purpose, which is closely linked to strategy, risks and opportunities might need to be repurposed in order to ensure the sustainability of organisations. The governing body must be at the forefront of overseeing that repurposed business models consider the multi-capital and multi-stakeholder perspectives.

Traditionally, the purpose of organisations has been overly focussed on financial capital and profit maximisation at the expense of the other capitals, reinforcing what has been observed in prior literature (see Section 2.3). Respondents appreciated that organisations are an integral part of society and must consider different stakeholders for sustainability. COVID-19 has reinforced the importance of a multi-capital approach in determining an organisation's purpose that supports viability. Respondents iterated that organisations should be able to adapt to current demands while considering the short, medium- and long-term impact of COVID-19 on value creation. There is a need for the governing bodies to continuously be concerned about the future and how that future will impact stakeholders' value while ensuring that current viability is not compromised. This illustrates that lessons learnt from a crisis need to be implemented to manage future issues. It is necessary to institutionalise clear response plans in an organisation to manage future disasters, adapt to changing trends and to capitalise on opportunities that arise out of a crisis.

#### *4.2 Promote the achievement of business objectives*

Figure 2 highlights how an integrated context in understanding strategies, risks and opportunities supports the achievement of business objectives. All respondents emphasised

the point that the board and oversight structures must provide guidance on the strategy of the organisation to ensure alignment with short, medium- and long-term objectives (IOD, 2016). One respondent made the following point which is consistent with prior literature on corporate governance (Ghio and McGuigan, 2020):

These strategies must reflect the fact that risks and opportunities change over time as the economic and business environment responds to the pandemic and will need to be continuously re-assessed ... (R4)

COVID-19 has provided opportunities for organisations to engage with their strategies and has facilitated the alignment of decisions for short-, medium- and long-term strategies to the current realities (He and Harris, 2020). Many entities have made decisions on capital allocations to significant projects or acquisitions based on projections of growth and cost of financing which are no longer appropriate (R6; R7). The governing body should re-examine the viability of these projects. Revising spending limits and authorisation levels will be essential for preserving cash. Adapting cash flow forecasts and executive remuneration must also be a focal point (see also Atkins *et al.*, 2020). One respondent emphasised the need to re-evaluate decisions. Dividends were used as an example:

The decision to declare or even to pay a dividend might now require additional consideration, it might make more sense to hold on to cash until such a time that the business regains some normality (R6)

The analysis of SENS announcements supported this conjecture as many companies revised dividend policies and withheld dividends payments. The management of not only financial considerations but extra-financial considerations became a priority as companies needed to deal with reduced cash flows.

The analysis of articles revealed the following further considerations that need to be made by those charged with governance during a crisis.

- (1) evaluating how business continuity plans have been executed;
- (2) guiding the development of policies and plans which deal with deficiencies in continuity plans, considering the long-term impact of these decisions on the organisation and its significant stakeholders and
- (3) understanding management's plans for communicating with all stakeholders and not just the providers of financial capital.

In the short-term, all respondents highlighted the importance of governing liquidity risk by setting policies for the curtailment of expenditure, increasing cash reserves and rolling existing debts when necessary (Donthu and Gustafsson, 2020). Where applicable, organisations should consider seeking assistance from the different relief funds announced by Government. In the interest of mutual cooperation, organisations in a position to do so should contribute directly or indirectly to the disaster management process. In consultation with its audit and risk committee, a governing body must develop clear guidelines which (1) provide revised risk tolerance levels; (2) outline the short- and long-term implication of COVID-19 for an organisation's ability to continue as a going concern and (3) detail the actions which can be taken to mitigate business continuity risks. A holistic assessment of the business, including the information technology strategy, can facilitate the achievement of business objectives.

Integrated reporting and thinking are intended to help organisations tackle pressing social and environmental challenges, many of which are having serious impacts on the developing world (Ecim and Maroun, 2022). The use of integrated thinking by the public sector in both developing and developed economies can assist in meeting business objectives.

There are some examples dealing with how, for example, universities (Raji and Hassan, 2021; Iacuzzi *et al.*, 2020), conservation organisations (Büchling and Maroun, 2021) and local governments (Gaia and Jones, 2017) deal with aspects of environmental and social issues as part of an integrated thinking mindset. By adopting outcomes-based governance and an integrated thinking approach, this can be used to bolster confidence in the public sector, contribute to improved service delivery, reduce waste and enhance stakeholder engagement. A broad perspective on environmental, social and governance (ESG) issues is a proxy indicator for an integrated thinking logic (Maroun *et al.*, 2023). It stands to reason that an ESG-orientated organisation would then be able to better manage social and environmental concerns that arise out of a crisis.

*4.2.1 The value of stakeholder inclusivity.* Stakeholder engagement remains one of the cornerstones of integrated thinking (Rinaldi, 2020). Regular engagement allows for the identification of the unique needs and constraints prevalent during COVID-19. An appropriate response and strategy can then be implemented. Communication channels are important to update stakeholders on the company's response and receive feedback on the needs of the stakeholders (R2; R5; R7; R9).

Where companies have already reported to stakeholders, disclosures deal primarily with how COVID-19 is affecting strategic, operational and economic risk. This type of reporting is not just about ensuring transparent communication with key stakeholders, but about preparing constituents for the fact that the pandemic will have longer-lasting implications than may have been anticipated originally. An element of both repairing and maintaining legitimacy (Suchman, 1995) is evident in the communication. When analysing the SENS announcements, as a form of communication, there were 307 SENS announcements that focussed on the COVID-19 pandemic. Examples of disclosures included.

- (1) Updates on the impact of COVID-19 in the context of current trading performance and market conditions in light of the pandemic and its impact on costs, liquidity, debt covenants, working capital, strategic initiatives, supply chains and prospects;
- (2) Safeguards to be implemented to curb the spread of the virus at operations functioning over the lockdown;
- (3) Details on how online channels were being used to service customers and ensure the continuation of operations and
- (4) Donations provided to specific COVID-19 relief funds.

As the impacts of the pandemic have subsided and organisations have included more detailed impact assessments and strategy/risk responses in integrated and sustainability reports, the references to COVID-19 in SENS announcements have decreased. Announcements dealing specifically with COVID-19 were complemented by information on the indirect impact of the pandemic. Common examples included dividend policy revisions, postponements of annual general meetings (AGMs) and delays in publishing financial results.

Organisations will find that their purpose is put to the test by many different stakeholders because of the direct and indirect consequences of the COVID-19 crisis (R1; R3; R4). Governing bodies should be prepared to demonstrate how any decisions they have made in response to the crisis have been grounded in their organisation's purpose and long-term strategy (Blacksun, 2020).

Respondents and the analysis of articles reveal that the risks, impact thereof and subsequent opportunities created by COVID-19 are important to identify for all stakeholders. This needs to be facilitated by way of open and transparent communication with the relevant parties. By way of stakeholder inclusivity, the organisation inherently adopts an integrated thinking mindset that allows the board to better understand the strategic direction necessary

to navigate a crisis. This process creates a long-term value creation philosophy that allows organisations to develop sustainably. This development needs to be grounded in good corporate governance principles.

#### 4.3 Performance and outlook

From a governance perspective, respondents indicated that they are on the receiving end of increasing investor, and other stakeholder, scrutiny in terms of how and what decisions are being taken by boards in this time of crisis (R2; R7; R9). As such, it is important to delegate a committee to take responsibility for how the company is managing the crisis (R2). Some companies have indicated that they have established distinct governance structures, such as multi-disciplinary steering committees, to monitor the unfolding situation (R2). These committees have been formed to deal with the economic impact of the pandemic as well as related environmental and social concerns. The company needs to be seen to be acting responsibly by all stakeholders and to be cognisant of stakeholder needs.

The positive governance outcomes illustrated in [Figure 2](#) create a foundation for long-term sustainability and adaptability to changing conditions. Sustainable development and governance outcomes require a focus on both financial and non-financial information to achieve a balanced outcome (IIRC, 2021). The integration of this information is an iterative process that implies communication of the organisation's value creation across the capitals and a holistic risk assessment (IIRC, 2021). The board needs to facilitate the establishment of well-functioning committees, recommitting to and enhancing good governance processes and transparent communication to manage the business objectives and outcomes during a crisis.

In a time of crisis, boards of directors have been focussing their efforts on immediate problems (R1; R2; R4; R6; R9). Examples include supply chain disruptions, equipping facilities to operate under lockdown, staff absenteeism and managing cash flows when operations are suspended. These considerations are important, but the governing bodies must also consider the medium- and long-term effects of the pandemic to create and preserve value for their companies (R2). As one respondent (R12) noted:

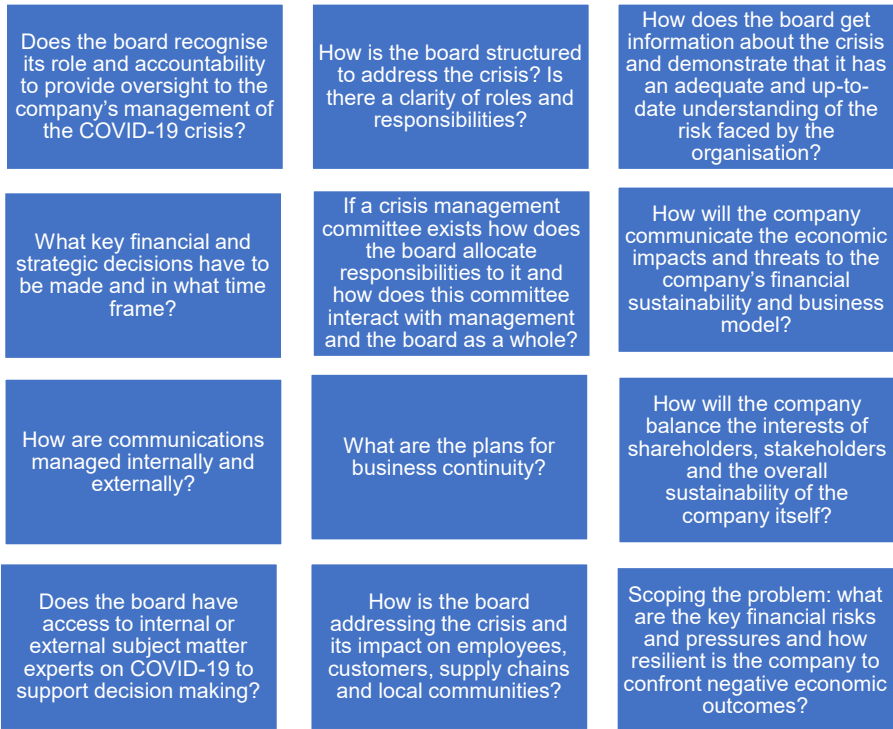
I do not think it is possible to have real value generation if you do not have good leadership. Do you have the diversity of views to make sure that you look at all of the angles, including your environmental impact? Can you take risks pertaining to human capital and turn these into opportunities? Can we see how strategy actually incorporates 'non-financial issues'? (R12)

Identifying the opportunities that arise out of this pandemic are critical to capitalise on and create sustainable value. Organisations have started to revise their business models on the assumption that COVID-19 will continue to impact businesses until, at least, the end of 2021 (R3; R5). Steps being taken include permanent arrangements for employees to work remotely where possible (R5); increased automation of production lines and using online platforms to generate revenue. For example, the education sector has moved to online teaching with retail sector entities requiring existing systems to be upgraded in response to the "new normal" (R3).

A rapid response has been vital to ensure the continuity of the business, and this has also resulted in the different sectors identifying potential weaknesses that need to be addressed. Adjusting the business model is, therefore, a key consideration for those charged with governance, which should not only be limited to the current pandemic, but rather, have a long-term view of a future crisis which may arise.

## 5. Recommendations on corporate governance during the COVID-19 crisis

The ICGN (International Corporate Governance Network) has provided guidance on the emerging implications of COVID-19 on corporate governance (Dallas, 2020). [Figure 4](#) provides a set of questions from the ICGN which would provide an indication of how a



**Figure 4.** Questions for applying integrated thinking and governance during a crisis

**Source(s):** (Dallas, 2020)

company has applied integrated thinking and governance in dealing with the COVID-19 crisis. This includes how they have considered the different capitals, stakeholders, risks, other ESG considerations and the effect on value creation. The questions in Figure 4 provide a framework for a company to gauge the level of preparedness in dealing with the COVID-19 pandemic. These questions promote the application of integrated thinking across the organisation to achieve positive governance outcomes.

The value of these questions goes beyond the current COVID-19 pandemic. The questions in Figure 4 need to be built into the company's inherent risk monitoring assessment and be used to respond to various situations that arise be it a political, economic, social or environmental crisis. Through continuously monitoring the risks and mitigation strategies, the relevant opportunities can also be identified and capitalised on. Understanding the business from multiple perspectives allows an entity to develop an appropriate response whilst assuring the stakeholders that there are robust plans in place. The board is, ultimately, accountable for this process (Dallas, 2020). This process can be driven through integrated thinking by actively considering the interrelationships and interdependencies amongst the organisational strategy, performance risks and opportunities. This includes promoting a multi-capital perspective on information technology (IT) as part of the strategy.

#### *5.1 Promote a multi-capital perspective on information technology*

Governing bodies must govern the above-mentioned risks in a way that supports the organisation's strategic goals considering the opportunities and risks that IT and capital management is likely to have for business continuity after this pandemic.

While respondents were asked about how organisations can continue as going concerns and achieve key business objectives, respondents highlighted the increasing role played by information technology and the associated risks and opportunities that those charged with governance need to govern (R1; R3; R4). A respondent noted that (R16):

This will require the use of the latest technologies, including advances in data science and artificial intelligence to collect and analyse the broad range of information necessary for describing a firm's performance holistically (R16)

Examples include integrating systems for continuity planning, collaboration services, augmented data management and increased analytical tools to monitor performance, outputs and outcomes (R1; R7; R16). This is consistent with prior literature which has stressed the importance of technology in responding to business disruptions (Gu *et al.*, 2021). This study extends on this body of knowledge by analysing IT considerations that must be made and these have been aggregated according to the multi-capital framework outlined by the International Integrated Reporting Council. Using the news articles on IT-related responses, information disclosed by organisations on their websites and the expert interviews, the multi-capital perspective on information technology is summarised in Table 8.

As explained by King-IV (IOD, 2016), the governing body is responsible for the governance of the IT infrastructure in a way which enables responsible long-term value creation. Risks posed by the transition to online or virtual platforms for engaging with different stakeholders should be evaluated in the context of an organisation's business model and any emerging opportunities. While it is tempting to evaluate the relationship between IT and COVID-19 in purely financial terms, the social and environmental dimensions must also be considered (R1; R3; R9). The COVID-19 pandemic has been a driver for organisations to be more socially and environmentally responsible which can be supported by IT (He and Harris, 2020).

## 6. Summary and conclusion

The semi-structured interviews with the respondents and analysis of the impact of COVID-19 paint a picture of the importance of the interconnectedness of the multiple capitals for value creation. The analysis reinforces the importance of the governing body in understanding these connections in changing economic, social and environmental conditions. It is evident that integrated thinking and its underlying principles provide a useful approach to some of the challenges being faced by companies, society and markets during and after the COVID-19 crisis.

The respondents reiterated the need for financial capital reserves to be adequately maintained. Governing bodies have an important role in ensuring that financial risk management policies safeguard organisations by keeping more reserves than would be needed for use in the short term while not neglecting other capitals. Organisations need to appreciate that bad days are bound to come, and this must be reflected in their financial strategies and plans. The assumption that bad days are coming can be the distinguishing factor in surviving economic, social and environmental crisis like the one presented by COVID-19. An integrated approach is essential to manage financial and extra-financial considerations that promote long-term sustainability and value creation.

For this reason, respondents agreed that the governing bodies have a fundamental role in ensuring that there are clear financial risk management guidelines and plans that appreciate the uncertain nature of the business environment to ensure business continuity. There is a need for future research to evaluate whether companies with high cash reserves were better able to cope with the crisis presented by COVID-19. This research also comes short in

Capital	Details	Considerations
Financial and manufactured	<p>Financial capital – The pool of funds available to the organisation obtained through debt, equity, grants, operations or investments</p> <p>Manufactured capital – The physical objects that are available for use in the production of goods or service provision</p>	<ul style="list-style-type: none"> <li>• Strategy for migrating existing customers to online platforms and/or penetrating new online markets</li> <li>• Additional costs of developing platforms for supplying goods and services to customers versus revenue from e-commerce revenue</li> <li>• Reconfiguration of supply and distribution processes to meet demand and requirements of existing contracts with customers</li> <li>• Reconfiguring existing infrastructure and processes to supply new/alternate goods and services required for new online markets</li> <li>• Revisions to standard costing systems and financial budgets to accommodate changes to an IT environment</li> </ul>
Human	<p>People’s competencies, capabilities, experience and their motivations to innovate</p>	<ul style="list-style-type: none"> <li>• Lack of IT specialists and plan for recruiting staff with the necessary skills in the short- medium- and long-term</li> <li>• Retraining of existing staff to avoid redundancies and ensure continuing operations</li> <li>• Overcoming resistance to changes in operations, supply and distribution</li> <li>• Ensuring the mental and physical health of employees as a direct result of COVID-19 and the requirement, in many cases, to work remotely</li> </ul>
Social and relationship	<p>Institutions and relationships within and between groups of stakeholders, between communities, and the ability to share information to enhance individual and collective well-being</p>	<ul style="list-style-type: none"> <li>• Revisions to existing methods for identifying and engaging with stakeholders to include electronic channels</li> <li>• Managing expectations for and dealing with the consequences of security breaches and unauthorised use of sensitive information</li> <li>• Managing reputational consequences of downtime/online system failure</li> </ul>
Intellectual	<p>Organisation’s knowledge-based intangibles</p>	<ul style="list-style-type: none"> <li>• Development of systems, processes and protocols for managing cyber threats</li> <li>• Research and development to upgrade webpages, expand customer base and explore the provision of new goods and services</li> <li>• Improvements to existing systems and software</li> </ul>
Environmental	<p>All renewable and non-renewable environmental resources and processes that provide goods or services that support past, current and future prospects of the organisation</p>	<ul style="list-style-type: none"> <li>• Reducing carbon emissions, water usage and energy consumption by reconfiguring when and how different types of employees are required to work from pre-defined locations</li> <li>• Exploring alternate power supplies as more emphasis is placed on digital engagement with customers and employees</li> <li>• Increased interest in reducing waste, recycling by-products and increasing product lifecycles to provide new areas for business while mitigating adverse environmental impacts</li> </ul>

**Table 8.**  
A multi-capital perspective on information technology

evaluating how different organisations have repurposed themselves in response to the risks and opportunities brought by the current crisis. Future research is needed to evaluate this.

It is recommended that financial capital be used to support a multi-capital perspective for the short, medium- and long-term value creation strategies. Respondents observed that there are opportunities in IT investments by organisations in this time of crisis and these investments will require financial investments in infrastructure development, IT human skills and expertise, system and network software developments and safeguarding of the organisation's reputation.

The respondents, ultimately, observed that financial capital can be used as an enabler for the other capitals; however a financial capital focussed strategy that neglects the interconnectedness of capitals will come short in ensuring long-term sustainability. This finding ultimately reinforces the important value that integrated thinking has on achieving short-, medium- and long-term sustained value. This study adds to the increasing debate of the relevance of integrated thinking and the role of the governing bodies in reinforcing a culture of integrated thinking within organisation's strategy, especially during times of global crisis, to achieve short-, medium- and long-term sustainability.

The study's findings make an important contribution to theory and practice. The research is amongst the first to deal with the integrated thinking and corporate governance implications of a crisis in a developing economy context. In addition to highlighting the application of King-IV's governance principles in a time of crisis, the study provides suggestions for governing bodies and professional accountants and responds directly to the call for more interpretive research on the operationalisation of corporate governance (Brennan and Solomon, 2008; Maroun and Cerbone, 2020). Additional research will, however, be required to understand the impact and implications of COVID-19 on the South African triple context. For example, future researchers can consider how systems of accounting and accountability are used to mitigate the effects of a crisis and inform changes to business processes. The relevance of COVID-19 for risk assessment, stakeholder engagement, financial viability and non-financial performance can also be studied in more detail and supported by appropriate empirical analysis. The extent to which COVID-19 is amplifying or hindering the need for integrated thinking may also prove to be an interesting avenue for corporate governance scholars.

## Notes

1. The terms "organisation", "entity", "business" and "company" are used interchangeably for stylistic purposes.
2. Corporate social responsibility refers to an organisation that plays a positive role in the community and considers the environmental and social impact of business decisions by using corporate governance principles.
3. These countries have been selected judgementally for illustrative purposes to compare key metrics of the COVID-19 response to South Africa's position.
4. Researchers and authors collaborated as part of a broader corporate governance and integrated thinking project at the researcher's home institution.

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