**Gordon Institute
of Business Science**
University of Pretoria

*Integration and Implementation of Corporate Sustainability
strategy into Business Strategy: Mining Industry Practices*

19387858

A research proposal submitted to the Gordon Institute of Business
Science, University of Pretoria, in partial fulfilment of the
requirements for the degrees of Master of Business
Administration.

15 November 2021

ABSTRACT:

The consequence of environmental, social, and governance issues on business operations are rising globally. Business leaders and Academics recognise that companies operate within a large ecosystem and must integrate community development and environmental protection activities to gain a competitive advantage. However, industry leaders who have adopted or intend to adopt sustainability strategies are not convinced their teams have the tools to formulate and implement sustainability strategies. Moreover, there is scant literature in research to make conclusive recommendations for practitioners. It is, therefore, appropriate to conduct studies on the formulation and implementation of sustainability strategies to contribute to the literature and practice.

The research aimed to understand the tools and processes leaders use to formulate, implement, and integrate corporate sustainability strategy into corporate strategy. The research was conducted using experts working in the mining industry as the focus on sustainable practices is heightened by the impact of mining operations on the environmental and social environment.

The study made the following findings: Managers formulate sustainability strategies to improve the organisation's environment and social performance. Second, practitioners formulate sustainability strategies to harness internal capabilities in response to the external environment. Thirdly, mining executives seek inputs of other stakeholders when formulating strategy as they are cognizant of the importance of their sentiments and inputs into formulating the strategy

On sustainability strategy implementation, these findings. First, companies adopted a system of integrated thinking to make sustainability part of the conversation. Second, sustainability must form part of the planning process using a system of integrated planning. Third, the sustainability objectives must fulfil the company's strategic purpose and not become a sideshow.

The researcher proposes a sustainability formulation and implementation model for practitioners and future research.

KEYWORDS

DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

_____   _____

Tebogo Mushi   Date

Table of Contents

CHAPTER 1: PROBLEM AND PURPOSE

1.1 Background

Environmental, Social and Governance (ESG) activities cover a broad spectrum of issues that considers how a firm affects its external ecosystem. The environment activities deal with how the firm affects the natural environment (e.g. Land disturbance, Carbon emissions), the firm's social responsibilities (Human rights, competition for resources,) and Governance systems that firms must put in place to protect stakeholders (Lagasio & Cucari, 2019).

The (Financial Services Board, 2021) report highlights the growing risk posed by climate change on the financial services systems; the report warns that the risks from climate change differ from other risks as they are global and will affect all sectors and economies. Since the first industrial revolution, fossil fuel emissions have meant that the average global surface temperatures have increased by 0.85°C and are expected to increase by between 0.9°C and 5°C in the current century (Auffhammer, 2018). Business leaders are aware of the negative impact of climate change on their firms and are putting strategies to counter the effect of global warming on their organisations (Aldy & Gianfrante, 2019). Business activities, especially those in the extractive industries (Cesar, 2020) that operate in the vicinity of communities, seek legitimacy or social licence to operate from stakeholder engagement and other social facing activities (Demuijnck & Fasterling, 2016). As a result, firms invoke policies to secure or maintain the social license to operate when under pressure to lose their legitimacy.

Many organisations operate in very competitive environments but recognise that their competitive advantage is insufficient and unsustainable in the socially and environmentally aware business ecosystem (Speziale & Klovienė, 2014). Therefore, sound development practices that incorporate the social, environmental, and economic restrictions in a company strategy are critical to a company's survival, have become strategically important (Bini, Bellucci, & Giunta, 2018) and can become a source of competitive advantage (Lloret, 2016, Wijethilake et al., 2017). Consequently, an increasing number of business leaders and investors understand that setting financial goals without considering social goals is not a

sustainable business practice (Battilana, Pache, Sengul & Kimsey, 2019, Heenetigala & Lokuwaduge, 2017, Bartels, King, Shulman, & Threllfall, 2020).

Academics and Business leaders (Galpin, Whittington, & Bell, 2015) recognise the importance and positive impact of sustainability activities on a firm's competitiveness (Pucker, 2021,Kiron et al., 2017), community development and environmental protection (Epstein, Buhovac, & Yuthas, Furthermore, investtors challenge business leaders to recognise that they operate within a large ecosystem, so firms need to preserve the environment and act socially responsible while creating shareholder value (Joshi & Li, 2016) The phrases Environmental Social and Governance (ESG) (van Duuren, Plantinga, & Scholtens, 2016a), Sustainable development (Frederiksen, 2018, Fonseca, 2010), Sustainability (Porter, Serafeim, & Kramer, 2019), Corporate Social Responsibility (Garcia, Mendes-Da-Silva, & Orsato, 2017), Corporate Social Performance (Xu & Zeng, 2020, Gualandris & Kalchschmidt, 2016), Going green, proactive sustainability strategy (Wijethilake, Rahat, & Ranjith, 2017) and the "triple bottom line" all refer to organizations enhancing their long-term economic, social and environmental performance" (Galpin, Whittington, & Bell, 2015).

In the mining industry, the focus on sustainable practices is further heightened by the significant impact of mining operations on the natural environmental and social aspects (Cesar, 2020)

The mining sector ranks second after the oil and gas industry on the S&P Global Rating ESG sector risk atlas because of the social and environmental complexities associated with the industry (Wilkins, 2019). The researcher believes that the complexities of the Sustainability activities associated with mining mean that understanding how leading mining companies integrate and implement sustainability strategies into their corporate strategy can contribute to the body of knowledge on this subject. In addition, the industry's lessons can be relevant to sustainability leaders and practitioners in other sectors.

1.2 Research Problem

Firms must adopt innovative business practices that put social and environmental issues at the core of their strategic positioning to gain competitive advantage through profit-driven social impact initiatives (Porter, Serafeim, & Kramer, 2019, (Tate & Bals, 2018). In addition, (Broadstock, Matousek, Meyer, and Tzeremes (2020) found an indirect and non-linear link between a firm's adoption of ESG policies and its innovation capacity resulting in value creation. However, there has been little progress towards sustainable development, calling for concrete guidance to assist managers (Galpin et al., 2015) to integrate sustainability principles into strategic business planning (Wijethilake et al., 2017, Lisi, 2015) to achieve sustainable development targets (Baumgartner & Rauter, 2017).

Industry leaders are becoming increasingly aware that a growing number of investors, including conventional ones (van Duuren, Plantinga, & Scholtens, 2016), are becoming aware of and making investment decisions based on the firm's ESG performance (Gregory Unruh et al., 2016, Heenetigala & Lokuwaduge, 2017, Cormier & Magnan, 2015, Maas, 2018). In addition, increasing internal and external pressure to focus on ESG practices (Aresu, Francoeur, Gaia, & Melis, 2017) has encouraged companies to develop innovative capabilities that use efficient energy systems, reduce wastage, and improve social reputation (Wijethilake et al., 2017). Despite companies and industry leaders awareness of the increasing pressure from investors (Amir & Serafeim, 2018) to enhance sustainable corporate performance, there are few standout corporate sustainability leaders, and the advancement of sustainable business practices progress vary within the same organisations (Kiron et al., 2017).

Developing profitable, environmentally facing solutions such as reducing energy intensity, waste, and emissions can decrease business costs and reduce environmental liability (Epstein et al., 2015), Improve firm reputation, and reduce compliance costs (Lisi, 2015). (Flammer, Hong, & Minor, 2019) argue that firms can earn and maintain a social license to operate in the long run by engaging with the local communities to understand their requirements to improve their lives. Tate and Bals (2018) assert that companies need to develop new capabilities different from their current business competencies to address ESG issues; however, these capabilities remain unexplored in literature. The capabilities will include integrating

the Sustainability Performance Management Systems (SMPS) into the business process and understanding how the different indicators interact to help shape decision making in the organisation (Morioka & de Carvalho, 2016)

Mining projects are marked by increasing conflicts between mining companies and communities, resulting in mining companies seeking legitimacy from disillusioned and vocal communities, whose frustrations are borne out of unfulfilled expectations in the past (Nyembo, 2018a). The conflicts that often delay or disrupt projects are as a result of debates about sustainability issues and the impact of mining activities on local communities (Cesar & Jhony, 2021). Ernest and Young (2020) report assert that managing the social license to operate remains the top-ranked risk in the mining industry.

Mining companies responded to sustainability challenges by adopting global Corporate Social Responsibility (CSR) standards to guide mining firms on how to contribute to sustainable development initiatives (Frederiksen, 2018). CSR activities consider stakeholder expectations in the company strategy, transforming threats into opportunities (Hausner, Koński, Kulczycka & Wirth, 2016). As a result, companies believed they could enhance their social capital and reputation to build better relationships with stakeholders through CSR (Du, Bai, & Chen, 2019). However, Empirical evidence collected over the years suggests that CSR have not yielded the required development benefits in mining communities (Frederiksen, 2018).

Sustainability reporting has become an integral part of mining companies' corporate strategy, with 70% of mining firms producing high-quality Sustainability reports in 2013 (Heenetigala & Lokuwaduge, 2017). The number increased to 84% in 2020 (Bartels et al., 2020). However, (Gray & Milne, 2015) argue that it is impossible to account for and compare CSR disclosures from different firms as their environmental impacts differ significantly from one firm to the next.

The increased focus on corporate sustainability has resulted in increased studies on formulation with very little literature on sustainability strategy implementation (Engert & Baumgartner, 2016). There is a number of scholarly works on strategy formulation, and despite the importance of strategy implementation, research on

the construct is scant. (Greer, Lusch, & Hitt, 2017) argue that the nuances associated with strategy implementation have been primarily misunderstood hence the challenge with the implementation of strategy.

(Searcy, 2012) acknowledged that there has been an outstanding contribution to the literature on sustainability measurement systems in the past few years. However, the same author highlighted the need for further research on developing and implementing sustainability performance measurement systems to advance the field in practice and academia. Even though firms collect sustainability for sustainability reports aimed at stakeholders, (Silva, Nuzum, and Schaltegger, 2019) found that stakeholders were not satisfied or found the current SMPS deployed by firms to be inadequate. The author further found that Chief executive officers are not convinced that managers in their organisation have the tools nor the ability to manage sustainability performance. A literature review on SPMS by (Kühnen and Hahn, 2018) found that integration of sustainability performance into business is a relatively new construct, and there was no common understanding of indicators used to measure social impact by organisations,
.

1.3 Research Purpose

The research aims to understand what tools and processes mining leaders use to formulate, implement, and integrate corporate sustainability strategy into corporate strategy. Identifying business-critical sustainability issues and integrating them into the business process to remain competitive remains a challenge in business (Bhimani, Silvola, & Sivabalan, 2016). Therefore, the study aims to draw knowledge from sustainability practitioners and business leaders working in mining companies committed to addressing sustainability issues associated with their business. The research further seeks to understand how practitioners measure and track the implementation of sustainability targets in their organisations. The researcher believes that the results of the study will contribute to the literature and practice.

1.4 Significance of the Study

1.4.1 Significance for Business

The study will assist managers and companies with the thought process they need to adopt when formulating a sustainability strategy and develop models for implementing and integrating it into business practice.

Deciphering the conundrum on how companies simultaneously remain profitable and still contribute to sustainable development can lead to advances in the field of sustainable development and improved sustainability performance (Baumgartner & Rauter, 2017). The sparse literature on processes managers must adopt to translate sustainability intentions into a coherent plan that will lead to superior sustainability performance complicates the integration of sustainability activities (Galpin et al., 2015; Hummel & Schlick, 2016, Wijethilake et al., 2017). Engert, Rauter and Baumgartner (2016) emphasized the importance of understanding the tools and communication process manager's use to drive corporate sustainability strategy integration and implementation internally.

Although leading mining companies remain highly rated on governance, the mining industry ranks the highest in exposure to environmental risks and social tensions arising from competition for land and water resources, among others (Wilkins, 2019). In response, the mining industry joined other industry sectors and governments to embrace sustainable development principles to counter the fast degradation of ecosystems, reduce income inequalities and slow down global warming (Fonseca, 2010; Braam, Uit de Weerd, Hauck, & Huijbregts, 2016). However, the growth of the mining sector from an increase in demand for mineral resources meant that mining projects increased in both numbers and sizes, resulting in environmental degradation and social conflicts (Tost, Hitch, Chandurkar, Moser, & Feiel, 2018).

The Chief Executive Officers (CEOs) of the largest mining companies responded to pressure on mining companies to improve social and environmental performance by launching the Global Mining Initiative (GMI). The initiative is an all-inclusive sustainability project focused on understanding the role mining can play in sustainable development (Fonseca, 2010; Tost et al., 2018; Lee, 2017). However, there is a dearth of managers who can systematically analyse and understand how

companies can use sustainability activities to improve the financial performance of an organisation (Schaltegger & Wagner, 2017, p.2).

Recent reports suggest that mining companies fail to implement or report progress on meeting their sustainability targets (Milburn, 2020). The consequence of sustainability issues on business operations are rising globally (Engert & Baumgartner, 2016). Companies that have adopted sustainable development activities as part of doing business understand the need to implement a corporate sustainability strategy; how firms can successfully achieve this remains a question (Engert & Baumgartner, 2016).To remain competitive; Managers must put Sustainability activities at the core of the business and have the ability to integrate non-market issues in line with business prerogatives (Schaltegger & Wagner, 2017, p.3, Du, Bai, & Chen, 2019)

1.4.2 Academic Significance

There is a need for research on how mining companies can transform an inherently destructive non-renewable industry into a sustainable development path (Lee, 2017). Engert & Baumgartner (2016) argue that there is a deficiency of empirical studies on how businesses integrate sustainability strategy into strategic management strategy and a lack of understanding of the integration barriers and challenges. Research on corporate strategy implementation in different companies within a single industry sector will provide further knowledge in the field of study (Engert & Baumgartner, 2016). In addition, further theory development is required to understand the progression of integrating Sustainability into organisations (Sroufe, 2017)

Companies generally develop great strategies but do not derive the benefits because of the complexities of strategy implementation; managers are more comfortable with formulation but lack knowledge on strategy execution (de Oliveira, Carneiro, & Esteves, 2019). Therefore, understanding how leading mining companies operationalise sustainability practices and make them an integral part of their business routines is a crucial data point in research (Sroufe, 2017)

Strategy implementation typically involves the whole organisation because it requires integrating different units and often involves external partners.

Furthermore, effective strategy implementation with the desired outcomes depends on the quality of the implementation process; scholars must research factors that affect the implementation process in future studies (Tawse & Tabesh, 2021).

Battilana, Pache, Sengul, and Kimsey, 2019 argue that ceremonial CSR adoption (Joshi & Li, 2016) or sustainability from the sidelines is no longer good enough as it has not adequately addressed social and environmental decline. The Authors assert that addressing sustainability will require that firms upend the business models to balance social and profitability in their business model. Furthermore, addressing sustainability issues should not be limited to addressing a few selected issues; companies must show commitment to sustainable development by integrating sustainability activities into their business models (Bini et al., 2018). The authors further argue that implementations programs differ amongst companies, and determining how other functions are involved in sustainability management requires more research.

Sustainability constraints are drivers companies can use to align business models and business strategies as they may limit competitiveness and performance when neglected (Lloret, 2016). In contrast to traditional views that saw Sustainability as a cost to business, sustainability-oriented innovation (SOI) enables companies to improve performance and offer a competitive advantage through sustainability activities (S. Kennedy, Whiteman, & van den Ende, 2017; Porter et al., 2019). Therefore, there is a need to collect primary data and engage sustainability professionals to understand dynamic capabilities and the reinforcing effects of performance management in the sustainability space (Sroufe, 2017; Eccles, Ioannou, & Serafeim, 2014; Rebelo, Santos, & Silva, 2016; Searcy, 2012).

Measuring sustainability performance in practice remains a challenge, and further research is required to develop integrated Sustainability Performance Management Systems (SPMS) (Maas, Schaltegger, & Crutzen, 2016) that incorporate both leading and lagging indicators (Morioka & Carvalho, 2016b). In this context, research needs to develop measures to help stakeholders and practitioners compare sustainability reports from different companies (Speziale & Klovienė, 2014). In addition, further empirical research is required to understand how companies integrate the different facets of a firm's performance: sustainability

performance, management accounting, management reporting, and management reporting (Maas et al., 2016).

CHAPTER 2: LITERATURE REVIEW

2.1 LITERATURE INTRODUCTION

The purpose of this research is to get insight into how mining companies alter their business processes and routines to integrate and implement sustainability strategies into business strategy. The study will further probe the measurement processes and systems used to measure sustainability integration and implementation. First, the literature review will explore the theory on corporate strategy and briefly explore the evolution of strategy formulation. It then explores the depth of knowledge and approach related to the processes of strategy formulation and implementation. Third, the chapter interrogates sustainability strategy and current thinking on integrating sustainability strategy into corporate strategy. The chapter concludes by reviewing the current literature linking sustainability performance to compensation structures adopted by organisations

2.2 Strategy

Strategy defines the firm's long-term planning, vision, and activities (Lin, Li, Cheng, & Lam, 2021) that support the firm's goals in achieving a competitive advantage for sustained profit and growth (Rosenberg Hansen & Ferlie, 2016). Strategy formulation has evolved from three distinct phases: classical strategic theory, competitive strategic view to resource-based theory (RBV) (Kosch & Szarucki, 2020).

Two divergent schools of thought on strategy determination have emerged from the late 1930s; these are strategy as plan and strategy as a pattern (Bindra, Parameswar, & Dhir, 2019). With the strategy as a pattern, the researchers are interested in the past approach as part of strategic management. In contrast, the strategy as plan studies is more concerned with the management part of the strategy. From the strategy as a pattern school, two dominant views of strategy formulation have emerged; the market-based view and the resource-based view(Bindra et al., 2019), and these will be explored further in subsequent chapters.

2.2.1   Strategic formulation Views

Companies formulate strategies and compete by taking a resource-based view that is inward-looking or a market-based view that is outward-looking (Engert et al., 2016). Bromiley and Rau (2016) assert that RBV explains how a company's sustainable competitive advantage comes from the rare resources that are both valuable and impossible to imitate or hard to substitute. Other views have developed from the RBV: the knowledge-based view and the capability-based view (Engert et al., 2016).

Questions raised by scholars on the exaggerated influence of the industry on the firm's performance gave rise to the RBV that explained the company's growth from the inside out (Bindra et al., 2019). The RBV presents the company's competitive advantage and performance as coming from the firm's internal resources that are difficult to replicate, duplicate, or substitute(Bromiley & Rau, 2016). A more dynamic version of the RBV, Dynamic capabilities, focuses on integrating, building and reconfiguring resources and competencies to manage more significant and more rapid changes in the business environment (Rosenberg Hansen & Ferlie, 2016).

The market-based view (MBV) builds strategy on the premise that a company can return superior returns if the strategy is formulated by understanding the market and industry forces the firm is operating (Lanzolla & Markides, 2021; Porter, 1979, 2008).

The market-based view or positioning school results in the strategic positioning of a firm based on the industry characteristics; the firm's ability to position and differentiate compared to the industry will dictate the company's strategy and competitiveness (Bindra et al., 2019; Porter, 1979, 2008; Rosenberg Hansen & Ferlie, 2016). The increased cross-border transactions and foreign investments in developing economies validate the market-based view, where institutional reforms have improved business conditions resulting in increased foreign direct investment (FDI) (Dau, Moore, & Kostova, 2020; Putzhammer, Slangen, Puck, & Lindner, 2020; Shi, Sun, Yan, & Zhu, 2017).

2.3 Corporate Strategy

Van den Steen (2018); Van den Steen (2017) defined business or corporate strategy as a small set of choices used to guide the organisation's decisions to ensure that company actions fit together. At the same time, (Zhang et al. 2013) and (Engert et al. 2016) defined corporate strategy as a combination of a company's internal and external analysis, choices, and implementation. The people working in organisations introduce a social aspect to a strategy where managing their core skills, and knowledge can create a competitive advantage (Dayan, Heisig, & Matos, 2017). A good unique corporate strategy will result in a higher net present value (NPV) than a good commons strategy; a weak strategy will, however, result in a negative NPV (Foucault & Frésard, 2019).

There are three types of corporate strategies that companies can adopt. Defenders emphasise cost efficiency and certainty; prospectors focus on innovation with a flexible organisational structure, analysers are an intermediate group between the defenders and the prospectors (Lin, Li, Cheng, & Lam, 2021; McAdam, Bititci, & Galbraith, 2017). Firms that adopt prospector strategy over-invest in CSR while defenders under-invest in CSR result in investment inefficiency CSR initiatives (Lin et al., 2021). Van den Steena (2017) argues that an optimal strategy can be simple with minimal investigation required to formulate an introduction of learning, and experimentation will often make the strategy formulation dynamic.

From a different perspective, institutional theory explains how companies formulate strategies in response to external pressure, coercive, normative or mimetic pressures (J. Xu, Wei, & Lu, 2019) and adopt new management practices like sustainability accounting (Joshi & Li, 2016). Creating incentives will cause firm behaviour changes by creating internal norms that conform with societal norms and beliefs (Zhao, Fisher, Lounsbury, & Miller, 2017) and effectively respond to sustainability demands to create competitive advantage (Lloret, 2016).

2.4 Strategy Implementation

Strategic Management entails formulating a corporate strategy, implementing the strategy, and evaluating strategy success (Elbanna, al Katheeri, & Colak, 2020). Tawse & Tabesh (2021) define strategy implementation (SI) as a complex, dynamic

and iterative process involving managers and employees to turn strategic plans into actions that will achieve strategic objectives. An excellently formulated corporate strategy will produce a competitive advantage (Greer et al., 2017), but effective implementation of a reasonable strategy still provides excellent benefits (E. Lee & Puranam, 2016).

There has been a lot of published literature on strategy formulation with very little research devoted to strategy implementation; even in practice, managers tend to understand the formulation more than implementation(de Oliveira et al., 2019; Greer et al., 2017; Tawse, Patrick, & Vera, 2019). Further conceptualising and empirical validation of strategy implementation is required to deeper understand the construct (de Oliveira et al., 2019). Management inattention to the process has resulted in high failure rates during strategy implementation, with the balanced scorecard sometimes pushed to address the problem (Strohhecker, 2016).

There is no commonly agreed framework to base new theoretical knowledge for SI as more attention has been on strategy formulation; practitioners rank SI as one of the most challenging tasks (Tawse & Tabesh, 2021). However, the authors proposed a SI framework called an introductory framework of strategy implementation effectiveness, which comprised of the relationship between three integrated dimensions i) Dynamic Managerial capabilities ii) Managerial Actions iii) Conditions of effective SI (See Appendix C).

Optimal sustainability performance requires the use of change management techniques as the organisational processes required must include new systems that include visions, leadership, employees and policies. (Sroufe, 2017) In addition, Tawse & Tabesh (2021) found that companies seeking to improve their sustainability implementation effectiveness must invest in the training of managers to have the requisite sustainability cognitive ability.

Researchers often study Strategy implementation through the lens of contingency theory, which emphasises the concept of alignment of the organisation and its environment (Tawse & Tabesh, 2021). The approach suggests that the organisational structure must fit its context in terms of the external environment to produce superior performance (Hamann, 2017)

2.4.1 Strategy Alignment

Despite the seemingly contradictory view on strategy formulation, the RBV and the MBV agree on the importance of strategic alignment to sustainable competitive advantage (Heracleous & Werres, 2016). Alignment of firm's External environment, the Strategy, Core competencies and Organisational elements (ESCO) are vital in ensuring the success and survival of an organisation (see Figure 1) (Heracleous & Werres, 2016). However, Strategic alignment remains a challenge to practitioners as it involves many processes and stakeholders at different levels of the organisation (Baker & Singh, 2019)

Figure 1

The ESCO Model for organisation strategy alignment
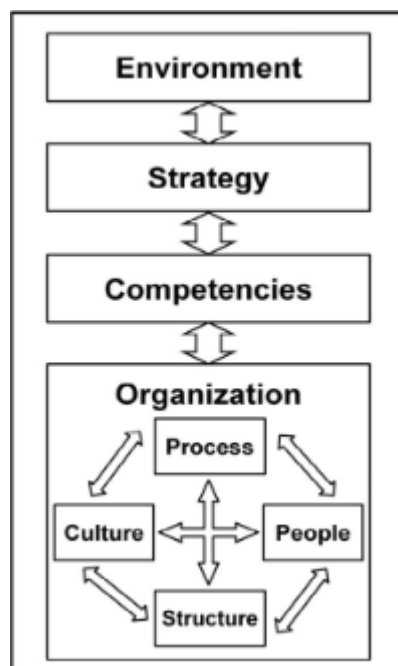
Note: The model was produced by Heracleous, L., Wirtz, J., Pangarkar, N., 2009, highlighting the four domains of alignment. From On the Road to Disaster: Strategic Misalignments and Corporate, by L. Heracleous, K. Werres, 2016, Long Range Planning 49 491–506. Copyright 2015 by Elsevier Ltd

Within the organisation, managers need to ensure that two or more of the six design components of strategy, structure, technology, human resources, management process, and culture are an excellent fit to improve a firm's performance (Elbanna et al., 2020; Cummins &Worley, 2020). Cummins and Worley (2020) recommend using a diagnostic model (see Appendix B) to understand how organisations function so practitioners can improve organisational

effectiveness. Strategic alignment and fit are crucial links between a firm's corporate strategy and its functional strategies (McAdam et al., 2017). However, alignment is one of the most difficult challenges for managers (Al-Surmi, Cao, & Duan, 2020).

2.5 Sustainability Strategy and Integration

Sustainable development describes the simultaneous pursuit of economic progress without creating a dire consequence for future generations, and corporate sustainability strategy is associated with firms contribution to global sustainable development (Morioka & de Carvalho, 2016). Improving corporate sustainability performance requires that companies incorporate sustainable development into corporate strategy and operational practices (Morioka & de Carvalho, 2016). Making sustainable development part of the business practises allows firms an opportunity to double the chances of profiting from sustainability activities (Kiron et al. (2017),.Joshi & Li (2016) argued that empirical research was required to understand what motivates corporations to follow different sustainability strategies and what controls managers use to embed sustainability in organisations.

Conventional investors increasingly integrate ESG factors when making investment decisions (van Duuren et al., 2016) to promote good corporate behaviour while pursuing good financial returns (Pedersen, Fitzgibbons, & Pomorski, 2020). Investors gradually view ESG activities as a potential alpha signal in academia and practice; companies with good ESG scores generally have a higher valuation in the capital markets (Pedersen et al., 2020). In contrast, (Porter et al., 2019) argue that there has not been conclusive evidence that high ESG rating screens deliver alpha. In addition to financial performance, ESG investing also focuses on the firm's impact on the environment, social and governance issues (van Duuren et al., 2016a). Integration of sustainability principles into corporate strategy will assist companies in fulfilling stakeholder expectations of ESG implications(Heenetigala & Lokuwaduge, 2017).

Lloret (2016) argued that stakeholder management is a crucial activity firm must undertake when addressing stakeholder interest while pursuing the firm's strategic objectives. The author found that the Shareholder and host communities influence a company's decisions while NGOs and competitors had very little influence. J. Xu

et al. (2019) argue that community involvement in corporate decisions will give companies a competitive advantage and legitimise the firm's operations. Investor pressure and regulations to improve environmental and social performance have prioritised sustainability activities with the company's boards (Derchi, Zoni, & Dossi, 2020). (Cundill, Smart, & Wilson, 2018) found that managers respond to the investor demands and regulatory pressure by complying with the investor demands and regulations, engaging in political activity to subvert regulations, forming coalitions to change perceptions or adopting voluntary social and environmental programs. The authors argue that investors expect managers to change the company's strategy and operation to align with their values and investment strategy (Cundill et al., 2018)

Galpin et al. (2015) found that the organisation's values, mission, goals, and strategy can help with the internal alignment of the company's focus and priorities. The authors assert that company values embed sustainability practices and help to drive employee behaviour to align to the sustainability agenda. Sroufe (2017) alerts managers to the importance of sustainability to the organisation and says that the sustainability agenda must be aligned to the firms' corporate values. In addition, the company's values must address stakeholders' rights and the protection of the environment (Cesar, 2019). Sroufe (2017) went further and said that in addition to aligning sustainability objectives with corporate values, sustainability must be everyone's responsibility and not that of the sustainability department alone as they create value across the business.

The Social License to Operate (SLO) is more prominent in the extractive industry and indicates the host communities' legitimacy and acceptance of its activities (Cesar, 2020). The term is widely used in the mining industry because companies seek legitimacy and consent from communities as their operations negatively impact the environment and communities (Demuijnck & Fasterling, 2016). Legitimacy theory asserts that managers put an effort to ensure the organisation appear to operate in conformance with community expectations to enhance their reputation and remain profitable (Deegan, 2019).

Cesar (2019) found that mining companies should have a strong sense of why they engage in sustainability as this will define their purpose and earn the companies

the SLO. The author suggested a three-step process that works from the inside out to earn a social license to operate based on stakeholder theory. First, when engaging with communities, the company must approach as many as possible respectfully and considerate. Secondly, the company must form inclusive teams with the local community leaders to contribute to the company sustainability. Finally, the company must form foundation structures to consider and approve community investment projects

The 17 Sustainable Development Goals launched in 2015 by the United Nations Organ (UN) have emerged as an action plan to pursue an environmentally sustainable future, economic growth and social inclusion (Lloret, 2016; Monteiro, da Silva, & Moita Neto, 2019). Monteiro et al. (2019) verified that mining companies operating in remote rural areas have a critical role in reaching the 17 SDG goals. As a result, investors have started using SDG themes to identify investment opportunities to gain a competitive advantage and create social impact. In addition, Bartels et al. (2020) report that companies have started integrating their firm's activities with SDGs in their reports.

Lloret, 2016 suggested an analytical strategy that embeds a resource-based view, market-based views and institutional-based view to capture value subject to restrictions imposed by Sustainability and economic limits. As a result, the firm's management can apply the Framework for Strategic Sustainable Development (FSSD) to identify the economic, environmental and social issues important to the company (Baumgartner & Rauter, 2017). The author further argues that the FSSD framework provides robust, comprehensive and generic principles for Sustainability.

Cesar & Jhony (2021) found that companies that used a development approach to create local jobs and have a local procurement plan allowed host community members to approve the company operations as communities interpreted the gesture as partnerships. In addition, companies invest in developing and creating local enterprises committed to supporting local businesses through procurement opportunities, thus earning a social license to operate (Cesar, 2019).

Engert et al. (2016) argue that research into incorporating Sustainability Strategy into corporate strategy has primarily been in sustainability-related areas, yet firms are trying to integrate sustainability into corporate strategy and related processes. The author further says that researchers should focus their studies and base their conclusions using the strategic management lens. (Engert et al., 2016) presented a framework and identified organisational influence, internal and external drivers and support and hindering factors as critical areas in integrating sustainability strategy into strategic business management (See Appendix A).

Companies usually view sustainability activities as a means to enhance their reputations, attract socially aware consumers, employees, and investors, and score higher on the ESG rankings (Porter et al., 2019). The authors argue that evidence shows that companies can adopt shared value principles and gain a competitive advantage by harnessing selected social and environmental issues relevant to the field. However, (Dembek, Singh, & Bhakoo, 2016) argue that shared value is an emerging concept and that attributing social or corporate benefits must be supported by data from research.

Joshi & Li (2016) found that companies sustainability activities can add value to company value through reduced environmental risk, reduced emissions, improved reputation, legitimacy and community acceptance through stakeholder engagement. Stakeholder engagement allows the organisation to gain knowledge from their stakeholders and understand the impact of the activities to include the knowledge in their strategy and reduce their impact on society (Cillo, Petruzzelli, Ardito, & del Giudice, 2019).

Many companies struggle to align their sustainability strategy with their corporate strategy and encounter difficulties when simultaneously delivering social benefits and social value (Mühlbacher & Böbel, 2019). The author further proposes using a theoretical framework of complex organisational conditions for implementing shared values strategies (see Appendix D). The aforementioned complex conditions are individually necessary for successfully implementing shared value principles but not sufficient on their own. (Galpin et al., 2015) urged companies to align the Human Resources (HR) practices to support the sustainability strategy by selecting and retaining people who align with the company's sustainability strategy values.

Galpin et al. (2015) advised managers to foster a culture of sustainability to ensure a successful sustainability strategy that will increase employee performance and commitment to benefit the firm and stakeholders. In addition, managers must balance the competing demands of ESG and financial performance by treating them as complementary and not seeing them as competing objectives (Epstein et al., 2015).

2.6 ESG Measurement and Disclosure

Aligning management control systems to firm strategy is critical in helping managers make correct operational decisions and motivating employees to achieve a common goal (Wijethilake et al., 2017). Morioka & Carvalho (2016) found evidence that firms incorporate sustainability performance indicators in their original performance management systems; however, the SPMS were currently lagging indicators with little reference to the leading sustainability indicators.

 Maas et al. (2016) proposed an integrated framework for practitioners to understand how the four concepts of sustainability assessment, sustainability management, sustainability accounting and reporting are linked and can be used to develop a transparent, integrated reporting system that addresses external stakeholder concerns. Speziale & Klovienė (2014) note that several conceptual frameworks have been designed to achieve the same objective of integrating sustainability activities into performance management systems. In addition, Chauvey, Giordano-Spring, Cho, and Patten (2015) found that, unlike financial disclosures, there was no standard metrics of measuring sustainability performance in practice and literature

Stroufe (2016) calls for an evolution in performance management systems to include environment and social performance parameters as part of the corporate reporting routines. The author further proposes that in addition to net present value (NPV), companies integrate environmental impact and social performance by using new integrated future value (IFV) and return on integration (ROI) when evaluating projects. However, the lack of an integrated analytical framework that guides companies through the process of creating ESG performance indicators means that

firms struggle to develop and implement measurement systems to evaluate sustainability progress (Lokuwaduge & Heenetigala, 2017).

The climate goals raised a global awareness that saw 55 per cent of top 100 companies (N100) disclosing their carbon targets linked to external climate goals compared to 37 per cent in 2017 (Bartels et al., 2020). Furthermore, (Qian & Schaltegger, 2017) found a positive correlation between carbon disclosures and subsequent carbon performance, suggesting a move by firms from using emissions disclosures for legitimacy to creating opportunities to improve their carbon emissions. In contrast, (Haque & Ntim, 2020) found that legitimising process-oriented carbon reduction initiatives, and not actual GHG, is positively associated with an organisation's share price. In addition, the relationship is positively moderated by executive compensation for the process and is still insignificant to the actual GHG performance. de VILLIERS and Marques (2015) found that organisations generally use disclosures to report on the excellent sustainability work and rarely disclose negative sustainability performance through such forums.

2.7 Sustainability targets and compensation

Agency theory states that shareholders must include performance measures for managers that drive specific behaviours that will benefit the organisation in the long run (Bingham & Madsen, 2014, Gan, Park, & Suh, 2020). Using the stakeholder theory lens, where firms expect managers to interact with different stakeholders to advance the organisation's interests, companies that insist on superior ESG performance must reflect this in their compensation strategy (Bingham & Madsen, 2014). Abbott, Aksoy, Groysberg, and Marino (2021) suggests that firms design their compensation systems to align with their strategic goals and values to avoid future misalignment with senior leadership on priorities. In contrast, Stewardship theory predicts that CEOs who have a propensity to protect the natural environment will act to achieve ESG goals without self-interest. In conclusion (Aresu, Francoeur, Gaia, & Melis (2017).

In an attempt to improve sustainability performance, firm's are starting to integrate sustainability performance like CO_2 emissions, human rights, compliance to ethical standards, to executive compensation (Flammer et al., 2019). However, (Maas, 2018) found no significant correlation between ESG targets in executive

compensation and sustainability performance but found that quantitative sustainability targets improve sustainability performance while qualitative targets had little impact on corporate sustainability performance. More recently, (Flammer et al., 2019) found that integrating sustainability activities in executive compensation improves sustainability performance and increases the firm's value supporting earlier findings by (Hong, Li, & Minor, 2016). However, more recently, and in contrast to (Hong et al., 2016, Flammer et al., 2019), (Haque & Ntim, 2020) found an increase in the executive compensation and adoption of a sustainability policy does not necessarily improve GHG performance by reducing emission. Instead, the authors concluded that executive compensation is only positively related to process-oriented carbon initiatives, and symbolic sustainability-based compensation policy positively moderates the relationship.

CHAPTER 3: RESEARCH QUESTIONS

The study will examine sustainability strategy integration and implementation into the business through the strategic management theory that deals with strategy design, execution and process. The study intends to add to the body of knowledge and benefit sustainability practitioners as the researcher reviewed the current literature to formulate the research questions.

3.1 Research Question 1

RQ1. How do mining companies develop and integrate corporate sustainability strategies into corporate strategy?

The research question seeks to understand how mining companies incorporate sustainability consideration into corporate strategy formulation. In addition, the question will probe if firms use emergent or deliberate strategies in response to climate change prerogatives and address stakeholder concerns on the impact of mining on the environment and communities. How managers adapt and respond to the apparent tension between sustainability performance and business performance will give a valuable contribution to both literature and practice.

The question is in response to (Engert et al., 2016), who called on researchers to use empirical evidence to understand critical arguments and practical tools managers use to integrate sustainability internally in their organisations. The responses from the practitioners and senior managers will be analysed from both the Resource and Market-based view lenses as a successful strategy must embed the two views, including the Institutional based view, to address sustainability restrictions adequately (Lloret, 2016).

3.2 Research Question 2

RQ2. What are the tools and communication systems managers use to drive corporate sustainability strategy integration and implementation?

The research question seeks to establish if there are consistent tools and communications protocols used in the mining industry to ensure strategic alignment during strategy implementation. In addition, the question will further establish how mining companies align the business strategy in response to external sustainability performance demands and ascertain if the ESCO model, as described by

(Heracleous & Werres, 2016), is applicable. Finally, the research question will ascertain the number of design components organisations use in implementing sustainability strategy (Elbanna et al., 2020) and how the factors align.

The Research question will further establish the external communications systems used by companies to improve their internal processes. In addition, the section will be used to understand the different disclosure methods used for the general public, local communities, interested groups and institutional investors

3.1 Research Question 3

RQ3 How do mining companies integrate sustainability performance measurement systems and indicators into business management systems?

The Research question will try to shed light on how mining companies measure the success of their sustainability strategies and what routines are put in place to review the performance. Companies that consistently deliver good results measure the success of their resource deployment through real-time monitoring and continuous feedback to reallocate resources where they are required (Mankins & Steele, 2005). The researcher believes that an in-depth analysis of the metrics used by mining companies to measure their impact on the society and environment will contribute to practice and literature. The researcher will use legitimacy theory and voluntary disclosure to shed more light on the SPMS development process organisations use in response to (Mura, Longo, Micheli, & Bolzani, 2018) call for future research to focus on these.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.1 Choices of Methodology

The research sought to gain more insight into how different mining companies formulate and integrate sustainability strategies into their corporate strategy. The research further probed the tools used for sustainability strategy implementation and factors affecting its implementation in the same companies. Researchers conduct Qualitative exploratory research when answering research questions to gain more insight; the approach is suitable when studying issues where limited research has been undertaken (Engert & Baumgartner, 2016). de Villiers, Rouse, & Kerr (2016) used an exploratory and descriptive case study that relied on in-depth semi-structured interviews and documentary evidence to understand how organisations integrate sustainability reporting with the BSC.

Interpretivism allows researchers to understand what is going on in a work organisation by researching its social actors (Saunders & Lewis, 2018). Interpretivism is a social study method that explains the social worlds people inhabit, which they have interpreted and reproduced as part of their lives experiences (Howell, 2015). The research focused on understanding the best practices used by mining companies through managers charged with formulating, integrating and implementing a corporate sustainability strategy.

The interpretive perspective is suitable for business and management research to get insight into organisational behaviour (Saunders, Lewis, & Thornhill, 2009). Interpretivism aims to understand the meanings and subjective intentions of particular individuals in a given context; this can only be done with the interpretive effort of the researcher.

The induction approach suggests that researchers use a bottom-up approach to develop a theory by using specific observations, measures and explanations that arise (Saunders et al., 2009). Inductive qualitative research is designed to surface new concepts and generate persuasive new theories by sticking faithfully to the data collected (Gioia, Corley, & Hamilton, 2013, B. L. Kennedy, 2018)

The researcher thus conducted an inductive empirical study by reviewing the existing literature and engaging experts to collect data necessary to understand and develop theory on how sustainability strategy is integrated into corporate strategy in the mining industry. The inductive approach dictates that researchers relate the developed theory to the existing literature (Saunders & Lewis, 2018). An inductive approach involves building theory from the bottom by going from particulars to generals, deriving knowledge from empirical experiences (Shepherd & Sutcliffe, 2011)

Engert & Baumgartner (2016) investigated factors affecting the successful implementation of corporate sustainability strategy into Corporate Strategy by conducting a single case study in the motor industry. The authors argued that a single study's in-depth approach requires multiple data sources like interviews, reports, and observation. The researcher used the Gioia methodology to give a holistic approach to inductive concept development that balances conflicting needs to inductively develop new concepts while meeting high rigour standards(Gioia et al., 2013).

The study was cross-sectional as the data collected from the firm's public reports, internal reports were limited to the past three years, and interviews were conducted at a point in time. Cross-sectional research studies a particular phenomenon at a specific time and is appropriate for academic courses with time-constrained (Saunders & Lewis, 2018). In addition, cross-sectional data is collected from participants at a point, with time, not a variable in the research design (Howell, 2015, Lavrakas, 2012, p. 78). Several qualitative and quantitative studies used cross-sectional data to understand different phenomena in empirical studies in strategy and sustainability literature(Gaganis, Pasiouras, Tasiou, & Zopounidis, 2021; Haque & Ntim, 2020; Lynch & Mors, 2019; McAdam et al., 2017)

4.2 RESEARCH METHODOLOGY AND DESIGN

4.2.1 POPULATION

Purposive sampling relies on selecting interviewees based on their characteristics and experiences, which the researcher believes will have a bearing on their perceptions of the subject the researcher is studying (Barbour, 2019, p. 62). Engert & Baumgartner, 2016 interviewed individuals with the requisite skills, knowledge

and experience of integrating corporate sustainability strategy to corporate strategy. Similarly, the current research relied on interviews with experts involved in the mining industry's formulation, integration, and implementation of sustainability strategies. The experts interviewed held or held senior roles in listed multinational mining companies ranging from CEOs, Executive Vice presidents, Vice Presidents and senior sustainability consultants advising mining companies. The phenomenological study relied on the subjective lived experiences and perspectives of the 13 subjects interviewed. An interpretivism phenomenological research seeks to understand the lived experiences of the subject interviewed (Mills & Birks, 2017, p. 34)

The researcher purposively selected experts from four mining companies listed on the Johannesburg stock exchange (JSE). Some selected companies hold a dual listing in the JSE and other internal stock exchanges like the New York Stock Exchange (NYSE). The selected mining companies should have demonstrated commitment to sustainability practices by regularly communicating internal and external sustainability reports on the firm's progress in adopting sustainability practices at all company levels. (Bhimani et al., 2016) found that companies that publicly report on CSR performed better on meeting their CSR objectives than companies that did not report their activities. In addition, the firms should be members of the International Council on Mining and Metals (ICMM), subjecting themselves to ESG rating agencies and publishing externally assured sustainability reports as part of the commitment to sustainable development (Fonseca, 2010). The International Council on Mining and Metals is a 27 member international organisation of major mining and metals companies dedicated to a safe, fair and sustainable mining and metals industry (ICMM, 2021).

4.2.2 UNIT OF ANALYSIS

The research was designed to gather expert perspectives by identifying common themes from the interviews and analysis of the reports, as detailed in section 4.5 above. The unit of analysis for this research was based on responses highlighting relationships between categories that emerge from the data (Saunders & Lewis, 2018). The unit of analysis was the perceptions and lived experiences of

Sustainability practitioners in the mining industry. The unit of generalisation will be at the mining company level as the researcher believes four major mining companies are representative of the mining industry in South Africa. The unit of analysis and the unit of measurement or generalisation may not be the same as this depends on what the researcher sets out to study (Keller, 2012,p. 1586)

4.2.3 SAMPLING METHOD AND SIZE

When conducting an exploratory study, the researcher does not set out to make conclusive determinations, and a small sample size might be sufficient to understand the phenomena (Daniel, 2014, p. 237). Since this is an exploratory study, the researcher used a homogenous purposive sampling method to select the 13 sustainability practitioners working in the four mining companies and, by extension, the mining industry. Homogenous sampling is justified when an in-depth study is required to understand the phenomena (Saunders & Lewis, 2018). The sample size was justified as the researcher noticed code saturation when analysing the 7th interview but decided to code all the interviews to gather more insight. However, the researcher has no means of determining the number of sustainability practitioners working in the South African mining industry.

Homogeneity refers to a sample that consists of one particular sub-group in terms of variables of interest (Daniel, 2014, p.240); in this case, experts and leaders working in the Sustainability field for mining companies. Purposive sampling is a non-probability sampling method where researchers use their judgement to choose people best suited to answer the research questions without a sampling frame (Saunders & Lewis, 2018). The researcher used connections in the mining industry to select and encourage senior leaders to participate in the study. The topical nature of the sustainability   issues and the willingness to help find solutions to the sustainability problems affecting the mining problems attracted accomplished leaders in the industry.

4.2.4 MEAUREMENT INSTRUMENT

The most common ways of conducting exploratory research are i) academic literature review iii) using unstructured observations iii) semi-structured interviews (Saunders & Lewis, 2018). To understand how the expert's company implemented corporate Sustainability and integrated it into their corporate practices, the

researchers used pre-designed questions to conduct face to face interviews with a semi-structured approach (Engert & Baumgartner, 2016). The current study used a similar interview guideline and approach as (Engert & Baumgartner, 2016); the overall structure of the guideline remained the same, with some of the questions removed or amended to suit the current study. The researcher cross-checked the interview questions continuously against the research questions to ensure alignment while ensuring the interview questions remained open-ended to get insights from the participants. Table 1 shows how the research questions were mapped to the interview questions guideline used for the study.

Research Question number	Research Questions	Interview Questions
Research Question 1	How do mining companies develop and integrate corporate sustainability strategies into corporate strategy	1. What does the concept of sustainability mean for you, and how have your views changed over time? 2. What would you say are its core sustainability competencies that set it apart from other major mining companies? 3. How would you describe the importance of sustainability for the company? 4. Please tell me more about how you apply sustainability in strategy formulation 5. What are the main challenges your company faces regarding sustainability? 6. Let's take Rio as a case study. The company has faced at least two publicly known setbacks attributable to sustainability issues, the Juukan Gorge destruction in Australia and the force majeure in Richards Bay. Is there anything about Anglo American's sustainability strategy that has protected you from suffering the same fate and was there a specific response from your company for the two? 7. How can research help raise awareness concerning the importance of sustainability in strategic management and corporate strategy?

Research Question 2	What are the tools and communication systems managers use to drive corporate sustainability strategy integration and implementation?	1. Please tell me more about what we need to have in place for a successful strategy implementation? 2. How do you implement sustainability? What policies or instruments do you use? 3. What further changes, either internal or external, would enable the company to develop sustainability integration? Is there a need for change? 4. What is the biggest challenge in improving the fit between corporate sustainability and competitive strategy?
Research Question 3	How do mining companies integrate sustainability performance measurement systems and indicators into corporate management systems?	1. What are the main sustainability objectives of the company? 2. Do you use sustainability performance indicators? If so, how do they help? Are they a fair indication of companies commitment to Sustainability 3. Are your sustainability objectives linked to specific compensation schemes? Are there specific sustainability incentives for employees? If so, how do they work? 4. How successful has the company been in achieving set objectives and milestones? How is success measured and monitored? 5. What are your suggestions on how mining companies may improve the implementation of sustainability strategies?
Research Question 4	How do mining companies use public disclosures to embed sustainability activities into their business strategy and practice?	1. How are the decisions and strategies communicated, either internally or externally? For example, from top management to production, or vice versa. 2. How relevant is disclosure and reporting in managing sustainability? Who, if anyone, is responsible? 3. Do you think your own sustainability activity is linked with, or part of, the overall organizational culture, vision, policy and strategy? If yes, how. If No, Please tell me more 4. Based on your experience and expertise, how relevant is sustainability for the future of the mining industry?

As shown in Appendix 4, the interview guideline had three sections that probed the following i) Strategy Formulation, ii) Sustainability strategy implementation, iv) relevance of Sustainability and prospects. The guideline had 23 questions covering the three sections, and the interviews took between 45 mins to 60 minutes; the

researcher tried to limit the discussions to 60 minutes as per the meeting invite. In some instances, the researcher asked questions based on the participant's response and not in the order provided in the guideline to connect concepts based on responses. The researcher omitted some questions when they believed the participant covered them in previous responses. In a semi-structured interview, the researcher prepares a list of questions that covers the relevant topics; the order of the questions may vary, with some questions omitted if not applicable to the participant (Given, 2012; Saunders & Lewis, 2018). In other interactions, the researcher formulated questions during the interview to probe concepts that emerged as advised by (Choi & Roulston, 2018). The researcher conducted interviews using the web-based Microsoft team conferencing services as personal contact was not encouraged because of the Covid 19 global pandemic restrictions. "Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus" (WHO, 2020)

4.2.5 Data gathering process

Since the study sought to probe in-depth insights from sustainability experts and leaders in mining companies, the primary method for data collection was semi-structured interviews in line with (Choi & Roulston, 2018; Saunders et al., 2009). In addition to semi-structured interviews, case study research requires flexible and opportunistic multiple data collection methods, within and cross-case analysis comparison to the literature to search for patterns and ideas that will help explain those patterns (Sroufe, 2017). The current study analysed the organisation's processes when formulating strategy and the subsequent systems put in place to implement the strategies based on account of the leaders responsible for the process,

Engert & Baumgartner, 2016; Morioka & Carvalho (2016) that conducted explorative qualitative studies, used the following types of data collection methods i) review of the literature and documentation ii) qualitative expert interviews iii) participant observation in the field for triangulation. The current study relied on expert interviews, company reports and policies for triangulation. In other instances, the researcher interviewed two senior people from the same company providing an opportunity to compare and contrast the responses. In two of the eleven interviews conducted, the primary participant invited one other participant to help explain

some of the concepts in detail. One of the participants invited was a colleague, and in another session, a subordinate to the primary interviewee. A total of thirteen leaders and sustainability experts were interviewed with the interview guide adjusted following other interviews to ensure the researcher stayed true to allowing the open-ended nature of semi-structured while directing the conversation (Saunders & Lewis, 2018). The researcher casually listened to every interview within two days of the interviews or before the following interview to identify concepts that needed further probing.

The interviews started with either asking the participant to identify themselves or probing their understanding or their definition of the word sustainability. The interviews were always concluded by asking the participant to give further insight on concepts that the researcher did not cover during the interview. The interviews with industry experts were conducted using Microsoft teams and recorded using the same program or a smartphone when the interviewees arranged the meetings. In addition, published corporate sustainability reports formed part of the data collection process when available on the companies websites. Microsoft teams have the functionality to record voice and transcribe interviews during the session. The researcher later verified the transcription using the recorded meeting as part of the quality control process before importing the data into Atlas-ti. The meetings recorded using a smartphone were transcribed using an online transcription service and verified using the same method as the team's transcripts.

Since the primary data collection instrument was a semi-structured questionnaire, at least one interview was conducted per organisation, and the interviews responses were triangulated from the other actors when possible (Morioka & Carvalho, 2016b)

4.3 Analysis approach

In line with phenomenological research principles(Willig, 2014, p. 144), the data analyses process tried to stay true to the transcripts from the interviews to capture the accurate account of the participants when interpreting. The researcher was conscious to ensure that the participant account became the foundation for interpretation of the data and not the theoretical frameworks from the literature

review. The researcher stored the voice recordings, verified transcripts and field notes electronically in one for further processing.

As advised by (S. Kennedy et al., 2017), the production of the contact summary sheet, transcription and analysis of the data began at the earliest opportunity after closing the interview. The researcher started to code the data after collecting data from 4 interviews; two of the interviews involved two interviewees as requested by the primary interviewee. The researcher originated insights, ideas, patterns, and connections that occurred to them as they read the data (Butt & Ahmad, 2020). The approach was as described by (Gioia et al., 2013), which involved a systematic presentation of the first-order analysis (i.e. analysis using informant-centric terms and codes and second-order analysis (using researcher-centric concepts) themes.

The researcher analysed the data using the Atlas-ti program while still collecting more data to ensure a more effective process and use insight from the previous interviews to probe better in the subsequent interviews. In addition, analysing the data during the collection process allows the researcher to follow up on insights suggested in earlier interviews and recognise when the data has reached saturation (Saunders & Lewis, 2018).

The interviews were analysed inductively by transcribing the interviews into Microsft word-processed documents and using consistent conventions when preparing the data (Saunders & Lewis, 2018). The study used a thematic process for data analysis to identify patterns that emerged from the data(Willig, 2014, p. 148); the researcher was guided by the research objectives when formalising themes (Morioka & Carvalho, 2016b). The researcher created Codes using common phrases in the data, grouped the codes based on their characteristic to form categories and structured the data to recognise emerging themes (Mamabolo & Myres, 2020). The coding process was very iterative, with some codes removed as they described the same concepts with other codes but added to the count of the other codes; this was a result of the researchers coding experience. For example, after four interviews, the researcher stopped the coding process when realising that there were over 400 codes, which meant that the codes were too descriptive and potentially splitting according (Guest, MacQueen, & Namey, 2014, p. 74). The researcher started the coding process by merging codes that referred to the same

concepts. The codes were analysed to identify relationships between them and further grouped into categories that were used to identify emerging themes (Saunders & Lewis, 2018).

The researcher shared preliminary conclusions from the summarised results with other experts who were not part of the study to test the applicability and consistency of the results post the coding process (Sroufe, 2017)

4.4 Quality controls

The experts selected for the study were from listed companies that have expressed the intention to move into responsible mining by incorporating sustainability strategy in their business. The Sustainability and other publicly available reports were used to determine the companies' suitability or the research topic (Engert & Baumgartner, 2016). In addition, the researcher selected people occupying senior roles in their organisations to ensure suitability and prior expertise in the field.

To ensure that the study satisfied the ethical rigour required by the university, the researcher submitted and received ethical clearance from the Gordon Institute of Business Study (GIBS) ethical committee. The following documents were submitted for ethical clearance i) A consent letter for participants to sign ii) The interview guideline iii) The methodology section of the report iv) Non- disclosure agreement for the transcribers v) The application form for ethical clearance. The supervisor signed off all documents before submission to the ethical committee.

4.5 Limitations

The research is primarily limited by the number of companies represented by the experts and leaders interviewed (Morioka & Carvalho, 2016b). As already established, the primary data will be collected using interviews, and secondary data will be sourced from publicly available company sustainability reports and internal reports associated with Sustainability. Although the reports for secondary data are associated with Sustainability, the reporting was done for a different purpose and may not meet the research needs (Saunders & Lewis, 2018). Data collections through observation allow the researcher to collect data on what people do by systematically observing and recording their behaviours (Saunders & Lewis, 2018).

The researcher will not have the time or resources to observe the experts' in their working environment, which will be a limitation when concluding the study.

The general limitations will be typical issues associated with qualitative research like subjectivity, replicability, generalising, research bias, less statistical power to verify trends, reliance on single respondents with no verification by observation and selection bias (Saunders & Lewis, 2018). In addition, despite its richness and potential for developing theory, qualitative research has been criticized for sometimes lacking scholarly rigour.

Secondary data provides researchers with an opportunity to access data that was otherwise outside reach because of time and financial constraints (Given, 2012; Saunders & Lewis, 2018). The authors further argue that Qualitative non-numerical data in an organisation can include but not be limited to the following i) Organisation policies ii) Reports and Minutes of committees iii) Organisation communication iv) News reports v) Interview transcripts vi) diary entries. Unfortunately, because of the limited time, the researcher did not use secondary data for triangulation and advised future researchers to contrast the secondary data with primary data collected from interviews to help gain more insight into the subject companies (Saunders & Lewis, 2018).

Like any cross-sectional study, the researcher acknowledges that the study will not be able to claim any causality between sustainability strategy and corporate strategy (Kuipers & Giurge, 2017); (de Oliveira et al., 2019);(Lynch & Mors, 2019)

CHAPTER 5: RESULTS

5.1 INTRODUCTION

Chapter 5 of the report presents the results of the study; the responses from the participants are presented based on the research questions in Chapter 3. To address the issues raised in chapter 1, the researcher formulated the research questions to bridge the gap in Academia by doing an empirical study in the mining industry that will give sustainability practitioners tools for formulating and implementing sustainability strategies. The research questions were formulated by understanding the relevant literature on the subject and used to adapt the interview questions from the (Engert and Baumgartner (2016) study. The researcher used the consistency matrix in appendix F to align the research question, interview questions, literature review and the analysis approach.

The chapter gives detailed results of the data analysis based on the interviews conducted earlier in the study. The first section of the chapter deals with the sample descriptions, allowing the reader to understand the context of the results presented. In addition, the section will give details of the participant's suitability for the study based on their experience and roles in their organisation.

5.2 SAMPLE DESCRIPTION

The researcher changed the names of the participants by giving them pseudonyms after importing their interview transcripts into Atlas-ti to guarantee confidentiality as outlined in the consent form submitted with the ethical clearance; see Appendix H for the consent form. Table 2 shows the thirteen participants interviewed for the study with relevant information that qualifies them to be part of the study. The respective experience and current roles in organisations were factors used to select the study participants. As a result, all the participants interviewed have experience formulating, integrating and implementing sustainability strategies in the mining industry. In addition, all the participants were males, either CEO, direct reports to the CEO, Manager once removed from the CEO, and others were senior managers in their organisations. Seven of the thirteen participants are South Africans, and the rest are from different countries, but most of the participants have international experience with mining companies.

Table 2: Interview Participants

Participant Code Name	Orgnisation description	Role in Organisation	Experience in Mining industry
IP1	Multinational Mining company with multiple listings and over 30 000 employees	CEO	The participant has fullfilled multiple roles in the mining industry and has been CEO for over 5 years
IP2	Multinational Mining company with multiple listings and over 30 000 employees	Executive: Mining and Sustainability integration	Over 15 years in the sustainability field
IP3	Multinational Mining company listed in South Afica and over 30 000 employees	Sustainability Executive reporting to CEO	Over 10 years in the sustainability field amd Mining industry
IP4	Multinational Mining company with multiple listings and over 20 000 employees	Sustainability Executive reporting to CEO	Over 10 yearscin the mining indstry and sustainability
IP5	Multinational consulting company advicing Leaders on ESG implemenation	EVP	Over 20 years in the mining and sustainability space
IP6	Multinational consulting company advicing Leaders on ESG implemenation	EVP	Over 20 years in the mining and sustainability space
IP7	Multinational Mining company with multiple listings and over 20 000 employees	Former Senior Sustainability executive and now sustainability advisor	Over 20 years in the mining and sustainability space
IP8	Multinational Mining company with multiple listings and over 20 000 employees	Sustainability Executive reporting to CEO	Mining executive with over 30 years in the mining industry and sustainability field
IP9	Multinational Mining company with multiple listings and over 20 000 employees	Vice President of Safety	Over 30 years in the mining and sustainability space
IP10	Multinational Mining company with multiple listings and over 20 000 employees	Vice President of Environment	Over 15 years in the mining sustainability space
IP11	Multinational Mining company with multiple listings and over 20 000 employees	Vice President Community Relations	Over 10 years in the mining and sustainability space
IP12	Multinational Mining company with multiple listings and over 20 000 employees	Vice President Community Relations	Over 10 years in the mining and sustainability space
IP13	Multinational Mining company with multiple listings and over 20 000 employees	Vice President Environment	Over 20 years in the mining and sustainability space

The selection criteria resulted in a homogenous group regarding their work experience, which is an important criterion when doing an in-depth study with a small sample (Saunders & Lewis, 2018). Even though the sample was multinational, the sample lacked gender diversity as there was only one female participant in the group. However, her views were different from the other experts and leaders that formed part of the study.

5.3 Presentation of Results

The following section presents the results from the interviews in the order of the research questions in chapter 3. The research questions responses were probed through the interview questions as mapped in Table 1.

5.3.1   Results for Research Question 1

Research Question 1: How do mining companies develop and integrate corporate sustainability strategies into corporate strategy?

The research question was designed to probe the participant's understanding of sustainability and how they have formulated and integrated sustainability activities into their organisation. The research question was probed through seven questions in no particular order, with the first question appropriately asking the participants to define their concept of sustainability. The participants stressed the importance of considering the interest of other stakeholders when formulating strategy or conducting business, as the analysis in this chapter will reveal.

5.3.1.1 *Concept of sustainability*

It was essential to establish how the different participants perceived the concept of sustainability at the start of the interviews. Most participants viewed sustainability as ensuring that current activities do not affect future generations by operating responsibly. In addition, the participants mentioned addressing community and environmental issues as critical activities associated with sustainability. The participants converged in saying that sustainability activities were critical in ensuring that organisations survive in the future.

> IP7: "Sustainability really is being a responsible operator and employer and citizen of the country you are operating. It boils down to making responsible, ethical decisions in virtually everything you do."

Participants explained that the economic benefits must not outweigh the potential environmental damage or negatively affect other stakeholders. Therefore, the economic benefits and sustainability objectives must strike a delicate balance.

> IP11: "When you look at that in the process of making that money, you need to make sure that firstly, on the economic side, you are still able to continue operating being profitable, but the process of being profitable should not jeopardize the ability of anyone else, especially the people that eh eh are hosting you in terms of local communities as well as the environment that is hosting the facility."

IP5: "Sustainability really means does your business plan have a future? Are you doing the right things to make sure that the community that the environment and from a fiscal? governance point of view Are they all in balance, and are they all going to be in place so that you can continue your business."

Embracing sustainability means is looking at different ways to improve the company's interaction with its environment and the host communities. The strategy must ensure that the community continues to thrive when the mine seizes to exist. Participants mentioned the importance of preserving natural resources, not using more than the company needs, and reducing operational footprint.

IP11: *"We are not looking for a state of equilibrium here. It's more a state of, perpetual improvement. In a sense ya hore (of saying), you are able to do business; the environment is able to sustain itself. The community is able to continue living".*

IP8: *"Process of integrating stakeholder interest and we call it sustainability, and eventually it will be part of the business, and it will treat business responsibly, inclusively with Interest of stakeholders."*

IP4: *"Sustainability is a bigger issue that governs how the company engages and interacts with its physical environment, social environment, and contributions to the social environment. Safety, making sure that the communities feel the benefit of our operations. I environmental performance is critical, basically by making sure that you are not using more than your fair share of water, that you are not polluting the environment, that you are taking steps to reduce your footprint."*

Participants talked about strategies that ensure that the business is viable in the long term. In addition, managers have to be thinking about what happens to the community and disturbed areas post closure.

IP8: "So how do you make sure that you're operating efficiently if you're a label, an ESG or sustainable development, that's what it is.But it's an issue that they want to make sure that their assets for the next ten years and 15 years continue to be successful."

IP12: "*In the mining context, initially sustainability was defined as how do you keep the mine going long term*". The Participant further said*, "when we talk sustainability, we actually talking about environmentally related issues, we talking about social-related issues, we talking about governance-related issues, we talking about safety-related issues, we talking about risk-related issues. So all these issues actually make up what we term sustainability."*

IP10*: "Especially in the business sense was just to make sure that, as much as we want to make the business financially sustainable. However, we also have to look at the communities and environment, almost like an ecosystem where you cannot destroy one part to feed the other."*

IP13: "*Sustainability in my own heart is what happens after closure. What is there after closure? Often there's as you know our values, communities are better, for us having been there. So in that post-mining Phase."*

Other participants touched on ensuring conducting our our operation do not jeopardise the survival potentia of the future generations.

IP1: "*And you have to be thinking about coming generations, because in reality, if you talk to someone that's sorting these out, that's five generations, that's the first or the fifth generation, depending on which way you look at it."*

IP1: "*Sustainability is about being able to deliver something that makes a difference in society for the long term, and so you think about beyond which you can see. Using today, the resources we have in such a way that it does not rob future generations*."

IP3: "*Meeting the needs of today without compromising the the needs of the future generation."*

One participant mentioned sustainability as developing future products as part of the firm's portfolio to adopt sustainability and challenges mining leaders to invest in sustainable products.

> *IP1*: "*Then we talk about production and resources. Do you have the resources for the future?*"

It was curious that only one participant mentioned the third dimension of sustainability, governance, when asked about the concept of sustainability; however, governance structures were seen as key when implementing a sustainability strategy. On the other hand, the experts consistently mentioned the resolution of social issues, stakeholder interest and protection of environmental issues throughout the interviews in different sections.

5.3.1.2 *Sustainability Strategy Formulation- Unique `competencies*

As noted in chapter 2, Strategy formulation is about creating or identifying the firm's rare and difficult to replicate core competencies that distinguish the organisation from competitors for superior returns (Bromiley & Rau, 2016; Lanzolla & Markides, 2021; Porter, 1979, 2008; Rosenberg Hansen & Ferlie, 2016). Therefore, the participants were asked their thoughts on what they believed distinguished them from their competitors in sustainability as this will inform how they formulate strategy.

Most participants did not think that their organisations had any distinguishing features compared to other mining companies on sustainability; in fact, one participant thought firms should develop and converge on how they tackle sustainability issues.

5.3.1.2.1   No unique competency

While some participants acknowledged that sustainability could be a source of competitive advantage, most participants do not think they have rare and challenging to replicate competencies. While participants view that adopting and integrating sustainability activities will result in a competitive advantage, companies do not generally consider specific competencies within the organisations when formulating a sustainability strategy.

> *The same participant said that he does not think the company has a competitive advantage shortly after mentioning strong culture as a distinguishing feature.*

> IP4:" *I do not know if we have a competitive advantage. I would like to see us have one over time, but I an m not I do not know enough about our peers in that regard yet."*

> IP3: "*I do not think I am any different. Yeah, I think we are all the same. The key is understanding what the expectations on sustainability are, whether it is from shareholders or stakeholders or the environment and understanding this, the corporate strategy."*

Participants believed that sustainability should be an area of collaboration and not contestation.

> IP8: *I am not sure what we do better we do it, better because of competitors, in fact, we don't have competitors. We have all peers in the same space*

> IP8: *"So I think it's really a misconception that we have competitors in the mining business. I think maybe at some level they might be. I do not think if you look at the way we work, on average the mining company in ICMM or functions we are all trying to raise a bar for the reputation that is at stake rather than   the company reputation."*

A good sustainability strategy requires investment from the organisations to put the company ahead of the curve. Participants believe that backing sustainability with

investment in resources and human capacity will ensure a competitive advantage in that area.

> *IP10: "I think it's a no. Because we are not ahead of the curve, there are other companies that are more proactive, Which, uh, invest Into a leading practice."*

> *IP13: "So uhm we are not laggards, I think by any stretch, but I do not think we are where others are, and there could be effective resource is, you know, they are paying more."*

> IP1*:" I would think that we are creating is a sustainable model, but I don't think we there yet and now that we ultimately have to judge whether we have got a competitive advantage."*

On the other side, five constructs came out from the analysis of participants who believed their organisations had unique competencies compared to their peers. The constructs are in table 3, showing the number of times the participants mentioned them in their responses to strategy formulation. Stakeholder engagement and investment in future products were the only constructs mentioned more than once as unique competencies within organisations currently. However, it is essential to note that some of the constructs become prominent in a different context than a core competency when analysing other research questions and interview questions.

Table 3: Core Competencies that inform strategy

Constructs	Frequency
No unique competencies	8
Stakeholder Engagement	2
Future products investment	2
Company Culture	1
Organisationa Structure	1
Human rights record	1
Community development project	

5.3.1.2.2 Stakeholder Engagement-Unique competency

Participants believed that they were doing better than other companies in stakeholder engagement, especially around communities. In addition, the participants said that their exceptional skills in community engagement reduce tensions with the host communities.

> IP11: *"When it comes to engagement, stakeholder engagement as well as openness, I think we are really leading the pack there."*

> IP10: *"It is a yes because there are things we are doing, especially in communities, and I mean if you go to Siguiri. Yes, as much as we have problems with the community But the same community and the same government, they realized the importance of Siguiri."*

5.3.1.2.3 Company Culture- Unique competency

A good company culture around sustainability encourages the correct behaviour within the company, but culture is built over a long time. Therefore, developing a sustainability sensitive culture in the organisation gave their firm a competitive advantage.

> IP4:*" I think what we have going for us is a very strong culture that was built up over a long time in terms of trying to do the right things trying to be a good corporate citizen, a good partner, a good neighbour."*

5.3.1.2.4 Organisational capability Structure- Unique competency

Other participants believed that employing specialists within the different sustainability fields and the structure of their organisation put their company ahead of competitors.

> IP9: "I think what makes us a bit unique is the way that we are organised currently.
> IP9: But a number of big companies have sort of have people, uh you know, having dual accountabilities."

IP9:" I think where our company has got an advantage the fact that we've got specialists that look at the different areas, you know."

IP13: "Uh, Newmont performance data. The staff that you sometimes meet up with, and so on. They seem to have a different level of technical competency but also experience."

5.3.1.2.5   Human rights record- Unique competency

One participant believed that it was important for companies to develop competencies in protecting the human rights of their host communities

Ip11: *"I think if you look at what we tell people out there about our performance on human rights at very few companies does that."*

5.3.1.2.6   Future Products- Unique competency

The ability to invest in products that will support future industries is seen as a sustainability advantage by other participants. A sustainability strategy must not be limited to correcting the organisational impact only; it should result in investing in future commodities for a competitive advantage.

IP2: "*So we do look very much at our operational impact, but it is also about the value of our products and society when we are talking about sustainability, and our product portfolio is very much focused on the future enabling commodity.*"

IP1: *IP2 is making an even more important point that sustaining is not simply about sustainability stuff; it is about the whole business and our focus on future enabling products*

5.3.1.2.7   Community development projects- Unique competency

Other participants argued that having the ability to create community development projects was their stong point.

IP11: "*You look at the typical community development programs, I think yes. We are also a cut above the rest in so many ways. But then I think areas where we are lacking will be resettlement and relocation issues.*"

5.3.1.3 *Sustainability Strategy Formulation- Key Constructs*

The most pointed interview question for RQ 1 is the interview question on how the participants apply sustainability in strategy formulation. The researcher probed the participants on the critical considerations when formulating a sustainability strategy for their organisations. Participants believe that addressing sustainability issues should be at the core of formulating strategy. Sustainability strategies should not be in response to a business strategy that fails to consider sustainability issues.

Stakeholder engagement was the most frequently mentioned construct throughout the interview, as participants mentioned the construct in response to the other three research questions. Secondly, investor pressure and adherence to host country laws emerged as critical concepts that influenced company strategy from the analysis conducted. It emerged from the data analysis that investors are vital in influencing and embedding sustainability practices in the mining industry. Thirdly, the participants believe the company strategy must address the sensitive issues of local employment and procurement, which participants say are a source of friction between mining companies and local communities. Different participants mentioned local employment and local procurement 27 times, emphasizing the importance of the two in sustainability strategy formulation.

Addressing Climate change issues to help reduce GHG emissions and protect the organisation against extreme weather came out as a critical theme in strategy formulation. These included strategies to help organisations to achieve the 2030 SDG goals. The participants insisted that a sound sustainability strategy is as good as the people charged with helping to develop and implement the strategy. Table 4 lists the top themes that emerged from the analysis, and the subsequent sub-chapters give more details and evidence from the interviews

Table 4: Strategy formulation- key emerging constructs

Constructs	Frequency
Stakeholder Engagement	58
Investor pressures	29
Local employment and procurement	27
Climate Change and SDG Objectives	21
Social license to operate	23
Capacity and Right people in role	16
Driven by values	10
Regulatory pressures	7
ESG at the core of Strategy	4

5.3.1.3.1   Stakeholder Engagement-Strategy formulation

The participants emphasised the importance of community, investor, government, and employee engagement when formulating a sustainability strategy. All the constructs are classified under stakeholder engagement to analyse what the companies consider during the strategy formulation process. The participants said that the engagement forums were critical in ensuring the company understands what the stakeholders required to address as part of their strategy. The engagement process has to be a genuine two-way process, and the engagement process is critical to ensure that the stakeholder's aspirations and source of frustrations are adequately addressed.

The company needs to have regular engagement forums with different stakeholders to identify issues and understand what sustainability means to their stakeholders.

> IP6: *"Having regular contact and getting not just communicating outwards but getting input you know from the community leaders from other key stakeholders and saying hey OK, this is an issue. OK and then committing to go away then and doing something about it."*

> IP1: "*Then whoever it is, you have got to be seen as a partner. In this way, faith-based stuff will be quite clear that you put global civil society leaders that needs to see, understand, and support what you are doing. And the first*

thing is to help them understand that. And then secondly, engage in terms of what sustainability looks like from their perspective, not ours."

The company needs to use the same forums to understand the communities' needs to resolve those frustrations. Managers need to use the opportunity to inform communities on the firm's plans and even allow the community to influence some decisions to maintain the license to operate. If companies Release information on the company plans during or post-execution to undermine the companies plans.

IP5: *"People come in and go out all the time, and communities build up. So if you've built a mine outside of a community, they will grow around you. If it's a long term mine, so you have to be proactive and say, guys, you're here. What can we do to help? What can we? What can we afford to do to help? I mean we've got to be realistic, but that gets you the license to do everything else and without that license."*

IP5:. *Engaged people are happy about doing work and are safer about doing like, it is exactly the same about the community. The rules apply to the community the same way as they do an operational team. If you are engaged with the community, and you're telling them before something happens, something is going to happen. Or would you like to be part of the decision? Can we inform you as to what's going to happen? if you're engaged properly and proactively, It's far easier to keep that license to mine in place."*

The engagement strategy must be able to engage people from their perspective and not on what the law dictates or the company perceives.

IP1: *it is connecting with people and understanding what their issues are and then trying to build your business so that you're part of the community and that you're making an inside contribution."*

IP11:*" I think what was key there was the engagement that was fair as well as I think we tried by all means to seek consent and maybe the way we work with the key stakeholders in the process is that even with the illegal*

miners, I think what was very interesting in Geita was we didn't treat them as criminals, though they are actually engaging in a criminal act."

IP4:"Excellent at sustainability is the condition without which you cannot be excellent in other areas of your business, so you know we have a long term business, and if you're not engaging in a responsible and constructive way with your immediate neighbours. I use this kind of concentric circle. You know all of your neighbours, your host communities the towns and villages around your binds, the largest cities, the countries in which you pay tax."

IP10: "Is it something that was built collaboratively involving everyone? Or is it a top-down strategy where employees just hear that you know our strategy is going to be ABCD .So I think, like, uh, anything else that involve multiple stakeholders, the company must have a strategy, but it must work to build that strategy it must work with all stakeholders."

Investors are critical stakeholders because of their critical role in shaping company strategy, discussed later in this section. Furthermore, Participants see ESG rating agencies as critical stakeholders in terms of questions that get asked in those forums.

IP8: "Our strategies are highly geared to investors. What do investors want? They want the cash flow, they want dividends, they want growth, they want life. So our strategies are highly focused on what investors want. We'll take care of making sure that in delivering what we need to do, we don't have the risk of stakeholders undermining what we are doing."

IP11: *"There is also engagement with the ESG rating as agencies that really prompt us, ask questions and stuff like that. that's where we share a lot."*

The participants acknowledged engaging with different stakeholders in their organisations, but the level and engagement structures needed improvement. The participants assert that sustainability strategy must be consensus-based on multiple engagements with different stakeholders. Furthermore, the participants insist on

Early, consistent and transparent engagement with the stakeholders to listen and inform them on the performance of the business. *Finally, the participant highlighted the importance of actively engaging stakeholders on sustainability imperatives and getting stakeholders' perspectives to help inform strategy.*

5.3.1.3.2 Driven by Values- Strategy Formulation

The participants asserted that a firm's values should inform an organisation's sustainability strategy as company values do not change often.

> IP4: *" I really believe that a lot of people will talk about ESG being at a big thing our values drive us. And all of these things. I think people are sincere in those."*

> IP11*: "I normally want to rely more on our values, which is something that remains constant for a long time; I think it is more than ten years now with our values."*

Safety in mining was the first sustainability element because it was easy to report fatalities and injuries. The participants believe that the safety strategies employed were key in changing the safety trajectory. Managers must build company values around the protection of the environment, the safety of employees, community protection and development and collaboration with the government; these values should be reflected in the firm's values and vision.

> IP9: *"This is about people's lives, and everybody said this is not acceptable, and so that's so the reason why safety was was was easy to to get it done. Because of these numbers, you know we were, we were killing really killing a lot of people in this business. And as you can see then we had that big step change, then we were flattened."*

Adopting a set of values that informs the company sustainability strategy can help embed a culture that will help with the implementation of the selected strategy.

> IP8: *"We can change the culture in the business that you work in this business with the right values and the right code of ethics in conduct, that*

you do that you are tuned to do the right things that do not impact and create harm outside in any way or to safety. We got safely right that we should do all the other things as well. So the value should talk to respect to the community, respect to employees, and respect the government. So yes those so as long as it's built into your purpose, your vision, your values,"

5.3.1.3.3 Social Licence to operate- Strategy formulation

The social licence to operate came out as a critical construct/theme during the analysis of the data from the interviews. The participants expressed the importance of achieving and maintaining the social license through a well-thought-out community strategy. Participants see the social license to operate as the community acceptance of the mine's activities and projects. Companies will find it easier to maintain their social license by treating the community and other stakeholders with the respect they deserve. The company strategy sustainability strategy must be geared at aligning their interest to those of the community around them, so they have the support of their hosts.

IP5: *"We understand that we must be more proactive and say to have the license to operate in an area. Not only do we need a certificate, but we need the community on board because we see what happens all over the world. And then we are not talking about South Africa were talking about the whole world where the community falls off the bus."*

IP7: *"On the strategy team, when we were developing strategy. What is it that ultimately we are trying to achieve here with this? In my view, the answer is really about trying to have the support of the community. We really want the community, their interests to match our interests; our interests match their interests, we have overlapping interests, so they want to see the mill turning just as much you and I do. So if that if you can line up your interest in that way, that is the ultimate objective."*

Elevating the business objectives over the interest of other stakeholders may result in other stakeholders being suspicious of the company activities. Although it may appear that sustainability and business activities are not complementary initially,

understanding how sustainability issues can affect your business, in the long run will help with the integration process.

> IP4: "If you lose the faith of your workforce. Of your investors. Of your broader stakeholders, you are finished."

> IP3: Initially May appear to be competing demands, but ultimately, you realize that if you want to do business in that area for long, you have to bring in a lot of these. We used to call them soft tissues. It's the soft tissues that will stop a project. When you do not treat the partner communities or the host communities with respect and you, want to drive a strategy that is going to to mine that area and you just you bullish on that. You will not go far

The participants mentioned the social license to operate concerning the host communities where the mines operate. In line with the stakeholder engagement section, participants said companies must listen and be more transparent and consistent with the communities. In addition, firms must create communication channels that can inform the community on the company's performance or issues affecting the performance. Communities have evolving expectations that mining companies can only discern through proper consultation; understanding and addressing those expectations will ensure the companies gain community support.

> IP4: "To get to our community support, listen more and involve them in decision-making from earlier on. You know to take their input on board. Be more transparent with them in terms of and more consistent with them in terms of communicating how our business is doing and what it needs to thrive."

> IP3: "You also have expectations from the community at the gate. You know those have changed significantly from some 15 years ago. We are also sensitive that we want to improve livelihoods through and beyond mining.

Participants assert that mining companies believed and some still believe that doing charity work in the communities was sufficient to address community-based sustainability concerns. Companies must change their perspective and how they deal with communities to develop mutually beneficial partnerships with communities.

> IP7: *"This goes back to the old days where almost everyone thought that sustainability and community relations were just doing a kind of philanthropy. It is discretionary; it is optional. And all of that stuff is proven to be not true."*

> IP10: *"If you see with communities and not being a donor or just say giving handouts.But in areas where you work with communities.Your reception in that community is much, much, much better."*

Participants believe company policy on communities must promote self-determination and reliance. Companies must not come with a standard catalogue of sustainability projects that they want to implement without proper consultation/ The focus should be on money generating community-development projects; communities can then decide on how they want to use the funds from the projects. Community-based projects will leave a lasting legacy that can continue to generate a source income post the mining project.

> IP12: *"It is policies that talks to empowerment .policies that talks to self-reliance. Instead of building a school, do something that will generate income, let the people generate income with what they are doing once they have their money as a community, then they will build a school for themselves."*

> IP11: "*I think there is a lot of good community development initiatives that we have there. Make sure that everyone shares the benefit of us owning the land at the company and our host communities need to benefit from that."*

The projects developed by the mining companies must offer communities an alternative livelihood to working on the mining operations or artisanal mining.

IP4: *"So we can present economic alternatives, and I think we do that a lot of our sites, whether it's fish farming, you know food processing, you know various construction jobs upskilling for different kinds of work."*

5.3.1.3.4 Local employment and procurement -Strategy formulation

The participants believe that the key to co-existence with the local community is to create meaningful employment and procure local from the local enterprises. According to some participants, local unemployment and lack of procurement opportunities for local businesses make the mine target violent protests. Therefore, the organisation needs to make an effort to train the local workforce and develop local enterprises. Unfortunately, the company should understand that the local suppliers will be more expensive than their international counterparts at the beginning as they establish their supply chain networks.

IP6: *"It is typically about employment, you know; how do I hire? Can I hire people from the local environment? Actually, how can I really train them so they can feel that there is a progression in their career? That we are building their capabilities. Then the third thing is probably around procurement local procurement. In this case, the local suppliers submitted all these tenders, but they never won anything because the local procurement guys said they were too expensive. You are ridiculous. We prefer to use its international, which is crazy."*

IP6: *"Basically, there was a point when people from the local community were going into the operations and smashing up machinery. I said I know what is going on here. Why is this happening? This is all about the people that were in. Jobs were Okay, but what mattered was that people who are not in jobs, they are the ones that felt disadvantaged and really, they are the ones that would be fed up."*

The participants believe that the goods procured from the local suppliers will be competitive and help reduce the operational mining costs in the long run. In addition, the local skills development program and commercial skills gained by the

local entrepreneur will be used beyond the mine borders and help build other sectors of the local economies.

> IP7: *"You are not a charity; it is about understanding how buying more goods locally, for example, helps reduce your costs in the country, helps support your license to operate, helps develop business stability and. Community stability in your in your areas and how that can lead to better outcomes."*

> IP6:" *Why don't you just help the local, help set up some local teams, some local businesses to do this. Why not? Even if the project is just a year. I mean, what you're doing is you are giving employment to more people. You are helping them to build their commercial skills. You are creating something that has the potential to repeat itself. You know something which has a value beyond purely, you know, the Richard Bay operations."*

> IP7: *"How are we going to, you know, drive business value through the supply chain or local procurement and then and then it stems from the normal business drivers as opposed to an external externally driven thing."*

One participant highlighted the positive impact of the Covid 19 pandemic on local skills development and local employment. The participants explained that reduced international skill mobility forced the companies to accelerate local skills development. As a result, local skills development has become critical to the firm's performance due to the reduced mobility of international skills.

> IP4: *"We need to make sure that we are employing and and skilling people from local communities. It has's become an important strategic imperative for us as a company anyway, given that the normal mobility of skills that we relied on for so long has stopped."*

5.3.1.3.5 Regulatory and Investor pressures- Strategy Formulation

The participants highlighted the importance of formulating strategies in adherence to regulation and using the same process to respond to investor pressure. While portfolio growth and financial performance are critical to investors, sustainability issues are becoming high on the agenda for fund managers. Mining companies are heeding the call from investors to operate more responsibly, aligning their strategy to be environmentally friendly and socially facing. While adherence to regulations has played an essential role in influencing company strategy on sustainability issues, the analysis of the interviews reveals that investors are playing a more prominent role in embedding sustainability practices in the mining industry.

The analysis revealed that participants believe that Mining companies that fail to embrace sustainability principles in their organisations will find it challenging to raise funds for growth and project investment. Instead, the participants believe that pressure from investors and other NGOs will play a more significant role in shaping business and sustainability strategies going forward.

> IP3: *The first thing you need to recognize is that sustainability has certain expectations where it's become law, so it's regulated and governed. Being a listed company, You already have to promote diversity from the board all the way to the employees. You have to promote transparency. You have to promote the skill, development and all of those and have to look after the environment*

> IP8: "*We have had to change because investors want us to align with the law of the land. If you don't align with the law of the land, we won't have it. So what are I the issues that come from investors? They expect us to have to be complying with regulations which we do, and then they want us to align with societal expectations and consider climate change*"

> IP7: "*. For one reason or another, sometimes it is regulated. Now, sometimes it is because it is just better Business. It creates Better Business outcomes when you have strong sustainability.*"

IP13: *"In the environment work, there is potential for a lot of emissions that happen from the mine, could be noise dashboard, and so on, and they are limits of tolerance established in law."*

IP8: *" These big funds are under pressure to have the right portfolio of clean assets that are going to be having a reduction in emissions going forward. So people investing in through their different funds will ensure that they are in better funds, better-managed funds, not just financially but responsibly. So I think from our point of view, we start to see a different pressure coming to us, and our strategies will start to adapt."*

IP11: *"So the investors have the next decade or two will change our strategy because our strategy will focus on them. So they will say, listen, we want you to have a very clear pathway to emissions reduction. So suddenly, our strategy will start integrating climate reduction at cost because that's what they want. So we would not do ESG for the sake of doing ESG or for the rating. We are doing it for investors."*

IP9: *". In the last couple of years, we have seen as you would know that there has been a lot of pressure from investors. If you look at Black Rock and several other investors who have been putting pressure on listed companies to get their act in order, you know, and that has resulted in several companies stepping up."*

Companies should find it easier to align their strategies with the requirements of the sustainability facing funds as the fund managers have published guidelines of what they consider a sustainable company.

IP3: *"You have investors who are becoming a lot more powerful, and they are able to dictate, which company they want to invest in based on your sustainability performance, you also increasingly have NGOs, nongovernmental organizations who are getting a lot more organized and a lot more funded to can derail a project based on a poor sustainability performance record*

IP5: *The Church of England have an investment fund, and in their investment fund website, you will see that they manage somewhere between 8:00 and £9 billion worth of investments in mining. They have put eight or nine. I think it's eight principles up on their website that they say that these are the things that mining companies should be looking towards so that we find them attractive for investment.*

5.3.1.3.6 Capacity and the Right People in the role- Strategy Formulation

The participants mentioned the criticality of employing the right people to help formulate and execute an effective sustainability strategy. The outcome of this analysis suggests that companies have a strategy to secure the right people in the organisation and make sure the organisation is appropriately structured. Participants believe that having the right people is the building block of effective strategy execution.

IP4: "*It really is the foundation of the business; it is not a platitude; it is not lip service; it is what matters. If you do not have the right people in your operating areas, you have seen it work, and you have seen it fail enough times to know that that is the truth. If you do not have the right people, you will not succeed.*"

As mentioned earlier in the report, Companies need to develop training programs to nurture talent and ensure the organisation builds sustainability execution capacity.

IP1: "*Then next is, you are going to have the people. So we call it the talent pipeline, and that is rather a non-sensitive way of describing it. But it's about we having the right people at the roles and making sure younger people are coming through all the time.*"

IP4: "*You do that by employing people, the right people. You do that by communicating properly with people, by inducting people properly, and by making sure that people are properly recognized for excellence in those areas.*"

On the other hand, participants said that the sustainability teams in their organisations are overstretched, creating delays in executing critical sustainability work in the organisation.

> *IP7: You need confident leaders when you are doing that, and most people are overworked, so they kind of they try to. I was overworked when I was at *****. It is not easy to do you definitely need to resource in this area. You need people who are working on it. The teams most teams I have seen are too thinly spread to get this stuff right*

Some participants believe that their counterparts are more successful in sustainability because they have the requisite structures and personnel.

> *IP13: Then there is a volume thing as well because I think we have the capability, but we actually spread too thinly to really make the impact that we could be making. And if I look at the Manning levels in other companies, I think they have got more capability simply having more resources.*

5.3.1.3.7 Climate change and SDG Goals- Strategy Formulation

Participants are starting to put Carbon budgets or carbon reduction strategies as part of their company strategy. The motivation to reduce the firm's carbon footprint is investor pressure, environmental concerns, regulatory requirements, community pressure and genuine concern about climate change. Participants mentioned that companies should have a strategy to reduce their emissions zero gradually. Participants highlight the importance of committing money in the selected meant to counter climate change.

> *IP4: "The big, big, and more current examples is the fact that we have got this carbon budgeting that we are putting into our business right now. Why? The planet is doomed if we all do not start managing our carbon emissions more responsibly."*

> *IP11: "We are one of the few companies that have not committed to zero-carbon emission. I think yeah yeah, but we are working on that. In the next*

few months, I think we'll be able to say when we are targeting to hit zero carbon emission."

IP4: "Environmental performance is critical. Basically, make sure that you are not using more than your fair share of water, that you're not polluting the environment, that you are taking steps to reduce your footprint. The next thing we need to do is be making sure that you are reducing your impact on them in terms of carbon emissions."

IP11: "But then you know that you are working towards a goal of zero-emission at a particular point in time. You can see that how sustainability in the future will basically inform the strategy if not already. If not all the time."

An important aspect that emerged is that a climate change strategy is meant to reduce emissions and address how the company will deal with the potential disruption caused by global warming. Participants concur that climate change resulting from carbon emissions will result in extreme weather patterns and flooding that will affect operations. Therefore, organisations must start thinking of making their operation climate-proof by formulating strategies to ensure their organisations remain resilient as temperatures rise.

IP4: "Our strategies for dealing with climate have become front of mind, and that's not just saying we're going to use or emit less carbon, but saying, how are we positioned as a business to respond to a warmer globe? If we had 1 1/2 or two degrees warmer, what does that mean? "

Organisations invest in more energy-efficient systems to reduce their environmental impact; this involves investment in renewable energy sources. Companies are showing their commitment to climate change initiatives by investing in technologies that will reduce their emissions; it is not enough to have policies that are not backed up by a budget.

IP13: "There has been a drive over the years to reduce emissions, and it comes in the form of energy efficiency. Would you have less and less

emissions? However, the other element is switching energy sources. So going from carbon-based fuels to maybe renewable."

IP9: As a business, we have not committed like Rio Tinto BHP, who has openly said so in the market.Anglo American, who said this year we are going to spend $500 million or billion dollars on climate strategy. You know, we haven't done that yet as a business about it, but it's coming

Two participants mentioned that the SDG goals and suggested timelines were vital when formulating their sustainability strategy. Aligning their sustainability strategies to achieve SDG goals allowed the companies to have a long term view of their operations.

IP11: "Strategies are based on the Sustainable Development Goals, where we're all basically forging towards 2030. Ah ah timeline, which is something that you see also maybe a well transcended across our discipline."

IP9: "We have a long-term vision, and we have got 2030 to align with the global sustainable development goals. All the strategy is aligned with the 30 you know with all the SDG's and all of that, there is definitely a longer-term outlook."

5.3.1.3.8 ESG at the core of company Strategy- Strategy Formulation.'

ESG functions were obscure, treated like support to an already established strategy, and were not necessarily part of strategy formulation. However, the participants acknowledge that things are changing at the back of investor and regulatory pressures with sustainability brought to the forefront of strategy formulation Sustainability is no longer an afterthought designed only to seek legitimacy; it is now at the core of strategy formulation. Organisations have only started recently making sustainability issues imperative to critical decisions for the company future and are starting to learn how to be efficient in the integration.

IP9: "When I reflect back on maybe even up to 10 years ago, maybe even less than that, looking backwards, sustainability was never really a priority for mining companies, it was really a secondary thing. Fortunately, some companies have done it on their own because, for them, it is important.

However, they realize that they cannot do this without the social license to operate."

IP12: *"Like HR many years ago, it would, it was not seen as part of the business. It was seen as part of the supporting function. Sustainability areas should not be seen as supporting functions. It is actually the lifeline of the organization. When you decide on what commodity to mine, you need to decide how you are going to mine it. including sustainability that is, including your social, including your environmental, including your social, your risks involved particularly those that would have an impact on external people."*

Other participants reiterated the view, saying that sustainability goals and not business objectives must drive the company strategy. The business decisions or strategy must consider how the company activities affect other stakeholders or how people outside the company perceive them.

IP11: "*Strategy cannot emanate from the business imperative. It will emanate from your ESG imperatives.I mean, yeah, if you want to say want to make money, but you busy killing the environment, you're paying fines every year and stuff like that, then it does not sound like a good business."*

IP10: "*Sustainability has to be at the core because even if you talk financial, you are talking financial sustainability. You do not want to make money today; that kills the business plan tomorrow. So it is those principles that you need to, for example, doing stuff today that you know will strain relationships, say with the government. With communities with regulators? Yeah, so, because we do not operate in a vacuum or a bubble."*

One of the participants suggested that organisations do not understand or prioritise sustainability or prioritise and still see sustainability activities as a support function and a cost to the company.

IP12: "I think the one thing that we need to change is understanding what sustainability is within the company. I think at the moment; we do not

understand what it is; we see it as a support function. We see it as a cost carrier. It is not a priority, by the way."

5.3.1.4 *Conclusion*

The analysis revealed that organisations do not think they should have or develop unique competencies that will give them a competitive advantage in sustainability. So, companies are not looking from the inside out when formulating sustainability strategies but depend on their stakeholders to gain more insight to make their strategies more inclusive. A firm sustainability strategy should be informed by solid environmental values, employee safety, protection of indigenous community and collaboration with the government.

Participants assert that sustainability is still a developing field, and there should be collaboration to ensure that the mining industry reputation is enhanced to attract more investment. However, the participants agree that having a sustainability strategy can offer a competitive advantage when competing for funding in the open market. Unfortunately, investors are becoming more vocal about non-adherence to ESG principles and are not investing in companies with no sustainability path.

Based on the analysis of the interviews, eleven constructs/themes listed in Table 4 emerged as critical components of a successful sustainability strategy formulation process.

5.3.2 Results for Research Question 2

RQ2. What are the tools and communication systems managers use to drive corporate sustainability strategy integration and implementation?

The research question was formulated to give the researcher insight into how managers successfully integrate sustainability strategies in organisations. The researcher found sparse literature on sustainability strategy integration, and the question offered an opportunity to develop a theory on the subject. The research question was also meant to investigate organisations' internal and external communication systems used to embed sustainability strategy. For example, it is essential to understand which disclosure forums companies use to disseminate information about the company activities to the public. Understanding if companies

use public disclosures and how managers influence internal behaviour through disclosures will help other managers involved in the same task.

The researcher will present the results in two parts; first, they will present the analysis on strategy integration and implementation, then present the outcomes on the communication required during the process.

Table 5: Strategy Implementation- key emerging constructs

Constructs	Frequency
Leadership mindset and mentality	19
Company accountability structure	19
Integrated thinking	17
Sustainability Training	16
Policies and Standards	15
Integrated Planning	13
Reporting Layers	12
Perception Surveys	11
Internal communication	10
Public Disclosure	9
Company Purpose	8
Organisational Culture	8

The researcher identified 12 constructs from the analysis of the interviews on the critical elements that managers should consider when integrating and implementing a sustainability strategy. In addition, the participants constantly mentioned the leadership theme in the other themes, demonstrating the importance of leadership in integrating sustainability. Although they are very similar in how they were applied, the researcher separated the integrated thinking and integrated planning during the analysis as they presented different nuances.

5.3.2.1 *Sustainability Integration and implementation*

5.3.2.1.1 Integrated thinking

Adopting Integrated thinking ensures that sustainability becomes part of the business conversation, guaranteeing that everyone understands the sustainability

objectives according to the participant's responses. Integration means that all parts of the organisation are connected, and decisions on all aspects of the business are visible to everyone.

> IP3: "*It goes back to integrated thinking. So the day that you will have this conversation entrenched at the strategic, operational level. OK, whether it is business planning, whether it is operational decisions that people have to make daily, then you know you have succeeded.*"

> IP3: "*So you want sustainability as a business concept to be at that level. So when your CFO goes to the market and briefs the market about whatever financial indicators, you want your CFO to talk uh with ease on the sustainability issues.*"

The participants' approach to integration is creating a balance between the financial goals and sustainability strategies. The organisation must plan sustainability activities and business processes together, so they become complementary activities.

> IP5: "*From my perspective, you cannot take Sustainability away from the business strategy because it is an integral part of the same thing. Balanced scorecards are nice because it measures the whole of the business, just one, not one little piece of it.*"

> IP5: "*Are you doing the right things to make sure that the community, the environment and from a fiscal and governance point of view. Are they all in balance, and are they all going to be in place so that you can continue your business? Plan your production plan because you cannot separate them. They are separated because people see them as having the expertise to deliver on them, but they are all integrated and part of the same entity.*"

> IP9: "*As a mining industry that needs to change, you need to have a balanced approach, so that would be my advice to make sure it is (sustainability) integrated into your business. It is a 100% foundation of your*

planning process and that you prepared to put money into it and have leadership that's passionate about it."

The challenge for managers, the participants think, is promoting the concept of integrated thinking in organisations. The participants argue that managers must integrate sustainability into every day activities by creating interfaces between sustainability and production activities.

IP3: "So with all of that, the big challenge you have is largely I would Imagine promoting integrated thinking. Because sustainability, as I said it's those interfaces of the organization. And suppose you are not able to get the integrated thinking understood and embraced across the various business functions. In that case, you are bound to get it wrong and create significant challenges for the company."

IP1: "So I went to ******, which is a little, little mine in ***** is about 100 or 200 km's from ***** So, Bulgaria, in Bulgaria and what they're doing with their people, the ipads like climbing the way they integrated all their activities and the way they linked all parts of the process of the mine. This is as good as we can be and so I would love at Anglo to be that good across the board."

IP1: "Sustainability is integrated into everything we do. As I said, the what and the how, the strategy defines the what and the how. In a way, primary targets are informed by our understanding of sustainability and the how in terms of sustainability ultimately defines what we can deliver."

One of the participants highlighted the importance of the board's in ensuring the integration of sustainability and business strategies.

IP13: "Start with the board and then look to make sure that you integrate it into a business as strategic rather than as a strategy."

5.3.2.1.2 Integrated Planning

Participants advise organisations to integrate sustainability issues at the planning stage of the mine plan to form part of the decision making process. The integrated plan must involve all the key people in the organisation, from operational and administrative teams. The mine planners must be familiar with sustainability activities and work closely with other people for an integrated mine plan that considers sustainability activities.

> IP4: *"Integrating these (Sustainability) issues into the fundamental mine planning, making sure that the correct people at every site are central to the decision-making process, and these other non-operating people at every point."*

> IP7: *"The connection needs to be there and more, and the mine Planner thinks about those things more and more. I think the mine planner, the guy who's paying taxes or designing the tax strategy, that person who's involved in procurement, the lawyers, the community environment, the traditional, you know EHS people. But it's hard to find somebody in the company who Is not really touched by this in my view."*

The participants have started building systems that will help with creating the integrated mine plan mine integrated, but they believe very few companies have started doing that.

> IP11: *"If I look at the integrative work that we are doing with the system, That basically will also tick some of the boxes there."*

> IP9: Then I think the other thing is which companies can do better is when we do business planning. We are integrating that (Sustainability) into the planning piece of the business. Not everybody is doing that. Very few people are doing that.

5.3.2.1.3 Sustainability Training

The participants believe that ESG strategy implantation requires a different leader and workforce specifically trained to deal with competing sustainability and business objectives. As mentioned earlier in the report, the urgency of

implementing sustainability strategies in response to investor pressure will require dedicated training teams for all levels of the organisation. Most of the professionals working in sustainability have learned their trade through experience as there is no formal sustainability qualification. Therefore, the companies have to make an effort to sponsor the development of formal higher-level education for sustainability professionals in partnership with universities

> IP11: *"Nedbank is doing a very good program on integrating sustainability; they have got a dedicated team that is training the executive all the way down to the last level on sustainability issues because they have just realized that the ESG aspects are really overtaking everyone now."*

> IP12: *"We need to develop the capacity of specialists within this area both internally and externally. I mean, there is no qualification in sustainability. If sustainability had a qualification, a clear qualification that talks to those issues and I am sure I hope you can recommend that in your paper and specialists or experts in this area just like mining engineers, they need to be qualified."*

The stage calls for the development of a new mining professional and manager who is aware of sustainability issues and able to create the balance alluded earlier in the report. In addition, the mine of the future that relies on technological innovation will need a new age mining leader who is conversant with sustainability issues. Therefore, mining companies must invest in skills development for future leaders who can balance sustainability and business goals.

> IP3: *A lot of mining companies have been talking about the mine of the future. But when you listen carefully what they have really been talking to is about technology and innovation. It Was never about is hardly about the CEO and the GM of the future.If you do not train people that will have that level of thinking and balancing the needs. You keep hiring GMs that were trained years ago that has not been refreshed. You'll keep creating that tension."*

5.3.2.1.4   Leadership mindset and mentality

According to the participants, one of the most critical elements of implementing a successful sustainability strategy is the leadership mindset and mentality. Mining companies need to engage or create "positive deviants" who are enlightened leaders who understand the impact of sustainability on the business. The sustainability formulation and implementation concepts are relatively new in the mining industry, and most leaders are reluctant to commit until global standards are adopted. The participants argue that leaders need to be proactive and show initiative on sustainability activities despite the lack of global standards or risk being laggards in the industry.

> IP7: *We need what I would call a **positive deviant,** where you figured it out, you understand it. You want to learn more about it, and you are asking questions about it, and you have the ability to implement it now. Others, I think, are more resistant and or they just don't.hey think it is kind of a distraction.*

> IP6: "*I think, and that's why it comes back. I think a lot has to do with the leadership mentality; the leadership of an organ have got to want to do this. They have got to want to see it as an important and critically important priority.If you have leadership, maybe less urgent or waiting for some global standard to emerge. I mean, it is just too late.*"

Other participants reiterated the concept of getting the right leadership mentality who can make the right decisions when sustainability issues are involved. One of the participant's organisations focuses on developing the requisite mentality and decision-making process through training. Organisations must design training programs to help managers understand business drivers, make decisions that strike the right balance, and create positive deviants.

> IP2: "*With all of our general managers at **********, we have this program called Operational Leadership Excellence, leading Sustainability modules with them that don't focus necessarily on the technical understanding of how do you manage water or climate change, but actually, what is the mindset*

that you need to take into the decisions that you make and how do you think differently."

IP7: *"What I think we need to do is back to the same kind of recurring themes that I am hearing myself Say, you know, ensuring leadership understands the business drivers."*

IP2: *"Ensuring that we have got the organizational leaders to reinforce that culture and mindset. I think this is how it's not just about delivering goals. It's about how that IP1 spoke about earlier. How do people think about how do they make decisions? How do they behave? That has been one of the challenges, we are not there yet, but significant progress has been made".*

Other participants lamented the constant change of senior leadership in organisations and believes leadership longevity will help advance sustainability embeddedness in organisations.

IP10: "*The main issue is a leadership change. So at one time, you have a leader who believes so much in sustainability they move on. You get a leader whom you can see is paying lip service. We keep fluctuating, whereas if we had been constant, we could be in the leading pack."*

IP4: "*We have been endowed with that by the. People who went before us in this company are up to us to keep that alive. I think that sometimes it waxes and wanes with leadership changes with Market volatility with restructurings with a lot of exogenous factors and pressures that come to bear on any company, and it's critically important that you that that is kept alive and and and protected and kept robust"*

5.3.2.1.5   Policies and standards

Participants emphasised the importance of having policies to set a direction for the company and provide managers with governance tools for sustainability implementation. However, the policies must be short and simple enough for people working at operations to understand and implement.

IP9: *"We have here; we have a vision. We have gotten principle strategies, and this is where the policy also comes in. because it sets a direction for the business. So the policy is a high-level statement of what we want to. What we want to achieve."*

IP12: *"We need to have a clear strategy from the top, in terms of our understanding and what we want to achieve from a sustainable point of view, then we need to have policies that talks to that."*

IP4: *"I mean you need your policy, your architecture of policies and standard. It is crucial those need to be drafted in a way that is simple and understandable by the operation so short and to the point."*

The managers need to put systems and controls to ensure that people follow the right policies to integrate and implement the sustainability strategy, so there is no danger of working outside the policy. I

IP3: *"In terms of policies, you can have as many policies, but if what is happening on the floor is something else, then you will have a challenge similar to what the Rio Tinto had."*

The policies must cover all the sustainability disciplines and be accompanied by standards and guidelines for ease of implementation by operators.

IP10: We have several policies that govern how we work in the sustainability field. So we have got the environmental policy, the Community, affairs policy, health and safety policy, and so on. So we have policies. And then after the policies, we have standards."

IP11: *"We are saying the policy framework, what then It requires that each discipline will have its own polic from the policy, What then keeps the wheel turning from the policy will be the standards that we basically put in place, those we call them social management standard. You also have them in the across the disciplines as well in sustainability."*

IP9: "It says, what is the policy about and there are our key commitments. There's a few of them. OK, so these commitments roll over to the standards, and they're all over to the guidance. And they roll over to the site-specific procedures."

Organisations must ensure that the standards put in place to help with strategy implementation and are benchmarked against industry standards.

IP4: You need standards. In terms of the ways that you operate, and certainly, we have all of those in place. These are not just plucked out of thin air, but they are benchmarked against and reviewed so that they are aligned with good practice in the industry.

The organisation must be prepared to back the strategies and consequently the policies that govern them with a budget for execution. There should be alignment on policy for the different divisions of the business, especially the finance and sustainability teams.

IP12: *"I wrote a A policy or a standard that talks to providing each mine to have $10.00 an ounce, Put aside for community investment. It's not approved yet, and it's waiting because finance thinks that a what if the gold price goes this way?"*

5.3.2.1.6 Company Structure and Accountability

Participants assert that sustainability can use the same frameworks and processes to create accountability structures in traditional business strategy implementation. While having sustainability roles and responsibility is essential to the company, sustainability accountability structures must be clear who on the accountable person for different activities

IP10: "Like we do for financial, and production put processes in place that would hold leadership accountable for sustainability performance, we have some in the bonus scheme."

IP7: *"Sometimes if leadership and accountability is not clear, accountability structures actually this one thing we didn't. I didn't touch on, but. People will talk about roles and responsibilities until they are blue in the face, but usually, it is not very clear who is accountable, who is going to get fired if things go wrong?"*

Like how safety was integrated and implemented into business, people in the organisation must understand that sustainability is everyone's responsibility and not a role for the sustainability professionals alone.

IP 10: "To ensure that accountability for sustainability issues.Is pushed to where the action. It is not seen as a role for the sustainability disciplines., we have done well as a company is in the industry in this safety space.And we need to do the same in the rest of the business."

Participants recommend employing specialists in every sustainability field within the organisational structure to offer advice and focus on their areas of expertise during implementation. Sustainability is a specialised field, and attempting to have one person technically responsible for multiple disciplines will render the implication complex.

IP9: *"What makes us a bit unique is the way that we are organized. A number of big companies have sort of have people, having dual dual accountabilities, one person that is looking at the safety, health, environment, and maybe one or two other disciplines. I think then it becomes difficult because it can be very complex. We have ve got specialists that look at the different areas."*

IP4: "We have subject matter specialists in the area of safety, environment and whatnot that supplement their capability and on do not report to the same people."

IP9: "I think where we got an advantage is the fact that we have got specialists that look at the different areas. We have got those specialists in

the areas, and they are focusing on that. I also think the structure that we currently have helps."

5.3.2.1.7   Reporting Layers

The number of reporting layers from the board to the execution level is closely associated with the company structure. Participants explained that having too many layers in the organisation can create challenges and tensions within the different layers. Many layers do not facilitate information flow and timeous response to issues and risks; this results in critical decisions being made at wrong levels in the organisation. The participants asserted that the highest levels of the organisation must have a clear sight of what is happening lower down in the organisation. They believe that they might take a different view on sustainability issues that can cause reputational damage.

> IP12: I think for me, it is the organizational structure, the way we are structured. We have too many layers in, too many levels and too many clashing views but also fighting for turf.

> IP7: *"A situation where one layer of the company might have clear knowledge that something is going wrong and or unnecessary risks or something went bad, and it is not filtering up. There is some sort of structure that it is bumping up into. The more layers you have in the organization, the worst that is."*

> IP4: "The importance of the issue was never fully appreciated and then escalated when somebody at a very senior level of the company might have taken a different view and been able to see this."

The more prominent mining companies become too layered because of the span of control, and the senior executives start losing sight of what is happening lower down in the organisation. As a result, the company strategy becomes blurred and changes as it is translated further down in the organisation and loses its essence at the execution level.

IP8: *"If companies get too big and too layered, they start to lose sight of the issues like that, more delayed organization, the smaller the organization, the greater the line of sight in those issues."*

IP6: "*How do you make this happen? How do you translate it through all those different layers and then be sure that the outcome of that the execution where the work is done meets the spirit of all that? So that to me is a real challenge.*"

The solution might be for companies to dissolve some of the many layers in the organisation to make sustainability implementation more effective. The participant argued that the middle layers between the corporate office and sites change the messaging, and having the corporate team communicating directly with sites improves implementation

IP7: "*I worked for years in a company where there was, Corporate, Regional and site-level structures, and at the time, I thought regional structures absolutely critical to the organization really, really important. We dismantled the regions, and It was revolutionary.*"

IP7: "*It was revolutionary; it was so much better, the communication was clear. The corporate had much direct access to sites no Middle intermediary was messing with the communication.*"

5.3.2.1.8   Company purpose

The sustainability strategy must be informed by the company purpose for better integration into corporate activities. Companies will find it challenging to integrate or implement the selected strategy if it does not form part of the company purpose.

IP3: *Ideally, everything starts with the purpose; if your sustainability strategy does not find a hook in the purpose, you have a serious challenge of convincing everyone why you should do this. Even with the purpose, you will have to sell it and make sure everyone gets it.*

IP8: The value should talk to it with respect to the community, to respect to employee, respect to the government.So yes those so as long as it's built into your purpose, your vision, your values.

An organisation's sustainability strategy must be on par with the economic goals, and managers must embrace sustainability as part of the company's purpose. Sustainability and business activities should be seen as complementary and not contradictory. If a company understands its sustainability responsibility to society, there will be little tension between sustainability and business strategies; doing the right thing from a sustainability point of view will impact the firm's evaluation.

IP 13: "*It is not a case of maximizing everything for us. It is through the balance and we have a purpose is to provide you know jobs and employment, and you know economic goods. Yes, it is a trade off because there's a certain amount of impact that we have, but that's that sort of comes with the territory.*"

IP9: "*There should not be a clash because if you're a responsible citizen, responsible mining company who does the right thing from a sustainability perspective.It will reflect in your share price.It will reflect in the type of investors that you have. It will reflect in in in the access to capital you know that you have.*"

When the senior managers in the organisation understand that sustainability is an integral part of the company purpose, it helps them make the correct decisions when it comes to sustainability.

IP3: *The purpose makes it easy for decision Making, makes it easy for the GM in whatever location to make a decision guided by what the company purpose is. The company purpose will outlive the mission and the vision is a strategic intent.*

5.3.2.1.9 Organisational Culture

Participants assert that making a sustainability strategy successful is hinged on creating the required culture through a dedicated leadership team. Creating a sustainable culture will result in a high-performance team that strives to make a difference in everyone's life. Moreover, as mentioned earlier in the report, the teams will live up to the company's values by understanding the organisation's purpose. As a result, the organisation has a team programmed to do the right thing that does not harm people or cause a disproportionate impact on the ecosystem

> IP2: It is around culture and leadership, which is one of the critical foundations in our sustainable mining firm, and it's this concept of mindset and decision making

> IP1: "A high-performance team is talking about the culture and how we work together on how we take all of those points into account in making sure that we are making a difference to people and literally everyone on the planet."

> IP8: *"The important thing is getting everyone to do the right thing. From my point of view, we can change the culture in the business so that you work in this business with the right values and the right code of ethics. You are tuned to do the right things that do not impact and create harm."*

In some instances, companies can have good sustainability performance without the requisite culture. However, participants believe the companies need to cultivate a sustainability culture in the organisation through exemplary leadership. The Managers can instil the required behaviour through policies and procedures to make the behaviour a company culture.

> IP10: *"There is some good performance, but it cannot be easily said to be because of the company's culture. We still have to nurture a full sustainability culture in the company, and there is a saying that it starts with leadership."*

IP1: *The role of leadership is to change behaviours, and then one hopes at a time the behaviours that you force through policy and processes and procedures actually turns into or create an attitude that ultimately falls into a culture*

A company can show good progress on the sustainability front by cultivating a culture of openness on every level and encouraging everyone to report bad news. Unfortunately, organisations generally do not communicate very well; things can continue without being escalated to the next level n when they go wrong. Participants think the culture in their organisations results with information being kept at the different levels in the organisation.

IP1: *"People knew something was not right, and we allowed that to proceed. You got to try and understand what is in our culture, to let that continue. The good news is when someone that I would hope make the right call made the right call."*

IP11: *"Our communication lines are not clear enough, and I think even our cultural set-up. Well, maybe culturally. We are also not open. There's a lot of information that is kept. Let us call it under wraps. Between these three levels."*

Again leadership is seen as key in encouraging information sharing and building a culture of resolving issues timeously.

IP7: *"He came into the company, and he basically implemented something which a culture that was quite different, and it was about having a culture of communicating bad news. So everybody will have bad news, and failure is a failure to report bad news."*

Mining companies need to see their operations as part of the community and use them to create value in communities.

IP7: *"Changing that culture of saying we are going to put up a fence, this is ours when you are operating in a foreign land is really a recipe for disaster.*

We did it for many years as an industry, right? Just build a big fence and then extract as much value as you can and get out of there."

5.3.2.2 *Sustainability Communication*

The researcher will deal with the internal communication used to embed sustainability in this section and use the disclosure section in the RQ3 to report on the external communication employed.

5.3.2.2.1   Internal Communication

Companies have created special forums that enable General Managers to articulate what is happening or what they are doing on Sustainability to the executive team. The participants believe that creating such forums elevates sustainability issues to the same level as production issues, helps the GMs to be more familiar with the subject, and embeds sustainability into the business.

> IP5: *"In terms of creating consciousness around this, we have created the shared consciousness platform through the business to elevate the visibility of that component of our strategy for the business and give it the same prevalence that production and costs and capital have."*

> IP9: *"It is really embedded pretty well in the business, you know. And when you hear the GMs, We talk about the social consciousness forum dashboard at the monthly GM meetings. The GMs are really comfortable now talking through the sustainability issues."*

In addition to general forums, participants say that it is essential to have discipline-specific committees where all the professionals from those disciplines can share their learnings and current activities.

> IP11: *"Internally. I think, Discipline-specific, each discipline has a committee, let's call it a committee of practice or some kind of a forum where we meet with all the regions with all the business unit sustainability leads, and we share."*

Other participants who work for both regional and corporate offices within organisations felt that the sustainability strategy communication was top-down and did not allow for requisite feedback that should influence strategy. They insist that a sustainability strategy must be well-articulated; otherwise, the alternative creates challenges in the integration process.

> IP12: *"Internally, we almost have a top-down, one-way communication, which is also only through newsletters and instructions. There's nothing; there's no bottom-up communication of the strategy."*

> IP10:" *I think we will go back to the basics of having and well documented and communicated sustainability strategy. At the moment, we are neither here nor there. We do not have a well-articulated sustainability strategy for me; that is a challenge."*

> IP9: I must say that the strategy we had, the sustainability strategy, was not well known in the organization. It was more a corporate thing; It was sitting in the corporate office. If you asked the guys at the sites about it they would not have known a lot about it

> IP11: If you go and ask somebody at the business unit about something and go to the region and go to corporate, you will get three different responses. Our communication lines are not clear enough.

Internal communication must be regular and must showcase what the company is doing on the sustainability activities. The communication must be clear, highlight the company's excellent work, and empower employees to be ambassadors of the sustainability strategy. In addition, a well designed internal communication strategy will ensure that the company message is articulated well in the community where the employees live. One of the participants mentioned that positive work in the communities has the potential to improve employee morale

> IP7: *"It includes a lot of communication, regular communication. Anglo American does this pretty well where they have a clear strategy, and then they try to get every employee in the company to buy into it and not only just*

understand it and say, " Oh, this is the part of the company. I love it, but they tried to actually get employees to be ambassadors for the company's sustainability strategy."

IP11: "I think for me, yeah, the issue is communicating positive results. We are really really uh failling short there. Something that we need to do to because I think research shows that where if we are communicating positive results and the impact that we have in our communities. It really helps with the morale of the employees, and I think it's something that we are really missing there. We are really missing that opportunity."

Managers must use every opportunity and resource at their disposal to communicate the company sustainability strategy. Employees become a key communication channel to the community if they understand the strategy and embrace it.

IP7: "They had a communications team with a slogan that said, "everything communicates". It took me a while to think about what does that mean? Everything communicates, but the way I interpreted it, it's not just your press releases and your statements and when the GM has town halls, but it's how that frontline worker, that operator that shovel operator has been interacting with their neighbours in the local community at the bar, their behaviour, the way they talk about the company."

Generally, The participants advance that sustainability must be integrated into the business but do not give specific actions on achieving the integration. The participants emphasised the importance of balancing the business financial and sustainability imperatives of the business as one is not more important than the other

5.3.2.3 *External Reporting*

5.3.2.3.1 Mining Reputation

The literature review revealed that mining companies suffered significant setbacks on sustainability resulting in the general loss of confidence for the industry. The response from the participants further reiterates the view. Participants believe the

covid pandemic allowed mining companies to improve public perceptions of their operations because of their proximity to communities.

> IP11: "Every time you talk about the mining industry, there was a lot of fear and mistrust regarding our operational capabilities. However, after covid that ah picture is slightly moving towards the positive because they actually realize that you know what we basically need this other and these guys were there during the toughest times."

> IP11: "*With the advent of COVID-19, where the whole mining industry, I think AGA leading the pack, working with the government local communities helping them that that really when assisted with the way we are perceived as a company and the industry.*"

5.3.2.3.2 Public Disclosures

Participants use public disclosures to try and change the attitude of the people working inside the company. They see public disclosures as a form of reporting that will drive positive sustainability behaviour in the company. The sustainability reports are integrated into the financial reporting, and companies endeavour to use KPIs relevant to their operations. Since the reports are made public, participants believe that managers and directors will pay close attention and make an effort to improve performance

> IP10:" "*Disclosure actually drives behaviour funny enough. You manage what you measure, so it applies in public disclosure as well.*"

> IP4: "*Our sustainability reporting are integrated reporting and actually, you know, for the first time we had an Analyst Day had a specific sustainability element to it. We are specifically engaging on ESG issues with sustainability investors.*"

> IP10: "*There are some indicators with scientific backing that are good indicators of performance. You say climate change. Green gas emissions stuff you can see big commitment when people are*

reporting on their scope one emissions, which are the direct emission from their operations."

IP10: *"You are putting it out in the public domain. It becomes a real negative or positive reflection on the company if the numbers are good or bad. That incentivizes certainly senior management and directors. The financial press compares metrics between companies that drive attention and drive behaviour. So disclosure works."*

The participants emphasised the importance of using the public disclosure reports for self-reflection and to improve sustainability performance. Participants said that the public disclosure reports are not marketing documents and must be a true representation of the company's sustainability performance. The participants argue that the bottom line should not only focus on financial reporting as public sustainability reporting can potentially affect the company's valuation.

IP4: *"We need to continually work to make that (Sustainability report) an accurate representation of how we did and unflinching representation. We need to try not to revert to marketing to make it a marketing document. It needs to be something of a scorecard, a document of self-reflection."*

IP10: Some people use easy Indicators and it may not be a fair indication of performance. Just using certain indicators so that you can be seen to be reporting

IP11: *"I think for me, the challenges that we are more trying to please everyone else only on financial terms. Yet in the long term, we are not judged only by financial terms were also judged by our sustainability performance.*

Companies publish sustainability reports annually, and participants think they should be released more often, preferably quarterly, when companies release production and financial results. In addition, the rise of social media means that firms must release accurate reports expediently to dictate the narrative.

IP11: *"I think externally, yeah, it's very difficult. Whatever decision we make we we only have maybe engagement platforms via our annual annual reports."*

IP11: *"External is not as often as it should be. I think it can be more often, especially what we probably want to do. If all is well without any changes, it will be good to have quarterly or every time we issue the financial and production."*

IP12: *"It becomes critical to report, and reporting must be accurate; it must be done timeously. We now have social media, and you do not want reporting to come as a result of what social media."*

5.3.2.3.3 Perception Surveys

Participants alluded to the importance of using perception surveys to understand community and stakeholder acceptance of existing and new projects. The community survey process is not fully embedded in most organisations, but the companies integrate it into their practices. The perceptions surveys inform and give the company intelligence on how communities and other stakeholders perceive the company.

IP7: *"In *******, they actually have a very sophisticated way of measuring community support for that project. It is very it's, I would say, world-class. They do an orderly survey every year to show the support from the community.*

IP 11: *"When you check the social license that has come with our interventions, it is really explainable. Where are we doing our perception surveys, there was just a slight change in how they perceive us."*

IP11: *"The perception service is not widely utilized across the group; it is the process that we are trying to maybe as a pilot and then make it widely utilized from the latter part of this year.*

IP4:*" Making sure that your operations can operate in an uninterrupted way with the support of the communities An overtime over the long term, not just today, not tomorrow, but over years and years and years. and you can only do that by demonstrating your bona fides. your sustainability bona fides on a day in day out basis."*

Participants advise firms to conduct periodic surveys based on the level of engagement required, the project's complexity, or significant incidents affecting the community. Participants advised that independent entities must do the surveys, and if possible, the company's identity is not revealed to the stakeholders. The perceptions surveys can reveal areas where the company has the least and most support, according to the participants.

IP11: *"The perception service is not widely utilized across the group. It's the process that we're trying to to maybe as a pilot and then make it widely utilized from the latter part of this year."*

IP7: *"A survey monitoring public relations firms do these, and they showed trends. I mean, they are very good show showing trends over time very slowly creeping up,but you know where the strongholds of opposition are. You start to know where your support is."*

IP11: *"What do people think about the mining activity that you planning to bring in their backyard? You don't even see our emblem there. The people talk off the cuff. They're not even told which company their testing for, so so it's it's we want to believe it. And it's also done by an independent research company"*

IP11: *" example where our bus maybe cause an accident in town and then next thing when you do another, uh, test the survey, you might find that your support drops to 10 "*

*N*ew Project must have a certain level of support through the different stages before proceeding into the following stages that require more investment. The perception and level of support must be as important as the technical and financial hurdles to ensure that the operational and project managers solve the problems associated with their project. Participants emphasised the importance of doing accurate surveys and using the analysis to get board approval for significant projects, the level of support should be above 70% before approval.

> IP7: *"Nobody really measures it. You rely on your team there to say we got this. We're doing well. We have the support of the community, et cetera, et cetera. If you are on the board and have to make a billion-dollar decision about an investment. You are really just going to rely on somebody saying their support in the community.You wanna see some data to back that up."*

Participants consider employees key stakeholders, and one of the participants highlighted the importance of conducting periodic standardised cultural surveys directed at sustainability. Participants use internal culture surveys to understand how the company culture affects the integration of the sustainability strategy culture of the company.

> IP13*: "We are not doing enough culture surveys in the organization regularly. When we do a culture survey, we always have a different survey with different questions from a different partner and whoever. My advice to the HR team was also that we need to do more regular culture surveys, and it needs to be a consistent survey that you can measure improvement or regression."*

The

5.3.2.4 *Conclusion*

Companies have to develop "positive deviants" leaders who will go against the traditional thinking on sustainability strategy execution. The organisations can achieve this by training leaders to balance business and sustainability imperatives with the requisite mentality and mindset. Too many reporting layers can impede information flow resulting in sensitive decisions being made too low in the

organisation and reputational risk. Therefore, cultivating the right culture and encouraging reporting of bad news becomes very important in sustainability performance.

Sustainability performance Public disclosures can be used by organisations to improve internal behaviours to improve the company's performance. The disclosure reports should be accurate, and companies must release them more than once per year as it is the current practice. In addition, firms must use perception surveys to evaluate the acceptance or rejection of their projects or sustainability initiatives in operating mines. Participants argue that public surveys should form an important data point during the evaluation of the new project.

5.3.3 Results for Research Question 3

RQ3 How do mining companies integrate sustainability performance measurement and performance management systems into business management systems?

The research question probes the sustainability performance measurement systems used by mining companies to achieve excellent sustainability performance .

5.3.3.1 *Sustainability Performance measurement systems*

As mentioned earlier in the report on the maturity of sustainability, the integration of sustainability reporting is still a developing area as well. Sustainability reporting is far more complex as it has to cover traditional reporting of productivity and financials and include sustainability elements in the same report.

> IP5: The world has not yet reached the level of measurement, sophistication, and standardization needed to have a proper, balanced view of ESG.. Such that when you pick up your triple bottom line reporting, it's environmental sustainability. It's your governance and there is your financials and you're your productivity

5.3.3.1.1 Whats gets measured gets done

Participants say that companies measure different sustainability performances parameters from employee safety performance using heat maps and the company track record on upholding human rights. In addition, companies establish grievance registers and obligations measurement systems that are tracked to ascertain the functioning of their community interventions programs. As the performance management system matures, companies are able to measure the success of their strategies on critical parameters like the level of community support and local investment

> IP4: *"We measure human rights abuse, and happily on the human rights front, we have had a clean sheet for the last several years and hope that may continue. On community disturbances, we have not had a clean sheet because we have had protests and Site blockages; we have had various things over the years which are really a sign that something is not right."*

> IP9: *"I introduced a process with a heat map per operation with the different actions and dates in the strategy. I report that to the CES committee and to the board, and to the executive committee to show them how we progress these safety strategies."*

> IP7: *"If you have a management system around the sustainability Community, government relations, those softer areas. Need to have Grievance mechanisms in the community that are functioning, obligations register and commitments are correctly tracked. As you get more sophisticated, you could look more closely at things like the percentage of local spend, percentage of local hire and an in measuring community support."*

The sustainability measure parameters are made part of the standard reporting systems, and there is a focus on them because they are essential to the future of the business. However, participants highlight that some sustainability parameters like community trust and community relations are hard to measure.

IP8: *"This is how our water incidences are; this is our energy savings and carbon. So it's all that integrated. We don't call it sustainable these all the important business parameters."*

IP7: *"I think you need just like any other area you need. You need ways to measure it and understand it. It is hard for community relations, especially safety. community social performances are tough to measure."*

Participants are worried that operators do not give Sustainability reports the requisite focus or scrutinise them, similar to how it is done with production performance reporting. Participants believe companies must put more pressure on operators to improve sustainability performance through reporting

IP11: *"Every quarter they tell us that which business unit is struggling meeting up to the production target. But on the sustainability side of things, if you don't read the sustainability report after the year, it is very difficult for just our normal employees to be fully aware of what we are doing."*

IP11: *"We are telling you what is happening on the community and environmental sites because we are fully aware that we are pressing our operators very hard on production. but we are not pressing them very hard on sustainability performance, which really if you do it like that, their focus will always be where they are feeling the pinch."*

Other participants believe that they have started to integrate sustainability successfully by prioritising sustainability performance indicators. For example, the Business unit managers in their organisations are on the path to becoming positive deviants. The organisation expects them to be conversant with their sustainability performance indicators and articulate their crucial sustainability work to the senior officers in the organisation quarterly.

IP5: *"You definitely have GMs getting up to speed with what proportion of their employees are there? High-risk employees are exposed to above limit dust or noise. The big health issues are in their sights or the community*

grievances beyond 30 days and have not been cleared. Check whether a proper communication and stakeholder plan is being rolled out on sites."

IP5: *"All of those things that may not have necessarily featured in this sort of frame for all GM's are now mandatory because that GM will report to the Chief Executive Officer and the executive team once every three months."*

5.3.3.1.2 Key Performance Indicators tracking

The development and implementation of sustainability performance measurement systems vary from one organisation to the other. However, other Participants have developed and are tracking KPIs that keep everyone accountable to improve sustainability performance.

IP9: *"There is a performance indicator measurement here. There is accountability there, and you can see kinds of entities, an execution date, and a key year.You have to put it in front of people in their face, you know and keep them accountable. Keep it monitoring and all of that, and this has really worked well for us."*

IP13: "*Environment includes reportable incidents; reportable is a certain severity of incident that we have over which it becomes reportable to the board."*

The participants believe other companies select KPIs that are not relevant to their operations to seek legitimacy, for example, a bank reporting on carbon emissions Other Participants believe that there is still some work to be done on developing relevant KPIs that tracks sustainability performance in organisations. The companies have set objectives based on the strategy but need measures that will help them evaluate the success of their implementation strategy. Companies will have to focus more on the development of the social performance KPIs as they are key in the organisation's success.

IP10:: How do you leave communities better of? What objectives do you put in place, and what measurables do you put in place? So that you can achieve those objectives. I would say not well defined "we are not ahead of the curve. We need to improve the development of targets and then monitor those KPIs."

IP10: What are our objectives, and what are those measurables that define us as the best mining company in the world? So that is what we need to set for sustainability. Uh, whether it is climate change, environmental compliance, or community spending, we need to set objectives and targets.

IP7: I think I could set up a business you could set up a business advising companies on how to build in sustainability. In particular, the S in ESG, the social metrics because health and safety are fine. Environments fine. It is the S that really needs to be built in and measured, and it is really hard to do

One participant believed that indicators used in their organisation were ineffective in improving sustainability as they were designed to legitimise the company's sustainability credentials.

IP12: *"I think our current indicators are an indication of a commitment towards a management performance, towards ticking the box, towards making sure that the shareholders are happy, make the board happy."*

5.3.3.1.3 Management routines

Participants create management routines at the operational level to ensure that these routines cultivate the behaviour required for sustainability strategy implementation. Companies write simple procedures that they think will make sustainability strategy practical. The company must encourage the desired attitude and encourage managers to execute the work with the spirit behind the sustainability strategy.

IP5: *"All of those things that may not have necessarily featured in this sort of frame for all GM's are now mandatory because that GM will report to the Chief Executive Officer and the executive team once every three months."*

IP6: *"It is about always trying to make it practical. We have what we call active management behaviours, and for us, there are eight key behaviours, and there are eight key tools and simple, and this is simple stuff."*

IP5: "What is the spirit behind this? How can we go? But this is not just a minimum standard. How can we go beyond this to really live that principle? So there's an attitudinal thing."

Leaders in the organisation must adopt the routines with an understanding that sustainability makes business sense. Senior managers must align to the company's ways of doing things, which can be achieved through the HR selection and deselection process.

-0

IP6: It makes good business sense, and it's for leaders to understand that and say OK and to embrace it rather than trying to push it away. And some organizations are very good and others which maybe have a little bit of work to do.

IP1: "These are things we are going to do this is how we are going to do it. A nd if you disagree with that being appropriate or and if you even cannot do it, then, its sometimes pretty tough and may change people until we get the alignment in the organization."

5.3.3.2 *Performance Management*

Safety was the first sustainability parameter to be tracked and improved by mining companies, and there is consensus in the industry on how safety performance is measured. However, globally, there is no standard or consensus on measuring or tracking other sustainability performance parameters.

IP6: *"How do you measure it? Because in order to use it as a base for compensation, it has to be Measurable. You can*

> *measure safety now; they have agreed formats, agreed terminology. I think sustainability within this whole broad area of ESG, it's a lot more difficult at the moment."*

> IP5: *"The world has not yet gotten to the level of measurement, sophistication, and standardization needed to have a proper, balanced view of, Let us just call it ESG."*

> IP6: "*There are not enough uniform reporting codes yet in place. I mean, South Africa has the social and labour plan by which you report on an annual basis."*

5.3.3.2.1 Sustainability Tied to compensation

Integrating sustainability into business practices is new in the mining industry, as mentioned earlier in the report. However, participants believe that a correctly designed incentive scheme will drive change towards sustainability performance in the organisation.

> IP7: "You want to drive change? You want to drive attention and focus on a particular area. Figure out how you are going to influence the pay structure and that that will drive change."

> IP7: *"If I was to go into a company that I know is slow to change, I am doing it on the condition that I can influence the compensation structure of the people on the ground. Because if I do not, I'm not going to. It's not going to work."*

Participants use financial incentive schemes to reward superior sustainability performance in their organisations. The sustainability part of the remuneration forms up to 25 % of the bonus structure to drive a sustainability mindset and behaviour.

IP11: *"If people are doing well sustainability-wise, they need to get financial benefit and stuff like that, but what would be the best way to incentivise sustainability performance."*

IP5: *"If you go and look at the discretionary component of our remuneration, that is all well, 25% of that is on kind of sustainability issues, so it is fundamental to the way the business is run because that is how we incentivise people to run the business."*

IP2*: "We are wiring that into things like business expectations, reward structures, and ensuring that we have got the organizational leaders to reinforce that culture and mindset."*

Other participants believe that companies need to be more creative with the incentives offered to top performers as positive deviants might derive motivation from other incentives either than financial ones.

IP11*: "Maybe look at other ways of incentivising best performance. I might find that it is actually much more encouraging as an incentive to say, You know what, guys, here is about 600 or maybe 200 trees go and plant them in this particular area. I think it's something that we need to do to think outside the box."*

One participant said that incentives schemes are designed to reward short term thinking and behaviour and do not encourage managers to take a long term view on the business sustainability objectives.

IP12: *"But we do not have incentives that look at the future sustainability, that looks at how we retain the social license to operate."*

5.3.3.3 *Conclusion*

The section reiterates the importance of developing and implementing sustainability performance reporting systems that are linked to incentive schemes. An incentive scheme that rewards excellence in sustainability performance will help with the

embedding of sustainability culture. Managers need to think outside the box when developing incentives schemes linked to sustainability as the positive deviants might not be motivated by financial gain. Sustainability performance measures are challenging to develop and track as the field is relatively immature. Companies must guard against rewarding short term thinking at the expense of long term sustainability improvements.

CHAPTER 6: RESULTS DISCUSSIONS

6.1 Introduction

The sixth chapter of the research report will link the literature review in Chapter 2, Chapter 3 that introduced the research questions, the 4th Chapter that explained the methodology, and the previous chapter that reported the results of the interview analysis.

The researcher will compare and contrast Chapter Five's findings with existing literature on strategy formulation, strategy implementation, Sustainability strategy.

6.2 Research Question 1 Discussion

How do mining companies develop and integrate corporate sustainability strategies into business strategy?

The object of the research question was to get insight into the factors that managers consider when formulating a sustainability strategy. Furthermore, the researcher probed managers on how they embedded and integrated sustainability strategies into their business practices.

6.2.1 Mining Industry Sustainability Concept

The researcher thought it was imperative to establish what the leaders perceived as sustainability at the beginning of the interview. As a result, five definitions, themes or perceptions of sustainability by participants emerged from the analysis. The themes are i) Companies interaction with its ecosystem ii) Balanced approach on financial and sustainability objectives iii) Company remains viable in the long run iv) Responsible operator v) Preserve resources for future generations vi) Develop future products. The perceptions align with (Lagasio & Cucari, 2019); they defined sustainability as Environmental, Social and Governance activities covering a broad spectrum of the company's interaction with its environment. Throughout the interview, the participants mentioned that a sustainability strategy would address social and environmental performance and rarely mentioned governance as part of sustainability. The researcher suspected that participants either do not consider

governance as part of the more significant sustainability piece or incorporate governance in other corporate practices.

6.3 Strategy Formulation

6.3.1 Unique competencies

The literature review established that scholars believe that Strategy formulation focuses on creating or identifying the firm's rare and difficult to replicate core competencies that distinguish the organisation from competitors for superior returns (Bromiley & Rau, 2016; Lanzolla & Markides, 2021; 2008; Rosenberg Hansen & Ferlie, 2016). However, the research found that managers do not consider their organisation's unique competitive advantage when formulating a sustainability strategy. Although organisations believe that a superior sustainability strategy will give their organisations an edge with their stakeholders, they do not actively develop unique sustainability capabilities.

The findings contrast the RBV theory of strategy development, which explains that companies develop strategies around rare resources that are valuable, impossible to imitate and hard to substitute (Bromiley and Rau, 2016). In contrast to the RBV, the results from the analysis suggest that participants believe companies should collaborate in developing sustainability strategy as this is key in improving the mining industry reputation. The finding was surprising as rival mining companies suggested that sustainability presented an opportunity for collaboration to improve the industry's image was more important than creating a competitive advantage. The concept is discussed further under the finding for RQ2.

Even though participants do not create or actively identify unique sustainability competencies, they mentioned that they believed their companies performed better than other mining companies in other activities. These were stakeholder engagement, future products development, company sustainability culture, organisational structure, human rights record and community development projects. In addition, Some of the constructs like community engagements emerged as key themes that companies consider when formulating strategy.

6.3.2 Factors influencing Strategy Formulation

As listed in table 4, the study revealed nine factors managers consider when formulating a sustainability strategy. The study makes three critical findings on the sustainability strategy formulation and process thoughts managers employ during the process. First, the managers formulate the strategy to improve the organisation's environment and social performance. Second, the study found that managers formulate sustainability strategies to harness internal capabilities in response to the external environment. Thirdly, managers are cognisant of the importance of the sentiments and inputs of other stakeholders when formulating the strategy. Table 6 is a sustainability strategy formulation model that can assist managers with the process of strategy formulation. The model links the strategic objectives to the key factors managers must consider and classifies the factors to direct the process.

6.3.2.1 *Stakeholder Engagement*

The study found that stakeholder engagement was the top factor considered by managers when formulating a sustainability strategy. Managers regularly engage employees, host communities, governments and investors to get inputs into the company's sustainability strategy. The stance is supported by (Joshi and Li, 2016), who argued that stakeholders and investors expect firms to act socially responsible and preserve the environment while pursuing financial objectives. In addition, Lloret (2016) found that shareholders and communities influence a firm's business decisions, and stakeholders engagement provide firms with an opportunity to address stakeholder interest.

 Participants say their operations directly impact host communities and are therefore crucial stakeholders. The position is supported by (J. Xu et al., 2019), who argued that community engagement and involvement would give a company is a competitive advantage; shareholders emphasized the importance of shareholders in the sustainability strategy and used different forums to engage investors. Investors now consider companies sustainability performance when making business decisions factors when making investment decisions to promote good corporate citizenship (Pedersen et al., 2020; van Duuren et al., 2016). Cesar(2019) suggests that companies work from the inside out to earn a social license to operate

6.3.2.2 *Regulatory and Investor Pressure*

Participants believe that companies must build strategies that will help adhere to the country's laws and align with investors' demands. In response to investor pressure, participants change their corporate strategies to be environmentally friendly and socially responsible. Adherence to regulations is essential in strategy formulation, but participants believe investor pressure plays a more prominent role. Participants believe that pressure from investors and NGOs will shape sustainability strategies that will inform future corporate strategies.

The findings align with (Derchi et al., 2020), the authors argued that investor pressure and regulatory requirements make sustainability activities a priority when firms formulate strategies. Cundill et al. (2018) found that managers sometimes respond to regulation and investors by complying, as the stakeholders expect managers to change their strategy to align with their requests. The formulation of the strategy in this respect is in line with the institutional theory, which explains that companies formulate strategies in response to external pressure (J. Xu et al., 2019)

6.3.2.3 *Local employment and Procurement*

The study results found that the host communities' lack of employment procurement opportunities was a significant source of tension. Therefore, the managers believe creating meaningful employment and procurement opportunities is key to peaceful co-existence with communities. In addition, the results show that managers are deliberately investing in the training of the local workforce and the development of local enterprises. Furthermore, the study found that local skills development has become critical to the firm's performance due to reduced mobility of international skills due to Covid 19 restrictions. Finally, managers are cognizant that local suppliers might be more expensive than their international counterparts initially but will create cost benefits in the long run.

The findings were in line with Cesar & Jhony (2021), who found that companies that used a development approach that created local jobs and had a local procurement plan allowed host community members to approve the company

operation. In addition, Cesar(2019) found that companies earn legitimacy and host communities sponsoring local businesses and procuring goods from the same businesses.

6.3.2.4 *Climate change and SDG objectives*

The results show that companies are starting to put carbon reduction initiatives as part of the company strategy. The companies are motivated by concern for the planet, a response to investor pressure, regulatory compliance and community concern. The participants said that their firms are targeting to reduce their carbon emissions to zero. The climate change initiatives from the firms are not only targeted emissions reduction; the study shows that managers are putting strategies to address potential disruptions coming from climate change. In addition, the study reveals that companies invest in renewable and energy-efficient systems and show commitment to climate change initiatives by investing in technology.

The findings are consistent with (Gallego-Álvarez, Segura, & Martínez-Ferrero, 2015), who found that companies promote improved environmental behaviour to secure higher financial returns. The Financial Services Board (2021) supports the position and highlights the risk to climate change financial services systems. Aldy & Gianfrante (2019) said business leaders are aware of the negative impact of climate change on the firms and are putting strategies together to counter the impact.

Some participants said that part of their sustainability strategies aligned to achieving the SGD goals, allowing their companies to have a long-term view. Sustainable development goals launched by the United Nations have emerged as an action plan for companies to pursue sustainability agenda (Lloret, 2016; Monteiro et al., 2019). The authors found that mining companies are uniquely positioned to advance SDG goals in remote areas where they operate. Porter et al. (2019) found that investment funds used SDG themes as part of their investment strategy to create competitive advantage and social impact.

6.3.2.5 *Social License to Operate*

Participants said that mining companies must develop a community strategy to deal with community development projects, alternative livelihood projects, community autonomy to obtain a Social license to operate. In addition, participants say community expectations are constantly evolving, and companies need to be in constant contact to appreciate the communities frustrations.

The study revealed that securing and maintaining the social license to operate was a critical construct that drove companies strategy. Participants advise managers to align the company's sustainability strategies to the interest of the communities and other stakeholders to earn the social license to operate. Participants believe that problems originate from companies that elevate their interests over those of their stakeholders. The study found that companies must not use more natural resources than they need. They need to constantly find ways to reduce their operational footprint and minimise their impact on society.

The study warns managers against thinking that philanthropy is sufficient to address community frustrations and gain community trust for a social license to operate. Participants say companies must develop policies that enable communities to be autonomous and reduce reliance on mining operations. The study encourages companies to sponsor revenue-generating community development projects but let communities decide what they want to do with the generated revenue. Alternative livelihoods programs are essential in helping to secure the social license to operate.

The social to operate construct in the literature aligns with the study findings for companies operating in the extractive industry (Cesar, 2020). (Demuijnck & Fasterling, 2016) found that companies that operate within communities seek the social license to operate through social activities and stakeholder engagement. Cesar (2019) advised companies to use an inside out approach that's starts with companies engaging the community, forming inclusive teams that include community leaders and creating foundations that include community members to evaluate and approve community-based projects.

6.3.2.6 *Capacity and Right people in roles*

The results show that the development and execution of a sustainability strategy are dependent on having the right people organised optimally in the organisational structure. The company must have specific training programs to ensure the talent pipeline continues with the strategy formulation in the long term. Participants believe that most sustainability teams are overstretched and unable to execute the strategy effectively

The results align with Lloret (2016), who found that companies seeking to overcome societal and environmental restrictions must incorporate resources and capability strategies in the organisation. Companies must recruit and retain people who align with the companies values and strategy (Galpin et al., 2015)

6.3.2.7 *Strategy Core and company Values*

The analysis shows that managers formulate the company strategy around values built into the company mission and vision statements. For Sustainability, managers build company values around protecting the environment, employee safety, prospering host community and collaboration with the government.

The findings are consistent with (Galpin et al., 2015), the authors found that the organisational values were a foundation to achieving internal alignment on prioritising sustainability practices. Sroufe (2017) asserts that the importance of sustainability in the organisation will require that the corporate values align with the sustainability agenda. Furthermore, the findings align with (Cesar 2019), who advised practitioners to build values that resonate with protecting stakeholder rights and preserving the environment.

The study reveals that historically sustainability functions did not form part of the company's main activities and were discussed as support functions. The situation resulted in underresourced sustainability functions that were unable to deliver the required objectives. Participants assert that sustainability objectives must be at the core of the company strategy formulation process to inform the business strategy. Managers are encouraged to find a balance that ensures the company remains profitable while addressing sustainability issues.

(Galpin et al., 2015) supports the finding and argues that leading companies embed sustainability as part of their core values, strategic issues (Y. Xu & Zeng, 2020), and business core (S. Kennedy et al., 2017).(Engert & Baumgartner, 2016) implored companies to prioritise sustainability activities and make them part of the core corporate objectives
.

6.1 RQ1 summarised discussion

The research results demonstrate that managers consider several factors when formulating a business strategy. First, a sustainability strategy has to be at the core of the business and supported by company values. Secondly, engagement with stakeholders, especially communities, is common in all the other themes and key in informing the company strategy. Finally, the analysis of the factors used by participants gave rise to the following six themes that define sustainability strategy formulation:

Theme 1: Structured stakeholder engagement

Theme 2: External institutional pressure

Theme 3: Develop local capacity

Theme 4: Social License to operate

Theme 5: Organisational capability and structure

Theme 6: Organisational values

Theme1: The study findings highlight the importance of stakeholder engagement in formulating strategy. The findings are consistent with the current literature on stakeholder engagement (Cesar, 2019; Cillo et al., 2019; Joshi & Li, 2016; Lloret, 2016; Pedersen et al., 2020; van Duuren et al., 2016)

Theme 2: The study found that External pressure like government regulations, investors, SDG and climate change agreements influence sustainability strategy, making sustainability activities a priority. TheThe findings are consistent with Institutional theory as explained by (J. Xu et al., 2019) and supported by literature from (Cundill et al., 2018; Derchi et al., 2020).

Theme 3: The study found that companies train local people and sponsor the creation of local enterprises to avoid tension, gain legitimacy and benefit from lower employment costs and procurement costs. The findings are consistent with

legitimacy theory as discussed by (Deegan 2019) and literature from(Cesar, 2019; Cesar & Jhony 2021) on legitimacy seeking behaviour through local development.

Theme 4: The study results show that mining companies are constantly seeking legitimacy and the social license to operate through stakeholder engagement, development projects, and align their interests with stakeholders' interests. The findings are consistent with legitimacy theory (Deegan, 2019) and current literature on earning a social license to operate (Cesar, 2019, 2020; Demuijnck & Fasterling, 2016; Flammer et al., 2019)

Theme 5: The findings from the study suggest that managers are not happy with the current staffing levels in sustainability teams. The managers say that companies must align their HR practices to their sustainability objectives. The findings are consistent with current literature on building a sustainability capable organisation (Galpin et al., 2015; Lloret, 2016)

Theme 6: The study found that the company draw their values around sustainability values and formulate the business strategy around those values; sustainability objectives must be the core of the company strategy to find a balance. The findings confirm current literature on company values and sustainability being central to sustainability strategy and integration (Cesar, 2019; Galpin et al., 2015; S. Kennedy et al., 2017; Sroufe, 2017; Y. Xu & Zeng, 2020)

Table 6 is a sustainability proposed strategy formulation model that can assist managers with the thinking process for sustainability strategy formulation. The model links the strategic objectives to the key factors managers must consider and classifies the factors based on internal capability or external considerations.

Table 6: Sustainability Strategy formulation and Integration Model

Objectives	Strategy formulation Themes	Constructs	Factor Type	Outcome
Improve Social and Environmental Performance Strategy	Structured stakeholder engagement	Stakeholder Engagement	Internal Capability	Sustainability Strategy
		Community strategy		
	External institutional pressure	Regulatory pressures	External Consideration	
		Investor pressures		
		Climate change Achieve SDG Goals		
	Develop local capacity	Local employment and procurement	Internal Capability	
	Social license to operate	Social license to operate	External Consideration	
	Organisational capability and structure	Capacity and Right people in roles	Internal Capability	
	Organisational values	Driven by values	Internal Capability	

6.1 Research Question 2 Discussion

RQ2. What are the tools and communication systems managers use to drive corporate sustainability strategy integration and implementation?

The research question probed participants on the tools and communications systems used to embed the formulated strategy into corporate practice and routines.

6.1.1 Strategy Implementation Components

The researcher identified seven themes listed in table 7 from the 13 constructs in table 5 that emerged from the data analysis.

Table 7: Strategy Implementation Emergent Themes

Themes	Emerged Constructs
Leadership mindset and mentality	Leadership mindset and mentality
Organisational structure	Company accountability structure
	Reporting Layers
Integrated planning and thinking	Integrated thinking
	Integrated Planning
Sustainability capacity building	Sustainability Training
Policies and Standards	Policies and Standards
Communication	Public disclosures
	External Communication
	Perception Surveys
Company Purpose and Culture	Company Purpose
	Organisational Culture

6.1.1.1 *Leadership mindset and mentality*

The study found that companies must cultivate and nurture the requisite mindset and mentality that enable leaders to make the correct decision when facing tension between sustainability and business objectives. The HR strategy and systems should be designed to recruit "positive deviants" through recruitment programs create them through targeted training programs. Positive deviants are leaders enlightened leaders who can discern the importance of sustainability activities in the business and balance them with business objectives. The research found that the positive deviant will proactively pursue sustainability excellence and not wait for global standards to emerge. The research found that constant leadership changes hinder the progress of integrating sustainability into the corporate strategy.

The study findings are supported by (Engert & Baumgartner, 2016a), who found that sustainability leadership was one of the critical success factors for successful integration. Lloret (2016) found that companies that adopt a sustainable leader approach that promote a longer-term view, stakeholder collaboration, overcome the lack of industry standards will enjoy a competitive advantage. Engert et al. (2016) argued that the attitude of the leader towards sustainability and their behaviour drives integration in the organisation

6.1.1.2 *Organisational Structure*

The research results show that participants believe that making personal safety everyone's accountability was vital in improving the mine safety records, and other sustainability disciplines should follow the same method. Secondly, the research suggests that sustainability is not different to financial and production accounting, so managers can use the same accountability structures to hold people accountable for sustainability performance. The structure must be clear on who is responsible for each sustainability element so specific individuals can be held accountable for performance. Finally, the study found that employing specialists in every field of sustainability was a success factor for the integration.

The research reveals that many reporting layers in the organisation can create reporting and effectiveness problems as information gets filtered with every reporting layer. The participants suggest that company executives must have direct access to sustainability issues happening at the operational level. The study suggests that companies dissolve the many layers to improve information flow, consistent messaging, and timeous decision-making.

The study found that companies are aligning their structure to deal with sustainability activities; this aligns with literature from (Hamann 2017; Tawse & Tabesh, 2021), who found that the company structure must be aligned to its external environment produce superior results. In addition, the findings on making sustainability everyone's accountability and aligning them with the company values in the business resonates with the findings by (Sroufe 2017).

6.1.1.3 *Integrated Planning and thinking*

The study suggested that managers adopt integrated thinking to ensure sustainability issues are part of the business conversation. Integrated thinking means that the manager understands sustainability and business objectives and balances them from the planning stage. The findings advise managers to make sustainability activities part of the daily routines as they do the operational activities. In addition, the findings show that participants are creating unique systems for integrated planning that allows all the key disciplines in the organisation to contribute to the mine planning.

(Engert & Baumgartner, 2016a) hoped that managers use the factors identified in the literature and their study that influence sustainability implementation during the planning of the sustainability strategy.

6.1.1.4 *Sustainability Training*

The study found that most people working as sustainability professionals had no higher education training in the respective fields. The study suggests that there is a need for industry bodies to partner with higher education institutions to develop qualifications programs for sustainability. Internally, participants advise managers to develop training programs to build organisational capacity to deal with competing priorities of sustainability activities and business objectives. The study found that the technologically advanced mine of the future needs equally capable leaders who are conscious of sustainability issues, the positive deviants mentioned earlier in the report.

The study results confirmed an earlier study by (Tawse & Tabesh, 2021), who found that companies on a path to having a more effective sustainability implementation process invest in the training of their managers to make the right decisions.

6.1.1.5 *Policies and Standards*

The research found that companies used policies and standards to implement sustainability strategies; the policies developed are short and simple for the operations. However, the participants insist that managers must put controls in place to ensure adherence to the policies. For example, the developed policies must have the accompanying standards and guidelines, and companies must constantly benchmark the policies and standards against industry standards. In addition, the study found that the success of sustainability depends on the budget allocated to sustainability, and the sustainability policies must align with the finance team.

The study results are aligned with the findings by(Sroufe, 2017) who called for organisational change management to include new systems that include

sustainability policies as the current processes that drove technical efficiency will not suffice. Furthermore, the results are consistent with the framework for weaving sustainability thinking into the strategic management process" by (Engert & Baumgartner, 2016a) that lists company policies as a factor that bridge sustainability strategy formulation and implementation.

6.1.1.6 *Communication Strategy*

The research found that companies use both internal and external communications to embed sustainability practices. Internally, companies have i) created forums where GMs address executives ii) discipline-specific internal forums iii) regular communications with all employees. In addition, the study found that companies use their employees to communicate the sustainability strategy and achievement externally. Participants believe that excellent sustainability work in the community improves employees' morale, so regular internal communications of the community work need to be communicated internally. Participants warned managers against using a top-down approach with no upward communication channels that will undermine the implementation of the sustainability strategy.

The study confirmed that the mining industry had suffered reputation because of past environmental and social performance (Nyembo, 2018a). However, the study found that the industry's response in helping host communities at the height of the Covid 19 changed some perceptions of their operations. In addition, participants said their companies use public disclosures to change internal behaviours and attitudes to improve sustainability performance. However, the study revealed that companies believe the disclosures can only improve performance if used for self-reflection, and managers must guard against using them as marketing documents. The participants integrate the sustainability reports into their annual financial reports but believe they would add more value if released quarterly.

The study revealed that companies use independent surveys to evaluate the level of acceptance of their operations and projects in host communities. The participants say perception surveys are new in their organisations but an essential tool for evaluating community support. The study found that perception surveys must be done often, and the frequency will depend on the level of engagement

required, stage of the project and complexity. For new projects and projects in the study phase, the board must insist that the project have 70% community support before going into the next execution stage. The participants say that perception surveys must count as much as technical evaluations of projects. The study considers employees key stakeholders and suggests using consistent survey tools to ascertain the company's culture.

The study results on public disclosures impact on company performance are confirmed by (Qian & Schaltegger, 2017), who found a positive correlation between a carbon disclosure and a company's carbon performance. In addition, the study confirms that mining companies report their sustainability performance publicly because of their impact on the communities and the natural environment (Cesar, 2020). Finally, study results confirm previous studies that found that internal and external communication are success factors in sustainability strategy implementations (Engert & Baumgartner, 2016a).

6.1.1.7 *Company Purpose and Culture*

The study found that the company purpose must be clearly defined and be consistent with the sustainability strategy. In addition, the defined company purpose must inform the strategy for ease of implementation. If the company's purpose is central to the conversation, the positive deviants will see sustainability and corporate objectives as complementary and help with their decision-making.

The study found that the correct exemplary leadership will foster a sustainable culture in the organisation. A mature sustainability culture will result in a high-performance team that lives up to the company values and purpose, consistently making the right decisions. The study further found that managers must encourage and nurture a culture of reporting bad news, so issues are escalated timeously for resolution.

The study is consistent with (Cesar, 2019) who found that companies need to define their purpose, which should inform their strategies to earn an SLO. The study findings on the alignment of culture to strategy confirmed the ESCO model

by(Heracleous & Werres, 2016) and finding by (Elbanna et al., 2020, Cummins &Worley, 2020)

6.1 RQ2 summarised discussion

The study confirmed common factors considered by companies for strategy implementation. Sustainability leadership is a common thread that is required to enable all the other factors. In addition, the study introduces two new constructs, leadership mindset and mentality and Integrated planning and thinking.

Theme 7- Leadership mindset and mentality
Theme 8: Organisational structure
Theme 9: Integrated planning and thinking
Theme 10: Sustainability capacity building
Theme 11: Policies and strategy
Theme 12: Communication
Theme 13: Company purpose and culture

Theme 7: The study finding highlights the criticality of leadership in strategy implementation to make all the other components work. The findings are supported in sustainability the literature by (Engert & Baumgartner, 2016a)

Theme 8: The study found that having the correct organisational structure with clarity of role and employing specialists in the different sustainability roles will facilitate accountability. The findings align with the literature by (Hamann 2017; Tawse & Tabesh, 2021)

Theme 9: The research introduces Integrated planning and thinking as a new construct in sustainability strategy implementation. Engert and Baumgartner (2016) advised managers to use the sustainability integration factors identified in the literature.

Theme 10: The study hopes that companies work with higher education institutions to develop formal sustainability curriculum and qualifications as there is currently none. In addition, managers must develop internal training programs to develop

positive deviants. The findings are consistent with the study by (Tawse & Tabesh, 2021)

Theme 11: The study found that companies use simple policies, standards and guidelines for sustainability implementation. The study aligns with (Engert & Baumgartner, 2016a; Sroufe, 2017), who identified called for new systems that include sustainability policies as they are a critical factor that bridges strategy formulation to implementation.

Theme 12: The study found that companies use both internal and external communication to embed sustainability practices in the organisations. The findings align with current literature on the use of communication when implementing a sustainability strategy (Cesar, 2019; Engert & Baumgartner, 2016a; Qian & Schaltegger, 2017)

Theme 13: The study found that the sustainability and corporate strategies must be formulated around a common purpose to make sense to the people implementing them. The study further found that companies can create a sustainability culture through exemplary leadership, and the cultivated culture will result in superior sustainability performance.

6.1 Research Question 3 Discussion

RQ3 How do mining companies integrate sustainability performance measurement systems and indicators into business management systems?

The research question probed the sustainability measurement systems used by companies to measure the success of sustainability strategy implementation and embeddedness in organisations. In addition, the question probes whether companies use incentive systems and how they are used to improve sustainability performance. The study emerged five constructs from the response on how companies used sustainability measurement systems and indicators to integrate sustainability practices. The researcher grouped the constructs into two themes in table 8 post the analysis.

Table 8: Sustainability Performance Assessment

Themes	Emerged Constructs
Measurement Systems	What gets measured
	KPI Tracking
	Management routines
Performance Management	Sustainability Incentives

6.1.1.1 *Measurement systems*

The study found that sustainability measurement is a relatively new field and more complex than financial and production reporting. Participants use heat maps to track safety performance, grievance registers to track grievance resolution, companies human rights performance records and obligations measurement systems. The participants believe that using perceptions surveys to measure community support and tracking local development is the next step in the sustainability performance maturity curve.

,

The study found that mining companies regularly developed and tracked sustainability KPIs to hold managers accountable for sustainability performance. Sustainability measurements are classified based on their severity to employees, communities and the environment. Participants report certain levels of negative performance or non-compliance on sustainability objectives to the board. The measurement criteria selected must be a true reflection of the company's sustainability performance for genuine sustainability improvements.

The study found that management routines at the operational levels were key in creating the correct behaviour, reminding workers of the values and cultivating the requisite culture to improve sustainability behaviour. Companies break down sustainability procedures into simple steps that are made part of the routines when completing tasks. Post engagement and adoption of the company routines, managers must align to the routines or risk deselection.

The findings are consistent with the current literature by (Morioka & de Carvalho, 2016), who found that companies have to develop new capabilities that different from the current business execution capabilities. The authors further found that

integrating SMPS into the business process was one of the critical capabilities companies needed to develop to improve sustainability performance. The study finding is in line with the current literature that suggests that sustainability performance management and reporting and its integration into business practice is new and needs further development (Kühnen & Hahn, 2018)

The findings are consistent with the current literature on the growing number of companies that use sustainability reporting to gain legitimacy and embed sustainability practices in their business (Bartels et al., 2020; Heenetigala & Lokuwaduge, 2017).

6.1.1.2 *Performance Management*

Unlike safety performance management, the study found that the managers were not aware of globally accepted standards on sustainability reporting that companies could adopt for performance management. The study found that well thought, and designed performance management system that ties sustainability improvement to management incentives will improve sustainability integration. Companies assign up to 25% of what they call the discretionary portion of the remuneration to create the mindset and elevate sustainability activities in the organisation. Participants urged companies to think of non-financial incentives to reward superior sustainability performance for positive deviants in the organisation. The study found that some sustainability incentive programs promoted short term thinking while sustainability objectives are designed to achieve long term sustainability

The finding is consistent with the literature by (Chauvey et al., 2015), who found no globally accepted standards for sustainability measurement. The finding linking compensation to sustainability performance to drive sustainability behaviour is consistent with Agency theory (Bingham & Madsen, 2014; Gan et al., 2020). The findings are further supported by (Abbott et al., 2021), who suggested that firms design their incentive programs to align with the strategic objectives, in this case, sustainability integration into business practices. On finding alternative non-financial ways to incentivise excellent sustainability performance, the study findings align with the stewardship theory that says leaders who uphold sustainability

principles will implement sustainability strategies with no self-interest in mind (Aresu et al., 2017).

The researcher did not find literature on the percentage contribution sustainability incentives that should form the total remuneration. However, the study suggested that sustainability must be 25% of the discretionary compensation.

6.1 RQ3 summarised discussion

The study found that companies understand the importance of designing their incentives systems to support sustainability objectives and strategy. However, it confirms that sustainability performance measurement systems are still under development with the research required to develop theory and frameworks for practitioners.

Theme 1: Measurement systems
Theme 2: Performance management

Theme 1: The study found that all sustainability performance parameters are new and still under development besides the employee safety measurement system. The study encourages perceptions surveys to assess communities acceptance of the company's activities and introduces the same surveys as part of project assessment and approval. The study finding confirms other studies in the literature on the importance of integrating SMPS into business strategy (Bartels et al., 2020; Heenetigala & Lokuwaduge, 2017; Kühnen & Hahn, 2018; Morioka & Carvalho, 2016)

Theme 2: The study found that companies use financial and non-financial incentives to encourage employees and managers to improve sustainability performance. For financial incentives, the study suggests that sustainability forms 25% of the bonus paid to executives. The findings on the use of using incentives to embed sustainability confirm the studies by (Abbott et al., 2021; Aresu et al., 2017; Bingham & Madsen, 2014; Chauvey et al., 2015)

CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

The researcher conducted the study to answer questions, in literature and practice, on how companies formulate sustainability strategy and what tool they use to integrate the strategy into corporate practice. The study used interviews to probe managers in the mining industry on what factors they considered when formulating strategy and components used in the subsequent implementation and how they measured the success of their sustainability strategies. The researcher selected mining companies that have embraced sustainability principles because of the significant impact of mining on the environment, social disruptions and conflict with host communities (Cesar, 2020; Cesar & Jhony, 2021; Nyembo, 2018b; Wilkins, 2019)

Due to the increased focus on corporate sustainability (Engert & Baumgartner, 2016a) , companies are being put under pressure by governments through regulation (Derchi et al., 2020), shareholders through withholding investment (Joshi & Li, 2016; van Duuren et al., 2016), communities through SLO (Cesar, 2020; Deegan, 2019; Demuijnck & Fasterling, 2016) and global bodies to improve their sustainability records(Morioka & Carvalho, 2016b). Companies recognise that sustainability competitiveness become strategically crucial (Lloret, 2016; Wijethilake et al., 2017) and as critical as their corporate competitive advantage (Bartels et al., 2020; Battilana et al., 2019; Heenetigala & Lokuwaduge, 2017; Speziale & Klovienė, 2014)

Companies recognise that their operation cannot be profit-driven only; they understand that an innovative, well-executed sustainability strategy will resolve most of their sustainability problems and clear a path for their operations in the long term (Aresu et al., 2017). However, Business leaders are not convinced that their organisations are equipped with the tools and capability to manage and improve sustainable performance (Baumgartner & Rauter, 2017; Frederiksen, 2018; Kiron et al., 2009; Silva et al., 2019), and there is no common understanding in the literature

on what tools practitioners should use (Engert & Baumgartner, 2016a; Galpin et al., 2015; Hummel & Schlick, 2016; Kühnen & Hahn, 2018; Wijethilake et al., 2017)

The final chapter of the study consolidates and summarises the research findings while referencing the existing literature to answer the research questions conclusively. The chapter highlights the contribution of the research to business and concludes with the recommendations for future research

7.2 Research Findings

The results of the exploratory study provided answers to the three research questions in chapter 3. First, the study revealed consensus amongst senior mining executives on the definition of sustainability and factors to consider when formulating strategy and implementation capabilities and components. Second, the study confirmed that sustainability implementation (Engert et al., 2016) and measurement (Kühnen and Hahn, 2018) are still developing fields that require further research (Engert & Baumgartner, 2016a).

The research found that the senior mining executives define sustainability strategies as seeking stakeholder inputs to get a balanced view between sustainability and financial objectives to preserve resources for future generations. The view is supported by current literature that defines sustainability as engaging and interacting with a broad spectrum of activities that affects the companies ecosystem (Lagasio & Cucari, 2019). However, the researcher was fascinated that the participants rarely mentioned the governance, the G in ESG, and suspected that governance was a function in other sections either than the sustainability discipline. The phenomenon calls for further research as, in practice, practitioners might be dealing with governance in separate forums or not receiving the requisite attention. The study aligns with current literature on the importance of sustainability to organisations' current and future activities from a social, environmental and competitiveness point of view (Bini et al., 2018; Lloret, 2016; Speziale & Klovienė, 2014).

7.3 Proposed Model

The Researcher proposes the sustainability integration triangle for practitioners to use when formulating, integrating and implementing a sustainability strategy. In addition, future researchers can augment the model to include other factors and enablers that affect strategy formulation and test the relationship between the factors using Quantitative methods.

Research question 1 probed the senior executives on their organisation's considerations when formulating sustainability strategies and their process to integrate the strategies to become part of the corporate strategy. The study's findings contrasted the RBV theory of strategy development that explains strategy as a consideration of a firm's unique competencies (Bromiley & Rau, 2016; Lanzolla & Markides, 2021; Rosenberg Hansen & Ferlie, 2016b). The executives did not consider unique sustainability competitive advantages when formulating strategy. The participants believe that engaging in Sustainability activities will give them a competitive advantage over mining companies that ignore sustainability as a factor in their strategy. The executives believe that building a sustainability strategy is a bare minimum for the future of every organisation.

The study made three findings on the motivation of the executives in committing the company to improve sustainability performance. First, the managers formulate the strategy to improve the organisation's environment and social performance. The finding is consistent with the literature on the importance of sustainability to the company's survival (Bini et al., 2018). Second, the study found that managers formulate sustainability strategies to harness internal capabilities in response to the external environment. The findings echo the MBV theory of strategy formulation that explains company strategy as a response to the external environment (Lanzolla & Markides, 2021; Porter, 1979). The finding echoes current literature on the influence of external pressure on company strategy (Cundill et al., 2018; Derchi et al., 2020; J. Xu et al., 2019). Thirdly, managers are cognisant of the importance of the sentiments and inputs of other stakeholders when formulating the strategy. The finding aligns with the current literature supporting the stakeholder theory, which highlights the importance of stakeholder inputs in strategy formulation (Bingham & Madsen, 2014; Cesar, 2019; Lloret, 2016; Pedersen et al., 2020)
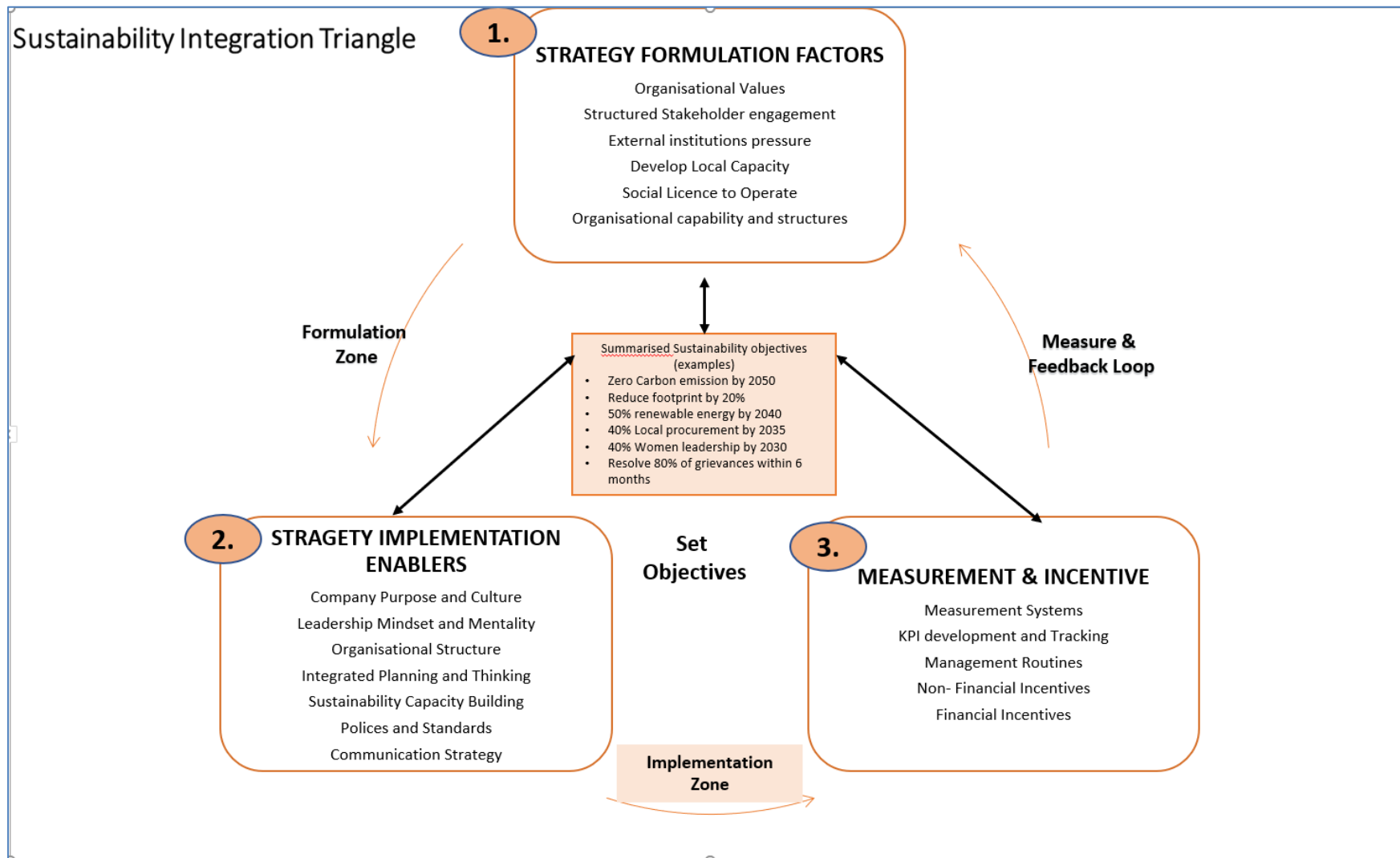
Figure 2: Sustainability Integration Triangle

The study identified nine constructs mentioned by senior executives when formulating sustainability strategy; the researcher grouped the constructs into six factors considered for strategy formulation post the data analysis see table 6.

The study findings elevate stakeholder engagement as the key factor considered by executives when formulating strategy. The results suggest that companies use the outcome of stakeholder engagement to inform sustainability and, consequently, corporate strategy. The participants identify employees, host communities, governments and investors as their primary stakeholders and have engagement strategies for each of them. The results are consistent with the current literature that suggests that shareholders and communities influence business decisions (Lloret, 2016) and give firms a competitive advantage (J. Xu et al., 2019)

The study found that external institutional pressure from investors is considered a significant factor that influences company sustainability strategy. Executives respond to investor pressure, host country regulations, climate change commitments and SDG targets by changing their strategy to cater for environmental preservation and social performance improvement. The findings align with institutional theory that explains companies strategies as s response to external pressure (J. Xu et al., 2019). In literature, the findings align with (Derchi et al., 2020), who argued that external pressure elevates sustainability activities during strategy formulations.

The study found that companies consider host communities critical stakeholders due to potential frictions and formulate strategies to empower local communities through meaningful employment and procurement opportunities. The strategy to train and employ the locals for employment paid dividends during the Covid 19 pandemic restrictions that reduced international talent mobility. The findings are consistent with the current literature that suggest that companies invest in local enterprise development and training and employment of members of the host to gain legitimacy and approval for their (Cesar, 2019; Cesar & Jhony, 2021)projects

(Ernest and Young, 2020) ranked the social license to operate a top risk in the mining industry. The study found that companies are aware of the risk and continuously engage host communities and invest in community development

projects to earn and maintain the social license to operate. The study results further found that companies sustainability strategies are directed at limiting the use of natural resources, reducing the company's footprint to maintain the social license to operate. The findings are consistent with the literature from (Cesar, 2019) who advised companies to use a three-step inside out approach to get community approval of their projects.

The study found that companies embrace sustainability values of protecting the environment, employee safety, government collaboration, and host community collaboration; the values, in turn, inform the company strategy. The findings align with the current literature that encouraged practitioners to create values that resonate with protecting stakeholder rights (Cesar, 2019) and ensure corporate values align with the sustainability agenda (Sroufe, 2017)

The second research question probed the executives on the tools and communications systems to embed the strategy into the business. The results on strategy implementation can be summarised as follows: First, the research found that the participants adopted a system of integrated thinking to make sustainability part of the conversation. Second, sustainability must form part of the planning process using a system of integrated planning. Third, the sustainability objectives must fulfil the company's strategic purpose and not become a sideshow. Training becomes an essential aspect of creating a "positive deviant " with the requisite leadership mentality to embed a culture of sustainability in the company. The research further found that too many reporting layers are not ideal for a company on a sustainable path that wants to promote open and honest discussions

The study found that companies must align their human systems with the sustainability strategy to recruit and retain leaders that display qualities of a positive deviant. The said leaders, the study found, have developed the requisite mindset and mentality to make the right decision that balances sustainability and business objectives. The study findings are consistent with the literature by (Engert & Baumgartner, 2016a), who found that a leader's attitude towards sustainability was a critical success factor for sustainability integration

The study found that organisational structure is vital in assigning tasks and holding people accountable for sustainability performance. In addition, the study found that embedding sustainability in organisations can be more successful if sustainability is made everyone's responsibility and specialists are engaged. Finally, the study found that many layers in the organisational impede the implementation of sustainability strategy as executives must have direct access to the operating sites. The literature aligns with part of the finding on aligning company structure to sustainability activities (Hamann, 2017)

The study introduced the integrated planning and thinking construct into sustainability implementation literature for further research. The construct defines an organisation capable of integrating sustainability and business objective from the planning stage and creating systems that capture the input of all disciplines. The reference in sustainability literature of a similar concept is by (Engert & Baumgartner, 2016a), who hoped that managers use the factors that influence sustainability implementation from the planning stages.

The study calls for a partnership between higher learning institutions and the mining industry to formalise sustainability education. Internally, companies have developed custom training programs to build capacity to integrate sustainability into the business. The findings confirm the literature by (Tawse & Tabesh, 2021), who found that companies invest in capacity building for their senior personnel in sustainability decision making.

The study found that companies use simples policies and standards to guide sustainability implementation. The executives' advise managers to put controls to ensure the implementation is done according to policy and constantly benchmark the policies against best practices. The findings confirm the literature by (Sroufe, 2017) who advised practitioners to include new systems that include sustainability policies when implementing strategy.

The research found that companies use internal and external communication to implement sustainability strategies successfully. The study confirms findings by (Engert and Baumgartner 2016a) that identified the use of internal and external communication as success factors in sustainability strategy implementation.'A new

component sustainability implementation enabler from the study is the training and active use of employees from the host community as external communication agents in their communities. The study introduces the use of perception surveys to assess the level of community acceptance of the firm's activities. The study finds that companies can use perceptions surveys as an additional parameter for the evaluation, approval and execution of new projects

The study found that companies have a clearly defined purpose that informs the sustainability strategy for ease of implementation. The study further found that exemplary leadership cultivates a sustainability culture that results in high performance for the se sustainability objectives. The findings align with the literature by(Cesar 2019), who encouraged companies to define their purpose to aid their sustainability strategy formulation and implementation.

The third research question probed the executives on the measurement systems used to evaluate the success of sustainability strategy implementation and if incentives companies used incentives to embed sustainability.

The study found that sustainability performance management is a more complex developing field than traditional reporting systems. However, the study found that companies with a good sustainability culture and the correct leadership mindset focus on sustainability performance tracking and integrate sustainability reporting into the standard reporting systems. The study further found that creating forums for senior managers at operations to regularly present sustainability performance to executives will create positive deviants and facilitate the acceptance of sustainability activities in the organisation. Finally, the study found that companies use financial and non-financial incentives to encourage sustainability performance excellence.

The study aligns with earlier studies by (Kühnen & Hahn, 2018), who concluded that SPMS is a new field that needs further development, and the finding of this report will contribute to the literature. (Morioka & Carvalho, 2016b) found that companies need to develop capabilities to integrate SMPS into current reporting systems.

The study found that companies proportioned approximately 25% of the discretionary remuneration to compensate senior managers for excellent sustainability performance and as an incentive to promote sustainability integration in the organisation. The findings are consistent with the Agency theory, which suggest that linking compensation to the required strategy will result in improved performance (Bingham & Madsen, 2014; Gan et al., 2020)

7.4 Contribution to Theory

The research introduces capacity building for host community employees to facilitate informal external communication as a sustainability integration enabler. The study found that executives believed that using trained employees as external communication agents helped companies gain more legitimacy and acceptance of their activities by communities

The research introduces community perception survey outcomes as part of the evaluation and approval criteria companies must use when evaluating further studies or execution projects. The study suggests a 70% approval rate from the community as the minimum requirement for the board to commit more funds to the project.

The research found that companies must collaborate and share information for sustainability strategy formulation instead of developing internal unique sustainability capabilities. In addition, the study suggests that collaboration will help rebuild the mining industry's reputation and give the participating companies a collective competitive advantage.

The study found that executives believe that there is a positive correlation between employee motivation and the company's sustainability performance. Therefore, companies must actively communicate excellent sustainability performance internally to boost employee morale.

7.5 Contribution to Business

Managers must create company values around sustainability, and the values must inform the company strategy. Sustainability objectives must be at the core of the company values and strategy formulation process. In addition, managers must use engagement forums to inform communities about the company's performance and see sustainability from the community perspective.

The research proposes a sustainability integration triangle that practitioners can use to develop, integrate and implement a sustainability strategy. The model suggests the factors managers must consider when formulating strategy and capabilities organisations must develop to implement the strategy.

The study suggests that practitioners regularly use independent perception surveys to assess the level of acceptance for their activities and inform their decisions going forward. The outcome of the perceptions surveys can be used as a project evaluation tool for the approval of a new project during the different approval phases

The study recommends that managers create stakeholder engagement forums for individual stakeholders to consider their interests during the strategy formulation process. In addition, managers must guard against designing incentive programs that reward short term thinking and planning; the incentives for excellent sustainability performance, companies use financial and non-financial incentives to encourage sustainability performance excellence. Companies should start reporting or disclosing sustainability performance quarterly instead of the current annual reporting to elevate sustainability in the organisation

Practitioners are encouraged to create special training programs for each level of employment to create positive deviants in the organisation. Managers must promote the concept of integrated thinking and planning where sustainability objectives are discussed at the planning stage of the operation. Companies must create forums for senior managers at operations to regularly present sustainability performance to executives will create positive deviants and facilitate the acceptance of sustainability activities in the organisation

Companies must invest in the training of local employees and invest in local enterprise investment to secure a social license to operate. Managers must refrain from anchoring their sustainability programs around philanthropy; they should invest in alternative livelihood programs and revenue-generating community development programs.

7.6 Suggestions for Future Research

The researcher calls for further quantitative studies to test the strength of the relationship between employee morale and the company sustainability performance. In addition, further research is required to understand how companies can build capacity in the company to enable employees in all departments to be external communication agents to gain legitimacy in host communities.

The study found that companies do not use public disclosure forums to communicate negative sustainability performance and call for more research on the impact of social media on companies disclosure programs. In addition, an urgent area of research is investigating the analysis method companies use to analyse data from stakeholder engagement forums and if the methods used to capture the essence of the discussions. Finally, the study calls for further research on how companies can integrate perception surveys into the company project evaluation systems and processes.

7.7 Conclusion

The study contributed to both business and literature on sustainability formulation and integration into the business. In addition, the researcher developed a sustainability integration triangle that practitioners can use for strategy development and implementation; researchers are encouraged to adapt the model for further theory development. The study found that a sustainability strategy must be informed by company values and purpose for ease of implementation

CHAPTER 8: REFERENCE LIST

Abbott, Sarah., Aksoy, Metin., Groysberg, Boris., & Marino, M. R. (2021). Compensation Packages That Actually Drive Performance. *Harvard Business Review*, 102–111.

Aldy, J., & Gianfrante, G. (2019). Future-Proof Your Climate Strategy Smart companies are putting their own price on carbon. *Harvard Business Review*, (May to June), 87–97.

Al-Surmi, A., Cao, G., & Duan, Y. (2020). The impact of aligning business, IT, and marketing strategies on firm performance. *Industrial Marketing Management*, *84*, 39–49. https://doi.org/10.1016/j.indmarman.2019.04.002

Amir, A.-Z., & Serafeim, G. (2018). Why and How Investors Use ESG Information: Evidence from a Global Survey. In *CE Credits: 1 SER Credits: 1* (Vol. 74).

Aresu, S., Francoeur, C., Gaia, S., & Melis, A. (2017). Green or Greed? An Alternative Look at CEO Compensation and Corporate Environmental Commitment. *Journal of Business Ethics*, *140*(3), 439–453. https://doi.org/10.1007/s10551-015-2674-5

Auffhammer, M. (2018). Quantifying economic damages from climate change. *Journal of Economic Perspectives*, *32*(4), 33–52. American Economic Association. https://doi.org/10.1257/jep.32.4.33

Baker, J., & Singh, H. (2019). The roots of misalignment: Insights on strategy implementation from a system dynamics perspective. *Journal of Strategic Information Systems*, *28*(4). https://doi.org/10.1016/j.jsis.2019.101576

Barbour, R. (2019). Introducing Qualitative Research: A Student's Guide. In *Introducing Qualitative Research: A Student's Guide*. 55 City Road: SAGE Publications, Inc. https://doi.org/10.4135/9781526485045

Bartels, W., King, A., Shulman, J., & Threllfall, R. (2020). *The Time Has Come: The KPMG Survey of Sustainability Reporting 2020.*

Battilana, J., Pache, A.-C., Sengul, M., & Kimsey, M. (2019). The dual-purpose playbook. *Harvard Business Review*, (April), 124–134.

Baumgartner, R. J., & Rauter, R. (2017). Strategic perspectives of corporate sustainability management to develop a sustainable organization. *Journal of Cleaner Production*, *140*, 81–92. https://doi.org/10.1016/j.jclepro.2016.04.146

Bhimani, A., Silvola, H., & Sivabalan, P. (2016). Voluntary corporate social responsibility reporting: A study of early and late reporter motivations and outcomes. *Journal of Management Accounting Research*, *28*(2), 77–101. https://doi.org/10.2308/jmar-51440

Bindra, S., Parameswar, N., & Dhir, S. (2019). Strategic management: The evolution of the field. *Strategic Change*, *28*(6), 469–478. https://doi.org/10.1002/jsc.2299

Bingham, J. B., & Madsen, P. M. (2014). A Stakeholder–Human Capital Perspective on the Link between Social Performance and Executive Compensation. *Business Ethics Quarterly*, *24*(1), 1–30. https://doi.org/10.5840/beq2014254

Bini, L., Bellucci, M., & Giunta, F. (2018). Integrating sustainability in business model disclosure: Evidence from the UK mining industry. *Journal of Cleaner Production*, *171*, 1161–1170. https://doi.org/10.1016/j.jclepro.2017.09.282

Braam, G. J. M., uit de Weerd, L., Hauck, M., & Huijbregts, M. A. J. (2016). Determinants of corporate environmental reporting: The importance of environmental performance and assurance. *Journal of Cleaner Production*, *129*, 724–734. https://doi.org/10.1016/j.jclepro.2016.03.039

Broadstock, D. C., Matousek, R., Meyer, M., & Tzeremes, N. G. (2020). Does corporate social responsibility impact firms' innovation capacity? The indirect link between environmental & social governance implementation and innovation performance. *Journal of Business Research*, *119*, 99–110. https://doi.org/10.1016/j.jbusres.2019.07.014

Bromiley, P., & Rau, D. (2016). Operations management and the resource based view: Another view. *Journal of Operations Management*, *41*, 95–106. https://doi.org/10.1016/j.jom.2015.11.003

Butt, A. S., & Ahmad, A. B. (2020). Strategies to mitigate knowledge hiding behavior: building theories from multiple case studies. *Management Decision*. https://doi.org/10.1108/MD-01-2020-0038

Cesar, S. (2019). Earning a social license to operate in mining: A case study from Peru. *Resources Policy*, *64*. https://doi.org/10.1016/j.resourpol.2019.101482

Cesar, S. (2020). Corporate social responsibility fit helps to earn the social license to operate in the mining industry. *Resources Policy*. https://doi.org/10.1016/j.resourpol.2020.101814

Cesar, S., & Jhony, O. (2021). Making or breaking social license to operate in the mining industry: Factors of the main drivers of social conflict. *Journal of Cleaner Production*, *278*. https://doi.org/10.1016/j.jclepro.2020.123640

Chauvey, J. N., Giordano-Spring, S., Cho, C. H., & Patten, D. M. (2015). The Normativity and Legitimacy of CSR Disclosure: Evidence from France. *Journal of Business Ethics*, *130*(4), 789–803. https://doi.org/10.1007/s10551-014-2114-y

Cheng, T. Y., Lin, Y.-E., Li, Y., & Lam, K. (2021). Corporate social responsibility and investment efficiency: Does business strategy matter? *International Review of Financial Analysis*, *73*. https://doi.org/10.1016/j.irfa.2020.101585

Choi, M., & Roulston, K. (2018). The SAGE Handbook of Qualitative Data Collection. In U. Fick (Ed.), *The SAGE Handbook of Qualitative Data Collection* (1st ed.). London: SAGE Publications Ltd. https://doi.org/10.4135/9781526416070

Cillo, V., Petruzzelli, A. M., Ardito, L., & del Giudice, M. (2019). Understanding sustainable innovation: A systematic literature review. *Corporate Social Responsibility and Environmental Management*, *26*(5), 1012–1025. https://doi.org/10.1002/csr.1783

Cormier, D., & Magnan, M. (2015). The Economic Relevance of Environmental Disclosure and its Impact on Corporate Legitimacy: An Empirical Investigation. *Business Strategy and the Environment*, *24*(6), 431–450. https://doi.org/10.1002/bse.1829

Cummings, T., Worley, C. G., & Donovan, P. (2020). Chapter 5: Diagnosing. In Organization development and change (EMEA Edition). San Francisco: Cengage Learning. (Only Organisational level diagnosis, pp. 82-97.)

Cundill, G. J., Smart, P., & Wilson, H. N. (2018). Non-financial Shareholder Activism: A Process Model for Influencing Corporate Environmental and Social Performance*. *International Journal of Management Reviews*, *20*(2), 606–626. https://doi.org/10.1111/ijmr.12157

Daniel, J. (2014). Sampling Essentials: Practical Guidelines for Making Sampling Choices. In *Sampling Essentials: Practical Guidelines for Making Sampling Choices* (1st ed.). Thousand Oaks: SAGE Publications, Inc. https://doi.org/10.4135/9781452272047

Dau, L. A., Moore, E. M., & Kostova, T. (2020, June 1). The impact of market based institutional reforms on firm strategy and performance: Review and extension. *Journal of World Business*, Vol. 55. Elsevier Inc. https://doi.org/10.1016/j.jwb.2020.101073

Dayan, R., Heisig, P., & Matos, F. (2017). Knowledge management as a factor for the formulation and implementation of organization strategy. *Journal of Knowledge Management*, *21*(2), 308–329. https://doi.org/10.1108/JKM-02-2016-0068

de Oliveira, C. A., Carneiro, J., & Esteves, F. (2019). Conceptualizing and measuring the "strategy execution" construct. *Journal of Business Research*, *105*, 333–344. https://doi.org/10.1016/j.jbusres.2018.03.012

de VILLIERS, C., & Marques, A. (2015). Corporate social responsibility, country-level predispositions, and the consequences of choosing a level of disclosure. *Accounting and Business Research*, *46*(2), 167–195. https://doi.org/10.1080/00014788.2015.1100754

de Villiers, C., Rouse, P., & Kerr, J. (2016). A new conceptual model of influences driving sustainability based on case evidence of the integration of corporate sustainability management control and reporting. *Journal of Cleaner Production*, *136*, 78–85. https://doi.org/10.1016/j.jclepro.2016.01.107

Deegan, C. M. (2019). Legitimacy theory: Despite its enduring popularity and contribution, time is right for a necessary makeover. *Accounting, Auditing and Accountability Journal*, *32*(8), 2307–2329. https://doi.org/10.1108/AAAJ-08-2018-3638

Demuijnck, G., & Fasterling, B. (2016). The Social License to Operate. *Journal of Business Ethics*, *136*(4), 675–685. https://doi.org/10.1007/s10551-015-2976-7

Derchi, G. B., Zoni, L., & Dossi, A. (2020). Corporate Social Responsibility Performance, Incentives, and Learning Effects. *Journal of Business Ethics*. https://doi.org/10.1007/s10551-020-04556-8

Du, J., Bai, T., & Chen, S. (2019). Integrating corporate social and corporate political strategies: Performance implications and institutional contingencies in China. *Journal of Business Research*, *98*, 299–316. https://doi.org/10.1016/j.jbusres.2019.02.014

Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science*, *60*(11), 2835–2857. https://doi.org/10.1287/mnsc.2014.1984

Elbanna, S., al Katheeri, B., & Colak, M. (2020). The harder firms practice strategic management, the better they are 1. *Strategic Change*, *29*(5), 561–569. https://doi.org/10.1002/jsc.2365

Engert, S., & Baumgartner, R. J. (2016a). Corporate sustainability strategy - Bridging the gap between formulation and implementation. *Journal of*

Cleaner Production, 113, 822–834. https://doi.org/10.1016/j.jclepro.2015.11.094

Engert, S., & Baumgartner, R. J. (2016b). Corporate sustainability strategy - Bridging the gap between formulation and implementation. *Journal of Cleaner Production*, *113*, 822–834. https://doi.org/10.1016/j.jclepro.2015.11.094

Engert, S., Rauter, R., & Baumgartner, R. J. (2016). Exploring the integration of corporate sustainability into strategic management: A literature review. *Journal of Cleaner Production*, *112*, 2833–2850. https://doi.org/10.1016/j.jclepro.2015.08.031

Epstein, M. J., Buhovac, A. R., & Yuthas, K. (2015). Managing Social, Environmental and Financial Performance Simultaneously. *Long Range Planning*, *48*(1), 35–45. https://doi.org/10.1016/j.lrp.2012.11.001

Ernest and Young. (2020). *ey-top-10-business-risks-and-opportunities-2020 (1).*

Financial Services Board. (2021). *FSB Roadmap for Addressing Climate-Related Financial Risks*. Retrieved from www.fsb.org/emailalert

Flammer, C., Hong, B., & Minor, D. (2019). Corporate governance and the rise of integrating corporate social responsibility criteria in executive compensation: Effectiveness and implications for firm outcomes. *Strategic Management Journal*, *40*(7), 1097–1122. https://doi.org/10.1002/smj.3018

Fonseca, A. (2010a). How credible are mining corporations' sustainability reports? a critical analysis of external assurance under the requirements of the international council on mining and metals. *Corporate Social Responsibility and Environmental Management*, *17*(6), 355–370. https://doi.org/10.1002/csr.230

Fonseca, A. (2010b). How credible are mining corporations' sustainability reports? a critical analysis of external assurance under the requirements of the international council on mining and metals. *Corporate Social Responsibility and Environmental Management*, *17*(6), 355–370. https://doi.org/10.1002/csr.230

Foucault, T., & Frésard, L. (2019). Corporate strategy, conformism, and the stock market. *Review of Financial Studies*, *32*(3), 905–950. https://doi.org/10.1093/rfs/hhy077

Frederiksen, T. (2018). Corporate social responsibility, risk and development in the mining industry. *Resources Policy*, *59*, 495–505. https://doi.org/10.1016/j.resourpol.2018.09.004

Gaganis, C., Pasiouras, F., Tasiou, M., & Zopounidis, C. (2021). CISEF: A composite index of social, environmental and financial performance. *European Journal of Operational Research*, *291*(1), 394–409. https://doi.org/10.1016/j.ejor.2020.09.035

Gallego-Álvarez, I., Segura, L., & Martínez-Ferrero, J. (2015). Carbon emission reduction: The impact on the financial and operational performance of international companies. *Journal of Cleaner Production*, *103*, 149–159. https://doi.org/10.1016/j.jclepro.2014.08.047

Galpin, T., Whittington, J. L., & Bell, G. (2015). Is your sustainability strategy sustainable? Creating a culture of sustainability. *Corporate Governance (Bingley)*, *15*(1), 1–17. https://doi.org/10.1108/CG-01-2013-0004

Gan, H., Park, M. S., & Suh, S. H. (2020). Non-financial performance measures, CEO compensation, and firms' future value. *Journal of Business Research*, *110*, 213–227. https://doi.org/10.1016/j.jbusres.2020.01.002

Garcia, A. S., Mendes-Da-Silva, W., & Orsato, R. (2017). Sensitive industries produce better ESG performance: Evidence from emerging markets. *Journal of Cleaner Production*, *150*, 135–147. https://doi.org/10.1016/j.jclepro.2017.02.180

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods*, *16*(1), 15–31. https://doi.org/10.1177/1094428112452151

Given, L. (2012). The SAGE Encyclopedia of Qualitative Research Methods. In *The SAGE Encyclopedia of Qualitative Research Methods*. SAGE Publications, Inc. https://doi.org/10.4135/9781412963909

Gray, R., & Milne, M. J. (2015). It's not what you do, It's the way that you do it? Of Method and Madness. *Critical Perspectives on Accounting*, *32*, 51–66.

Greer, C. R., Lusch, R. F., & Hitt, M. A. (2017). A Service perspective for human capital resources: A critical base for strategy implementation. *Academy of Management Perspectives*, *31*(2), 137–158. https://doi.org/10.5465/amp.2016.0004

Gregory Unruh, B., Kiron, D., Kruschwitz, N., Reeves, M., Rubel, H., & Meyer zum Felde, A. (2016). *Investing For a Sustainable Future*. Retrieved from http://sloanreview.mit.edu/sustainability2016http://sloanreview.mit.edu/sustainability

Gualandris, J., & Kalchschmidt, M. (2016). Developing environmental and social performance: The role of suppliers sustainability and buyer-supplier trust. *International Journal of Production Research*, *54*(8), 2470–2486. https://doi.org/10.1080/00207543.2015.1106018

Guest, G., MacQueen, K., & Namey, E. (2014). Applied Thematic Analysis. In *Applied Thematic Analysis* (1st ed.). Thousand Oaks: SAGE Publications, Inc. https://doi.org/10.4135/9781483384436

Hamann, P. M. (2017). Towards a contingency theory of corporate planning: a systematic literature review. *Management Review Quarterly*, *67*(4), 227–289. https://doi.org/10.1007/s11301-017-0132-4

Haque, F., & Ntim, C. G. (2020). Executive Compensation, Sustainable Compensation Policy, Carbon Performance and Market Value. *British Journal of Management*, *31*(3), 525–546. https://doi.org/10.1111/1467-8551.12395

Heenetigala, K., & Lokuwaduge, C. S. D. S. (2017). Integrating Environmental, Social and Governance (ESG) Disclosure for a Sustainable Development: An Australian Study. *Business Strategy and the Environment*, *26*(4), 438–450. https://doi.org/10.1002/bse.1927

Heracleous, L., & Werres, K. (2016). On the Road to Disaster: Strategic Misalignments and Corporate Failure. *Long Range Planning*, *49*(4), 491–506. https://doi.org/10.1016/j.lrp.2015.08.006

Hong, B., Li, Z., & Minor, D. (2016). Corporate Governance and Executive Compensation for Corporate Social Responsibility. *Journal of*

Business Ethics, *136*(1), 199–213. https://doi.org/10.1007/s10551-015-2962-0

Howell, K. (2015). An Introduction to the Philosophy of Methodology. In *An Introduction to the Philosophy of Methodology*. SAGE Publications Ltd. https://doi.org/10.4135/9781473957633

Hummel, K., & Schlick, C. (2016). The relationship between sustainability performance and sustainability disclosure – Reconciling voluntary disclosure theory and legitimacy theory. *Journal of Accounting and Public Policy*, *35*(5), 455–476. https://doi.org/10.1016/j.jaccpubpol.2016.06.001

Joshi, S., & Li, Y. (2016, June 1). What is corporate sustainability and how do firms practice it? A management accounting research perspective. *Journal of Management Accounting Research*, Vol. 28, pp. 1–11. American Accounting Association. https://doi.org/10.2308/jmar-10496

Keller, L. K. (2012). Encyclopedia of Research Design. In N. J. Salkind (Ed.), *Encyclopedia of Research Design* (1st ed.). Thousand Oaks: SAGE Publications, Inc. https://doi.org/10.4135/9781412961288

Kennedy, B. L. (2018). The SAGE Handbook of Qualitative Data Collection. In U. Flick (Ed.), *The SAGE Handbook of Qualitative Data Collection* (1st ed.). London: SAGE Publications Ltd. https://doi.org/10.4135/9781526416070

Kennedy, S., Whiteman, G., & van den Ende, J. (2017). Radical Innovation for Sustainability: The Power of Strategy and Open Innovation. *Long Range Planning*, *50*(6), 712–725. https://doi.org/10.1016/j.lrp.2016.05.004

Kiron, D., Unruh, G., Kruschwitz, N., Reeves, M., Rubel, H., Meyer, A., … zum Felde, A. M. (2009). Progress Toward Our Common Future in Uncertain Times. In *MIT Sloan Management Review*. Retrieved from http://sloanreview.mit.edu/sustainability2017http://sloanreview.mit.edu/sustainability

Kiron, D., Unruh, G., Kruschwitz, N., Reeves, M., Rubel, H., Meyer, A., … zum Felde, A. M. (2017). "Corporate Sustainability at a Crossroads: Progress Toward Our Common Future in Uncertain Times,." In *MIT Sloan Management Review*. Retrieved from http://sloanreview.mit.edu/sustainability2017http://sloanreview.mit.edu/sustainability

Kosch, O., & Szarucki, M. (2020). An Overview of 25 Years of European Scientific Collaboration in the Field of Strategic Management: A Bibliometric Analysis. *European Management Review*. https://doi.org/10.1111/emre.12401

Kühnen, M., & Hahn, R. (2018, December 20). Systemic social performance measurement: Systematic literature review and explanations on the academic status quo from a product life-cycle perspective. *Journal of Cleaner Production*, Vol. 205, pp. 690–705. Elsevier Ltd. https://doi.org/10.1016/j.jclepro.2018.08.201

Kuipers, B. S., & Giurge, L. M. (2017). Does alignment matter? The performance implications of HR roles connected to organizational strategy. *International Journal of Human Resource Management*, *28*(22), 3179–3201. https://doi.org/10.1080/09585192.2016.1155162

Lagasio, V., & Cucari, N. (2019, July 1). Corporate governance and environmental social governance disclosure: A meta-analytical review. *Corporate Social Responsibility and Environmental Management*, Vol.

26, pp. 701–711. John Wiley and Sons Ltd. https://doi.org/10.1002/csr.1716

Lanzolla, G., & Markides, C. (2021). A Business Model View of Strategy. *Journal of Management Studies*, *58*(2), 540–553. https://doi.org/10.1111/joms.12580

Lavrakas, P. (2012). Encyclopedia of Survey Research Methods. In *Encyclopedia of Survey Research Methods*. Thousand Oaks: Sage Publications, Inc. https://doi.org/10.4135/9781412963947

Lee, E., & Puranam, P. (2016). The implementation imperative: Why one should implement even imperfect strategies perfectly. *Strategic Management Journal*, *37*(8), 1529–1546. https://doi.org/10.1002/smj.2414

Lee, K. H. (2017). Does Size Matter? Evaluating Corporate Environmental Disclosure in the Australian Mining and Metal Industry: A Combined Approach of Quantity and Quality Measurement. *Business Strategy and the Environment*, *26*(2), 209–223. https://doi.org/10.1002/bse.1910

Lee, K.-H. (2017). Does Size Matter? Evaluating Corporate Environmental Disclosure in the Australian Mining and Metal Industry: A Combined Approach of Quantity and Quality Measurement. *Business Strategy and the Environment*, *26*(2), 209–223. https://doi.org/10.1002/bse.1910

Lin, Y. E., Li, Y. W., Cheng, T. Y., & Lam, K. (2021). Corporate social responsibility and investment efficiency: Does business strategy matter? *International Review of Financial Analysis*, *73*. https://doi.org/10.1016/j.irfa.2020.101585

Lisi, I. E. (2015). Translating environmental motivations into performance: The role of environmental performance measurement systems. *Management Accounting Research*, *29*, 27–44. https://doi.org/10.1016/j.mar.2015.06.001

Lloret, A. (2016). Modeling corporate sustainability strategy. *Journal of Business Research*, *69*(2), 418–425. https://doi.org/10.1016/j.jbusres.2015.06.047

Lynch, S. E., & Mors, M. L. (2019). Strategy implementation and organizational change: How formal reorganization affects professional networks. *Long Range Planning*, *52*(2), 255–270. https://doi.org/10.1016/j.lrp.2018.02.003

Maas, K. (2018). Do Corporate Social Performance Targets in Executive Compensation Contribute to Corporate Social Performance? *Journal of Business Ethics*, *148*(3), 573–585. https://doi.org/10.1007/s10551-015-2975-8

Maas, K., Schaltegger, S., & Crutzen, N. (2016). Advancing the integration of corporate sustainability measurement, management and reporting. *Journal of Cleaner Production*, *133*, 859–862. https://doi.org/10.1016/j.jclepro.2016.06.006

Mankins, M. C., & Steele, R. (2005). *Turning Great Strategy into Great Performance*. Retrieved from www.hbr.org

McAdam, R., Bititci, U., & Galbraith, B. (2017). Technology alignment and business strategy: a performance measurement and Dynamic Capability perspective. *International Journal of Production Research*, *55*(23), 7168–7186. https://doi.org/10.1080/00207543.2017.1351633

Mills, J., & Birks, M. (2017). Qualitative Methodology: A Practical Guide. In *Qualitative Methodology: A Practical Guide* (1st ed., Vol. 1). 55 Cits Road: SAGE Publications, Inc. https://doi.org/10.4135/9781473920163

Monteiro, N. B. R., da Silva, E. A., & Moita Neto, J. M. (2019). Sustainable development goals in mining. *Journal of Cleaner Production*, *228*, 509–520. https://doi.org/10.1016/j.jclepro.2019.04.332

Morioka, S. N., & Carvalho, M. M. (2016a). Measuring sustainability in practice: exploring the inclusion of sustainability into corporate performance systems in Brazilian case studies. *Journal of Cleaner Production*, *136*, 123–133. https://doi.org/10.1016/j.jclepro.2016.01.103

Morioka, S. N., & Carvalho, M. M. (2016b). Measuring sustainability in practice: exploring the inclusion of sustainability into corporate performance systems in Brazilian case studies. *Journal of Cleaner Production*, *136*, 123–133. https://doi.org/10.1016/j.jclepro.2016.01.103

Morioka, S. N., & de Carvalho, M. M. (2016). A systematic literature review towards a conceptual framework for integrating sustainability performance into business. *Journal of Cleaner Production*, *136*, 134–146. https://doi.org/10.1016/j.jclepro.2016.01.104

Mühlbacher, H., & Böbel, I. (2019). From zero-sum to win-win - Organisational conditions for successful shared value strategy implementation. *European Management Journal*, *37*(3), 313–324. https://doi.org/10.1016/j.emj.2018.10.007

Mura, M., Longo, M., Micheli, P., & Bolzani, D. (2018). The Evolution of Sustainability Measurement Research. *International Journal of Management Reviews*, *20*(3), 661–695. Blackwell Publishing Ltd. https://doi.org/10.1111/ijmr.12179

Nyembo, N. (2018a). *Interrogating the legitimacy to enter into a social licence in the mining industry in South Africa: a community perspective*. Johannesburg.

Nyembo, N. (2018b). *Interrogating the legitimacy to enter into a social licence in the mining industry in South Africa: a community perspective*.

Pedersen, L. H., Fitzgibbons, S., & Pomorski, L. (2020). Responsible investing: The ESG-efficient frontier. *Journal of Financial Economics*. https://doi.org/10.1016/j.jfineco.2020.11.001

Porter, M. E. (1979). How competitive forces shape strategy. *Harvard Buisness Review*, March-April.

Porter, M. E. (2008). The Five Competitive Forces That Shape Strategy. *Harvard Busines Review*.

Porter, M. E., Serafeim, G., & Kramer, M. (2019). Where-ESG-Fails-_-Institutional-Investor. *Institutional Investor*.

Pucker, K. P. (2021). Overselling. *Harvard Business Review*, (May-June), 134–143.

Putzhammer, M., Slangen, A., Puck, J., & Lindner, T. (2020). Multinational firms' pace of expansion within host countries: How high rates of pro-market reform hamper the local exploitation of foreign expansion knowledge. *Journal of International Management*, *26*(1). https://doi.org/10.1016/j.intman.2019.100703

Qian, W., & Schaltegger, S. (2017). Revisiting carbon disclosure and performance: Legitimacy and management views. *British Accounting Review, 49*(4), 365–379. https://doi.org/10.1016/j.bar.2017.05.005

Rebelo, M. F., Santos, G., & Silva, R. (2016). Integration of management systems: towards a sustained success and development of organizations. *Journal of Cleaner Production, 127*, 96–111. https://doi.org/10.1016/j.jclepro.2016.04.011

Rosenberg Hansen, J., & Ferlie, E. (2016). Applying Strategic Management Theories in Public Sector Organizations: Developing a typology. *Public Management Review, 18*(1), 1–19. https://doi.org/10.1080/14719037.2014.957339

Saunders, M., & Lewis, P. (2018). *DOING RESEARCH IN BUSINESS AND MANAGEMENT An essential guide to planning your project.* Retrieved from www.pearson.com/uk

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students fifth edition.* Retrieved from www.pearsoned.co.uk

Searcy, C. (2012a, May). Corporate Sustainability Performance Measurement Systems: A Review and Research Agenda. *Journal of Business Ethics*, Vol. 107, pp. 239–253. https://doi.org/10.1007/s10551-011-1038-z

Searcy, C. (2012b, May). Corporate Sustainability Performance Measurement Systems: A Review and Research Agenda. *Journal of Business Ethics*, Vol. 107, pp. 239–253. https://doi.org/10.1007/s10551-011-1038-z

Shepherd, D. A., & Sutcliffe, K. M. (2011). INDUCTIVE TOP-DOWN THEORIZING: A SOURCE OF NEW THEORIES OF ORGANIZATION. *Academy of Management Review, 36*(2), 361–380.

Shi, W. S., Sun, S. L., Yan, D., & Zhu, Z. (2017). Institutional fragility and outward foreign direct investment from China. *Journal of International Business Studies, 48*(4), 452–476. https://doi.org/10.1057/s41267-016-0050-z

Silva, S., Nuzum, A. K., & Schaltegger, S. (2019, April 20). Stakeholder expectations on sustainability performance measurement and assessment. A systematic literature review. *Journal of Cleaner Production*, Vol. 217, pp. 204–215. Elsevier Ltd. https://doi.org/10.1016/j.jclepro.2019.01.203

Speziale, M.-T., & Klovienė, L. (2014). The Relationship between Performance Measurement and Sustainability Reporting: A Literature Review. *Procedia - Social and Behavioral Sciences, 156*, 633–638. Elsevier BV. https://doi.org/10.1016/j.sbspro.2014.11.254

Sroufe, R. (2017). Integration and organizational change towards sustainability. *Journal of Cleaner Production, 162*, 315–329. https://doi.org/10.1016/j.jclepro.2017.05.180

Strohhecker, J. (2016). Factors influencing strategy implementation decisions: an evaluation of a balanced scorecard cockpit, intelligence, and knowledge. *Journal of Management Control, 27*(1), 89–119. https://doi.org/10.1007/s00187-015-0225-y

Tate, W. L., & Bals, L. (2018). Achieving Shared Triple Bottom Line (TBL) Value Creation: Toward a Social Resource-Based View (SRBV) of the Firm. *Journal of Business Ethics, 152*(3), 803–826. https://doi.org/10.1007/s10551-016-3344-y

Tawse, A., Patrick, V. M., & Vera, D. (2019). Crossing the chasm: Leadership nudges to help transition from strategy formulation to strategy implementation. *Business Horizons*, *62*(2), 249–257. https://doi.org/10.1016/j.bushor.2018.09.005

Tawse, A., & Tabesh, P. (2021). Strategy implementation: A review and an introductory framework. *European Management Journal*, *39*(1), 22–33. https://doi.org/10.1016/j.emj.2020.09.005

Tost, M., Hitch, M., Chandurkar, V., Moser, P., & Feiel, S. (2018). The state of environmental sustainability considerations in mining. *Journal of Cleaner Production*, *182*, 969–977. https://doi.org/10.1016/j.jclepro.2018.02.051

van den Steen, E. (2018). Strategy and the Strategist: How It Matters Who Develops the Strategy. *Management Science*, *64*(10), 4533–4551. https://doi.org/10.1287/mnsc.2017.2857

van den Steena, E. (2017). A formal theory of strategy. *Management Science*, *63*(8), 2616–2636. https://doi.org/10.1287/mnsc.2016.2468

van Duuren, E., Plantinga, A., & Scholtens, B. (2016). ESG Integration and the Investment Management Process: Fundamental Investing Reinvented. *Journal of Business Ethics*, *138*(3), 525–533. https://doi.org/10.1007/s10551-015-2610-8

Wijethilake, C., Rahat, M., & Ranjith, appuhamy. (2017). Proactive sustainability strategy and corporate sustainability performance: The mediating effect of sustainability control systems. *Journal of Environmental Management*, *196*, 569–582. https://doi.org/10.1016/j.jenvman.2017.03.057

Wilkins, M. (2019). *The ESG Risk Atlas: Sector And Regional Rationales And Scores*. Retrieved from www.spglobal.com/ratingsdirect

Willig, C. (2014). The SAGE Handbook of Qualitative Data Analysis. In U. Flick (Ed.), *The SAGE Handbook of Qualitative Data Analysis* (1st ed.). London: SAGE Publications, Inc. https://doi.org/10.4135/9781446282243

Wirth, H., Kulczycka, J., Hausner, J., & Koński, M. (2016). Corporate Social Responsibility: Communication about social and environmental disclosure by large and small copper mining companies. Resources Policy, 49, 53–60. https://doi.org/10.1016/j.resourpol.2016.04.007

Xu, J., Wei, J., & Lu, L. (2019). Strategic stakeholder management, environmental corporate social responsibility engagement, and financial performance of stigmatized firms derived from Chinese special environmental policy. *Business Strategy and the Environment*, *28*(6), 1027–1044. https://doi.org/10.1002/bse.2299

Xu, Y., & Zeng, G. (2020). Corporate social performance aspiration and its effects. *Asia Pacific Journal of Management*. https://doi.org/10.1007/s10490-020-09706-0

Zhao, E. Y., Fisher, G., Lounsbury, M., & Miller, D. (2017). Optimal distinctiveness: Broadening the interface between institutional theory and strategic management. *Strategic Management Journal*, *38*(1), 93–113. https://doi.org/10.1002/smj.2589

APPENDIX A: EMERGED ISSUES
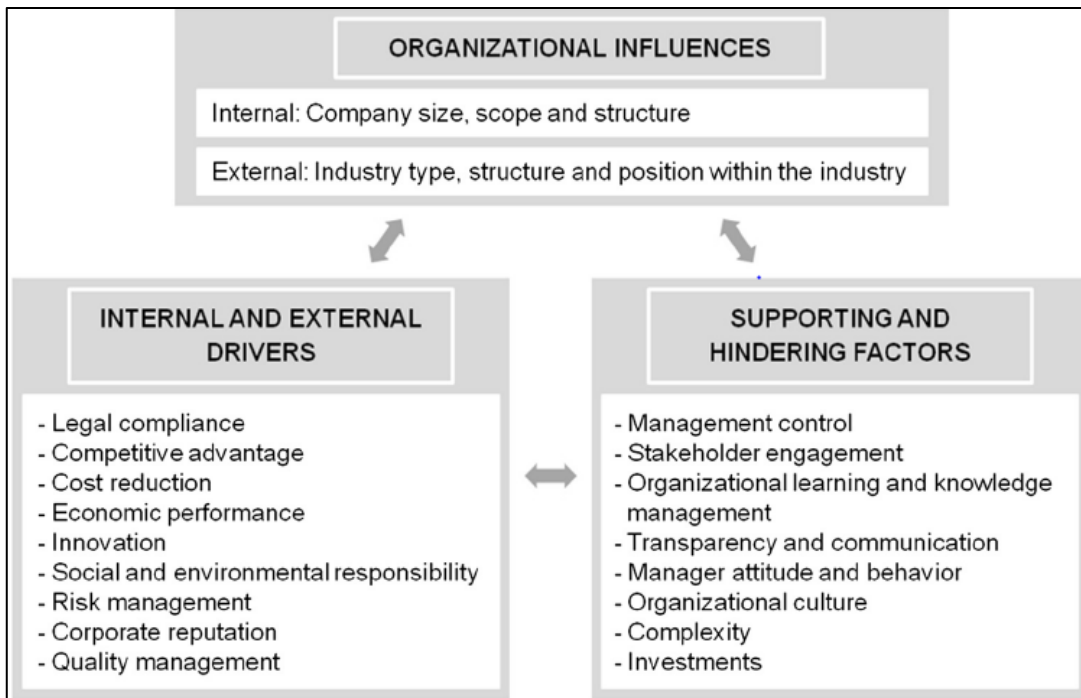
Emerged issues from exploring the integration of corporate sustainability into strategic management
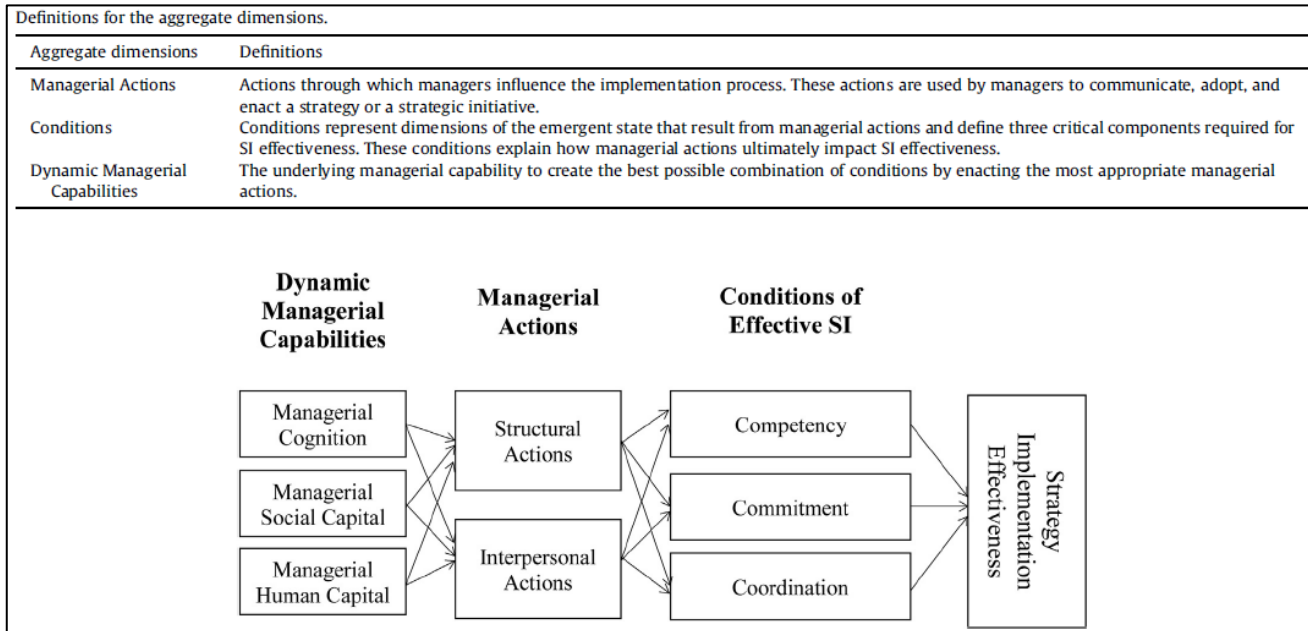
APPENDIX B: ORGANISATIONAL DIAGNOSING MODEL
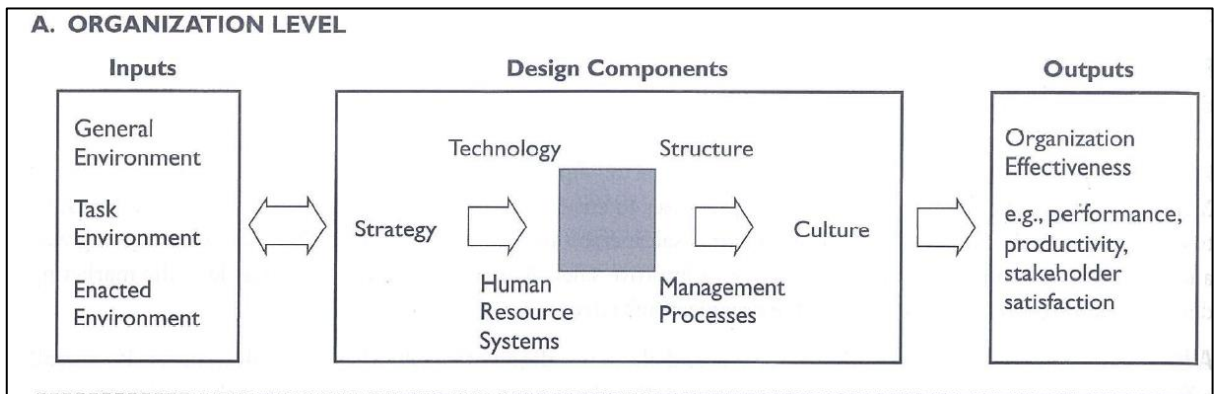
Note: Model for diagnosing organisational systems and an organisational level. Reprinted from In Organization development and change (EMEA Edition).(p 82-97), by Cummings, T., Worley, C. G., & Donovan, P., (2020). San Francisco, Copyright 2020 by Cengage Learning,

CHAPTER 9:

APPENDIX C: STRATEGY IMPLEMENTATION FRAMEWORK

Definitions for the aggregate dimensions.

Aggregate dimensions	Definitions
Managerial Actions	Actions through which managers influence the implementation process. These actions are used by managers to communicate, adopt, and enact a strategy or a strategic initiative.
Conditions	Conditions represent dimensions of the emergent state that result from managerial actions and define three critical components required for SI effectiveness. These conditions explain how managerial actions ultimately impact SI effectiveness.
Dynamic Managerial Capabilities	The underlying managerial capability to create the best possible combination of conditions by enacting the most appropriate managerial actions.

An introductory framework of strategy implementation effectiveness

APPENDIX D: SHARED VALUE FRAMEWORK
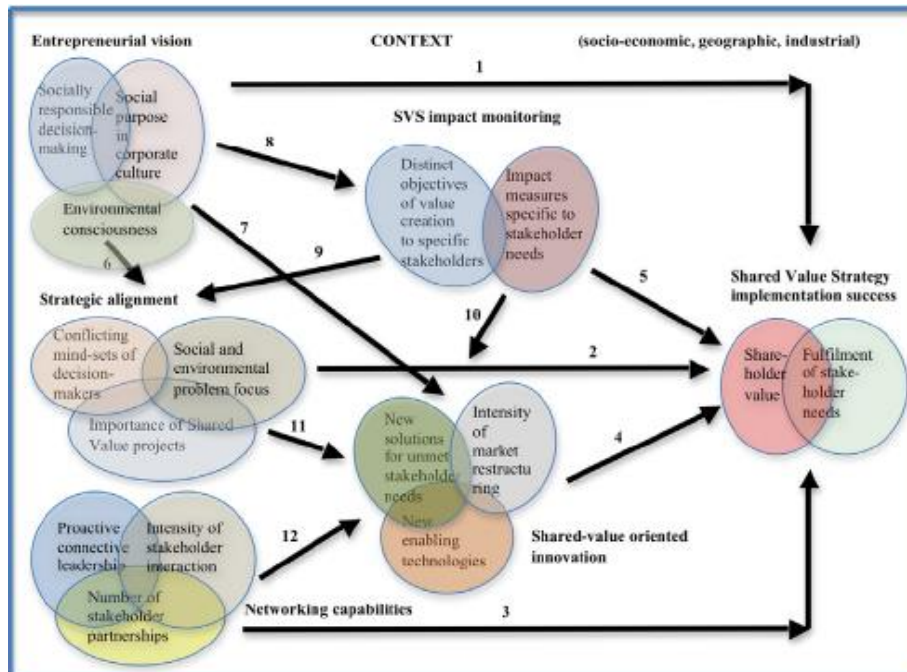
Set-theoretical framework of antecedent conditions for shared value strategy implementation success.

APPENDIX E: INTERVIEW QUESTIONS

| Introduction: Sustainability Strategy Formulaton	For the purpose of the Research record Please mention your name, role and what is currently keeping you awake
Question 1	What does the concept of sustainability mean for you and how have your views changed over time
Question 2	What would you say are companie's core sustainability competencies that sets it apart from other major mining companies?
Question 3	How would you describe the importance of sustainability for the company?
Question 4	Please tell me more about how you apply sustainability in strategy formulation
Question 5	Please tell me more about what we need to have in place for a succesful strategy implementation?
Question 6	How do you implement sustainability? What policies or instruments do you use?
Question 7	Do you use sustainability performance indicators? If so, how do they help? Are they a fair indication of companies commitment to Sustainability
Question 8	What are the main challenges your company faces regarding sustainability?
Question 9	How does your company handle these at the strategic level?
Question 10	Is there anything you would like to change or improve concerning the implementation of sustainability in your company?
Sustainability and strategic management	Now that I have some background information on you sustainability policies, could you please give me further details about company objectives and realization?
Question 9	What are the main sustainability objectives of the company?
Question 10	Are sustainability objectives linked to specific compensation schemes? Are there specific sustainability incentives for employees? If so, how do they work?
Question 11	What further changes, either internal or external, would enable the company to develop sustainability integration? Is there a need for change?
Question 12	Let's take Rio as a case study, the compny has faced at least 2 publically known setbacks attributable to sustainability issues, the Juukan Gorge destruction in Australia and the force majeure in Richards Bay, is there anything about Anglo American's sustainability strategy that has protected you from suffering the same fate and was there a specific response from your company for the two?
Question 13	How are the decisions and strategies communicated, either internally or externally? For example, from top management to production, or vice versa.
Question 14	How relevant is disclosure and reporting in managing sustainability? Who, if anyone, is responsible?
Question 15	How successful has the company been in achieving set objectives and milestones? How is success measured and monitored?
Question 16	Do you think your own sustainability activity is linked with, or part of, the overall organizational culture, vision, policy and strategy? If yes, how. If No, Please tell me more
Question 17	What is the biggest challenge in improving the fit between corporate sustainability and competitive strategy?
Relevance of sustainability and future perspectives	To conclude, I would like to discuss the relevance of sustainability for the future.
Question 18	Based on your experience and expertise how relevant How relevant is sustainability for the future of the mining industry?
Question 19	How can research help raise awareness concerning the importance of sustainability in strategic management and corporate strategy?
Question 20	What are your suggestions on how mining companies may improve the implementation of sustainability strategies?

APPENDIX F: Consistency Matrix

RESEARCH QUESTION	Sections in literature review	DATA COLLECTION TOOL	ANALYSIS
RQ1. How do mining companies develop and integrate corporate sustainability strategy into business strategy?	2.2.1 Strategy 2.2.1 Strategic formulation Views 2.3 Corporate Strategy	Semi- structired Interviews Public Company Reports Internal Company reports Company Standard Operating Procedures Sustainability Policies Commucation Policies Internal Commmunications Press releases	Gioia 1st and 2nd Order analysis Qualitative Analysis Atlas ti Interviews transcribing Coding Document analysis
RQ1b. What are the tools and communication process used by manager's to drive corporate sustainability strategy integration and implementation internally	2.4 Strategy Implementation 2.4.1Strategy Alignment	Semi- structired Interviews Public Company Reports Internal Company reports Company Standard Operating Procedures Sustainability Policies Commucation Policies Internal Commmunications Press releases	Gioia 1st and 2nd Order analysis Qualitative Analysis Atlas ti Interviews transcribing Coding Document analysis
RQ1c: What opportunities do mining companies have to incorporate sustainability strategy into their business	2.5 Sustainability Strategy	Semi- structired Interviews Public Company Reports Internal Company reports Company Standard Operating Procedures Sustainability Policies Commucation Policies Internal Commmunications Press releases	Gioia 1st and 2nd Order analysis Qualitative Analysis Atlas ti Interviews transcribing Coding Document analysis
RQ1d What are challenges experienced by mining companies when incorporating sustainability strategy into business strategy	2.5 Sustainability Strategy	Semi- structired Interviews Public Company Reports Internal Company reports Company Standard Operating Procedures Sustainability Policies Commucation Policies Internal Commmunications Press releases	Gioia 1st and 2nd Order analysis Qualitative Analysis Atlas ti Interviews transcribing Coding Document analysis
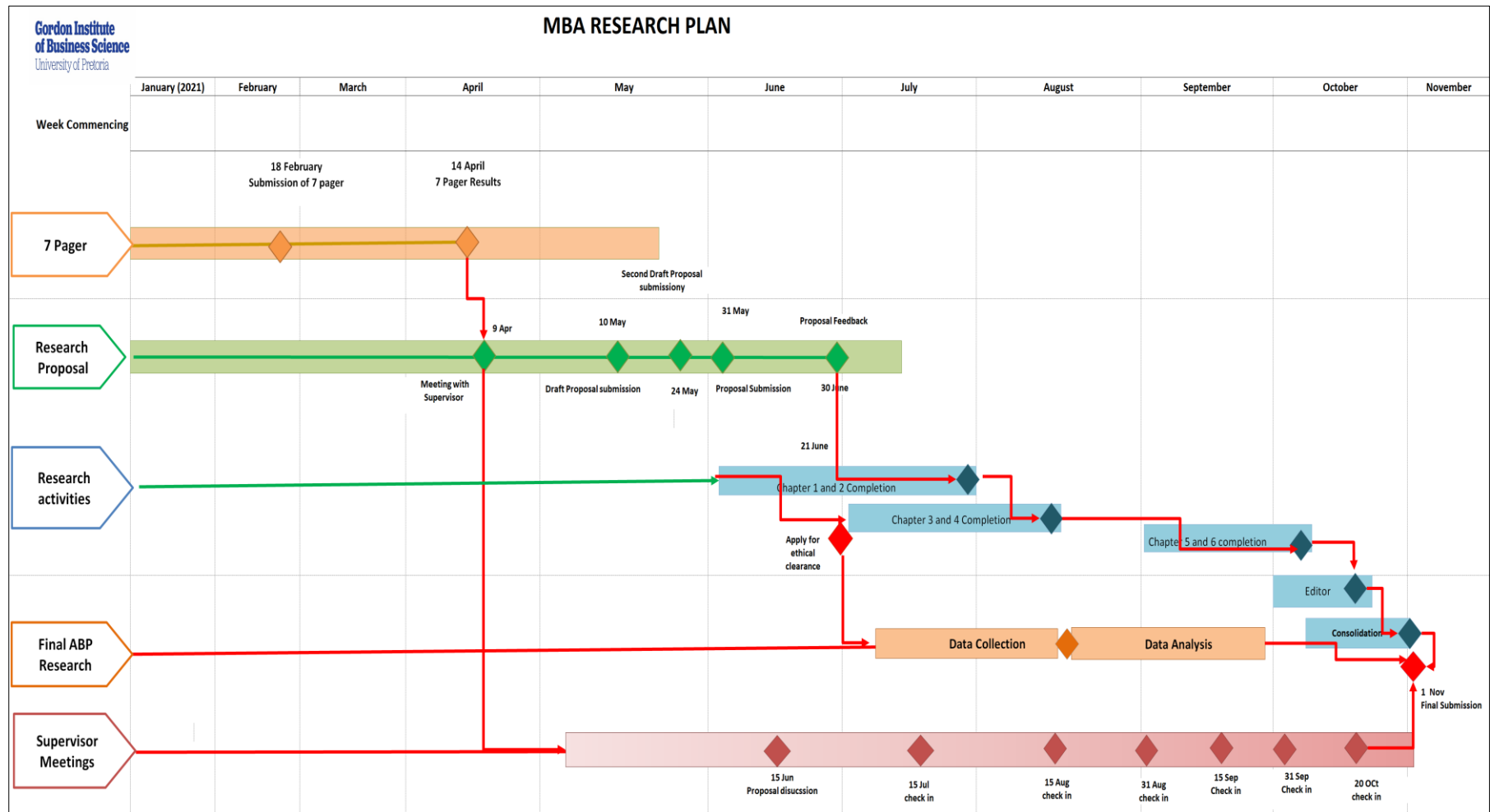
APPENDIX H: Consent Letter

**Gordon Institute
of Business Science**

University of Pretoria

My name is Tebogo Mushi, and I am an MBA student with the Gordon Institute of Business Science (University of Pretoria), South Africa. As part of completing the Master's program, the university requires that students complete a research project that contributes to business practises and literature on the chosen subject. I have designed my research to help understand how Mining companies **Integrate and implement Corporate Sustainability strategies and how these changes company's business practices.** You have been selected to participate in the study because you are working in Sustainability or have demonstrated leadership in this space, and I believe you can give insight into the subject. Your participation is voluntary, and you can withdraw at any time without penalty. All data will be reported without identifiers. If you have any concerns, don't hesitate to get in touch with my supervisor or me. Our details are provided below.

researcher Name: Tebogo Mushi   Supervisor Name: Dr Theresa Onaji-Benson
Email: Tmushi@anglogoldashanti.com   Email: onajit@gibs.co.za
Mobile: +27 82 473 5671   Mobile: +27 60 750 5883

Signature of researcher_____

Date:_____

Name of Participant:_____

Signature of Participant_____

Date:_____