

This is the peer reviewed author accepted manuscript (post print) version of a published work that appeared in final form in:

Lodhia, Sumit, Kaur, Amanpreet & Stone, Gerard 2020 'The use of social media as a legitimation tool for sustainability reporting: a study of the top 50 Australian Stock Exchange (ASX) listed companies', *Meditari Accountancy Research* online, pp. 1-20

This un-copied output may not exactly replicate the final published authoritative version for which the publisher owns copyright. It is not the copy of record. This output may be used for non-commercial purposes.

The final definitive published version (version of record) is available at:

<https://doi.org/10.1108/MEDAR-09-2019-0566>

Persistent link to the Research Outputs Repository record:

<http://researchoutputs.unisa.edu.au/11541.2/141803>

General Rights

Copyright and moral rights for the publications made accessible in the Research Outputs Repository are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the persistent link identifying the publication in the Research Outputs Repository

If you believe that this document breaches copyright please [contact](#) us providing details, and we will remove access to the work immediately and investigate your claim.

The use of social media as a legitimization tool for sustainability reporting: A study of the Top 50 Australian Stock Exchange (ASX) listed companies

Abstract

Purpose: This paper examines the use of social media for sustainability reporting by the largest Australia companies as a means of seeking legitimacy from stakeholders.

Design/methodology/approach: Qualitative content analysis was applied to examine social and environmental disclosures posted by Australian companies on three social media platforms – Facebook, Twitter and LinkedIn, and to observe stakeholder interaction in relation to the social and environmental postings.

Findings: The findings of this study indicate a limited use of social media by the top 50 Australian Stock Exchange (ASX) listed companies for sustainability reporting as only 46 per cent of the companies used Facebook, Twitter and/or LinkedIn. Nevertheless, those companies which actively used social media were able to seek legitimacy through information disclosure and dialogue with stakeholders. Social issues such as community support, employees, gender equality and diversity dominated the three social media platforms when compared to environmental issues and all disclosures had a positive tone. These disclosures in turn framed the dialogue with stakeholders, leading to use of social media platforms that companies preferred and enabling a close control over online discussions.

Research Implications: This study highlights that social media sustainability communication focuses on symbolic legitimacy strategies, leading to companies managing the impressions of their stakeholders and controlling the dialogue with them.

Practical Implications: This study provides an understanding of the actual practice of social media sustainability communication and has implications for both organisations and their stakeholders.

Originality/value: This study provides in-depth insights into the use of social media to transform sustainability reporting, an issue that has limited coverage in prior literature and extends the application of legitimacy theory to social media communication.

Key words: Sustainability reporting; social and environmental disclosures; social media; stakeholders; legitimacy theory

1. Introduction

Traditionally, corporate annual reports were considered to be the primary source for disseminating organisational performance to various stakeholders. However, over the past few decades the means of corporate reporting has changed enormously as companies publish discrete reports on sustainability performance such as sustainability reports, social reports, and environmental reports (Buhr *et al.*, 2014; Frost *et al.*, 2005; Lodhia, 2018). Moreover, companies are increasingly using the Internet to disseminate sustainability information as it enables them to engage with a broader range of stakeholders on a timely basis (Jenkins and Yakovleva, 2006; Lodhia, 2012, 2018; Morhardt, 2010).

More recently, social media has emerged as a new wave of communication. “Social media employ mobile and web-based technologies to create highly interactive platforms via which individuals and communities share, co-create, discuss, and modify user-generated content” (Kietzmann *et al.*, 2011, p.241). Social media refers to technology-facilitated dialogue conducted through platforms such as blogs, wikis, content sharing, social networking, and social bookmarking (Reilly and Hynan, 2014). The social media channels have not only transformed communication but have also become an integral part of everyday life (McCay-Peet and Quan-Haase, 2017). In Australia, almost eight in ten Australians use at least one social media platform (Sensis, 2017). For organisations and their stakeholders, it enables rapid and open dialogue on prominent issues, including sustainability (Lodhia and Stone, 2017). As a result, organisations are increasingly embracing social media to share their sustainability progress and achievements with stakeholders (Manetti and Bellucci, 2016; Reilly and Hynan, 2014).

Social media has created new possibilities for organisations to engage in conversations with their stakeholders and receive real-time feedback on organisational announcements (Manetti *et al.*, 2017; Suddaby *et al.*, 2015). These developments have transformed the dissemination of social and environmental information from one-way *transmissional* models of communication in the form of annual and sustainability reports to two-way *transactional* communication facilitated by web and social media applications (Kaplan and Haenlein, 2010; Macnamara and Zerfass, 2012; Reilly and Hynan, 2014). Analysing whether organisations adopt a one-way or two-way approach to social media communications with stakeholders provides valuable insights into organisations’ approaches to stakeholder engagement. Where organisations engage in social

media facilitated two-way dialogue with stakeholders, it not only enables stakeholders' voices to be heard; it also provides organisations with an understanding of issues that are important to stakeholders and an opportunity to respond directly to their concerns (Brivot *et al.*, 2017; Lodhia and Stone, 2017; Saxton, 2012). This approach can be indicative of organisations utilising social media's "intensely interactive and participatory" features to create networks to learn about and build relationships with their stakeholders (Bochenek and Blili, 2013; Manetti and Bellucci, 2016; Saxton, 2012, p.290). The alternative one-way communication approach can be characterised as "push communication" – organisations use social media as monologic channels to push messages and transmit information, and dialogue with stakeholders is restricted or absent (Bochenek and Blili 2013, p.158).

Although social media has emerged as one of the fastest growing, timely and dialogic communication platforms, its use in sustainability reporting is under-researched. The use of social media for sustainability reporting has been conspicuously absent from the relevant literature. Notable exceptions are Reilly and Hynan's (2014) study of the use of Facebook and Twitter for sustainability reporting, Manetti and Bellucci's (2016) assessment of the extent of social media use by global companies for stakeholder engagement, and Lodhia and Stone's (2017) conceptual overview of the communication potential of social media for integrated reporting.

This paper aims to extend the existing literature by examining the nature and extent of the use of social media for sustainability reporting by Australia companies. The emphasis is on how social and environmental disclosure and the associated dialogic communication can be used by companies to seek legitimacy from their stakeholders. This exploratory research provides the necessary foundation for future research on social media use in sustainability reporting.

2. Sustainability reporting and social media

Sustainability reporting is a tool to demonstrate sustainability performance against an organisation's values, objectives and targets. GRI (2011, p.3) defines sustainability reporting as "the practice of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development". It aims at communicating social, environmental and economic impact – including both positive and negative contributions of an organisation to its stakeholders (Elkington, 1998; GRI, 2013).

Organisations use a range of media to communicate their sustainability performance to stakeholders, comprising both traditional media such as paper based reports as well as contemporary media such as online disclosures and social media. Prior literature has examined the nature, extent and trends in corporate sustainability reporting practices using various reporting formats such as annual reports, sustainability reports, brochures, advertisements and website disclosures (Frost *et al.*, 2005; Lodhia, 2004, 2010, 2012, 2018; Lodhia *et al.*, 2004; Roca and Searcy, 2012; Zeghal and Ahmed, 1990). However, these formats offer only one-way “push communication”; they are used primarily to push messages and information in one direction from organisation to recipient (Bochenek and Blili, 2013, p.158). The reporting formats do not provide a platform to facilitate organisation-to-stakeholder, stakeholder-to-organisation and stakeholder-to-stakeholder dialogue on sustainability issues (Lee *et al.*, 2015).

A limited number of studies have examined organisations’ use of social media to achieve two objectives – reporting on sustainability issues and impact, and harnessing the media’s features to engage with stakeholders on the issues affecting them. Reilly and Hynan (2014) studied Facebook, Twitter and the sustainability reports of 16 global companies to assess the content and scope of social media as corporate communication tools. Companies with high environmental performance (green companies) reported more sustainability information than non-green companies and were measurably more active on social media platforms. Facebook attracted significantly higher stakeholder response in comparison to Twitter (Reilly and Hynan 2014). Manetti and Bellucci (2016) conducted a content analysis of the official Twitter, Facebook, and YouTube pages of global companies to examine whether they use social media as a stakeholder engagement mechanism for sustainability reporting. The authors found that only a small number of companies used social media to establish dialogue with stakeholders on sustainability issues. Nevertheless, these companies achieved a significant level of online interaction with the “community” on sustainability issues that were not specifically connected with sustainability reporting policies and practices. The authors also found that social media channels were primarily used for promoting products, services, and activities, and therefore, concluded that companies have not yet fully realised the potential of social media in facilitating effective stakeholder engagement for sustainability reporting.

Bellucci and Manetti (2017) studied the Facebook accounts of the 100 largest American philanthropic foundations to examine the dialogic communication potential of social media. Similar to Manetti and Bellucci (2016), they found that a limited number of posts attempted to engage users by asking for their feedback. Nevertheless, such posts generated the highest average number of likes, shares, comments and interactions between the foundations and their Facebook users, and between users. This result indicated that Facebook users react positively to invitations to interact online, both with the organisations they follow and each other (Bellucci and Manetti, 2017). Furthermore, having published posts which attempt to engage users by asking for their feedback, a number of foundations actively participated in dialogic conversations with users by promptly replying to their comments, answering their questions, and liking their contributions. Some foundations which demonstrated a commitment to engage and participate in two-way dialogue with their Facebook communities also offer online ‘question and answer’ sessions. Although the majority of the foundations were active on their Facebook pages during the period of analysis, only 15 per cent interacted with users online. Bellucci and Manetti (2017, p.898) concluded that most foundations merely disseminated information about their activities on Facebook and adopted “a cautious, monologic outlook” to social media use.

More recently, Manetti *et al.* (2017) applied content analysis to examine the use of social media to disseminate public information and encourage stakeholder engagement by Canadian and American public transportation agencies. The authors applied content analysis on the Facebook and Twitter accounts of 35 transit operators in Canada and the United States, and assessed the role of social media in creating a model of authentic dialogic accounting and interaction. The findings of the study suggested that the transport agencies mainly used the social media space to provide the public with information on their services and to perform activities associated with stakeholder engagement. The study reported significant differences in regard to the use of different social media channels. Twitter is most often used for public information messages, while Facebook appears to be used more to publish content in a dialogic perspective that creates two-way, collaborative conversations with users.

Lodhia and Stone (2017) highlighted that social media can be used to improve organisations’ integrated (including sustainability) reporting and increase stakeholder involvement in organisations’ reports by harnessing the media’s interactive communication capabilities, as

conceptualised through the media richness framework. This framework discusses eight attributes that can be used to assess the communication potential of information and communication technologies, including social media. The media richness framework highlights that with technologies such as social media, their interactive potential leads to communication rather than merely one directional reporting.

Although web-based technologies including social media offer wider and instant communication, some challenges can affect their dialogic potential. These factors include a lack of widespread stakeholder access to the Internet, low bandwidth and connection speeds, organisations' propensity to use passwords to restrict stakeholder access to online information, and poorly designed corporate websites and social media platforms which obstruct user access, and as a consequence, inhibit meaningful organisation-to-stakeholder, stakeholder-to-organisation and stakeholder-to-stakeholder dialogue (Adams and Frost, 2004; Lodhia, 2006; Lodhia *et al.*, 2004). In a critical appraisal of web-based technologies' capacity to deliver a 'silver bullet' solution to enhance organisation-stakeholder dialogue, Lowe *et al.* (2012, p.187) point out "the sheer difficulty of being heard in the cacophony of the web where millions of (online) 'hits' are needed to become visible in the crowd". Some scholars have also questioned the role of social media channels in creating meaningful stakeholder dialogue as organisations tend to use these channels for maintaining their legitimacy and reputation (Manetti and Bellucci, 2016; Reilly and Hynan, 2014).

Our study adds to the limited literature on sustainability reporting and social media by focusing on the Australian context, a developed nation which has numerous social and environmental impacts and extensive technological use by its citizens. We address the issues covered in prior literature but add to the prior body of knowledge through our theoretical grounding that investigates social media as a tool to seek legitimacy through sustainability communication.

3. Social media as a legitimation tool for sustainability reporting

This section provides an overview of legitimacy theory, the commonly used theory for explaining social and environmental disclosure. It is highlighted that the use of social media changes the dynamics of reporting, leading to an interactive communication process whereby dialogue and engagement with stakeholders can be used to accompany information disclosure in order to seek legitimacy.

Legitimacy theory suggests that organisations will undertake activities to manage their social and environmental performance in order to legitimise their continued existence to society (Deegan, 2002; Dowling and Pfeffer, 1975; Lindblom, 1993; Pellegrino and Lodhia, 2012). The theory is centred on the notion of organisational legitimacy, which is a ‘condition or status which exists when an entity’s value system is congruent with the value system of the larger social system of which the entity is a part’ (Lindblom, 1993, p.2). Whenever a disparity exists between the two value systems, there is a threat to the entity’s legitimacy (Dowling and Pfeffer, 1975). This is commonly referred to as a legitimacy gap (Lindblom, 1993). Therefore, legitimacy theory posits that in order to survive, organisations need to manage societal expectations and legitimacy gaps. This process is called legitimation (Dowling and Pfeffer, 1975; Lindblom, 1993).

The degree of legitimacy will vary among organisations (Deegan, 2002). Organisations that are more visible to their stakeholders and that rely extensively on social and political support will require a greater level of legitimacy (Dowling and Pfeffer, 1975; Lindblom, 1993; Patten, 1992). Specifically, in the social and environmental context, social and environmentally sensitive industries are more likely to seek a greater level of legitimacy from their stakeholders than companies operating in industries that have stable social and environmental conditions (Patten, 1992, Arora and Lodhia, 2017).

Legitimacy is a dynamic concept. There can be changes in corporate performance and/or societal expectations leading to potential legitimacy gaps (Lindblom, 1993). Thus, management needs to be aware of current societal expectations as well as possible legitimacy gaps and to manage them by undertaking activities that legitimise its corporate existence to stakeholders.

Particular events can be instrumental in creating legitimacy gaps (Patten, 1992). Organisations need to respond by identifying the key stakeholders that can make a difference to their legitimacy and undertaking strategies to reduce this gap (Dowling and Pfeffer, 1975; Lindblom, 1993; O’Donovan, 2002). For example, the BP Oil Spill created a legitimacy gap for the company, requiring it to undertake immediate action to repair this legitimacy. Often, other companies operating in the same industry can also be under increasing pressure from their stakeholders and need to legitimise their existence to them (Patten, 1992).

The 'illegitimacy' of an organisation can lead to economic, legal and social sanctions (Dowling and Pfeffer, 1975; Lindblom, 1993). Economic sanctions can include a boycott of output, strike of operation or refusal to extend credit. Legal sanctions can include fines or lawsuits. Social sanctions can include information picketing, publicity campaigning and a refusal to work for the organisation (Lindblom, 1993).

One way to facilitate organisational legitimation is through the disclosure of social and environmental information to stakeholders (Deegan, 2002; Lindblom, 1993; O'Donovan, 2002; Pellegrino and Lodhia, 2012). Accordingly, the basic tenets of legitimacy theory suggest that social and environmental disclosure is a mechanism that organisations can undertake in order to legitimise their existence to their external stakeholders.

Prior literature has indicated that organisations use a number of legitimacy strategies while undertaking sustainability reporting (Lindblom, 1993, Lodhia, 2005). These strategies can be classified as substantive or symbolic (Savage et al, 2002). Substantive strategies involve making actual changes to corporate performance and seeking to respond to legitimacy gaps through concrete actions. Conversely, symbolic strategies involve changing or manipulating perceptions and expectations (Lindblom, 1993), being often associated with impressions management techniques.

Legitimacy theory has focused primarily on disclosure in reports such as annual and sustainability reports which are often static and periodic in terms of their timelines. As indicated in the prior section, the use of electronic media such as websites and social media is more dynamic, enabling a change in the approach to sustainability reporting. In essence, reporting is replaced by communication with the interactive potential of such technologies enabling dialogue in addition to disclosure of information (Lodhia, 2004, 2018). Organisations therefore will not only disclose social and environmental information, they will also engage with their stakeholders through the interactive potential of social media to seek legitimacy. There is prior evidence to suggest that companies use corporate websites for legitimacy purposes (Lodhia, 2005). It is therefore of academic interest to explore how social media is used for seeking legitimacy over social and environmental issues and whether the legitimacy strategies are substantive or symbolic.

4. Research methods

A two-stage research process was conducted to examine the nature and extent of the use of social media for sustainability reporting. In the first stage, a snapshot analysis, as applied by Lodhia *et al.* (2016) in their in-depth study of social media use by Australian accounting firms, was used to analyse the 2016 and 2017 sustainability reports of the Top 50 Australian Stock exchange (ASX) listed companies. The top 50 companies were selected based on their market capitalisation. A focus on large companies is justified with reference to the extant organisational reporting literature which states that such companies are often in the limelight in relation to the highly visible social and environmental impacts associated with their operations (Ahmed Haji and Anifowose, 2016; Dumay *et al.*, 2016; Melloni *et al.*, 2017; Zappettini and Unerman, 2016). In this analysis, the presence of references to social media were manually observed and analysed. This analysis provided insights into the various types of social media platform used and the prominence given to social media by these companies. These observations were used to identify companies that use social media for sustainability reporting in order to perform in-depth analysis in the second phase.

In the second stage, the official Facebook, Twitter and LinkedIn pages of those companies who specified in their reports that they use social media for interacting with their stakeholders were monitored and analysed from 1 January 2017 to 31 December 2017. This analysis aimed at documenting the companies' social and environmental disclosures as well as responses posted by their stakeholders such as comments, likes and shares/retweets (McKenna *et al.*, 2017). The emphasis on Facebook, Twitter and LinkedIn is warranted by the ongoing finding that they are the social media most frequently used by organisations (Dijkmans *et al.*, 2015; Eschenbrenner *et al.*, 2014; Etter *et al.*, 2018; Macnamara and Zerfass, 2012; Manetti *et al.*, 2017). Facebook, the world's largest social networking site, has more than 2.23 billion active users of whom an estimated one billion account holders access Facebook at least once a day (Facebook, 2018; Statistica, 2018a) . Twitter boasts 335 million monthly active users who send an estimated 500 million tweets each day (Statistica, 2018b). There are an estimated 1.3 billion registered Twitter accounts. LinkedIn is designed for professional networking and has 467 million active monthly account users, 40 per cent of whom access their account on a daily basis (Statistica, 2018c). It focuses on business connections and permits companies to present themselves through online pages (Statistica, 2018c).

The units of data collection were posts, tweets and videos posted by the companies concerning social and environmental issues. Furthermore, any response by stakeholders in form of likes, comments and shares/retweets as well as subsequent replies by the companies were monitored to assess the use of the dialogic potential of social media. The social and environmental disclosures and stakeholder interactions were saved in PDF files for a qualitative content analysis.

Social media has radically altered the production and transmission of information. It is a dominant part of the rapidly evolving and increasing range of web-based technologies which are profoundly impacting how organisations disseminate information and communicate with their stakeholders (Dumay, 2016). Content analysis is a foremost methodology employed in studies of organisations' social media practices (Eschenbrenner *et al.*, 2014; Etter *et al.*, 2018; Suddaby *et al.*, 2015). It has also been used extensively in studies of organisational disclosures in accounting research (Dumay and Guthrie, 2017; Frost *et al.*, 2005; Guthrie *et al.*, 2004; Zeghal and Ahmed, 1990). Content analysis is a systematic technique of analysing data which goes beyond merely counting words to examine a particular phenomenon; it enables researchers to compress large amounts of text into an efficient number of categories which represent similar meanings based on explicit rules of coding (Krippendorff, 2004; Stemler, 2001; Weber, 1990). It provides in-depth “knowledge and understanding of the phenomenon under study” (Downe-Wamboldt, 1992, p.314).

Open coding (Boeije, 2010) was used to identify the key codes from the study of the three social media platforms. A code is a label that depicts the core topic of a segment (Boeije 2010). Open coding is the process of breaking down, examining, comparing, conceptualising and categorising data (Corbin and Strauss, 2008). The use of open codes provides an opportunity to read the data carefully and to divide it into fragments (Boeije, 2010). Open coding encourages a thematic approach since it forces the researcher to break the text into pieces, to compare them and to assign them to a group that addresses the same issue (Boeije, 2010).

Drawing upon prior relevant methodological approaches (Lodhia *et al.*, 2016; Manetti and Bellucci, 2016), the following social media analysis tool has been developed and applied to specific constructs:

1. Disclosure classification – Social, Environmental or Social and Environmental (SE)

2. Subject matter discussed in the post/tweet (thematic analysis was used to develop an inductive list of key themes raised in these disclosures, for example, water, waste, climate change responses, employee engagement and community engagement).
3. Use of social media dialogic features by stakeholders (likes, comments and shares/retweets).

An excel spreadsheet was created to record all the social, environmental and SE issues and the number of times that these have been posted by the companies on the three social media platforms. The total reactions posted by stakeholders were also counted and recorded to ascertain the effectiveness of the three social media to facilitate dialogic accounting. The social media postings and reactions were coded independently by the authors and later verified as a team to ensure reliability of the process.

5. Findings

The initial screening of sustainability reports of the top 50 ASX companies indicated that 46 per cent of these companies reported on the use of social media channels, in particular, Facebook, Twitter and/or LinkedIn. A total of 1,898 social and environmental posts were made by these 23 companies in 2017.

In the second stage of the analysis, the in-depth study of the 23 companies' social media channels highlighted the regular use of social media to communicate and share sustainability issues (Table 1). BHP Billiton posted the highest number of social and environmental issues on the three social media platforms while the financial and energy sector companies also maintained a prominent presence on social media. Of the total posts recorded, 27 per cent were made by financial sector companies and 25 per cent by energy sector companies. The sector analysis shows that sustainability issues posts by companies in the energy sector exceeded the sector's representation (17 per cent of companies). In contrast, real estate companies comprised 17 per cent of companies and made only 12 per cent of the sustainability issues posts. These findings are reflective of the proposition that companies in socially and environmentally sensitive industries are more likely to engage in sustainability reporting in order to legitimise their existence to their stakeholders.

The findings indicate that the companies made conscious choices in terms of posting either social or environmental issues as they specifically mentioned the issue or concern such as community, diversity and inclusion, gender equality, employees, climate change, sustainable and clean energy, and sustainable finance in their posts. 76 per cent of the posts across all the three platforms were related to social issues such as community, employees, diversity, gender equality, health and safety and supply chains. The companies predominantly used their social media space to communicate their contributions to local communities and charities (Table 2).

Furthermore, the findings indicate that social media enabled companies to establish a dialogue on current issues affecting society and the environment. For instance, marriage equality received high media attention during the period under analysis, and eventually, same-sex marriage became legal in Australia in 2017. This social issue was widely reported and supported on the three social media. A strong emphasis was also placed on female representation in the workplace, especially in senior management positions. Thus, as highlighted by legitimacy theory, legitimacy is dynamic and particular events or matters could lead to a need for legitimacy to be sought.

Company	Sector	Rank	Facebook				LinkedIn				Twitter				Total posts
			Social	ENV	SE	Total	Social	ENV	SE	Total	Social	ENV	SE	Total	
BHP Billiton Limited	Materials	3	39	6	0	45	68	14	5	87	52	19	4	75	207
Origin Energy Limited	Energy	24	19	43	0	62	45	27	1	73	26	35	1	62	197
AGL Energy Limited	Energy	22	12	36	0	48	16	7	0	23	44	60	3	107	178
ANZ Banking Group Limited	Financials	4	38	2	0	40	27	2	3	32	77	7	3	87	159
Fortescue Metals Group LTD	Materials	28	0	0	0	0	63	0	1	64	60	0	1	61	125
NAB Limited	Financials	5	25	4	1	30	22	5	3	30	43	11	2	56	116
Stockland Stapled	Real Estate	31	0	0	0	0	47	5	1	53	30	10	9	49	102
SOUTH32 Limited	Materials	20	0	0	0	0	35	2	0	37	38	7	2	47	84
Sydney Airport Limited	Industrials	21	20	4	0	24	21	3	1	25	25	7	0	32	81
Santos Limited	Energy	37	21	8	0	29	11	3	5	19	16	15	0	31	79
Dexus Stapled	Real Estate	38	11	8	3	22	27	7	7	41	6	7	2	15	78
AMP Limited	Financials	26	29	1	1	31	12	1	0	13	32	0	0	32	76
QBE Insurance Group Limited	Financials	27	38	0	0	38	12	0	0	12	9	1	0	10	60
Commonwealth Bank of Australia	Financials	1	23	0	0	23	17	0	2	19	16	0	0	16	58
Treasury Wine Estates Limited	Consumer Staples	32	19	1	0	20	22	0	0	22	14	1	0	15	57
Vicinity Centres Stapled	Real Estate	34	21	3	1	25	6	1	2	9	15	1	1	17	51
Telstra Corporation Limited	Telecommunication	8	8	0	0	8	26	1	2	29	9	0	0	9	46
Westpac Banking Corporation	Financials	2	26	0	1	27	9	1	1	11	6	0	0	6	44
Qantas Airways Limited	Industrials	40	9	2	0	11	10	0	0	10	13	2	0	15	36
Woolworths Limited	Consumer Staples	9	1	0	0	1	24	0	2	26	1	0	0	1	28
Caltex Australia Limited	Energy	48	7	0	0	7	18	0	0	18	3	0	0	3	28
ASX Limited	Financials	33	0	0	0	0	1	0	0	1	5	1	0	6	7
Westfield Corporation Stapled	Real Estate	18	1	0	0	1	0	0	0	0	0	0	0	0	1
Total posts			367	118	7	492	539	79	36	654	540	184	28	752	1898

Table 1: Total number of social and environmental posts made by the 23 companies.

	Facebook		Twitter		LinkedIn	
	Number	Percentage	Number	Percentage	Number	Percentage
<i>Social Issues</i>						
Community	295	60.0%	284	37.8%	274	41.9%
Diversity (LGBT, aboriginal engagement and multi-culturalism)	43	8.7%	118	15.7%	104	15.9%
Employees	16	3.3%	37	4.9%	57	8.7%
Gender equality	11	2.2%	77	10.2%	78	11.9%
Health and safety	1	0.2%	7	0.9%	20	3.1%
Supply Chains	1	0.2%	0	0.0%	1	0.2%
Corruption	0	0.0%	1	0.1%	0	0.0%
Community partnerships	0	0.0%	2	0.3%	0	0.0%
Human rights	0	0.0%	4	0.5%	1	0.2%
Ethics	0	0.0%	3	0.4%	1	0.2%
Customers	0	0.0%	6	0.8%	0	0.0%
Technology	0	0.0%	0	0.0%	1	0.2%
Sustainable Finance	0	0.0%	0	0.0%	2	0.3%
General	0	0.0%	1	0.1%	0	0.0%
Total social issues	367	75%	540	72%	539	82%
<i>Environmental issues</i>						
Conservation partnerships	11	2.2%	16	2.1%	8	1.2%
Climate change	21	4.3%	36	4.8%	19	2.9%
Clean energy	71	14.4%	109	14.5%	32	4.9%
Sustainable finance	5	1%	6	0.8%	8	1.2%
Waste	5	1%	3	0.4%	2	0.3%
Water	5	1%	5	0.7%	4	0.6%
Awards	0	0.0%	2	0.3%	2	0.3%
Technology	0	0.0%	1	0.1%	1	0.2%
Supply chain	0	0.0%	0	0.0%	1	0.2%
Ethics	0	0.0%	0	0.0%	1	0.2%
Incident reporting	0	0.0%	0	0.0%	1	0.2%
General	0	0.0%	6	0.8%		0.0%
Total environmental issues	118	24%	184	24%	79	12%
<i>Social and environmental issues</i>						
Sustainable Finance	0	0.0%	0	0.0%	1	0.2%
Reporting	3	0.6%	9	1.2%	12	1.8%
Awards	0	0.0%	3	0.4%	16	2.4%
Partnerships	0	0.0%	5	0.7%	1	0.2%
Ethics	0	0.0%	1	0.1%		0.0%
Customers	0	0.0%	3	0.4%		0.0%
Society	0	0.0%	0	0.0%	3	0.5%
General	4	0.8%	7	0.9%	3	0.5%
Total SE issues	7	1%	28	4%	36	6%
Overall disclosures	492	100%	752	100%	654	100%

Table 2: Social and environmental posts on social media in the year 2017.

Out of the three social media platforms analysed in this study, Twitter was the companies' most preferred social medium for communicating social and environmental issues, with an average of two postings per day (Table 2). In Australia, although Facebook is the dominant platform with 94 per cent of social networkers maintaining a Facebook profile (Sensis, 2017), it was the companies' least used social medium for sustainability reporting. The following sub-sections discuss the nature of social and environmental postings and stakeholder interaction on the three social media.

a. Facebook

19 of the 23 companies used Facebook to disclose social and environmental information. Figure 1 outlines the number of social and environmental postings made by the companies on Facebook.

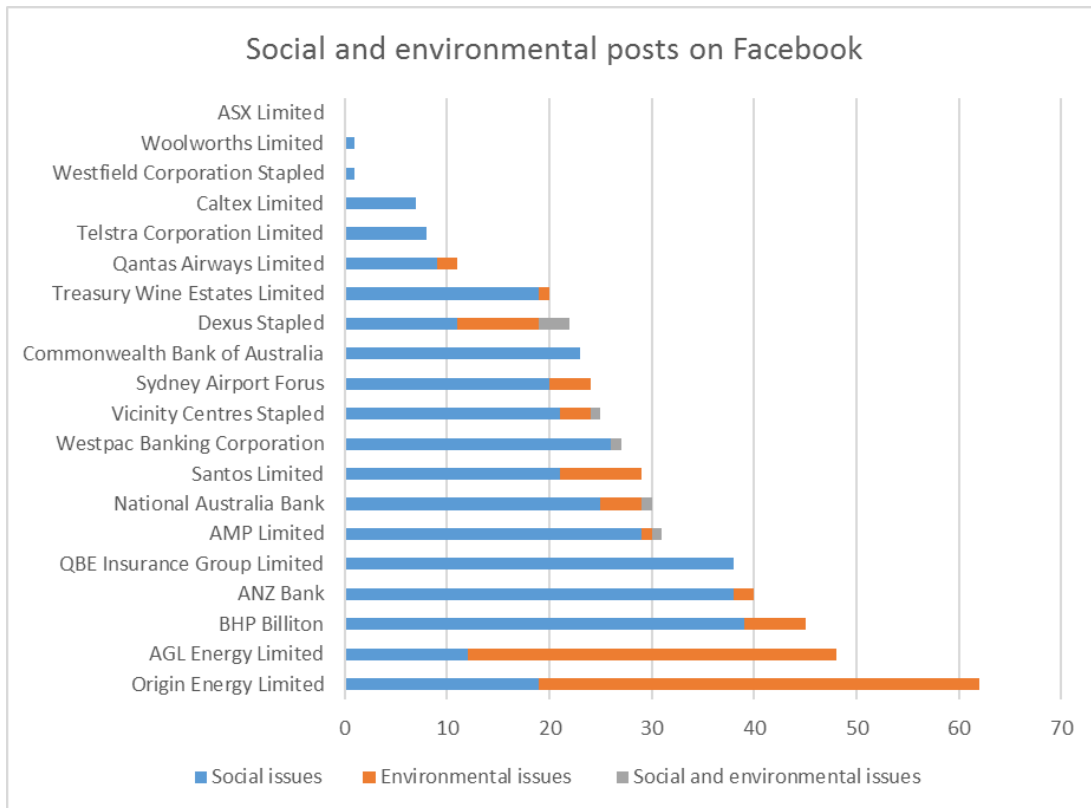


Figure 1: Social and environmental posts on Facebook by the ASX listed companies.

Approximately 490 social and environmental postings were observed on Facebook in 2017 (Table 1). Of the total social and environmental posts, 75 per cent related to social issues, 24 per cent to environmental issues and 1 per cent to social and environmental issues (Table 2). The

companies posted a range of social issues on Facebook such as community, diversity, employees, gender equality, health and safety, and the supply chain. The content analysis of the social postings indicated that 60 per cent of the posts reported the companies' contribution to local communities in the form of charities, volunteering and sponsorships. The environmental postings included sustainable and clean energy, climate change, nature conversation partnerships, water, wastage and sustainable finance. The social and environmental postings included promotion of sustainability reports and general sustainability issues. The energy companies, Origin Energy Limited and AGL Energy Limited posted the highest number of social and environmental issues on Facebook. The environmental postings by these companies were significantly higher than other sectors including the materials and financial sectors. The financial sector companies including ANZ Bank, QBE Insurance Group Limited, AMP Limited and National Australia Bank actively used the social media space to report their social and environmental issues. These companies primarily reported social issues (Figure 1).

Further analysis of Facebook postings, summarised in Table 3, included ascertaining total reactions received by the companies. The Facebook postings attracted approximately 225,000 reactions from stakeholders, with an average of 450 reactions per post. National Australia Bank received the highest average number of reactions, with an average of 2,400 reactions per post. ANZ Bank received the second highest average number of reactions, an average of 1,950 reactions per post made by the company.

Company	Like	Love	Haha	Wow	Sad	Angry	Shares	Total reactions
ANZ Bank	68860	8688	207	341	98	191	9355	78385
National Australia Bank	61468	6941	1235	247	16	44	8291	69961
Origin Energy	13665	378	99	190	12	65	1255	14409
AGL Energy	12575	519	121	99	24	477	1061	13815
Westpac Banking	11782	759	39	62	10	107	1713	12759
Caltex	7225	233	3	15	37	1	447	7514
Commonwealth Bank of Australia	5405	579	27	14	11	94	407	6537
Telstra Corporation Limited	3658	401	20	16	19	121	257	4325
Qantas	3571	609	7	37	3	14	320	4241
Sydney Airport	3638	284	8	48	3	4	264	3985
BHP Billiton	2482	45	1	6	0	1	90	2535
AMP Limited	1929	128	6	92	4	3	143	2162
Woolworths Limited	1400	104	33	1	0	3	146	1541
QBE Insurance Group Limited	1233	65	0	7	1	2	158	1308
Treasury Wine Estates	578	21	0	0	0	0	33	599
Vicinity Centres	558	25	0	6	0	0	1	589
Dexus	320	10	0	18	0	3	47	351
Santos	244	4	1	1	0	0	1	250
Westfield Corporation Limited	5	0	0	0	0	0	0	5
Total	200596	19793	1807	1200	238	1130	23989	225271

Table 3: Total number of stakeholder reactions on Facebook.

b. LinkedIn

LinkedIn was the second highest preferred social medium for sustainability reporting, with approximately 650 social and environmental postings in 2017 (Table 1). Moreover, the majority of the companies (92 per cent) maintained their presence on LinkedIn. Of the total social and environmental posts on LinkedIn, social issues (82 per cent) dominated, followed by environmental issues (12 per cent) and social and environmental issues (6 per cent) (Table 2).

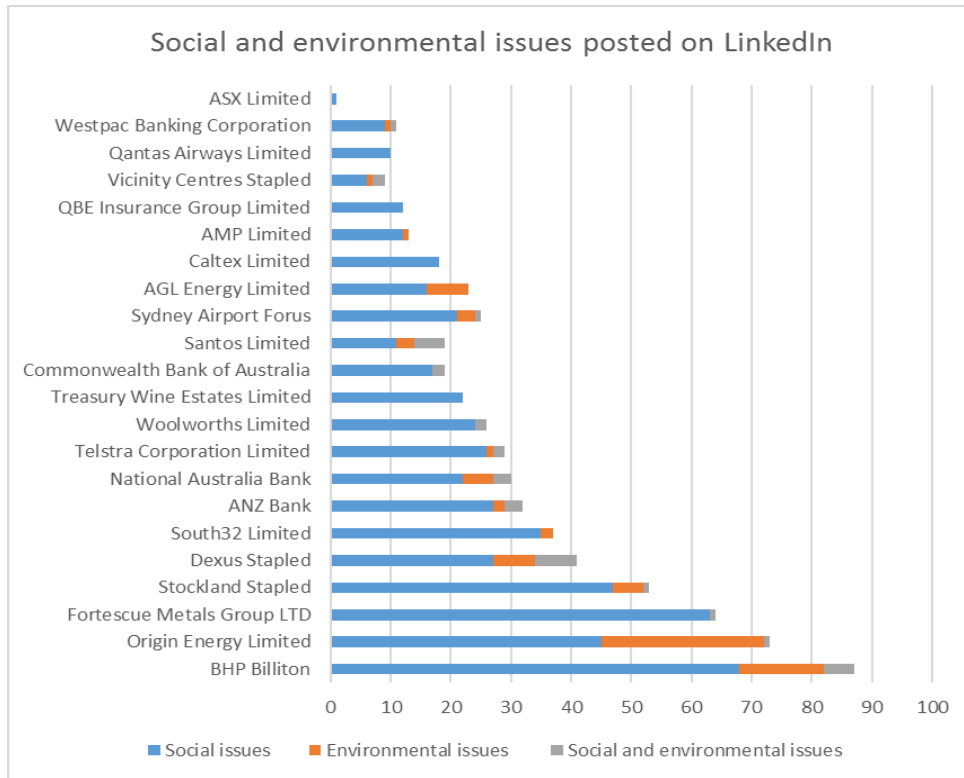


Figure 2: Social and environmental posts on LinkedIn by the ASX listed companies.

The social issues included community, diversity and inclusion, gender equality, employees, health and safety, ethics and supply chains. Unlike Facebook, the companies not only used LinkedIn to report their contribution to local communities but also to demonstrate their support for workplace diversity and inclusion, equal marriage rights and gender equality (Table 2). The key environmental issues posted on LinkedIn included sustainable and clean energy, climate change, sustainable finance, conservation partnership, water and wastage. This platform was also actively used to share recognition and awards received by the companies in relation to their sustainability initiatives. BHP Billiton Ltd posted the highest number of social and environmental issues, followed by Origin Energy Limited and Fortescue Metals Group LTD (Figure 2). The financial sector companies were relatively less active on this social media platform in comparison to their high use of Facebook.

An analysis of the interaction received by the companies on LinkedIn (Table 4) shows approximately 89,500 reactions, with an average of 135 reactions per post, which is significantly lower than stakeholder reaction on Facebook. Commonwealth Bank of Australia received the

highest average number of reactions, an average of 270 reactions for each post. BHP Billiton received the second highest average number of reactions with an average of 210 reactions per post, followed by Woolworths Limited with 190 reactions per post.

Company Name	Likes	Comments	Total reactions
BHP Billiton	18023	471	18494
Fortescue Metals Group Limited	9008	299	9307
Origin Energy	8150	197	8347
South32 Limited	6629	246	6875
National Australia Bank	5399	172	5571
Commonwealth Bank of Australia	5091	72	5163
Woolworths Limited	4877	130	5007
ANZ Bank	4620	97	4717
Stockland	3635	60	3695
Treasury Wine Estates	2811	49	2860
Dexus	2327	58	2385
Telstra Corporation Limited	2257	46	2303
AGL Energy	2240	33	2273
Westpac Banking	2013	36	2049
Santos	1873	51	1924
QBE Insurance Group Limited	1794	25	1819
Sydney Airport	1696	43	1739
Caltex	1552	30	1582
Qantas	1544	37	1581
AMP Limited	996	25	1021
Vicinity Centres	678	22	700
ASX Limited	95	4	99
Total	87308	2203	89511

Table 4: Total number of stakeholder reactions on LinkedIn.

c. Twitter

Twitter emerged as the most commonly used social media platform with a total of approximately 750 social and environmental tweets posted in 2017 (Table 1). Of the total tweets, 72 per cent related to social issues, 24 per cent to environmental issues and 4 per cent to social and environmental issues (Table 2). Similar to the Facebook findings, an energy company made the

highest number of posts on Twitter (Figure 3). The social issues raised or shared on Twitter included community support, diversity, gender equality, employees, health and safety, human rights, ethics and corruption. All the companies placed strong emphasis on how they are supporting local communities through charities and partnerships. The majority of the companies also communicated their support of diversity, in particular, Lesbian, Gay, Bisexual, and Transgender (LGBT) issues with diversity being the second highest discussed social issue on Twitter (Table 2).

The environmental issues communicated by the companies on Twitter included sustainable energy, climate change, nature conservation partnerships, sustainable finance, water and waste. Environmental issues were mainly tweeted by energy and materials companies. The prime environmental concerns tweeted by the companies were sustainable energy and climate change.

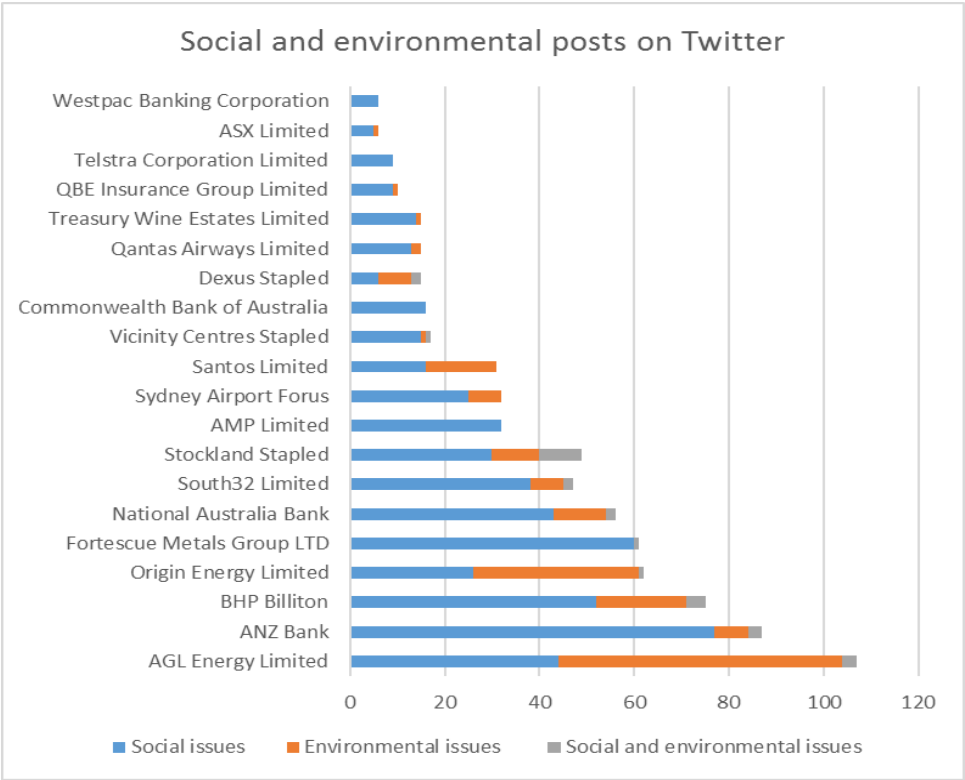


Figure 3: Social and environmental posts on Twitter by the ASX listed companies.

A further analysis of the use of Twitter highlighted the interaction received by the companies to their tweets (Table 5). The Twitter posting received on average 215 reactions per post. AGL Energy Ltd received the highest average number of reactions with an average of 1,180 reactions per tweet. Qantas Airways Ltd received the second highest average number of reactions with an

average of 565 reactions per tweet. It is noteworthy that although the companies used Twitter more than Facebook, the average number of responses received from stakeholders was comparatively less than on Facebook. This is arguably triggered by Facebook’s substantially larger number of account holders. The volume of stakeholder interaction on Facebook *vis-à-vis* Twitter and LinkedIn accords with Bellucci and Manetti’s (2017) finding that Facebook users react positively to invitations to interact online with the not-for-profit organisations they follow. We extend these findings to the for-profit sector.

Company	Retweets	Heart icon	Comments	Total reactions
AGL Energy	2934	122914	570	126418
ANZ Bank	3257	12224	820	16301
Qantas	2143	6190	186	8519
National Australia Bank	599	2247	154	3000
BHP Billiton	861	1242	97	2200
South32 Limited	310	620	21	951
Fortescue Metals Group Limited	144	485	14	643
Sydney Airport	128	469	13	610
Westpac Banking	125	398	20	543
Commonwealth Bank of Australia	96	403	39	538
Telstra Corporation Limited	127	350	33	510
Stockland	128	220	7	355
AMP Limited	115	231	6	352
Santos	84	214	25	323
Origin Energy	85	138	13	236
QBE Insurance Group Limited	24	132	6	162
ASX Limited	39	79	5	123
Vicinity Centres	18	47	0	65
Treasury Wine Estates	15	47	2	64
Woolworths Limited	8	20	0	28
Caltex	10	9	0	19
Dexus	3	9	1	13
Westfield Corporation Limited	0	0	0	0
Total	11253	148688	2032	161973

Table 5: Total number of stakeholder reactions on Twitter.

6. Discussion

In line with the prior research of Manetti and Bellucci (2016) and Bellucci and Manetti (2017), the findings of this study indicate a limited use of social media by the top 50 ASX listed companies for sustainability reporting as only 46 per cent of the companies used Facebook, Twitter and/or LinkedIn. Nevertheless, it is evident from the findings that companies were legitimising their existence to their stakeholders. Those companies who actively used social media did not only focus on information disclosure but were also able to establish a dialogue with their stakeholders. The companies that regularly posted their social and environmental concerns or impact on social media received significant number of stakeholder reactions such as likes and shares.

The findings of this study indicate that companies make strategic choices while selecting their preferred social media to communicate social and environmental issues in order to appear legitimate to stakeholders. The companies communicated their awards and recognitions on LinkedIn relatively more than Twitter and Facebook. The use of LinkedIn to report awards and recognitions highlights corporate intention to engage with other companies and professionals (Statistica, 2018d). Similarly Twitter, which attracts high political attention (Statistica, 2018b), was preferred for environmental postings than the other two channels.

In relation to information content, a surprising finding was the emphasis on social disclosure. Previous studies indicate that discrete reports are dominated by disclosures on environmental issues (Frost *et al.*, 2005). In contrast, this study reports the dominance of disclosures on social issues and impacts on social media. It was found that 76 per cent of the issues posted on the three social media was related to social issues. Moreover, social media enabled companies to engage with stakeholders on current and topical issues impacting local communities. Therefore, social media can enable organisations to go beyond reporting on ‘traditional’ topics, on the environment, corporate philanthropy and employees, (Kolk, 2003) and foster stakeholder dialogue on the contemporary external societal issues.

The content analysis of the posts across all the three social media platforms indicate that the companies used social media to communicate and share positive impacts as there were negligible posts concerning social or environmental incidents. This questions the role of social media in

facilitating meaningful dialogue on both positive and negative sustainability impacts. An increasing focus on community support activities and charities indicates that companies use social media to create and maintain their positive image as a good corporate citizen.

In line with legitimacy theory, it appears that a focus on social issues and a positive outlook enabled companies to legitimise their existence to their stakeholders through information disclosure on social media. The symbolic legitimacy strategies (Savage et al, 2002) characterised the sustainability communication with stakeholders with a focus on managing impressions rather than making actual, concrete changes to their social and environmental impacts. The disclosures sought to manage and change stakeholder perceptions and expectations (Lindblom, 1993).

Emphasis was on contemporary social matters such as LGBT issues and community benefits at a time when trust in companies appears to be quite low, leading to a legitimacy gap. The limited environmental disclosure was primarily confined to energy companies who addressed broader issues such as sustainable energy and climate change. Rather than disclosing environmental issues that could lead to further debate and criticism, legitimacy was sought through diverting attention to “events of the present day”. As expected, the disclosure led to dialogue with stakeholders with the existing disclosure critical in setting the boundaries of this interaction and managing the impressions of the stakeholders.

In relation to the dialogic aspect of social media sustainability communication, this study highlights the choice differences between companies and their stakeholders in regard to their preferred social media. It was found that companies preferred Twitter to communicate their social and environmental issues and impact, largely because this choice of media is politically visible and therefore, becomes a vital tool for seeking legitimacy through the management of stakeholder impressions. Stakeholders preferred Facebook over Twitter, possibly because this could lead to greater interaction and dialogue. The Facebook postings received on an average 450 reactions per post in comparison to an average of 215 reactions per post on Twitter. This implies that companies are not fully utilising the potential of Facebook to engage with stakeholders and are content to manage impressions through Twitter. Reilly and Hynan (2014) and Manetti *et al.* (2017) also reported that companies use Facebook to create two-way conversations with users. Facebook is the most used social media platform in Australia (Sensis 2017).

The use of the dialogic capacity through the associated social media platform in this study highlights that companies are keen to control the discussion around social and environmental issues, giving further credence to the argument that symbolic, impressions management characterised social media sustainability communication. Companies are keen to frame the debate themselves through disclosure and the use of the specific platforms could be a deliberate attempt to minimise threats to their legitimacy that could create further legitimacy gaps.

7. Conclusion

This study examined the use of social media for sustainability reporting. The findings of study indicate that companies are indeed using social media to legitimise their existence to stakeholders through symbolic communication. They focus on information disclosure on issues that could enable them to manage stakeholder impressions, attempt to reduce their legitimacy gap with society and use this to shape the dialogue on (less used) social media platforms.

The study contributes to both academia and practice by highlighting the potential and current use of social media for communicating sustainability issues. From a theoretical perspective, this study contributes to legitimacy theory by highlighting how a modern day communication tool such as social media can be used to legitimise corporate existence. This study also provides in-depth insights into the use of social media to transform sustainability reporting, an issue that has received limited coverage in prior literature. Moreover, the study revealed the nature, extent and usefulness of Facebook, Twitter and LinkedIn to establish ongoing dialogue with stakeholders. These findings can be used by practitioners to develop specific sustainability reporting/communication strategies.

This study was limited to the Top 50 Australian stock exchange listed companies. Slightly different findings could be evident in the practices of “smaller” companies that could be strategically using the communicational potential of social media to manage sustainability relationships with their stakeholders. There is a need to extend the scope of the present investigation in future research and to establish whether the symbolic use of social media for sustainability communication is evident in other corporate practices. Further research is therefore needed in different contexts to test the findings of this study.

Future research can also undertake in-depth case studies to explore the drivers and challenges surrounding companies' use of social media for sustainability reporting. Future studies can also seek the views and opinions of external stakeholders to gain their perceptions on the key merits, issues, challenges and drivers of the use of social media for sustainability reporting. The analysis of social media can be accompanied by traditional methods such as surveys and interviews.

References

- Adams, C and Frost, G (2004), *The development of corporate web-sites and implications for ethical, social and environmental reporting through these media*, Institute of Chartered Accountants of Scotland, Edinburgh.
- Ahmed Haji, A and Anifowose, M (2016), "The trend of integrated reporting practice in South Africa: ceremonial or substantive?", *Sustainability Accounting, Management and Policy Journal*, Vol. 7, No. 2, pp. 190-224.
- Arora, M and Lodhia, S (2017) "The BP Gulf of Mexico oil spill: exploring the link between social and environmental disclosures and reputation risk management" *Journal of Cleaner Production* Vol. 140, No. 3, pp.1287-1297
- Bellucci, M and Manetti, G (2017), "Facebook as a tool for supporting dialogic accounting? Evidence from large philanthropic foundations in the United States", *Accounting, Auditing & Accountability Journal*, Vol. 30, No. 4, pp. 874-905.
- Bochenek, LM and Blili, S (2013), 'Social media champions—drivers and sophistication process of social media strategic management', in MR Olivas-LujÁN & T Bondarouk (eds), *Social media in strategic management*, vol. 11, Emerald Group Publishing Limited, Bingley, UK, pp. 143-167.
- Boeije, H (2010), *Analysis in qualitative research*, Sage Publications, London, UK.
- Brivot, M, Gendron, Y and Guénin, H (2017), "Reinventing organizational control: Meaning contest surrounding reputational risk controllability in the social media arena", *Accounting, Auditing & Accountability Journal*, Vol. 30, No. 4, pp. 795-820.
- Buhr, N, Gray, R and Milne, MJ (2014), 'Histories, rationales, voluntary standards and future prospects for sustainability reporting: CSR, GRI, IIRC and beyond', in J Bebbington, J Unerman & B O'Dwyer (eds), *Sustainability Accounting and Accountability*, 2nd edn, Routledge, London, pp. 51-71.
- Corbin, J and Strauss, A (2008), *Basics of qualitative research: Techniques and procedures for developing grounded theory*, 3rd edn, Sage Publications, Thousand Oaks, California.
- Deegan, C (2002), "Introduction: the legitimising effect of social and environmental disclosures—a theoretical foundation", *Accounting, Auditing & Accountability Journal*, Vol. 15, No. 3, pp. 282-311.
- Dijkmans, C, Kerkhof, P and Beukeboom, CJ (2015), "A stage to engage: Social media use and corporate reputation", *Tourism Management*, Vol. 47, pp. 58-67.
- Dowling, J and Pfeffer, J (1975), "Organizational legitimacy: Social values and organizational behavior", *Pacific sociological review*, Vol. 18, No. 1, pp. 122-136.

Downe-Wamboldt, B (1992), "Content analysis: method, applications, and issues", *Health care for women international*, Vol. 13, No. 3, pp. 313-321.

Dumay, J (2016), "A critical reflection on the future of intellectual capital: from reporting to disclosure", *Journal of Intellectual capital*, Vol. 17, No. 1, pp. 168-184.

Dumay, J, Bernardi, C, Guthrie, J and Demartini, P (2016), "Integrated reporting: A structured literature review", *Accounting Forum*, Vol. 40, No. 3, pp. 166-185.

Dumay, J and Guthrie, J (2017), "Involuntary disclosure of intellectual capital: is it relevant?", *Journal of Intellectual capital*, Vol. 18, No. 1, pp. 29-44.

Elkington, J (1998), "Accounting for the triple bottom line", *Measuring Business Excellence*, Vol. 2, No. 3, pp. 18-22.

Eschenbrenner, B, Nah, FF-H and Telaprolu, VR (2014), "Efficacy of social media utilization by public accounting firms: Findings and directions for future research", *Journal of Information Systems*, Vol. 29, No. 2, pp. 5-21.

Etter, M, Colleoni, E, Illia, L, Meggiorin, K and D'Eugenio, A (2018), "Measuring organizational legitimacy in social media: Assessing citizens' judgments with sentiment analysis", *Business & Society*, Vol. 57, No. 1, pp. 60-97.

Facebook (2018), *Facebook Newsroom: Company Info* viewed 14/09/2018, <<https://newsroom.fb.com/company-info/>>.

Frost, G and Wilmshurst, TD (1998), "Evidence of Environmental Accounting in Australian Companies", *Asian Review of Accounting*, Vol. 6, No. 2, pp. 163-180.

Frost, G, Jones, S, Loftus, J and Van Der Laan, S (2005), "A survey of sustainability reporting practices of Australian reporting entities", *Australian Accounting Review*, Vol. 15, No. 35, pp. 89-96.

GRI (2011), *Sustainability Reporting Guidelines: Version 3.1*, Global Reporting Initiative, Amsterdam.

GRI (2013), *Sustainability Reporting Guidelines: Version 4*, Global Reporting Initiative, Amsterdam.

Guthrie, J, Petty, R, Yongvanich, K and Ricceri, F (2004), "Using content analysis as a research method to inquire into intellectual capital reporting", *Journal of Intellectual capital*, Vol. 5, No. 2, pp. 282-293.

Herzig, C and Godemann, J (2010), "Internet-supported sustainability reporting: Developments in Germany", *Management Research Review*, Vol. 33, No. 11, pp. 1064-1082.

Jenkins, H and Yakovleva, N (2006), "Corporate social responsibility in the mining industry: Exploring trends in social and environmental disclosure", *Journal of Cleaner Production*, Vol. 14, No. 3-4, pp. 271-284.

Kaplan, AM and Haenlein, M (2010), "Users of the world, unite! The challenges and opportunities of Social Media", *Business Horizons*, Vol. 53, No. 1, pp. 59-68.

Kietzmann, JH, Hermkens, K, McCarthy, IP and Silvestre, BS (2011), "Social media? Get serious! Understanding the functional building blocks of social media", *Business Horizons*, Vol. 54, No. 3, 2011/05/01/, pp. 241-251.

Kolk, A (2003), "Trends in sustainability reporting by the Fortune Global 250", *Business Strategy and the Environment*, Vol. 12, No. 5, pp. 279-291.

Kolk, A (2008), "Sustainability, accountability and corporate governance: exploring multinationals' reporting practices", *Business Strategy and the Environment*, Vol. 17, No. 1, pp. 1-15.

Krippendorff, K (2004), *Content analysis: An introduction to its methodology*, 2nd edn, Sage Publications, Thousand Oaks.

Lee, LF, Hutton, AP and Shu, S (2015), "The role of social media in the capital market: Evidence from consumer product recalls", *Journal of Accounting Research*, Vol. 53, No. 2, pp. 367-404.

Lindblom, CK (1993), *The implications of organizational legitimacy for corporate social performance and disclosure*, paper presented at the Critical Perspectives on Accounting Conference, New York.

Lodhia, S (2004), "Corporate environmental reporting media: A case for the world wide web", *Electronic Green Journal*, Vol. 1, No. 20.

Lodhia, S, Allam, A and Lymer, A (2004), "Corporate reporting on the internet in Australia: an exploratory study", *Australian Accounting Review*, Vol. 14, No. 34, pp. 64-71.

Lodhia, S (2005), "Legitimacy motives for World Wide Web (WWW) environmental reporting: An exploratory study into present practices in the Australian minerals industry", *Journal of Accounting and Finance*, Vol. 4, pp. 1-15.

Lodhia, S (2006), "The world wide web and its potential for corporate environmental communication: a study into present practices in the Australian minerals industry", *The International Journal of Digital Accounting Research*, Vol. 6, No. 11, p. 3.

Lodhia, S (2010), "Research methods for analysing World Wide Web sustainability communication", *Social and Environmental Accountability Journal*, Vol. 30, No. 1, pp. 26-36.

Lodhia, S (2012), "Web based social and environmental communication in the Australian minerals industry: an application of media richness framework", *Journal of Cleaner Production*, Vol. 25, pp. 73-85.

Lodhia, S, Stone, G and Parker, L (2016), *Strategising for social media: A public accounting practice perspective*, CPA Australia, Australia.

Lodhia, S and Stone, G (2017), "Integrated Reporting in an Internet and Social Media Communication Environment: Conceptual Insights", *Australian Accounting Review*, Vol. 27, No. 1, pp. 17-33.

Lodhia, S (2018), "Is the medium the message? Advancing the research agenda on the role of communication media in sustainability reporting", *Meditari Accountancy Research*, Vol. 26, No. 1, pp. 2-12.

Lowe, A, Locke, J and Lymer, A (2012), "The SEC's retail investor 2.0: Interactive data and the rise of calculative accountability", *Critical Perspectives on Accounting*, Vol. 23, No. 3, pp. 183-200.

Macnamara, J and Zerfass, A (2012), "Social media communication in organizations: The challenges of balancing openness, strategy, and management", *International Journal of Strategic Communication*, Vol. 6, No. 4, pp. 287-308.

Manetti, G and Bellucci, M (2016), "The use of social media for engaging stakeholders in sustainability reporting", *Accounting, Auditing & Accountability Journal*, Vol. 29, No. 6, pp. 985-1011.

Manetti, G, Bellucci, M and Bagnoli, L (2017), *Stakeholder engagement and public information through social media: A study of Canadian and American Public Transportation Agencies*, 47, pp. 991-1009

McCay-Peet, L and Quan-Haase, A (2017), 'What is social media and what questions can social media research help us answer?', in L Sloan & A Quan-Haase (eds), *The SAGE Handbook of Social Media Research Methods*, London, pp. 13-26.

McKenna, B, Myers, MD and Newman, M (2017), "Social media in qualitative research: Challenges and recommendations", *Information and Organization*, Vol. 27, No. 2, pp. 87-99.

Melloni, G, Caglio, A and Perego, P (2017), "Saying more with less? Disclosure conciseness, completeness and balance in Integrated Reports", *Journal of Accounting and Public Policy*, Vol. 36, No. 3, pp. 220-238.

Morhardt, JE (2010), "Corporate social responsibility and sustainability reporting on the internet", *Business Strategy and the Environment*, Vol. 19, No. 7, pp. 436-452.

O'Donovan, G (2002), "Environmental disclosures in the annual report: Extending the applicability and predictive power of legitimacy theory", *Accounting, Auditing & Accountability Journal*, Vol. 15, No. 3, pp. 344-371.

Patten, DM (1992), "Intra-industry environmental disclosures in response to the Alaskan oil spill: A note on legitimacy theory", *Accounting, Organizations and Society*, Vol. 17, No. 5, pp. 471-475.

Pellegrino, C and Lodhia, S (2012), "Climate change accounting and the Australian mining industry: exploring the links between corporate disclosure and the generation of legitimacy", *Journal of Cleaner Production*, Vol. 36, 2012/11/01/, pp. 68-82.

Reilly, AH and Hynan, KA (2014), "Corporate communication, sustainability, and social media: It's not easy (really) being green", *Business Horizons*, Vol. 57, No. 6, pp. 747-758.

Roca, LC and Searcy, C (2012), "An analysis of indicators disclosed in corporate sustainability reports", *Journal of Cleaner Production*, Vol. 20, No. 1, pp. 103-118.

Savage, A., Cataldo, A.J., & Rowlands, J. (2002). 'A multi-case investigation of environmental legitimation in annual reports'. *Advances in Environmental Accounting and Management*, Vol. 1, pp. 45-81.

Saxton, GD (2012), "New media and external accounting information: A critical review", *Australian Accounting Review*, Vol. 22, No. 3, pp. 286-302.

Sensis (2017), *Social Media Report*, Sensis, Melbourne.

Statista (2018a), *The Statistics Portal: Number of monthly active Facebook users worldwide as of 2nd quarter 2018 (in millions)*, viewed 14/9/2018, <<https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>>.

Statista (2018b), *Number of monthly active Twitter users worldwide from 1st quarter 2010 to 2nd quarter 2018 (in millions)*, <<https://www.statista.com/statistics/282087/number-of-monthly-active-twitter-users/>>.

Statista (2018c), *LinkedIn - Statistics & Facts*, updated 14/9/2018, <<https://www.statista.com/topics/951/linkedin/>>.

Statista (2018d), *Social Media & User-Generated Content* <<https://www.statista.com/markets/424/topic/540/social-media-user-generated-content/>>.

Stemler, S (2001), "An overview of content analysis", *Practical assessment, research & evaluation*, Vol. 7, No. 17, pp. 137-146.

Suddaby, R, Saxton, GD and Gunz, S (2015), "Twittering change: The institutional work of domain change in accounting expertise", *Accounting, Organizations and Society*, Vol. 45, pp. 52-68.

Weber, RP (1990), *Basic content analysis*, Sage, Beverly Hills, CA.

Zappettini, F and Unerman, J (2016), "'Mixing'and 'Bending': The recontextualisation of discourses of sustainability in integrated reporting", *Discourse & Communication*, Vol. 10, No. 5, pp. 521-542.

Zeghal, D and Ahmed, SA (1990), "Comparison of social responsibility information disclosure media used by Canadian firms", *Accounting, Auditing & Accountability Journal*, Vol. 3, No. 1.