

Putting risk management into the corporate sustainability context

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Abstract

Purpose – This research investigates what is driving corporate sustainability within South African organisations and to what extent these drivers intersect with risk management. This is important as new and emerging business risks are proving to be directly linked to sustainability issues having implication on long-term organisational performance. This implies that sustainability and risk should not be mutually exclusive.

Design/methodology/approach – By means of semi-structured interviews, sustainability managers of 11 South African organisations were engaged to gain insight relating to the immediate sustainability issues, risk landscape and the possible intersection between these issues within their organisations. Questions posed were around drivers of sustainability, risks to an organisation, changes in risks, relationship between sustainability and risk. By means of thematic analysis key issues emerging from the responses of the sustainability managers could be identified and themes determined based on similarities. This was followed by trend analysis of the frequency of responses to different sustainability and risk themes to interpret the data.

Findings – Results reveal that sustainability and risk management are similar in their intent purpose and output both aligned towards reducing impacts and managing uncertainty. However even though sustainability has increasingly become integral to business its value contribution and linkage with risk management differ significantly amongst organisations. This suggests that sustainability and risk management remain two distinct frameworks for managing uncertainty in business.

Originality/value – Research on integrating a sustainability perspective in risk management is at an early stage. To understand and respond to emerging risks, organisations need to integrate sustainability and risk management into their decision strategies – not only to minimize potential losses but also to exploit new business opportunities arising from the sustainability agenda. Future research should be directed towards advancing systematic methods for identifying and managing sustainability risks such that key sustainability challenges are firmly embedded in the risk management of the business. In this regard, organisations would be in a position to build resilience into their business models and operations.

Keywords Risk management, Corporate sustainability, Systems, Uncertainty, Emerging risks

Paper type Research paper

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Introduction

Sustainability was originally synonymous with long-term viability in a financial sense (Linnenluecke *et al.*, 2009). Its later association with the principles of sustainable development have offered business the notion of being able to reconcile environmental protection and socio-economic development with improved business performance (WBCSD, 2010; Haywood *et al.*, 2013; Alshehhi *et al.*, 2018; Alcívar *et al.*, 2020). With 75% of the world's largest and mid-cap organisations reporting on their sustainability performance in 2017, sustainability is truly mainstream (KPMG, 2017; Izzo *et al.*, 2020). Yet for many organisations sustainability remains something external or additional to their central interests or activities (Whiteman *et al.*, 2012; Shad *et al.*, 2019). Many organisations take a fragmented, reactive approach to sustainability addressing environmental and social initiatives as a means to enhance their branding, reputation and competitive advantage, to

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comply with regulations, or to deal with emergencies – rather than treating sustainability as an issue that has a direct impact on the ability of the organisation to create value and overcome risk for the long term (Lai *et al.*, 2015; Schulte and Hallstedt, 2018; Ike *et al.*, 2019; Shad *et al.*, 2019; Alcívar *et al.*, 2020; Boiral *et al.*, 2020; Nunhes *et al.*, 2020).

Unlike sustainability, risk management is well established (Boiral *et al.*, 2020). The challenge for organisations has always been to deal with unexpected changes to the way in which an organisation operates (Linnenluecke and Griffiths, 2010; Schulte and Hallstedt, 2018; Boiral *et al.*, 2020). Traditionally, these changes have been framed in the context of disruptions to the economic well-being of the organisation resulting in the development of risk and adaptation strategies through embedded enterprise risk management (ERM) functions (Linnenluecke and Griffiths, 2010; Schiller and Prpich, 2014; Shad *et al.*, 2019; Boiral *et al.*, 2020). For the past two decades ERM has enabled organisations to take into account increasingly broader risks as well as the interactions and relationships among various risks on all processes, activities, stakeholders, products and services of an organisation (Schiller and Prpich, 2014; Shad *et al.*, 2019; Liu, 2019; Boiral *et al.*, 2020).

The unprecedented pace of global change is introducing greater uncertainty associated with understanding the complexity and diversity of the current risk landscape of business (van der Vegt *et al.*, 2015; Manes-Rossi *et al.*, 2017; Schulte and Hallstedt, 2018; Shad *et al.*, 2019; WEF, 2020a). It is the materiality of social and environmental factors highlighted through sustainability that have begun to challenge the conventional view of risk management (WBCSD, 2017; Wijethilake and Lama, 2019; Boiral *et al.*, 2020). The 2020 COVID-19 pandemic provides an example of this. A zoonotic disease triggered by continuous environmental degradation is a reminder that our impact on the environment is leading to emerging risks which have the ability to cause catastrophic economic and societal impacts (WEF, 2020b). The global pandemic has exposed fundamental shortcomings in our ability to respond to the global sustainability agenda leading to an increasing uncertain risk landscape. Instead of sustainability practices being a mechanism to reduce risk, our inefficiency to be sustainable is creating greater risks of future pandemics and other disasters (WEF, 2020b).

This research contributes towards the understanding that to respond to new and emerging risks, organisations need to integrate sustainability and risk management into their decision strategies – not only to minimise potential losses but also to exploit new business opportunities arising from the sustainability agenda (Yilmaz and Flouris, 2010; Boiral *et al.*, 2020). The research addresses the following questions “what is driving corporate sustainability within South African business organisations and to what extent these drivers intersect with risk management challenges of business?” The purpose of the research being to understand the drivers of corporate sustainability and their relationship to risk management within organisations. This is of relevance as it puts into perspective the extent to which organisations are understanding that sustainability is not just about the non-financial performance of an organisation, but that it is ultimately about identifying and managing social and environmental risks such that the organisation is in the position to create value in the long term. In fact, for many organisations risk management has become an important aspect towards sustainable decision making. This is because emerging risks are no longer an uncertainty, they are rather critical areas in which to manage the sustainability of natural and social resources. This research puts risk into a sustainability context in that unsustainable operations and practices have the ability to generate risks that could result in significant consequences to the economic viability of a business (Liu, 2019; Boiral *et al.*, 2020).

The paper provides a theoretical discussion based on a literature review of the business case for sustainability and how this is limiting the full potential of sustainability towards providing business with long-term benefits. It discusses the evolving interconnected relationship between sustainability and risk management. The paper introduces corporate

sustainability from a South African perspective discussing how integrated reporting is an instrument of integrated thinking providing guidance towards encouraging organisations to understand the interconnected relationship between sustainability and risk. By examining interviews with 11 sustainability managers from South African organisations insight and perceptiveness is gained into the drivers for corporate sustainability and their organisation's risk landscape. The paper leads to a conclusion for future research in which to further contextualise risk within the sustainability context.

Literature review

Business case for corporate sustainability

The engagement of business in sustainability has been driven through the pursuit of value creation for the business itself and its shareholders, in terms of how social and environmental goals may help organisations achieve profitability and strategic advantage (Gomis *et al.*, 2011; Porter and Kramer, 2011; Schneider, 2014; Carbo *et al.*, 2014; Hahn *et al.*, 2015; Shad *et al.*, 2019). This is directly aligned to the business case for corporate sustainability defined by the World Business Council for Sustainable Development (WBCSD) shortly after the United Nations Conference on Environment and Development in Rio de Janeiro in 1992. The business case was predominantly built upon organisations engaging in eco-efficiency initiatives where by an organisation produces more value with less environmental impact in terms of their use and impact on natural resources (Dyllick and Hockert, 2002; Ehrenfeld, 2012). The business case was further strengthened by Elkington who defined the concept of the "triple bottom line" which is an accounting framework that goes beyond the traditional measures of profits, return on investment and shareholder value to include non-financial environmental and social dimensions into the value creation of business (Elkington, 1998; Ehrenfeld, 2012). Today corporate sustainability has evolved to include sustainable practices such as cleaner production, resource efficiency, provision of decent work and economic growth with the intention of making a business socially and environmentally responsible (Alcivar *et al.*, 2020).

Given that global statistics continue to remind us that ecological and societal problems are increasing, rather than decreasing, there is a need to question the impact of past and present corporate sustainability initiatives on achieving the goals of sustainable development (Rockström *et al.*, 2009; Whiteman *et al.*, 2012). Corporate sustainability has been limited by the business case in which sustainability has been perceived and initiated (Ehrenfeld, 2012). By pursuing eco-efficiency and social responsibility all that a business has really been doing is reducing unsustainability (Ehrenfeld, 2012). While such initiatives have had positive implications they have mostly focused on the short-term financial sustainability of the business in that they have enabled an organisation to achieve better growth and cost savings, improve their brand and reputation, strengthen stakeholder relations and boost their bottom line (Whiteman *et al.*, 2012; Schulte and Hallstedt, 2018). This emphasises that corporate sustainability continues to remain disconnected from the declining state of the Earth's natural and supporting systems (Whiteman *et al.*, 2012; Ahlström *et al.*, 2020). There exists a conflict between pursuing sustainability for the financial benefit of a business or for the persistence and stability of the social and ecological systems upon which organisations operate and are dependent (Porter and Kramer, 2011; Ehrenfeld, 2012; Gao and Bansal, 2013; Schneider, 2014; Carbo *et al.*, 2014; Hahn *et al.*, 2015; Jones, 2015; Williams *et al.*, 2017; Ahlström *et al.*, 2020).

These two aspects of sustainability need not be mutually exclusive. Considering the rapid pace of global change and the acknowledgement that the associated challenges are interrelated in complexity and non-linearity calls upon the reconsideration of the systemic foundations of sustainability by business (Whiteman *et al.*, 2012; Ahlström *et al.*, 2020). What the current business case for sustainability fails to do is promote sustainability as a concept of a system. Sustainability practices should be about maintaining the structure and

function of the interconnected social and ecological system upon which a business is dependent so that it is able to continue to provide the resources needed for the business to be economically sustainable (Olsson *et al.*, 2014; Williams *et al.*, 2017; Pereira *et al.*, 2018; Ahlström *et al.*, 2020).

Sustainability and risk as a function of system resilience

Sustainability is more than eco-efficiency, it is ultimately about ensuring the structure and functionality of the system when it is threatened, or maintaining the elements needed to renew or reorganise it if a large hazard radically alters it (Walker *et al.*, 2002; Olsson *et al.*, 2014). Sustainability is, thereby, a systems thinking application for which the system it refers is commonly described as a social ecological system (SES) (Berkes, 2017; Pereira *et al.*, 2018; Ahlström *et al.*, 2020).

Organisations themselves are systems nested within larger SESs. For business continuity, organisations need to be able to maintain both short-term and long-term income streams such that the resilience of the business is linked to the resilience of the SES in which the business operates. Risks to the resilience of a SES in which a business operates are risks to sustainability and ultimately the operational ability of a business to carry on providing goods and services (Haywood *et al.*, 2017).

Corporate sustainability can thus provide business with opportunities, especially from the viewpoint of understanding system vulnerabilities, and thereby potential risks so that the organisation is in a better position to enable and enhance adaptation of the business to global change (Olsson *et al.*, 2014). This infers that sustainability and risk are closely related. Sustainability being about maintaining system function and structure and risk management being the business's mechanism to identify vulnerabilities that could cause negative implications to the business and the systems in which they operate. Risk has evolved from being confined to the enterprise to now emanating from a complex relationship between a wide variety of social, ecological and economic variables outside the immediate boundaries of the organisation. The top ten global business risks as identified in the World Economic Forum's (WEF) Global Risks Report of 2020, and previous years reports, highlight this as the majority of the risks are directly aligned to sustainability issues (WEF, 2019, 2020a). Further, the interconnected relationship between the risks themselves implies the systematic and thereby cascading consequences of the risks. For example, environmental risks emanating from climate change are interconnected to social risks such as the supply of food or water. These social risks are then interconnected to social instability which could lead to conflict. All of which have a negative implication on the economy, society and the environment.

Sustainability risk

The shifting landscape of risk is reflected in the top global risks identified by the WEF over the past 15 years in their Global Risk Reports. In 2007, just 20% of the risks were environmental or societal related, in 2012 this figure was 30%, by 2017 it jumped to 70% and in 2020 it was 100% (WEF, 2020a). Current literature associated with sustainability science implies that these risks as well as new and emerging risks develop from a non-linear array of interactions that exist through the interconnected relationships between social, ecological and economic variables upon which an organisation is directly and indirectly dependent (Walker and Salt, 2006; Schulte and Hallstedt, 2018; Ahlström, 2020). These risks are termed sustainability risks as they can be difficult to measure or model with certainty as their origins can be far removed from the organisation itself with consequences not necessarily defined in monetary terms (IRGC, 2010a; IRGC, 2010b).

Understanding and anticipating sustainability related risks requires a profound understanding not only of the underlying risk drivers but of the whole system in relation to

the context of the risk (WEF, 2018; Ahlström, 2020). In most instances, this is particularly difficult as organisations have neglected to recognise and act on interdependencies between their activities and their natural resource and societal base (Porter and Kramer, 2011; Linnenluecke *et al.*, 2011; Wijethilake and Lama, 2019; Ahlström, 2020). Underpinning this challenge is the reason that most ecological and social impacts are not appropriately accounted for in markets and economic decision-making (Hill and Thompson, 2006; Linnenluecke *et al.*, 2011; WBCSD, 2017; Wijethilake and Lama, 2019; Liu, 2019).

South Africa as a case study

South Africa provides a unique case for the investigation of the relationship between sustainability and risk. South Africa is unique in that it is the only country with a constitution that recognises sustainable development as a basic human right (Du Plooy, 2006). It is also one of the few countries in which it is mandatory for publicly listed businesses on the country's stock exchange to carry out integrated sustainability reporting (Raemaeker *et al.*, 2016; Manes-Rossi *et al.*, 2017; KPMG, 2017). This followed the release of the King III report and code on corporate governance for South Africa in 2009 and subsequently the King IV report in 2016, both of which require South African companies to provide details of their strategies, corporate governance, risk management processes, financial performance and sustainability on a comply or explain basis in their annual reporting (IOD, 2009; Makiwane and Padia, 2013; du Toit, 2017). As presented in King IV, an integrated approach is essential to sustainable development and as such an organisation's risks, business model and performance are inseparable elements of the value creation process of a business. There is much focus on the sustainability of the organisation's resources and the systematic risks and opportunities associated with these resources. The integrated approach is, thereby, a fundamental tool facilitating organisations towards understanding the interconnected relationship between risk and sustainability. Integrated reporting enables organisations to communicate the relationship between strategy, risk, performance and long-term sustainability (IRCSA, 2011; Manes-Rossi *et al.*, 2017).

Haywood *et al.* (2010) noted that the inability of South African businesses to systematically assess risk is a key failing in their current approach to addressing sustainability. This means that although some risk assessment techniques may apply systems thinking (mostly from an engineering perspective), none consider, in a comprehensive manner, the causal relations and feedbacks that exist between organisations sharing the same natural resources, and the society and natural environment with which the business operates (Beerman, 2011). It becomes clearer that the interactions between multiple dimensions of risk are increasingly complex to model quantitatively and the standard approaches to risk assessment are becoming obsolete (Korhonen and Seager, 2008). Similarly, a survey undertaken by the European Sustainable Investment Forum (Eurosif) and the Association of Chartered Certified Accountants (ACCA) found that 73% of the participants, namely, investors, analysts and other stakeholders, disagree that sustainability reporting links to business strategy and risk (Eurosif and ACCA, 2013). There is, therefore, much disparity with regards to the link between sustainability and risk even though frameworks provide for it.

Methodology

Research design

To address the research question "what is driving corporate sustainability within South African business organisations and to what extent these drivers intersect with risk management challenges of business," an exploratory qualitative research design was adopted. Observational data was collected through semi-structured interviews with sustainability managers from South African organisations. The use of semi-structured interviews provides access to the sustainability managers' knowledge and experiences of

the sustainability and risk management activities within their organisations. By means of thematic analysis key themes emerging from the responses of the respondents could be identified and thereby categorised based on their similarities (Braun and Clarke, 2006). Once the themes were determined then trend analysis was applied in which to highlight the frequency of risk distribution per the different risk themes and across the different sectors represented. Narrative analysis was then applied in which to reduce the interviews to a set of core narratives so as to identify ideologies and perspectives of the sustainability managers in terms of how the risk landscape of their organisation is changing and how the organisation is responding both in terms of risk management and corporate sustainability. The strength of narrative analysis is in it being an iterative process of extracting similarities between the interviews with the 11 sustainability manager and a process of constant comparison both within and across the organisations while also cycling back to the relevant literature for insight and guidance (Strauss and Corbin, 1998).

Data collection

A total of 20 medium-to-large South African organisations were invited to participate in the study. These organisations were selected based on being listed as a top 100 business on the Johannesburg Stock Exchange, whether the organisation belonged to a sector exposed to changing ecological conditions, either through direct resource (e.g. primary industries) or investment in resource-dependent companies (e.g. financial industry) and whether a sustainability manager could be identified and contacted. Of these only the sustainability managers from 11 organisations agreed to participate. Three are from the financial sector, four from the mining and industry sector, two from the food and beverage sector and two from the retail sector.

Semi-structured interviews were designed to gauge the perspectives and knowledge of sustainability managers based on their experiences on a variety of issues relating to sustainability, risk and the intersection between these issues within their organisations. An interview schedule was designed so as to contribute to the objectivity and trustworthiness of the research. The research questions in the interview schedule were broken into four distinctive components: drivers of sustainability, risks to an organisation, changes in risks, relationship between sustainability and risk. The open-ended exploratory questions served as a guide to the interviewer so as to give the respondents flexibility in their response and if needed to probe further. They included the following:

1. What are the top three drivers for sustainability in your organisation?
2. What do you perceive as the main risks to your business?
3. Has the nature of your business's risks changed (over the past several years), please explain?
4. Overall, are number of risks in your business increasing or decreasing, please explain?
5. Give us some examples of how your business manages these risks?

Interviews were carried out at the locations of the organisations in major centres of South Africa (Pretoria, Durban, Johannesburg and Cape Town), with responses recorded on-site and later transcribed for analysis purposed. Written consent was obtained from each sustainability manager before the interview was conducted. This consent included a confidentiality clause in which it was agreed that the names of the organisations and that of the sustainability managers would be kept confidential. Interviews were only scheduled for an hour.

Data analysis

Interviews were transcribed by the interviewer word for word and organised according to sector and interview number to ensure confidentiality. On average each transcript

was just under two typed pages in length. For Questions 2 and 3 a thematic analysis of the transcripts was undertaken following the six steps suggested by [Vaismoradi et al. \(2013\)](#). These steps included: familiarisation with the data, generating initial codes, searching for themes, reviewing the themes, defining and naming the themes and producing a report. These steps are very important as they contribute to the rigour of the data analysis.

The responses to Questions 1 and 2 from each transcription were read several times to ensure familiarity with the data. Initial codes were defined and the transcripts were searched to find common grouping of sustainability drivers and risk type themes. A theme “represents some level of patterned response or meaning within the data set” ([Braun and Clarke, 2006](#)). Themes arise from connecting codes to one another and by identifying patterns in the data ([Fereday and Muir-Cochrane, 2006](#)). The codes were identified from the data, and the researcher connected codes to create themes, through a process of constant comparison of one piece of data with another ([Boyatzis, 1998](#)). Codes used included: “climate,” “financial,” “risk,” “climate,” “reputation,” “security,” “transparency,” “compliance,” “environment” and “legislation.” The sustainability drivers and risk themes were reviewed and then re-defined into broader themes.

For the trend analysis, the transcripts were reviewed again. The responses were then assigned to the themes defined. In the case of Question 1, to determine the frequency distribution of the drivers of sustainability themes, the responses were captured in a frequency table ([Table 1](#)). The frequency of responses of the sustainability driver themes was captured for each sector of the companies represented. Not only were the top sustainability drivers identified but also the top sustainability drivers per sector. This process of analysis was also undertaken for Question 2 such that the main risks as per frequency distribution could be determined as well as the main risks per sector ([Table 2](#)).

Analysis of Questions 3–5 was done through narrative analysis in which the viewpoints and insights of the sustainability managers were examined. The difference between this approach to that of the thematic approach used to analyse Questions 1 and 2 is that it involves looking for themes around how and why an organisation responds the way they do. The narrative frame of each interview transcript was examined to determine similarities between all the responses of the sustainability managers. These similarities were framed around “how” and “why” in relation to the question being asked about sustainability and risk. Narrative with similar subject matter were grouped together to define common themes. These themes were then further interpreted, discussed and presented in terms of what the organisations and then the represented sectors are doing to address risk and sustainability issues.

Table 1 Consolidation of the top drivers of sustainability as identified by the business sectors interviewed

Top drivers of sustainability in company	No. of respondents identifying the driver				Total out of 11
	Finance sector (3)	Food & beverage (2)	Mining & industry (4)	Retail (2)	
Financial security and profitability	1	2	2	1	6
Brand value and reputation	1	0	2	2	5
Transparency and responsible citizenship	1	2	1	1	5
Legislation and compliance	1	1	3	0	5
Managing risk to business	3	1	0	1	5
Climate change and resource constraints (i.e. energy, water, skilled people)	1	0	2	1	4
Safety/ health of employees	0	0	2	0	2

Table 2 Top risk to business sectors

Top risks to business	No. of interviewees identifying the risk				Total out of 11
	Finance sector (3)	Food & beverage (2)	Mining & industry (4)	Retail (2)	
Branding and reputational risks	3	1	3	2	9
Financial risks	1	2	2	2	7
Climate change, resource constraint and environmental impact risks	1	1	2	1	5
Inequality and social risks	1	2	1	0	4
Legislation and compliance risks	1	0	2	0	3
Systematic risks	1	0	1	0	2

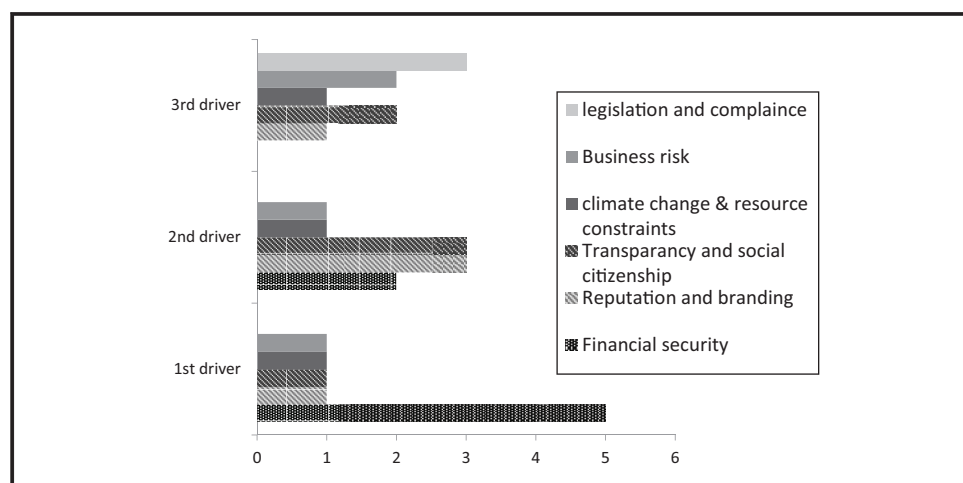
Results and discussion

Drivers for engaging sustainability

Respondents were asked what they perceive as the top three drivers of sustainability in their organisation in order of importance. In analysing the responses, seven themes which encompass drivers of corporate sustainability were determined. Table 1 summarises the consolidated responses for each sustainability driver across the sectors interviewed, whereas Figure 1 represents the identified drivers of sustainability as ranked by the sustainability managers from each organisation.

The majority of the sustainability managers interviewed identified financial security and profitability as their top driver for engaging with sustainability within their organisation. Quotes from the sustainability managers when asked what their top sustainability drivers are include: “ongoing financial sustainability (mining and industry sector),” “profitability (finance sector),” “cost (food and beverage sector)” and “cost saving (retail sector).” It has been noted that sustainability practices and reporting do result in organisations showing improved financial growth and stability (Ameer and Othman, 2011; Kurapatskie and Darnell, 2013; Schulte and Hallstedt, 2018; Alshehhi *et al.*, 2018; Hou, 2018; Shaheen *et al.*, 2020). In addition, Hou (2018) suggests that organisations with sustainability strategies are more likely to be rewarded by investors with a higher valuation in the financial markets.

While financial security and profitability was identified as a driver it is more specifically an overarching goal for which other sustainability drivers contribute towards. For example, the

Figure 1 Sustainability drivers as ranked by the organisations interviewed

joint second drivers “brand value and reputation” and “transparency and responsible citizenship” are interrelated having a direct influence on financial sustainability by influencing the competitive advantage of the organisation. By including sustainability initiatives, such as those relating to energy reduction, responsible packaging, reduction in carbon emissions and social investments (to name a few), into an organisation’s branding, advertisement and reporting structures has shown to have positive implications on an organisation’s reputation thereby contributing towards financial security (Gupta and Kumar, 2013; Gupta *et al.*, 2013; Melewar *et al.*, 2013; Ramos-González *et al.*, 2017; Boiral *et al.*, 2020). Similarly, by adhering to customer and stakeholder concerns by being transparent and responsible global citizens in terms of social and environmental impact has also been shown to significantly impact organisational reputation and financial security (Michelon, 2011; Cho *et al.*, 2012; Buell and Kalkanci, 2019; Boiral *et al.*, 2020). Quotes from the sustainability managers around these sustainability drivers with the “brand value and reputation” and “transparency and responsible citizenship” include: “it is the responsibility of the company to ensure they are sustainable (food and beverage sector),” “creating brand value (retail sector),” “brand differentiation (retail sector),” “it is our belief that a business needs to be held accountable for sustainability (food and beverage sector).” In a survey undertaken by MIT in 2009, respondents identified the impact on an organisation’s image and brand as the principal benefit of addressing sustainability as it leads to competitive advantage (Berns *et al.*, 2009). Achieving competitive advantage through the integration of sustainability practices into corporate strategy will stand organisations in good stead as sustainability will continue to be an integral component of development (Nidumolu *et al.*, 2009; Buell and Kalkanci, 2019).

Sustainability as a driver for “managing risk for business” also featured as a joint second driver. Corporate governance best practices prescribe that business identify, quantify and manage a broader spectrum of potential business risks which in most instances these days are incorporated in the elements addressed by sustainability (Kolk, 2006; IOD, 2009; PwC, 2012). Quotes from the sustainability managers include: “managing business risk (finance sector),” “environmental risk (finance sector)” and “risk and resilience (finance sector).” By embracing environmental, social and governance issues, sustainability is enabling organisations to manage and mitigate risks that they may otherwise not have realised and as such they can better manage present and future economic risks (Governance and Accountability Institute, 2012; Schulte and Hallstedt, 2018). Of the five respondents that identified this driver, three respondents were from the financial sector and one of two from both retail and food and beverage sector. These first three are likely linked to the centrality of risk in the analytical models and decision criteria used by the financial sector for investments, as well as in the broad uptake of environmental, social and governance factors in investment decision-making. Also notable is the lack of risk as a key driver of sustainability from the sustainability manager from the mining and industrial sector, despite the prominence of risk factors driving operational change in these industries.

Of the 11 sustainability managers interviewed, five highlighted “legislation and compliance” as a key driver for sustainability within their organisation. Quotes from the sustainability managers include: “sustainability is firmly embedded in mineral legislation and we need to comply for development (mining and industry sector)” and “governed by the mining charter and water use licences (mining and industry sector).” This reflects the continued importance of legislative and regulatory measures in driving sustainability action. This finding was consistent with the responses identified in the 2009 MIT survey in which business organisations deemed legislation as having the greatest impact on their business (Berns *et al.*, 2009). Of the five responses, three were from the mining and industrial sector, which was not surprising as this sector is governed by increasing social and environmental legislation and regulations. This driver, however, only featured as the third most relevant driver. This suggests that in most instances organisations, such as those in the mining and

industrial sector, still address sustainability issues, such as that of reduction of energy usage or that of environmental impacts, to meet issues of compliance to certain policies, regulations and legislation (Salvioni *et al.*, 2016). The risk of not complying would seriously impact the organisation in terms of potential legal censure, financial penalties and civil and class-action lawsuits (Triologue, 2009; Ross, 2010; Kloppe, 2013).

Climate change did not feature amongst the top three drivers for engaging in sustainability. Its identification as a driver was spread fairly evenly throughout the three response levels. A quote from the sustainability manager includes: "electricity supply is from coal which is dirty and contributes to our carbon footprint (mining and industry sector)." This reflects that climate change and natural resource constraints trigger sustainability concerns amongst the sectors at difference points and scales mainly depending on the association or dependencies of the organisation on natural resources. This is consistent with recent survey finding identifying climate change as an increasing priority for business (Ernst and Young, 2010; WEF, 2011; Kang and Park, 2018). It was interesting to note that neither of the respondents from the food and beverage sector noted climate change and natural resource constraints as drivers of sustainability, especially considering that this sector is heavily influenced by climate change. Sustainability thought leaders in the MIT survey (2009) cited climate change and other ecological forces as a most pressing driver for sustainability. Elements of climate change (i.e. extreme weather events) and natural resource constraints (reduction in energy, water scarcity, natural resource degradation) were considered as drivers but only for the purpose of the organisation showing that they are addressing these issues which thereby has a positive influence on the financial security of the business and provides a positive image to organisation reputation (Berns *et al.*, 2009).

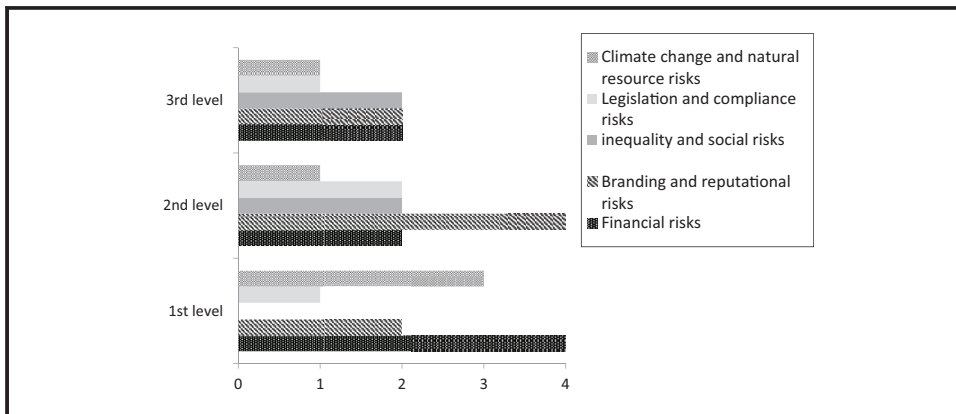
Risks to an organisation

When respondents were asked about the main risks to their organisation, five key risk themes emerged. These themes mainly represent very broad risks common to most business organisations; they are also noticeably similar to the sustainability drivers identified above. Broadly this highlights the correlation between the drivers of sustainability and the main risks of concern to the organisations. Table 2 presents the consolidated analysis of risks identified across the sectors interviewed, whereas Figure 2 represents the identified risks as ranked by the sustainability managers interviewed.

Once again, a focus on finances was revealed as the top risk of concern for most organisations (Figure 2). Quotes from the sustainability managers around this risk theme include: "export and exchange rate fluctuation (food and beverage sector)," "inflationary pressures (retail sector)" and "risk of not meeting market demand (finance sector)." While this risk theme does refer predominantly to exchange rates, cash flow and global economic pressure, it is closely related to the second rated risk theme, namely, that of branding and reputational risks. In fact, this risk theme, in terms of the consolidated responses (Table 2) of the sustainability managers, is the top risk theme amongst all the business sectors interviewed. Quotes from the sustainability managers around this risk theme include: "time delays on projects (finance sector)," "damaging international image (mining and industry sector)," and "brand positioning (retail sector)." Branding and reputational risks are of growing importance. Increasing awareness of climate change and social inequalities by the public and shareholders is putting pressure on organisations to invest resources into developing effective business plans to maintain their corporate image and lessen environmental impacts by becoming more sustainable (Ernst and Young, 2010; Yilmaz and Flouris, 2010; Boiral *et al.*, 2020).

From a consolidated perspective, five of the interviewed sustainability managers highlighted environmental and natural resource challenges as an important risk themes to their organisation. It featured as the third ranked risk theme (Figure 2). Quotes from the

Figure 2 Levels of risk importance as ranked by the organisations interviewed



sustainability managers around this risk theme include: “water scarcity and quality (retail sector),” “resource constraints (mining and industry sector)” and “environmental incidence risk (mining and industry sector).” While in 2010 risks within this theme had not yet featured as a top 10 global business risk, it was acknowledged by the WEF that such risks had the potential to do enormous damage to the economic systems of the world (WEF, 2010). This changed significantly from 2011 onwards with environmental risks including that of biodiversity loss, rising greenhouse gas emissions and climatological catastrophes emerged within the top 5 global risks in terms of their likelihood and impact (WEF, 2014). The physical effects of climate change – changes in temperature and weather, water availability and other changes – have the ability to significantly affect business processes, fixed assets such as buildings and resource availability (Sussman and Freed, 2008; Kang and Park, 2018). However, recent research emphasises that business has repeatedly been criticised for its lack of engagement with environmental risks relating to climate change as a pressing issue and adaptation to the physical impacts of climate change in particular (Linnenluecke *et al.*, 2013). Adaptation studies in the business and management field suggest that most organisations focus rather on how they adjust to changing business conditions because of the emergence of new competitors, new products and markets or because of changed political, economic and legal conditions, then on adjustments to the changing dynamics of the natural environment (Linnenluecke *et al.*, 2013). Today failure to mitigate or adapt to climate change features as a top environmental risk (WEF, 2020a).

Inequality and social risks were also the third most important ranked risk. Such risks include racial discrimination and transformation, corruption, gender inequality, labour relations, income inequality and procurement. Quotes from the sustainability managers around this risk theme include: “inherent inequality in the country (food and beverage sector)” and “transformation (mining and industry sector).” This is an extremely relevant risk theme from a South African perspective considering South Africa is a country framed in political and economic transformation (van Wyk *et al.*, 2004). Black Economy Empowerment (BEE) was launched by the South African government to redress the inequalities of Apartheid by giving certain previously disadvantaged groups of South African citizens’ economic privileges previously not available to them including employment preference, skills development, ownership, management, socioeconomic development and preferential procurement (van Wyk *et al.*, 2004). While risks relating to BEE non-compliance are directly related to legislative risks, it is rather those risks relating to not being able to grow and improve one’s BEE status that organisations have identified in this risk theme as this is closely linked to organisational reputation and economic growth. Other pertinent examples of risks in this theme include wage strikes and labour unrest, specifically those emanating in the mining

and manufacturing sectors. These actions not only impact the economic security of the organisation but also that of the entire country.

Regulation and compliance risks were ranked low amongst the sustainability managers interviewed. A quote from the sustainability manager from an organisation within the mining and industry sector around this risk theme includes: “[...] regulation and prosecution from non-compliance.” This was surprising as a survey undertaken by [Ernst and Young \(2010\)](#) exploring the global top 10 risk facing business identified regulation and compliance as the top risk for the past few years ([Ernst and Young, 2010](#)). Changes to policies, regulations and the compliance thereof pose a risk to the nature and cost of doing business. Organisations that fail to adjust to a changing business environment created by policies and regulations face competitive disadvantage, while regulatory uncertainties make it difficult for organisations to plan ahead ([KPMG, 2008](#)). The responses from the sustainability manager interviewed suggest a relative degree of regulatory stability or capacity of their organisations to respond and comply with changing legislative and regulatory demands.

Changes in risks

All sustainability managers expressed that the nature of their organisation’s business risks has changed over the past several years indicating a general increase and awareness in the number and types of risks that they are currently experiencing. In particular, many of the sustainability managers indicated an increased recognition of environmental and social risks (e.g. risk associated with social unrest, climate change and resource limitations) within their risk landscape. For example, a respondent from the finance sector said “[...] we have a greater awareness of environmental risks, brought to the forefront for the Equator Principles, stricter environmental impact assessments and other pressures being felt by climate change.” This is in line with responses regarding their sustainability drivers and risks to their organisations. In the past, such risks were often neglected by organisations despite an operational dependence on the natural resource and societal base. This is exacerbated by the fact that most ecological goods, services and social impacts are not appropriately accounted for in economic markets owing to the immeasurable monetary value of ecosystem services ([Linnenluecke and Griffiths, 2010](#); [Linnenluecke et al., 2011](#); [Boiral et al., 2020](#)).

One respondent from the mining and industrial sector specifically noted that “[...] the type of risks might have stayed the same, but the complexity of the risks has changed.” This implies that the manner in which risks are being experienced are new and unfamiliar and that their uncertainty and unpredictability is a consequence of the complexity of the system in which they originate ([PwC, 2009](#); [IRGC, 2010a, 2010b](#); [Fredriksen, 2018](#)). As an example, expressed by another respondent from the mining and industrial sector “[...] acid mine drainage was not a known risk twenty years ago, but now impacts from acid mine drainage are far reaching with social, ecological and economic consequences all interlinked.” Another example from a respondent from the same sector expressed concern about the risks associated with the increasing demand for renewable energy and the implications of new technologies on society and the receiving environment. What is emerging is the growing acknowledgement that risks are systematic in nature, they materialise as a result of vulnerabilities that exist between an array of social, ecological, economic and technological variables that exist within a system in which an organisation has dependencies.

Sustainability and risk

[Table 3](#) outlines the responses on the linkages between global change and business risk and the influence of corporate sustainability. Each response highlights unique pressures of

global change and its association with business risk and corporate sustainability amongst the organisations which drives their understanding and interpretation of the linkages between the two corporate concepts. For instance, resource supply risk owing to climate change was only explicitly mentioned by one of the sustainability managers as a sustainability concern. Three of the sustainability managers indicated that the linkages were largely driven by external pressures (e.g. from consumers, clients, investors and/or supply chains) requiring them to respond to global change issues and sustainability within their organisations. Sustainability managers from the food and beverage and retail sectors explained the linkage primarily through the risks associated with supply chain management and the highlighted concerns associated with large and dominant market players on their sustainability. Two sustainability managers focused on the need to address issues in a more strategic and integrative manner and the importance of being able to respond or adapt to change. Other sustainability managers noted the dominance of financial sustainability within their organisations but acknowledged their need to move towards being more cognisant of external global change issues and to be more integrative of social and environmental issues associated with sustainability. This reinforces earlier points regarding the potential role of climate change in regulatory or reputational concerns.

Table 3 Perspectives on the linkages between global change, business risk and corporate sustainability

Sector	Summary of respondents' perspectives
Finance sector	<p>There is pressure on developing economies to ensure appropriate policy and actions are in place to address global change and business risk. Within the organisation this is addressed through corporate sustainability initiatives and development of appropriate policies (e.g. to address climate change)</p> <p>The organisation has moved from seeing sustainability as compliance to something which is more strategic (more pronounced and more competitive). For example, international investors are aware and query issues associated with sustainability. The company defines sustainability as wide range/sphere of responsibilities. Everyone is expected to take responsibility, not just a sustainability group within the organisations</p> <p>Sustainability is increasingly moving into business practices and strategy rather than just being a peripheral activity as in the past</p>
Food & beverage	<p>The organisation realised that they cannot just see things in isolation. To look at financials is in the business' DNA, but it is clear that interlinked social and environmental risks cannot be viewed in isolation. The organisation is exploring the strategic implications of environmental and social change. It is understood that the corporate sustainability approach is driving a movement aside from capitalistic models, and there is a need to rather look at embedded value instead of just profit. The shareholder value is driven by profit, but there is a need for new measurements of success. In other words, the company really needs to know the real "costs" of doing business</p> <p>The key link between global change, business risk and corporate sustainability is most evident in the pressures exerted by export buyer community. This is controlled by large supermarkets, which are ultimately forcing compliance and access to markets. The company acts as leader in the market, but cannot control the market. However, owing to the size of the company it can lead or influence the market and industry. Part of the business is agriculturally related, which experiences direct impacts from climate change on products and resources. Indirectly the company is also influenced by climate changes and the global financial crises as it influences people's decisions on what products they buy and their purchasing power</p>
Mining & industry	<p>A focus on financial sustainability definitely strong, however, the response towards the environment is more reactive</p> <p>Climate change is part of the company's sustainability strategy, with a focus on adaptation, as well as risk assessment associated with sustainability and adaptation</p> <p>The risk approach used by the company is largely internally focused. However, it does take cognisance of global issues. It is understood that there is a close link between risk management and societal issues, and that risk is key to sustainability. The organisation does not just look at sustainability from risk perspective, but some risks also pose opportunities, such as product innovations (risk versus opportunity)</p>
Retail	<p>The food and beverage retail sector is hugely reliant on a global supply chain. This largely influences the risk profile associated with sustainability</p> <p>The dominance and potential market forces of large corporates present a significant risk to sustainability, especially for smaller players in the food and beverage retail sector. There is a real risk if the shareholder expectations move away from the idea of large profits towards a more balanced understanding of value</p>

Conclusion

The drivers of corporate sustainability as identified by sustainability managers from 11 JSE listed organisations within South Africa and to what extent these drivers intersect with business risk within their organisations were explored. The intention was to provide analysis of the interconnectedness between the two corporate strategic concepts to provide further insight about how they could be better integrated to achieve the common goal of growth and development of an organisation in light of global change. South African organisations are well positioned to make a theoretical contribution to sustainability and risk research as the country is one of the few in which it is mandatory to disclose sustainability performance and organisational risk in their annual reports (Corvino *et al.*, 2020). The reporting requirement for companies listed on the JSE as well as the requirements prescribed by the King IV Code of Conduct require South African organisations to focus on sustainability and risk related matters in their business strategy and annual reporting (Johnson *et al.*, 2019; Corvino *et al.*, 2020).

The results suggest that risk management and sustainability are not mutually exclusive, they are both similar in their purpose, intention and output. Risk management being the management of uncertainty towards the achievement of business objectives. Sustainability being the management of the interconnected social, ecological and economic resource base upon which an organisation is directly and indirectly dependent so as to reduce impact and uncertainty to the organisation (Fiksel, 2006). Considering that the risk of unsustainability is not included in the traditional risk management process or in the way that executives think about risk hinders the contextualisation of sustainability in a risk perspectives and vice versa (Ahlström *et al.*, 2020).

Addressing corporate sustainability has a great deal in common with established risk management practices, and many of the techniques developed to identify and address risks are directly applicable to the emerging issues of sustainability (Wijethilake and Lama, 2019). Arguably, risk management is a tool for dealing with unprecedented implications to the sustainability of the organisation. The reality is that business of all sizes and types are facing unprecedented risk and volatility, for which sustainability strategy is a direct, timely and an effective countermeasure. Results suggest that even though sustainability has increasingly become an integral component of business, the main drivers for sustainability and the linkage of these with risk management differ significantly amongst organisations, even those organisations within the same sector. Sustainability and risk management appear to have yet to translate to changes in the treatment of the two concepts within the interviewed South African organisations and consequently still remain two distinct frameworks for managing uncertainty.

Owing to the pace and nature of global change there is growing recognition of the research gap in which risk and sustainability management extend beyond the current practice of reducing and addressing negative impacts on the receiving environment (Ehrenfeld, 2004). This study proposes a shift in the current business case for corporate sustainability. For sustainability strategies to effectively address risks relating to climate change and resource depletion, sustainability needs to be framed in the context of understanding and enhancing the ability of the system in which an organisation operates, to survive and remain resilient over time (Fiksel, 2006; Linnenluecke *et al.*, 2009). Understanding acceptable levels of change, or risk, within the operating system of an organisation is about understanding the roles of resilience and adaptive capacity of the system within which they operate. This requires an integrated and holistic approach that acknowledges the interconnectedness of risk and provides a means to better understand the system behind the risks and the dynamics at play which influence or drive these risks (WEF, 2020a).

This is important in terms of its application to risk management, as the strength of systems thinking lies in the understanding of the relationships, drivers and interactions of relevant

social and ecological variables of the system rather than being able to predict the likelihood or impact of risk events (Beerman, 2011; Walker and Salt, 2006). Understanding system structure and these relationships, the feedbacks and dynamic behaviour of the system helps to identify hazards and forecast risks as well as reveal opportunities for control and risk management (Walker *et al.*, 2002; Anderies *et al.*, 2013). This will require innovation in the implementation of sustainability in the future (Yilmaz and Flouris, 2010; Anderies *et al.*, 2013). While a traditional risk based perspective is appropriate for events that can be foreseen or forecasted under a “business as usual” scenario, system thinking and resilience approaches drawn from ecological theory may present opportunities in determining organisational responses in the event of unusual, unexpected and unforeseen contexts and relationships stemming from global change (Korhonen and Seager, 2008). The challenge is to ensure that organisations have the tools and know-how to fully understand and perceive the full scope of the SES in which they operate.

While the WEF continues to report that global risks are less economic and geopolitical these days, this is driving investors to broaden their consideration of the financial consequences attending systemic environmental and social risks. This research contributes to the body of literature and theoretical insight implying that by putting risk in a sustainability context, organisations can expect the opportunity to improve their long term value creation. While sustainability is not new, it is new in the face of risk. The challenge is understanding how business is perceiving and understanding their systematic relationship with the SES in which they exist. From a conceptual perspective this would translate into devising frameworks and guidelines that would enable business to assess their operations in terms of their interactions and impacts on the SES in which they exist. The theoretical contribution of this research is firmly embedded in the perspective that addressing sustainability with regards to understanding the function and structure of the system gives context to risk management.

Finally this study is subject to limitations. The most important being the constraint on the number of organisations that participated and that the research was confined to South African organisations. This leads to the research making generalisations from the observational data. This study would benefit from further research in which sustainability managers and even risk manager, executives and even board members from organisations beyond South Africa are interviewed and the outcome of such engagement would contribute to the body of knowledge around the relationship between sustainability and risk. The implications emanating from the research imply that long-term value creation of an organisation is dependent on clarifying risks that could affect the sustainability of the SES within which the organisation operates. Future research should be directed towards the conceptual implications of advancing systematic methods for identifying and managing sustainability risks such that key sustainability challenges are firmly embedded in the risk management of the business. In this regard, organisations would be in a position to build the resilience into their business models and operations.

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