

Article

Occupational Health and Safety Reporting in the Top 100 Australian Companies: Does Organisational Risk Profile Matter?

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Abstract: Increasingly, good quality and safe working conditions that promote employee health are expected by stakeholders. The aim of this study is to examine the extent and quality of occupational health and safety (OHS) reporting in the Top 100 companies listed on the Australian Stock Exchange (ASX). Method: Publicly available annual reports from the Top 100 ASX companies were reviewed using a policy scorecard against five dimensions drawn from the Australian Work Health and Safety Strategy 2012–2022. The dimensions were: OHS information, legislation, leadership, work health disorders, prevention and best practice. Results: Mean rank scores of high and low-risk industry sectors were compared. High-risk sectors provided more explicit coverage of OHS information across all five domains in comparison to low-risk sectors ($p > 0.05$). The Information Technology sector scored the lowest across all five dimensions. Conclusion: Higher quality reporting from those in high-risk sectors may be influenced by stakeholder expectations, as well as industry norms. The current analysis suggests that relying on stakeholders to drive improved reporting may be problematic, as those industries that are perceived to have a low OHS risk profile may not consider the need to provide transparent reporting on their strategies to ensure they are providing good quality working conditions.

Keywords: occupational health and safety; annual business reports; reporting; high and low risk; stakeholder theory



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1. Introduction

Increasingly, the general public expects organisations to provide good quality and safe working conditions that not only prevent harm but also promote worker health. Good work is widely recognised as critical for health and provides personal and societal benefits (Waddell and Burton 2006). Whilst Australian organisations are required by legislation to provide safe working conditions (Australian Government 2011), increasing pressure from stakeholders and increased understanding of the need to move beyond mere compliance is providing an impetus for organisations to adopt a more comprehensive approach to occupational health and safety (OHS) (Hopkins 2007; Montero et al. 2009). Organisations face a range of pressures to report on specific issues, arising from other organisations on which they depend, and pressures to conform to the cultural expectations of society at large (Young and Marais 2012). However, mandatory reporting of OHS in an organisation's suite of annual reports is not required and, as a result, is highly variable between different industry sectors. In addition, comprehensive analysis of the quantity and quality of OHS reporting is limited (Koskela 2014; Gardiner 2022; Mavroulidis et al. 2022).

Supervisory and regulatory institutions mandate the reporting of material risks in organisations' annual financial reports (Escrig-Olmedo et al. 2010). Such reports operate as a major and comprehensive information source for investors, creditors, employees, environmental groups and governments (Yuthas et al. 2002; Van Duuren et al. 2016). In

In addition to annual reports, many companies voluntarily include a sustainability report as part of their corporate social responsibility agenda. These reports allow organisations more flexibility in the content, as well as the design and message they are trying to impart (Young and Marais 2012). In line with stakeholder theory, sustainability reports, sometimes referred to as corporate social responsibility (CSR) reports, enable organisations to craft a narrative about their salient activities, which they consider are of key interest to stakeholders and society more generally (Donaldson and Preston 1995; Miralles-Quiros et al. 2017). Such reports have been referred to as the new corporate business card, providing stakeholders with information on critical economic, environmental and social aspects of an organisation's operations (Miralles-Quiros et al. 2017; Evangelinos et al. 2018). More recently, CSR or sustainability has adopted an Environmental, Social and Governance (ESG) framework that organisations are using to consider risks arising from their operations. ESG analysis is often used by investors to inform investment decisions. High-risk industry sectors, such as mining and construction, have led the adoption of voluntary reporting to mitigate negative messaging about the dangers associated with work in these areas and to amplify positive activities being undertaken (Chen and Zorigt 2013; Page et al. 2013). Despite increasing pressure on industry to provide transparent reporting, sustainability reports and the information contained within are voluntary and, as such, the content is highly variable. In the reporting literature, the analysis of OHS issues has received only a limited focus; thus, little is known about the quality and quantity of such information (Gardiner 2022). In Australia, in particular, the extant research has pointed out the lack of mandatory reporting standards on social issues as well as industry effects on reporting (Young and Marais 2012; Gardiner 2022) This paper contributes to the OHS literature by aiming to address the following two research questions:

- (1) How comprehensively are Top 100 companies in the Australian Stock Exchange reporting on OHS?
- (2) How does OHS reporting in the Top companies in the Australian Stock Exchange differ by industry sector?

This research examines annual or sustainability reports of the Top 100 companies listed on the Australian Stock Exchange in 2019 and contributes to the literature on content analysis of OHS in these reports, strengthening the literature using objective reports, extracting and examining key OHS data designed to demonstrate accountability to key stakeholder groups (Mavroulidis et al. 2022). The following sections outline the theoretical background and the role of OHS and the Australian regulatory environment. The paper then includes the methods utilised and describes the use of the policy scorecard. Subsequently, the results are presented where the scores of the sample reports are analysed for their coverage of OHS issues, compared between sectors and then contrasted between high and low-risk sectors. Finally, the key outcomes are compared with the general literature, study limitations are outlined and concluding remarks are made for future research in OHS coverage in annual reports. This paper contributes to the current sparse coverage of OHS information contained in the annual reporting suites of organisations using a previously validated scorecard approach.

1.1. Theoretical Background

Increasingly, a belief exists that consumers will choose where to invest and purchase goods and services based on value congruence between themselves and the organisation. Stakeholder theory proposes that organisations will adopt practices that salient stakeholders desire and, over the long term, this will lead to financial sustainability (Freeman 1984). Therefore, it is of interest to organisations to create an image of being a good employer, who values their employees and makes a legitimate and valuable contribution to society (Schaltegger et al. 2019; Cahaya et al. 2017). Increasingly, stakeholders expect organisations will not only protect their employees from injuries but also have strategies to actively promote their general health and wellbeing. That is, they are good employers who have strategies in place that are over and above the required minimum compliance to meet

OHS regulatory requirements. The use of sustainability reports is one mechanism through which organisations can mitigate negative messaging related to their sector, through the promotion of activities implemented to support the environment and their workers. That is, they can use these reports to manage their reputational profile (Bebbington et al. 2008). Reputational theory is complex and a full discussion is beyond the remit of the current paper. In brief, an organisation with a good reputation is more likely to be treated with trust and confidence than one with a bad reputation (Fombrun and Van Riel 1997; Dowling 2004). Organisations are seeking legitimacy and a social licence to operate through their sustainability operations and reporting (Young and Marais 2012). They seek to separate themselves from their competitors and hence can differentiate themselves through reporting on socially desirable activities.

Despite limited information on OHS reporting in publicly available reports by organisations, some evidence suggests that high-risk industries are more likely to utilise voluntary reporting mechanisms to publicly describe their attention to corporate responsibilities and positively promote their proactive approaches (Montero et al. 2009). In line with institutional theory (DiMaggio and Powell 1983), organisations may seek legitimacy in the eyes of their stakeholders by conforming to societal cultural expectations (Kolk and Pinkse 2010) and by embracing the norms or values of others in their industry sector and their professions. Organisations may mimic those they believe are industry leaders or those with good reputations, or conversely seek to follow others who are silent (Abraham and Shrivs 2014). The chemical industry introduced the “Responsible Care Programme” to improve the public image and health and safety and environmental aspects (Muhamad Khair et al. 2021). Conclusions on the effectiveness of their OHS activities are challenging in the absence of mandated disclosure requirements (Gardiner 2022), with limited research to evaluate the quality of the evidence provided in the reports despite increasing interest from stakeholders and the community concerning the health and safety practices of organisations (Chen and Zorigt 2013; Lock and Seele 2016; Tsalis et al. 2018).

1.1.1. Occupational Health and Safety

OHS processes are an integral part of a company’s general corporate strategy and various communication channels are used to inform stakeholders of the company’s performance in this area (Young and Thyil 2009). Evangelinos and colleagues (2018) stated that OHS reflects the core parameters of the corporate sustainability strategy and agenda. Annual reports are a popular communication tool to inform stakeholders about the company’s health and safety strengths, accountability, legitimacy of practices and daily operational processes (Tsalis et al. 2018). Health and safety data can include quantitative information, such as lost time due to injury and cost of safety requirements, along with qualitative statements about employee programs and safety equipment. Beyond the basic compensation-related data, a more nuanced reporting approach should include coverage of a wide range of direct and indirect OHS actions with a focus on employee mental and physical health outcomes (Jain et al. 2011; Dimmler 2017). However, at present, no guidelines exist to mandate standard reporting of organisational health and safety metrics (Chen and Zorigt 2013; Lock and Seele 2016; Tsalis et al. 2018). Therefore, organisations are able to dictate what they include in their reports based on what they consider important in their OHS activities and what may appeal to their relevant stakeholders.

1.1.2. Reporting

The quality and quantity of reporting may be influenced by the country in which an organisation is listed (Young and Marais 2012). Organisations listed on a country’s stock exchange tend to provide more voluntary information compared to those that are not listed (Tsalis et al. 2018). Internationally listed companies also tend to provide greater detail than those only listed locally. An emerging issue related to the changing expectations of organisations is that traditional financially orientated reports are not suited for the reporting of OHS. The financial aspects of OHS, fatalities, compensation costs and days lost to injury

are lag indicators that report on the issues that occurred in the past and do not take into account important aspects of the work environment, such as the organisational culture and other important psychosocial factors linked with employees' health and wellbeing (Takala et al. 2014). Psychosocial factors, can be considered lead indicators and include the design of work, quality of management, level of support, job control and workload and are linked to an increased risk of developing musculoskeletal and/or stress-related mental health disorders (Hauke et al. 2011; Oakman and Chan 2015; Oakman et al. 2017; van der Molen et al. 2020). Coverage of non-traditional aspects of OHS, such as psychosocial factors in governmental policies (Leka et al. 2015a; Potter et al. 2019) and workplace policies (Oakman and Bartram 2017; Robertson et al. 2021), has been found to be limited, which is inconsistent with contemporary OHS models that have expanded the traditional models of OHS to highlight the need for consideration of psychosocial factors, in particular.

1.1.3. OHS Regulation in Australia

Within Australia, each state or territory has jurisdiction over OHS legislation. Safe Work Australia (SWA), the overarching advisory body for OHS in Australia, developed a single set of laws, referred to as model laws, for jurisdictions to implement across Australia. The model laws included an act, regulations, codes of practice and guidance materials that have been adopted in all but one state (Safe Work Australia 2016). The national Work Health and Safety Strategy 2012–2022 (Safe Work Australia 2012) was developed by SWA to provide an overarching strategy for OHS activities within Australia. The Strategy, targeted at regulators, industry, unions and other bodies that influence work and workplaces, is to be used by organisations to inform the development of their own OHS activities. In the current study, this Strategy was used as a framework to analyse OHS reporting by the Top 100 ASX companies.

2. Methods

2.1. Design

This study adopts a previously used methodology based on a scorecard approach to evaluate the quality of OHS reporting across five dimensions (Leka et al. 2015a; Potter et al. 2019; Robertson et al. 2021). For the current study, the dimensions in the scorecard were derived from the Australian Work Health and Safety Strategy 2012–2022 National Action Areas (Safe Work Australia 2012). In line with previous studies, the five dimensions were included for assessment and scoring: (1) health, safety and hazard information; (2) health and safety obligations being met under legislation and practice; (3) leadership and communication of health and safety information; (4) work-related health disorders, education and outcomes; and (5) preventive actions regarding health and safety, including evidence of best practice. Recent research on Australian companies has focused on more traditional measures of OHS; the current study extends this work by taking a more comprehensive approach to OHS reporting and includes a broad range of lead indicators (Gardiner 2022).

2.2. Sample

A list of the Top 100 ASX companies (containing ASX code, company name, industry sector and market capital) was sourced on 1 February 2019 from the ASX website. For inclusion on the ASX, companies are ranked by market capitalisation, which requires them to trade a minimum volume and reach a range of investment benchmarks (Australian Stock Exchange 2017). ASX companies were chosen to represent an index of firms in Australia that are required by law to produce an annual report, whilst some also produce other reports such as sustainability reports (Young and Marais 2012; Gardiner 2022). All publicly available annual, sustainability or other types of annual reports from the Top 100 ASX companies were accessed on 1 February 2019. Reports were accessed through the company's website or through the ASX individual business page, which provides links to the annual reports. Reports were for the July 2017 to June 2018 financial year. In cases

where multiple reports were available, each was reviewed for OHS content and the one that provided the most comprehensive information was selected for final analysis.

2.3. Analysis

Each annual, sustainability or OHS report was scored using the scorecard on coverage of content across five dimensions derived from the Australian Work Health and Safety Strategy 2012–2022 National Action Areas ([Safe Work Australia 2012](#)). Although the strategy has seven dimensions, two were deemed as outside the scope of annual reports and not included in the scorecard. The two omitted dimensions were supply chains and networks, and government, which influence OHS in organisations but are less within the immediate control of companies, which is the focus of the current study.

The national action areas outlined in the Strategy are broad and, to operationalise these for the purpose of the analysis, key dimensions were extracted in line with the approach adopted by [Leka et al. \(2015a\)](#), who developed the scorecard approach utilised here. Dimension one, healthy and safe by design, requires the presentation of health, safety and hazard information to understand what approaches are being utilised by organisations to support their OHS systems. Dimension two, health and safety obligations being met under legislation and practice, relates to the provision of information on whether the organisation is meeting its regulatory requirements. Dimension three, leadership and communication of health and safety information, relates to the inclusion of information relating to leadership in OHS. Dimension four, health and safety capabilities, covers material relating to how organisations are managing the work-related health of their employees. The last dimension, research and evaluation, covers material relating to the use of evidence-based best practices in health and safety prevention programs.

The policy scorecard was developed as outlined above and then piloted by two of the authors. Scoring was from 0 to 5, with zero meaning no reference or coverage of the dimension in the report, whilst a score of 5 meant comprehensive coverage. The five separate dimension scores were totalled to render an overall score out of 25. The adapted scorecard was pilot tested by two members of the research team. Following minor modifications, the form was finalised and distributed to members of the research team for recording of comments and scoring. A brief overview of the scorecard is shown in [Figure 1](#) and a full version is in the Supplementary Material ([Table S1](#)). One author completed the scorecard for each of the included reports. Twenty-five percent of the reports were independently scored a second time by two alternate authors. Any difference in scores was discussed and a final score out of 5 was agreed upon by discussion until a consensus was reached between the authors. To ensure consistency across the scoring, three authors (JO, VW and AP) discussed the results.

Scores were screened for distribution and found to be non-parametric. An Independent sample Kruskal–Wallis Test (non-parametric equivalent to ANOVA) was used to compare the mean ranks of the industry sectors for each domain. A post-hoc test of pairwise comparisons was undertaken with a Bonferroni correction to p -values.

Industry sectors were then categorised according to their risk profile as high or low. Mann–Whitney U analysis was used to compare differences in high and low sectors across the five criteria. Analysis was undertaken using SPSS Version 28 (IBM Statistics). Statistical significance was set at $p < 0.05$.

National Action Areas	Dimensions	Short title	0	1	2	3	4	5
Healthy and safe by design	Health, safety and hazard information	OHS information	No reference or acknowledgement	Covered in principle not effectively addressed	Only implicitly covered	Partial acknowledgement or coverage	Sufficient coverage but lacks definitions or specificity	Comprehensive coverage
Responsive and effective regulatory framework	Health and safety obligations being met under legislation and practice	Legislation	No reference or acknowledgement	Covered in principle not effectively addressed	Only implicitly covered	Partial acknowledgement or coverage	Sufficient coverage but lacks definitions or specificity	Comprehensive coverage
Leadership and culture	Leadership and communication of health and safety information	Leadership	No reference or acknowledgement	Covered in principle not effectively addressed	Only implicitly covered	Partial acknowledgement or coverage	Sufficient coverage but lacks definitions or specificity	Comprehensive coverage
Health and safety capabilities	Work-related health disorders, education and outcomes	Work health disorders	No reference or acknowledgement	Covered in principle not effectively addressed	Only implicitly covered	Partial acknowledgement or coverage	Sufficient coverage but lacks definitions or specificity	Comprehensive coverage
Research and evaluation	Preventive actions regarding health and safety and evidence of best practice	Prevention and best practice	No reference or acknowledgement	Covered in principle not effectively addressed	Only implicitly covered	Partial acknowledgement or coverage	Sufficient coverage but lacks definitions or specificity	Comprehensive coverage

Figure 1. Overview of policy scorecard.

3. Results

One report was analysed for each company (see Table 1). Reports comprised annual reports ($n = 50$), sustainability reports ($n = 47$), two health and safety reports, and one company did not have a publicly available report at the time of analysis. Therefore, the final number of reports analysed was 99.

The sample of companies included in the final analysis represents 11 ASX industry classifications: consumer (cons) discretionary (9), consumer (cons) staples (5), energy (7), financials (19), health care (7), industrials (13), information technology (IT) (5), materials (19), real estate (10), telecommunication services (2) and utilities (4). Sectors were classified as high or low-risk, according to Safe Work Australia definitions. High-risk industry sectors included Energy, Industrials, Materials and Utilities. Health care was not classified as high risk as the organisations listed in the Top 100 were mostly not responsible for direct patient care. Low-risk industry sectors were Cons discretionary, Cons staples, Financials, Health care, IT, Real estate and Telecommunication services. Forty-three industries were classified as high risk and 57 as low-risk.

Table 1. Report type included for analysis by industry sector.

Industry (Proportion of Top 100)	Annual Report	Sustainability Report	Health and Safety Report	No Report	Totals
High Risk					
Energy (5.9%)	3	4			7
Industrials (8.6%)	7	6			13
Materials (18.4%)	7	11	1		19
Utilities (2.3%)	3	1			4
Low Risk					
Cons Discretionary (5.6%)	5	4			9
Cons Staples (5.1%)	1	3		1	5
Financials (33.5%)	10	9			19
Health Care (8.6%)	3	4			7
IT (2.2%)	4	1			5
Real Estate (7.0%)	7	2	1		10
Telecommunications (2.8%)		2			2
Total	50	47	2	1	100

Average scores across all five dimensions by industry sector ranged from 2.4 (IT) to 18.16 (Materials) (Table 2). Across all five dimensions, the IT sector scored the lowest. In comparing mean scores, Utilities scored the highest on three dimensions (OHS Information, Legislation and Leadership) and Manufacturing on two (Work-related health disorders and Prevention/best practice). A comparison of median scores for each dimension demonstrates a slightly different pattern due to greater variation in scores within the Utility sector.

Table 2. Scorecard results by industry sector.

Dimensions	OHS Information		Legislation		Leadership		Work-Related Health Disorders		Preventive/Evidence of Best Practice		Average Overall Score/25
Industry sector	Mean (sd)	Median (IQR)	Mean (sd)	Median (IQR)	Mean (sd)	Median (IQR)	Mean (sd)	Median (IQR)	Mean (sd)	Median (IQR)	
Cons Discretionary	2.44 (1.88)	2 (1–4)	1.11 (1.83)	0 (0–2)	2.22 (1.92)	2 (0–4)	1.78 (2.17)	0 (0–4)	1.56 (1.67)	1 (0–2)	9.11
Cons Staples	3.50 (1.91)	4 (2–5)	2.75 (2.06)	3 (1.5–4)	2.25 (1.71)	2.5 (1–3.5)	3.00 (2.16)	3.5 (1.5–4.5)	3.00 (2.16)	3.5 (1.5–4.5)	14.5
Energy	3.57 (1.40)	4 (3–5)	3.43 (1.27)	4 (3–4)	3.00 (1.15)	3 (2–4)	2.14 (1.77)	3 (0–4)	2.86 (1.57)	3 (2–4)	15.00
Financials	2.58 (0.90)	3 (2–3)	0.95 (0.91)	1 (0–2)	2.00 (0.94)	2 (2–3)	1.37 (1.74)	0 (0–3)	1.58 (1.46)	2 (0–3)	8.47
Health Care	2.00 (1.53)	1 (1–3)	1.57 (1.51)	1 (0–3)	1.57 (1.90)	1 (0–3)	1.57 (1.99)	0 (0–4)	1.57 (1.90)	1 (0–3)	8.29
Industrials	3.92 (1.44)	4 (4–5)	3.31 (1.65)	3 (2–5)	3.62 (1.61)	4 (3–5)	2.62 (2.06)	3 (0–4)	3.15 (2.03)	4 (2–5)	16.62
IT	1.20 (0.45)	1 (1–1)	0.20 (0.45)	0 (0–0)	0.80 (0.84)	1 (0–1)	0.00 (0.00)	0 (0–0)	0.20 (0.45)	0 (0–0)	2.4
Materials	4.11 (1.37)	5 (4–5)	3.58 (1.54)	4 (3–5)	3.68 (1.38)	4 (2–5)	3.16 (1.83)	3 (2–5)	3.63 (1.57)	4 (2–5)	18.16
Real Estate	2.50 (1.58)	2 (2–3)	1.30 (1.89)	0 (0–4)	1.80 (1.75)	1.5 (0–3)	0.70 (1.25)	0 (0–1)	1.90 (2.02)	1.5 (0–3)	8.20
Telecommunications	2.50 (2.12)	2.5 (1–4)	2.00 (2.83)	2 (0–4)	0.50 (0.71)	0.5 (0–1)	0.50 (0.71)	0.5 (0–1)	1.50 (2.12)	1.5 (0–3)	7.00
Utilities	4.50 (0.58)	4.5 (4–5)	3.75 (0.96)	3.5 (3–4.5)	4.75 (0.50)	5 (4.5–5)	2.00 (1.63)	2 (1–3)	3.00 (0.82)	3 (2.5–3.5)	18.00
Average mean score	2.98 (1.00)		2.18 (1.24)		2.38 (1.28)		1.71 (1.02)		2.18 (1.02)		11.43
Independent samples Kruskal–Wallis Test	$p < 0.001$		$p < 0.001$		$p < 0.001$		$p = 0.019$		$p = 0.003$		

For each of the five safety dimensions, the mean ranks were compared across all 11 sectors. Table 3 presents only the pairs with statistically significant results. Generally, the largest differences were between Materials and IT. The IT sector scored lower in all five safety dimensions compared to the Materials sector. In addition, under the legislation dimension, Materials scored higher than Cons discretionary and the Financial sectors; the Financial sector was also lower than the Industrial. The largest difference observed was under the leadership dimension between Utilities and IT (3.95, $p > 0.015$).

Table 3. Comparison of industry sectors by mean rank.

Safety Dimensions/Sector	Comparison Group	Mean Difference	SE	Adjusted Sig
OHS Information				
Materials	IT	2.91	14.125	0.014
Legislation				
Materials	IT	3.38	14.149	0.015
Materials	Cons Discretionary	2.47	11.391	0.041
Financials	Industrials	2.36	10.133	0.030
Materials	Financials	2.63	9.133	0.002
Leadership				
Materials	IT	2.88	14.220	0.042
Utilities	IT	3.95	18.979	0.026
Work-related health disorders				
Materials	IT	3.16	13.800	0.050
Prevention/evidence of best practice				
Materials	IT	3.43	14.122	0.016

Coverage of OHS information across the five dimensions was then compared between high and low-risk sectors. In all five dimensions, the high-risk sectors provided more explicit coverage of their OHS activities compared to those in low-risk sectors (Table 4). In low-risk industries, even though OHS information and Leadership dimensions were scantily reported, the other dimensions, such as legislation, workplace health disorders and preventative actions, demonstrated even less.

Table 4. Comparison of safety coverage by high and low-risk industry sectors.

Safety Dimensions	High-Risk Median Score/5 (43 Organisations)	Low-Risk Median Score/5 (56 Organisations)	<i>p</i> -Value *
OHS Information	4 (IQR)	2 (IQR)	$p < 0.001$
Legislation	4 (IQR)	1 (IQR)	$p < 0.001$
Leadership	4 (IQR)	2 (IQR)	$p < 0.001$
Work-related health disorders	3 (IQR)	0 (IQR)	$p < 0.001$
Preventive actions/evidence of best practice	4 (IQR)	1 (IQR)	$p < 0.001$

* Mann–Whitney U.

4. Discussion

This study examined OHS reporting by the Top 100 ASX companies by reviewing annual reports, which included the following: financial business, sustainability, CSR or OHS reports. A policy scorecard was used to examine coverage of OHS across the five dimensions, which included the following: OHS information, legislation, leadership, work health disorders and prevention and best practice. In addition, this study examined differences in OHS reporting between high and low-risk industry sectors.

Research question one assessed how comprehensively Top 100 companies in the Australian Stock Exchange are reporting on OHS. The analysis presented in this review provides insights into the OHS coverage in relation to the five included dimensions derived from the Australian Work Health and Safety Strategy. The most comprehensive coverage was in the dimension of OHS Information and Leadership. The work-related health disorders dimension was, on average, the most poorly covered, on average, across all sectors. This result provides support for the notion that OHS is struggling to move away from its traditional base, focused on tangible hazards and risks, such as chemicals, high-risk machinery and the physical aspects of work, rather than the outcomes that arise from poor working conditions, such as mental and physical health disorders. The more information provided to stakeholders demonstrates a higher degree of accountability culture, a greater degree of transparency and enhanced information for decision-making (Mavroulidis et al. 2022).

Traditionally, OHS has been considered in terms of observable risks with a focus on the use of machinery, working at heights, chemicals and heavy manual work, for example. Typical reporting of OHS data includes accident and injury rates, compensation claims and, if relevant, fatalities. Contemporary models of OHS are more comprehensive in their consideration of workers' health and wellbeing and include the full range of environmental factors that influence workers, including the physical and psychosocial aspects of work (Macdonald 2012; Jespersen and Hasle 2017). However, identifying and then reporting these factors remains more limited than the traditional workplace OHS hazards, as found in the current study and consistent with previous findings (Macdonald and Oakman 2015; Oakman et al. 2018). The impacts of poor psychosocial working conditions and the subsequent mental and physical health disorders pose significant financial risks for organisations (Lornudd et al. 2021) and, as such, warrant greater attention and reporting in all industry sectors, despite them being less observable than traditional hazards (Leka et al. 2015b), to ensure they are appropriately managed. Stakeholders may exert more pressure to improve OHS reporting in these categories in the future, as awareness of a broader set of OHS issues arises and in a post-COVID-19 work environment has become increasingly important (Humphreys and Trotman 2022).

The second research question asked how OHS reporting in Top 100 companies in the Australian Stock Exchange differed by industry sector. In relation to the comprehensiveness of coverage across the five dimensions, significant variation was identified between the 11 sectors included in the analysis. The IT sector scored the lowest in all five dimensions, with Utilities highest in three and Materials in two dimensions. Reporting of OHS is voluntary and, as such, no standard guidelines exist to support the type and depth of material that should be included in the reports. The reports were from organisations operating within one country and, as such, different OHS regulations do not provide an explanation for the significant differences observed between the sectors, previously described by others as an influential factor in reporting (Roca and Searcy 2012; Tsalis et al. 2018). In contrast, the risk profiles of different organisations and the perceptions of the relevance of OHS measures offer a potential explanation and, as such, further analysis was undertaken to examine the differences between high and low-risk industry sectors.

Following the grouping of the 11 sectors into high and low-risk sectors based on industry standard classifications, OHS reporting was compared, with the high-risk sectors scoring more favourably across all five dimensions. This finding provides support for the notion that organisations that perceive their risk profile as high are more likely to report OHS activities with more in-depth coverage than those sectors considered low risk (Roca and Searcy 2012). Institutional theory may provide important insights here, as industry norms may be driving more detailed reporting practices across these industry sectors. This theory (DiMaggio and Powell 1983) argues that industry norms are a driver of common behaviour as organisations conform to industry expectations, mimicking key industry leaders and abiding by common stakeholder demands coming from customers,

supply chain partners and industry bodies. It also contends that it can lead conversely to minimal reporting as an accepted industry practice (Young and Marais 2012).

Although the IT sector was classified as low risk, this should not be interpreted as an absence of adverse environmental hazards associated with potentially severe health outcomes. Poor environmental conditions include a range of physical and psychosocial hazards linked to cardiovascular disease, stress-related mental health and musculoskeletal disorders (Nieuwenhuijsen et al. 2010; Eatough et al. 2012; Gerr et al. 2014; Fishta and Backé 2015). IT sector employees are exposed to a range of psychosocial hazards which include, but are not limited to, low levels of management support, high workload (time pressures and overall job demands) and low job control. In contrast, the mining and construction sectors (included in the materials sector) have high injury and accident rates and also face public scrutiny in relation to the activities undertaken to mitigate these risks (Khashaba et al. 2018; Nowrouzi-Kia et al. 2018). In line with stakeholder theory, this scrutiny places obligations on organisations to develop and implement appropriate prevention actions, which can then be publicized to positively promote their reputation, as previously suggested by others (Roca and Searcy 2012; Chen and Zorigt 2013; Tsalis et al. 2018).

The challenges of voluntary reporting are complex (Kent and Zunker 2013; Tsalis et al. 2018) with growing suggestions that mandatory guidelines are needed to support improvements in the quality rather than quantity of information reported. Regulation is another key institutional driver of corporate behaviour according to institutional theory. In the OHS domain, although few studies have examined the content of annual reports, the wide variation in reports highlighted by the current study provides additional support for mandatory reporting guidelines. In addition, the findings support previous analyses in both emerging and developed economies, calling for mandatory reporting guidelines in OHS (Tsalis et al. 2018; Ali et al. 2021). Mandatory reporting should not be considered the panacea to improvements in OHS, which requires a comprehensive approach that takes into account the broad range of workplace conditions that impact employees' health, safety and wellbeing beyond the traditional focus on visible physical hazards and risks. However, greater transparency of OHS through reporting will assist stakeholders in making more informed decisions about the quality of working conditions within an organisation and comparisons within sectors in relation to their performance. For organisations, this assists with building their own legitimacy and enhancing their reputation which may attract potential employees who have been not willing to work in these industry sectors but are encouraged by improvements in working conditions. As customers, supply chain partners, financial analysts, investors, media and governments are exerting increased pressure on companies' behaviour, there is evidence of enhanced expectations in regard to reporting across many dimensions of sustainability. Companies are typically responding by producing glossy Sustainability Reports and adding a variety of risk factors to the Annual Financial Reports. However, it is evident from this study that OHS is not at the forefront of their reporting regime, especially for those companies that are not in the traditional industries classified as high risk in terms of physical labour.

Strengths and Limitations

The current study utilised a rigorous approach to score specific coverage of OHS across five domains in ASX Top 100 business reports. The large sample size of the study is a significant strength, along with the novel approach to coding the data. The inclusion of a range of safety indicators, beyond accidents and injuries, is also a strength and is in line with contemporary expectations of OHS practices. Examining organisations within one country is a further strength, as all are subject to the same regulatory regime. Although some differences exist across the different states of Australia, they are broadly similar and offer a strong basis for comparisons to be made.

This study had a number of limitations. Firstly, this study focused on OHS reporting, and not performance; hence, future work could examine relationships between these two aspects. Secondly, this study cannot draw conclusions on the implementation or

effectiveness of the activities undertaken by the organisations or provide direction about how to improve OHS performance. A third limitation relates to “publication bias” where organisations are more likely to report on successful OHS activities than those with no or even a negative effect, which might impact their reputation. A further consideration is that the reports reviewed were of the Top 100 companies who are more likely to have resources to fund OHS programs and this may impact the generalisability of the results. Finally, the data collected were across a single year and therefore, does not take into account the dynamic nature of OHS. Longitudinal analysis is required to address this gap, with reports analysed across multiple years.

5. Conclusions

In conclusion, this study identified that OHS reporting in the Top 100 ASX companies varies significantly between industry sectors. In general, high-risk sectors reported higher quality information in comparison to those in low-risk sectors. The significant variability reflects challenges in voluntary reporting practices that arise from reputational, stakeholder and institutional drivers, such as industry norms and the desire for reputation and legitimacy from salient stakeholders. However, relying only on stakeholder pressures to improve reporting is unlikely to be successful. Organisational culture is important and ensuring transparency in all aspects of OHS reporting is also needed, requiring input from all levels of management. The current study provides support for a more structured process and clear guidelines to improve the reporting of OHS in organisations’ suite of annual reports, increasing the use of a range of institutional drivers through using regulation as a coercive institutional driver rather than relying on industry norms and stakeholder pressure.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/admsci14040072/s1>, Table S1: Marking matrix.

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