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The use of social media as an effective medium for stakeholder engagement by South African-listed entities

A research report submitted by

Kashmira Hansjee

Student number: 1442753

Cell: 0828396231

Email: 1442753@students.wits.ac.za

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Supervisors: Zakiyyah Varachia and Dannielle Cerbone

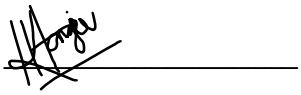
In partial fulfilment of the requirements for the degree of

Master of Commerce

University of Witwatersrand

Declaration

I hereby declare that this research report is my own unaided work. It is submitted in partial fulfilment of the degree of Master of Commerce by Coursework and Research Report at the University of the Witwatersrand, Johannesburg. It has not been submitted elsewhere for the purpose of being awarded another degree or for examination purposes at any other university.



Kashmira Hansjee

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Abstract

This research examines how South African companies are using social media to engage effectively with stakeholders. Stakeholders now play an important role in corporate reporting and so stakeholder engagement is necessary for companies to comply with regulations and manage stakeholder interests. Social media are a tool which is becoming more popularly used for stakeholder engagement and can be used by South African companies to improve stakeholder engagement and comply with regulations. Through this study, a content analysis of the posts made by South African listed companies on social media were analysed and coded based on categories and features of effective engagement as determined by prior literature. Only stakeholder engagement posts, as determined by prior literature, were analysed and interpreted. The results show that companies are primarily using social media to communicate information with stakeholders to reduce the information asymmetry gap as opposed to engaging with stakeholders using dialogue. The study also finds that while companies are active on social media, not all the features present on the platforms are being used effectively to engage with stakeholders.

Key words: stakeholder engagement, social media, effective engagement, communication

1. Introduction

1.1. Context of the study

The corporate reporting spectrum has changed over time and in addition to traditional financial reports there are now sustainability reports, integrated reports, governance reports and other reports on more non-financial aspects of a company (Clayton et al., 2015; Du Toit et al., 2017; GRI, 2020; IIRC, 2021; JSE, 2019; Solomon & Maroun, 2012; Uyar, 2016). Corporate reports are no longer targeted at shareholders and potential shareholders only but are addressed to all stakeholders of an entity (Solomon & Maroun, 2012). The expanding scope of corporate governance reporting is to meet valid stakeholder needs and reduce information asymmetry.

In South Africa, entities listed on the Johannesburg Stock Exchange (JSE) are required to comply with the King Code on Corporate Governance (King Code). Through complying with the King Code, it is recommended that listed entities prepare Integrated Reports (IR) which can be prepared using the International Integrated Reporting Council's (IIRC) Integrated Reporting Framework (JSE, 2019). All non-listed entities in South Africa are also encouraged to comply with the King Code to ensure good corporate governance practices (IoDSA, 2016). The King Code was one of the first reports to embrace the concept of stakeholder inclusivity and has since been included as a feature in the Global Reporting Initiatives (GRI) and the IIRC guidelines for integrated reporting (GRI, 2020; IIRC, 2021; IoDSA, 2016).

Application of the King Code and preparation of integrated reports encourage entities to engage with stakeholders and emphasise stakeholder inclusivity (IIRC, 2021; IoDSA, 2016; JSE, 2019). Stakeholder engagement has a more important role in IR and the activities of an entity and effective communication with stakeholders is necessary for entities to follow reporting guidelines and provide more value to their stakeholders (Solomon & Maroun, 2012). Engagement and communication with stakeholders are seen as vital for the legitimacy and success of the firm (Greenwood, 2007; Hoffmann & Lutz, 2015; Pérez, 2015; Solomon & Maroun, 2012; Tilling, 2004; Viglia et al., 2018).

Not only have there been changes in what is being communicated to stakeholders, there have also been changes in the way companies communicate with stakeholders. The world is currently experiencing the fourth industrial revolution (coined as 4IR) which is categorised as the advancement of technology and the increased use of it in various environments and industries (Lee et al., 2018). The wide-spread adoption of technology has impacted the corporate reporting field and allows for communication of financial and non-financial information to stakeholders in many ways (Lombardi & Secundo, 2020).

There has been an increase in the use of internet and social media across the globe (Bonsón & Bednárová, 2013). Social media can be used as a tool to facilitate the stakeholder

engagement process because of the communication features present on various social media platforms (Bonsón & Bednárová, 2015; Bonsón & Ratkai, 2013; Chen et al., 2017; Lovejoy et al., 2012; Manetti & Bellucci, 2016). The nature of social media can facilitate real-time communication about an entity to a wide range of stakeholders (Bonsón & Bednárová, 2015; Bonsón & Ratkai, 2013; Chen et al., 2017; Lombardi & Secundo, 2020; Lovejoy et al., 2012; Manetti & Bellucci, 2016).

Prior literature has focused on whether or not companies are making efficient use of social media for stakeholder engagement (Bonsón & Bednárová, 2015; Bonsón & Ratkai, 2013; Chen et al., 2017; El-Haddadeh et al., 2012; Gomez Vasquez & Soto Velez, 2011; Hoffmann & Lutz, 2015; Manetti & Bellucci, 2016; Xu & Saxton, 2019) and what type of communication allows for effective communication with stakeholders (Bonsón & Bednárová, 2013; Chen et al., 2017; Gomez Vasquez & Soto Velez, 2011; Lovejoy et al., 2012; Viglia et al., 2018).

The literature on the use of social media for effective stakeholder communication has been focused on American, European, and Asian contexts and there is a gap in a South African context. As South Africa was one of the first countries to adopt a “triple context” approach of reporting and adopt IR, there is a gap in determining whether South African listed entities are applying the IR approach in their social media communications to stakeholders (Clayton et al., 2015). The history of South Africa in which previously disadvantaged stakeholders could not be communicated with easily, can be resolved with the use of social media as stakeholders in various geographical locations can be reached through low-cost social media platforms (Gomez Vasquez & Soto Velez, 2011; Xu & Saxton, 2019). The manner and extent companies are using social media as an effective communication medium with stakeholders is a concern.

1.2. Purpose

Stakeholder engagement is important for companies as it ensures the legitimacy and success of the company (Greenwood, 2007). Companies should use various mechanisms and media to engage with stakeholders. The purpose of this study is to determine whether South African companies are using social media platforms as a means of effective communication with various stakeholders.

The study may also add value to the existing literature by identifying the key features and characteristics of social media which achieve effective stakeholder engagement.

1.3 Significance of study

This study is significant because of the increasing popularity of social media as a communication medium (Sung & Kim, 2014). This research will add to the prior literature by considering the changed features of certain social media platforms (Lovejoy et al., 2012;

Waters & Jamal, 2011), a broader range of companies (Bonsón & Ratkai, 2013; Xu & Saxton, 2019), the use of multiple platforms (Bonsón & Bednárová, 2015), the content of posts made by companies (Hoffmann & Lutz, 2015; Waters et al., 2011), in a different jurisdiction or country (Chen et al., 2017) and to define social media engagement effectiveness (Chen et al., 2017). The study expanded into South Africa by considering the Top 40 JSE-Listed entities and how these companies use social media as a media for effective stakeholder engagement. This study will have conceptual, empirical, and practical contributions.

The conceptual contribution will be the study's use of prior literature to define social media effectiveness in stakeholder engagement based on the various features and characteristics of social media and the nature of the content posted on social media platforms. Empirically, the study compares the number and content of the posts made by companies to the characteristics of effective communication on social media platforms. The study makes a practical contribution as companies can use the results of the study to improve stakeholder engagement which will enhance the legitimacy and success of the company. The study will be beneficial to firms as it will display the gaps in current use of social media by companies (Bonsón & Ratkai, 2013; Chen et al., 2017; Lovejoy et al., 2012; Saxton & Waters, 2014; Waters et al., 2011; Waters & Jamal, 2011).

The lack of effectively using features of social media for company communications will be identified and the establishment of characteristics which allow for effective stakeholder engagement will prove useful to companies as they can adopt these features in their posts. Through effective stakeholder engagement, the organisation will be able to apply King Code Principle 5 which mentions that the reports issued by a company should enable stakeholders to make informed decisions about the entity's performance over a period and Principle 16 which states that a stakeholder-inclusive approach should be adopted by the company, as well as the respective practices of the King Code and attain some legitimacy (IIRC, 2021; IoDSA, 2016; Tilling, 2004).

Through this study companies can make use of the findings to improve the communication with stakeholders on social media by making use of features which allow for effective stakeholder engagement.

1.4. Research questions

In this study, the following research questions will be addressed:

1. How are listed South African companies using social media for stakeholder engagement?
2. What characteristics or features should a post on social media include to improve stakeholder engagement?

1.5. Limitations and delimitations

This study will be conducted by examining the Top 40 JSE-listed companies as of 31 March 2020. This covers only one jurisdiction and the results may not provide an accurate view of the use of social media in other jurisdictions. The results may not be applicable to jurisdictions other than South Africa as the JSE has regulations regarding the content listed companies may communicate with stakeholders.

In South Africa, there are many informal businesses and non-listed entities. Small-to-medium sized entities (SMEs) in South Africa make up a large portion of the total businesses that operate in the country. Most of these SMEs are not listed on the JSE and have not been included in the study. As such, the JSE Top 40 may not present a full and accurate representation of the wide range and type of companies in South Africa.

The study considers a twelve-month period and the short period under review may not be a true representation of how companies have used social media. This research was delimited to companies which had an active social media account for the period under review which is an account opened and used by the company on a social media platform for the full period under review.

This study only considers four social media platforms – Facebook, Instagram, Twitter and LinkedIn – despite there being various other social media platforms such as YouTube, Tik Tok, Yammer and Tumblr. The four chosen platforms are the most popular globally as determined by a popular website “We Are Social” which was considered most appropriate for this study (Kemp, 2020). These four platforms are also the top platforms in South Africa based on statistics and were the best platforms for this study (Statista, 2020). TikTok is a platform which is gaining popularity but was not used by businesses until April 2021 which is outside the period studied in this research (Fourie, 2020). Further, the study including more platforms would require more time and resources and we selected the most popular platforms to gather the insights and data for this study. Finally, the process followed is inherently subjective due to the interpretive nature of the research and the results of the study may not be generalisable and applicable to all companies (Leedy & Ormrod, 2005).

2. Literature review

Section 2 provides an overview of the changes in the corporate reporting field and the link to the main theory used in this study: stakeholder engagement theory. Next a summary of what social media are and the use of social media in stakeholder engagement is provided to understand the significance of this study. A summary of the content posted on social media and the features used is then provided to create an understanding of the use of social media for stakeholder engagement.

2.1. Corporate reporting

The corporate reporting field has changed over time. The field has shifted from a shareholder and investor focus to a multiple-stakeholder focus (Pérez, 2015; Solomon & Maroun, 2012). Some of these changes were brought about by the corporate scandals which occurred over the years, as well as the impact of the global financial crisis (Zhang & Andrew, 2014). Companies were also criticised by the public for their negative environmental impact (Kolk, 2003). The corporate failures emphasised the need for firms to be more responsible to the public regarding their financial performance, as well as their impact on society and the environment (Boesso & Kumar, 2007; Kolk, 2003; Uyar, 2016). There was a need for more information to be reported and communicated to a wider range of users (Boesso & Kumar, 2007; Gray, 2006).

The provision of non-financial information is becoming more important in corporate reporting (Clayton et al., 2015; Du Toit et al., 2017; Uyar, 2016). Corporate reporting now includes various types of reports, such as, traditional financial reporting, sustainability reporting and integrated reporting (Clayton et al., 2015; Du Toit et al., 2017). These reports provide both financial and non-financial information to a broader range of stakeholders to meet their information needs (Clayton et al., 2015; Uyar, 2016). The reports are aimed at reducing the information asymmetry between the company and its' stakeholders as well as reduces agency costs (Crutchley & Hansen, 1989; Hill & Jones, 1992; IASB, 2018; Pérez, 2015).

Agency theory and traditional corporate reporting

Agency theory describes the principal-agent relationship between the shareholders of a company (the principal) and the individuals who manage the company (the agents) (Crutchley & Hansen, 1989; Jensen & Meckling, 1976; Pérez, 2015; Shapiro, 2005). Agency theory recognises the conflicts among the interests and actions of parties in a company because of the information asymmetry between the parties (Crutchley & Hansen, 1989; Hill & Jones, 1992; Pérez, 2015). Shareholders have invested in a company and want value from their investment but they cannot verify the actions of management of a company as they are not as involved in the business (Crutchley & Hansen, 1989).

Traditional financial reporting provided a solution to the agency theory as the objective of financial reporting is to provide useful information to the users of financial statements to enable them to make decisions about the entity (IASB, 2018). The annual financial statements of a company were the primary report presenting solely financial information and were directed to shareholders and were the focus of traditional reporting (Gray, 2006). Given the objectives of traditional reporting, the information provided relates to the historical financial performance of a company which allowed shareholders to evaluate the performance of their investments and how well management has directed the investment (Barth & Landsman, 2010; Clayton et al., 2015; Jensen & Meckling, 1976).

As indicated, traditional reporting focused on the financial performance of a company (Clayton et al., 2015) but as the reporting environment evolved, shareholders and other stakeholders required more information than the financial performance of a company in order to make decisions (Barnea & Rubin, 2010; Clayton et al., 2015). Non-financial information is now becoming more relevant in reporting and has paved the way to sustainability reporting (Clayton et al., 2015; Du Toit et al., 2017).

Sustainability reporting and legitimacy theory

There were increased calls for companies to account for their impact on the environment and social matters and companies began to recognise the need to be accountable (Ballou et al., 2006; Du Toit et al., 2017). This culminated in sustainability and social reporting (Du Toit et al., 2017). Sustainability reporting became important for companies as it included non-financial information about how a company identified and managed various risks and resources to create value (Ballou et al., 2006; Clayton et al., 2015).

Sustainability reporting is defined by GRI as:

> *An organisation's practice of reporting publicly on its economic, environmental, and/or social impacts, and hence its contributions – positive or negative – towards the goal of sustainable development. Sustainability reporting based on the GRI Standards should provide a balanced and reasonable representation of an organisation's positive and negative contributions towards the goal of sustainable development.* (GRI, 2020, p. 3).

The sustainability report was directed at a wide range of stakeholders (Ballou et al., 2006; Clayton et al., 2015). These reports focused on non-financial information of the company which was valuable to stakeholders as it provided more indicators of future performance of the company and enabled stakeholders to evaluate the effectiveness of management (Ballou et al., 2006; Goel, 2010).

The increased stakeholder scrutiny meant that profitability is not enough and companies need to be profitable in a sustainable manner (Atkins & Maroun, 2015). In other words, the success of the company was dependent on the company's "social licence to operate" (Dare et al., 2014). This means that companies need to meet stakeholder expectations so that they can be considered "legitimate" in the environment in which they operate (Dare et al., 2014).

Legitimacy theory is the perception that an entity's actions are desirable and appropriate in terms of society's values and norms (Tilling, 2004; Tilling & Tilt, 2010). This means that the company's activities meet stakeholder expectations and are accepted by the environment and society in which it operates in. Through sustainability reporting, the company is able to report non-financial information such as the resources used by the company and the impact of the company's activities on the environment in which it operates which is valuable to stakeholders (Du Toit et al., 2017; Tilling & Tilt, 2010). The sustainability report is how the company can demonstrate that they have aligned their values and activities to that of the society in which it operates to become "legitimate" (Tilling, 2004).

Sustainability reports were often a separate report to financial reports. Financial reports followed guidelines as prescribed by United States Generally Accepted Accounting Principles (US GAAP) and the International Accounting Standards Board (IASB) (Barth & Landsman, 2010). Sustainability reports, on the other hand, were prepared using guidelines from the GRI (Ballou et al., 2006; Clayton et al., 2015; Du Toit et al., 2017; Gray, 2006). While it made sense that the reports were separately disclosed as a result of the differing guidelines applicable and the audience each report is directed at, the reports appeared disconnected from one another (Clayton et al., 2015). This is because the financial and non-financial indicators and resources are interlinked in a company and together provide and create value (IIRC, 2021). The separation of the reports thus did not provide a holistic and comprehensive picture of the company, how it derives value and its performance (Du Toit et al., 2017; Fontaine et al., 2006; Gray, 2006; Humphrey et al., 2017; Solomon & Maroun, 2012). This led to the emergence of IR which combines the financial, social, and environmental aspects and disclosures into one report.

Integrated reporting (IR)

IR provides both financial and non-financial information in a single, cohesive corporate report (De Villiers et al., 2017; Gray, 2006; Humphrey et al., 2017; Uyar, 2016). The introduction of the King Code, GRI and the IIRC presented a multiple stakeholder approach to reporting (Boesso & Kumar, 2007; GRI, 2020; IoDSA, 2016). The reporting framework changed to include triple bottom line accounting where firms are to report on the economic, social, and environmental factors of the business and provide more reliable and interconnected forward-

looking information (Boesso & Kumar, 2007; De Villiers et al., 2017; Humphrey et al., 2017). IR is aimed at a broader range of stakeholders, not only investors and shareholders (Du Toit et al., 2017). Stakeholders require more information and traditional financial reporting no longer serves the needs of stakeholders (Humphrey et al., 2017). IR acknowledges and places importance on stakeholder engagement and management (Boesso & Kumar, 2007). The next section of the literature review focuses on the main theory of this study: stakeholder engagement theory.

2.2. Stakeholder engagement

Stakeholders may be parties who have invested in the company and those who have some relation to the company (Fontaine et al., 2006; Manetti & Bellucci, 2016). Freeman, 1984, initially defined stakeholders as those who are affected by and those who affect an organisation (Fontaine et al., 2006; Greenwood, 2007). This definition was developed to include groups who are important for the success and survival of a firm (Fontaine et al., 2006; Freeman et al., 2004). Other academics consider stakeholders to be those parties who have an interest in and can influence the activities of the organisation (IoDSA, 2016). The IIRC defines stakeholders as:

> *"Those groups or individuals that can reasonably be expected to be significantly affected by an organisation's business activities, outputs or outcomes, or whose actions can reasonably be expected to significantly affect the ability of the organization to create value over time" (IIRC, 2021, p. 55)*

Stakeholders will vary from company to company depending on the size, activities, and operations of each company. There are various groups of stakeholders: the government and regulatory bodies, competitors, customers, supplies, employees, shareholders, potential investors and providers of financial capital, legislatures and regulators, environmental groups and the community and society in which the entity operates and the media (Fontaine et al., 2006; IIRC, 2021). It is important for companies to identify their stakeholders because of the influence stakeholders have on the performance and success of the company (Freeman et al., 2004; IIRC, 2021). To identify stakeholder groups, companies need to define their business and operations (Prell et al., 2009). This will help management of the company to brainstorm all the impacts, potential impacts and influences the company and its operations have on various groups or individuals (Florea & Florea, 2013). The company then needs to engage and consult with various individuals and sources to understand the stakeholder interests which can then be used to identify stakeholders (Florea & Florea, 2013; Prell et al., 2009).

There is a growing interest in the importance of integrating stakeholder interests in the business because engaging with stakeholders increases the firm's competitive advantage,

protects the firm from public hostility and aids the survival of the firm (Viglia et al., 2018). Stakeholder engagement enables the company to be accountable towards stakeholders (Greenwood, 2007). It also enables the interests of stakeholders to be considered and included in decisions made by the company (Bonsón & Bednárová, 2013, 2015; Bonsón & Ratkai, 2013). This underpins stakeholder engagement theory.

2.2.1. Stakeholder engagement theory

Stakeholder engagement involves the building, communication and managing of relationships with stakeholders (Boesso & Kumar, 2007; Freeman et al., 2004; Xu & Saxton, 2019). It is a meaningful two-way communication process by which the organisation builds a relationship with the stakeholders by sharing, understanding and considering their needs, opinions, interests and values to incorporate these needs in the organisation's activities (Boesso & Kumar, 2007; Bonsón & Ratkai, 2013; Freeman et al., 2004; Greenwood, 2007; Pérez, 2015; Seow et al., 2006; Solomon & Maroun, 2012). The integration of stakeholders' needs and interests is critical to the sustainability and growth of the entity in the long term as well as its profitability (Bonsón & Bednárová, 2015; Bonsón & Ratkai, 2013; Seow et al., 2006).

The company engages with stakeholders for these main reasons: pressures from the stakeholders to avoid reputational damage; being proactive to understand their interests to improve profitability; gaining social acceptance and legitimacy; and incorporating them into the strategy of the business to comply with triple bottom line accounting (Boesso & Kumar, 2007; Hoffmann & Lutz, 2015; Tilling, 2004). Stakeholder engagement allows a company to gain legitimacy from the public and its stakeholders as well as provides a solution to the agency theory as the it closes the information asymmetry gap (Boesso & Kumar, 2007; Greenwood, 2007).

Stakeholder engagement and legitimacy theory

Stakeholder engagement theory mentions the importance of stakeholders and provides a frame of reference to understand the group of stakeholders with which the organisation decides to form a relationship (Greenwood, 2007). Entities have a social contract with society and the involvement of stakeholders, and the consideration of their interests allows the entity to be recognised and be accepted by all the stakeholders (Boesso & Kumar, 2007; Bonsón & Bednárová, 2015; Bonsón & Ratkai, 2013; Fontaine et al., 2006; Manetti & Bellucci, 2016; Tilling, 2004).

It is perceived that the more interaction and engagement a firm has with stakeholders, the more accountable and responsible they are towards them (Greenwood, 2007). Reporting to stakeholders ensures accountability and builds trust (Bonsón & Ratkai, 2013; Greenwood, 2007). Gaining the trust of stakeholders and being accountable and responsible towards them

allows the company to become “legitimate” to its stakeholders (Greenwood, 2007; Tilling, 2004). The consideration of stakeholder interests leads to social acceptance of the firm by the community (Boesso & Kumar, 2007; Tilling, 2004).

Stakeholder engagement and agency theory

Agency theory is also resolved through stakeholder engagement as shareholders as providers of capital are stakeholders (Fontaine et al., 2006; IIRC, 2021). Through stakeholder engagement, companies also engage with shareholders to better understand their interests and this will provide shareholders with more information about the management of the company and its performance. Stakeholders and shareholders included would be made aware of information about the intentions of management of a company and would be included in the decision-making process (Bonsón & Bednárová, 2015; Bonsón & Ratkai, 2013; Pérez, 2015). The information asymmetry gap will be reduced as more information will be communicated with shareholders through stakeholder engagement.

Engaging with stakeholders is necessary for companies for a wide range of reasons and companies should adopt a strategy to communicate effectively with stakeholders (Bonsón & Bednárová, 2015).

2.3. Effective communication and stakeholder engagement

For companies and stakeholders to reap the benefits of stakeholder engagement, the engagement itself must be effective.

Effective communication

Effective communication is dialogue-based engagement which is a “two-way process where stakeholders are not merely consulted or ‘listened to’ but also responded to” (Seow et al., 2006, p. 5). This helps the establishment of a relationship with stakeholders as it enables values, views, and relevant issues to be shared through the two-way communication which can then be combined to provide meaningful and useful information for decision-making. It also enables solutions to be found for the complex issues an entity may face (Seow et al., 2006). It also bridges the information asymmetry gap as both parties are communicating, rather than a one-way stream of information (Seow et al., 2006).

The level of interest and primary focus of stakeholders vary widely across stakeholder groups (Greenwood, 2007). As a result, stakeholder engagement may have a different meaning to different stakeholders and, in order to have effective stakeholder engagement, the company must consider each stakeholder’s interest individually (Greenwood, 2007). Through a model for stakeholder engagement proposed by Greenwood (2007) which describes the relationship between stakeholder engagement and stakeholder agency (which is a proxy for the

responsible treatment of stakeholders) it is concluded that the optimal level of stakeholder engagement is comprehensive stakeholder engagement.

The quality of stakeholder engagement is dependent on the number of stakeholders the entity engages with (Seow et al., 2006). Meaningful engagement should be a dialogue between the stakeholders and the firm. It involves a two-way communication between the parties where the stakeholders' views are not only listened to but are also responded to (Seow et al., 2006). Stakeholder engagement should not purely consist of the entity reporting their practices to the stakeholders (Seow et al., 2006). Stakeholders should understand the engagement process and the items and topics to be discussed as well as the feedback processes. It should allow the stakeholders to communicate their views without the fear of penalty or discipline (Seow et al., 2006). Although two-way communication is beneficial, a study by Lovejoy et al. (2012) which considered social media practices by non-profit companies, indicated that one-way communication is still used predominantly.

Stakeholder engagement should not be a compliance exercise where the company only engages with stakeholders to achieve legitimacy and comply with reporting guidelines (Du Toit et al., 2017; Greenwood, 2007; IIRC, 2021). The company should also not engage with all stakeholders in the same manner and provide the same information as stakeholders have varying interests which need to be accounted for (Greenwood, 2007; Seow et al., 2006). Effective stakeholder engagement can be achieved through the company engaging with stakeholders at an optimal level by considering and acting in the varying best interests of stakeholders so that the benefits can be reaped by all parties.

Social media platforms provide the interactive features and tools necessary for engagement between the company and its stakeholders. The benefits of social media are that it provides information to a wider geographical range of stakeholders more rapidly and content can be tailored to each stakeholder group so that effective stakeholder engagement can be achieved (Greenwood, 2007; Uyar, 2016). Social media provides the tool for stakeholder engagement which is important for companies to enhance the legitimacy of the company and reduce agency costs.

2.4. Social media

Social media have become an integral part of businesses and organisational activities (Chen et al., 2017). Social media encourage communication, participation, openness, and socialising amongst the community (Qiyang & Jung, 2019). It presents an opportunity for people to share content and views across the various platforms in different ways and receive real time feedback while engaging in conversations (Manetti & Bellucci, 2016; Qiyang & Jung, 2019). Social media is a broad term which describes the various platforms: Facebook, Twitter,

Instagram, and LinkedIn (Manetti & Bellucci, 2016; Qiyang & Jung, 2019). Social media platforms are internet-based applications which enable the creation, communication and exchange of content and information (Qiyang & Jung, 2019). The introduction of social media platforms enable fast exchange and distribution of information among users (Lovejoy et al., 2012). Through social interactions, various views can be shared, which is a key element in dialogue-based communication (Heath et al., 2006).

Prior literature has identified many advantages of using social media to engage with stakeholders: transparency of information is enhanced, information is more accessible and can be shared easily and quickly, interactive features to engage with stakeholders directly and popularity of social media making it widely-used by stakeholders (Chen et al., 2017; Cochran, 2007; Manetti & Bellucci, 2016; Nadaraja & Yazdanifard, 2013; Xu & Saxton, 2019).

2.5. Social media and stakeholder engagement

The use of social media to engage with stakeholders is mutually beneficial (Solomon & Maroun, 2012; Viglia et al., 2018) because social media can facilitate the interaction with stakeholders and enable the monitoring of their thoughts and reactions to events (Hoffmann & Lutz, 2015). With the growth of social networking platforms and technological advancements, there are more opportunities for stakeholder engagement (Bonsón & Bednárová, 2015). There are also numerous platforms which companies can use to engage with stakeholder such as Facebook, Twitter, Instagram, and LinkedIn.

Facebook is a platform where users create a personal profile, connect with friends, post messages to their friends' walls as well as react to, comment on, and share messages posted by others (Bonsón & Ratkai, 2013; Gomez Vasquez & Soto Velez, 2011). Twitter a micro-blogging site where users can post messages in 280 characters or less in a post called a "tweet" (Gomez Vasquez & Soto Velez, 2011; Lovejoy et al., 2012). Instagram allows users to communicate by using pictures and videos and users can like and comment on these posts (Lee et al., 2015). LinkedIn is a social media site similar to Facebook but is used mainly by professionals to connect with current and prospective employers (Bonsón & Bednárová, 2015).

These platforms can be used as a medium of communication with stakeholders for meaningful stakeholder engagement due to the interactive features (Bonsón & Ratkai, 2013; Lovejoy et al., 2012). A large, geographically dispersed, diverse range of stakeholders can be reached through the various platforms (Manetti & Bellucci, 2016). Social protests and movements are coordinated online and the accessibility of the firm to this information can aid the organisation to appropriately respond thoughtfully and control the impact of these events (Hoffmann & Lutz, 2015).

Social networks also enable interactive dialogue with stakeholders creating authentic stakeholder engagement (Manetti & Bellucci, 2016). The views of the stakeholders can be used by firms in decision-making and the setting of strategies (Greenwood, 2007; Solomon & Maroun, 2012). However, many firms still use the social platforms for one-way communication which is ineffective for stakeholder engagement (Chen et al., 2017; Manetti & Bellucci, 2016).

Engagement is a combination of cognition (interest in a firm's activities), emotion (feelings towards a firm's activities) and behaviour (participating in the firm's activities) (Viglia et al., 2018). Quality and meaningful engagement should include these factors which can be facilitated by social media platforms. Stakeholders have a genuine interest in the company activities and provide should be able to provide feedback as to how they feel about the company and how they wish to be a part of the activities (Viglia et al., 2018).

Stakeholder engagement on social media to gain legitimacy

The use of social media for stakeholder engagement can aid a company in achieving legitimacy. As the company engages with stakeholders on social media platforms, various stakeholders with varying interests can be engaged (Chen et al., 2017; Xu & Saxton, 2019). When companies post on social media, these are available to all users on the internet and this enables transparency in communication among the company and its stakeholders (Chen et al., 2017). Companies would be more accountable to stakeholders and meet their expectations through engagement enabling the company to be considered "legitimate" by a large group of stakeholders.

Social media features which aid stakeholder engagement

Engagement is a combination of cognition (interest in a firm's activities), emotion (feelings towards a firm's activities) and behaviour (participating in the firm's activities) (Viglia et al., 2018). Quality and meaningful engagement should include these different elements to be effective. Social media provide various features and benefits that can be exploited in stakeholder engagement as these features allow for cognition (through the content posted which includes usage of graphics, hashtags and cashtags), emotion (through the use of sentiment) and behaviour (through the reactions obtained) (Lovejoy et al., 2012).

Given the features which are available on social media such as pictures, videos, link, hashtags, cash-tags and words, social media can be used as effective communication media (Carboni & Maxwell, 2015). Posts and content can be shared by users to enable rapid sharing of information (Hoffmann & Lutz, 2015; Nadaraja & Yazdanifard, 2013; Qiyang & Jung, 2019). The opinions of stakeholders can be considered and responded to immediately (Hoffmann & Lutz, 2015).

Prior literature has explored the use of social media for stakeholder engagement by companies in other countries – America, European countries, and China (Bonsón & Bednárová, 2015; Bonsón & Ratkai, 2013; Chen et al., 2017; El-Haddadeh et al., 2012; Gomez Vasquez & Soto Velez, 2011; Hoffmann & Lutz, 2015; Lovejoy et al., 2012; Manetti & Bellucci, 2016; Viglia et al., 2018; Xu & Saxton, 2019). The emotions of stakeholders towards a firm's activities can be measured using the reactions of the stakeholders to the posts made by a firm on social media platforms (Bonsón & Bednárová, 2015; Bonsón & Ratkai, 2013; Chen et al., 2017; Lovejoy et al., 2012; Manetti & Bellucci, 2016; Xu & Saxton, 2019).

Content posted

The content posted by firms on social media to engage with stakeholders should be information which allows the firm to determine the stakeholders' needs, concerns and interests (Chen et al., 2017). The posts made by a company vary with regards to content – marketing and promotional, employment information, corporate social responsibility (CSR) and sustainability practices, interesting additional information and reports on performance (Chen et al., 2017; Saxton & Waters, 2014). Posts which convey CSR information, information about the company and those which are used to engage in dialogue with stakeholders and build relationships with stakeholders are considered to be effective for stakeholder engagement (Chen et al., 2017; Saxton & Waters, 2014). These posts are explained below.

Information dissemination posts refer to one-way communication regarding information about the company (Chen et al., 2017; Saxton & Waters, 2014). Product promotion and marketing posts are those relating to the advertising of the company's products and sales-related posts (Chen et al., 2017; Sung & Kim, 2014; Waters & Jamal, 2011). Customer service posts are those which relate solely to engagement with customers (Chen et al., 2017). Thought leadership posts are those posts that include educational information about the industry, new strategies, or potential changes of the industry and company and even positive activities of competitors (Chen et al., 2017) These posts are typically used to build relationships with stakeholders (Chen et al., 2017). CSR related posts would include content relating to the CSR objectives and activities of the entity. Dialogue strategy posts are those in which the clear aim of the firm was to allow for stakeholders to engage in conversations with each other and the firm (Chen et al., 2017).

The content of the posts made by companies may include information of one or more of the six capitals as determined by King IV and the IIRC (IIRC, 2021; IoDSA, 2016). The six capitals per the IIRC Framework are human, social and relationship, manufactured, intellectual, natural, and financial.

Companies communicate financial performance related content with financial stakeholders to inform them of the company's performance and maintain faithful relationships with them (Brennan & Merkl-Davies, 2018; Farneti et al., 2019). Human capital related information such as employee training and employee retention has also become a point of interest to stakeholders as the human capital of an entity plays an important role in the value-creation process (Abeysekera & Guthrie, 2005; De Villiers et al., 2017). Stakeholders are also seeing value in intellectual capital as the knowledge owned by entities provides the information the entity uses to perform well (De Villiers & Sharma, 2017). Manufactured capital influences performance and is used to derive value in a business and stakeholders would be interested in how an entity manages this capital (Brennan & Merkl-Davies, 2018). Due to the increase in environmental awareness, stakeholders are also interested in the natural capital of the entity and how it is used and replenished (Farneti et al., 2019). Value is also derived from relationships and stakeholders would be interested in the social and relationship capital of an entity and how it translates into more value for the entity (De Villiers & Sharma, 2017; Farneti et al., 2019). Further, stakeholder engagement enhances social and relationship capital as a relationship is formed with stakeholders and thus this capital is vital to both the entity and stakeholders when engaging with each other (Boesso & Kumar, 2007; Bonsón & Ratkai, 2013; Freeman et al., 2004; Greenwood, 2007; Pérez, 2015; Seow et al., 2006; Solomon & Maroun, 2012).

Prior research has found that the choice of words and the sentiment in a post also has an impact on the stakeholders' interests and emotions (Xu & Saxton, 2019; Zavattaro et al., 2015). Increased emotional stimuli through the sentiment of a post on social media may gain more reactions on a post (Stieglitz & Dang-Xuan, 2013b). A post may either be of a positive, negative or neutral sentiment and positive and negative sentiment posts are more likely to receive more reactions than neutral sentiment posts (Stieglitz & Dang-Xuan, 2013a; Xu & Saxton, 2019; Zavattaro et al., 2015). Sentiment analysis is the analysis of written text to determine the attitude of the author (Paltoglou & Thelwall, 2012; Zavattaro et al., 2015). The sentiment may be positive, where words that evoke happy feelings (words such as excited or thrilled) are used or negative where words that evoke negative emotions (words such as angry or disappointed) are chosen (Paltoglou & Thelwall, 2012; Stieglitz & Dang-Xuan, 2013a; Zavattaro et al., 2015). Punctuation marks such as exclamation marks also convey sentiment when used with either positive or negative connotation words (Paltoglou & Thelwall, 2012; Zavattaro et al., 2015). Emoticons are graphic symbols that embody facial expressions and convey emotions that can also be used to determine the sentiment of a post (Barcelos et al., 2018; Derks et al., 2008; Walther & D'addario, 2001).

Across all social media platforms, pictures and videos can be posted as content (Bonsón & Bednárová, 2015; Carboni & Maxwell, 2015; Lee et al., 2015; Lovejoy et al., 2012). Pictures and videos enhance engagement as they are dynamic and allow the user on social media (in this instance, the stakeholder) to experience and process the post differently (Carboni & Maxwell, 2015; Lovejoy et al., 2012; Pittman & Reich, 2016). Pictures are a preferred medium for communication as companies can convey messages more clearly and easily (Lee et al., 2015). Videos have a similar impact as they are also visual and dynamic (Pittman & Reich, 2016).

The inclusion of links on posts also enhances the level of engagement on a post as the link leads the user to a website with a longer article on the content posted (Lovejoy et al., 2012). Hyperlinks are shortened links that are typically used on Twitter because of the character-limit on tweets (Lovejoy et al., 2012). The presence of links or hyperlinks in a post has been shown to be useful for engagement as the user is able to find out more information on the topic posted through the link or hyperlink (Lovejoy et al., 2012; Viglia et al., 2018).

Posts may also contain features such as hashtags and cash-tags. A hashtag, categorised by the ‘’#” symbol and followed by a word or phrase is typically used to categorise a post (Lovejoy et al., 2012; Xu & Saxton, 2019). This makes it easier for a user to find certain posts as they can search for the hashtag on the social media platform and all posts containing that hashtag can be found (Lovejoy et al., 2012). Hashtags have been noted to increase stakeholder engagement as the ability to search for posts with the hashtag category enables the building of a network with users (Xu & Saxton, 2019). Cash-tags work similarly to hashtags but use a “$” symbol instead (Evans et al., 2019). Cash-tags are often used to link certain posts to certain companies and their financial performance related posts (Evans et al., 2019).

Reactions on posts

The level of engagement on a post can be measured through the number and type of reactions that a post on social media receives (Bonsón & Ratkai, 2013; Lovejoy et al., 2012; Saxton & Waters, 2014; Xu & Saxton, 2019). The reactions on social media are “likes”, “comments”, “shares” and “retweets” (Bonsón & Ratkai, 2013; Lovejoy et al., 2012; Saxton & Waters, 2014; Xu & Saxton, 2019). The number of *likes* on a post typically indicate the overall response to the post by users and may provide an indication on how many users have seen the post (Saxton & Waters, 2014). The number of *comments* on a post indicate the level of dialogue engagement received on a post from users (Saxton & Waters, 2014). The number of *shares* of a post reflects the degree of importance a user attaches to a post and whether the user agrees with and supports the content of the post (Saxton & Waters, 2014). *Retweets* are a feature only on Twitter but are similar to *shares* as the retweet feature enables users to share

a particular tweet and also indicates involvement and support of the post (Lovejoy et al., 2012). This study will look at the posts made by companies and analyse the content of them, the features of effective engagement based on prior literature as highlighted in the above paragraphs and the reactions the posts received. This will assist in answering the research questions to determine how listed companies in South Africa are using social media for stakeholder engagement as well as provide insights on what features and characteristics a post should contain to improve stakeholder engagement. By providing these insights, companies can improve their stakeholder engagement practices on social media which will help companies enhance their legitimacy and reduce agency costs.

The next section describes the method used in this study.

3. Methodology

Section 3.1 discusses the overall research design of this study. The research framework is discussed in section 3.2 and the framework used in the content analysis is described. Section 3.3 and 3.4 describe the population and sample selection for the study as well as the source of the data and how the data will be collected. Section 3.5 provides an analysis of the validity and reliability of this study.

3.1. Research design

The research will follow a qualitative approach using content analysis with the data being analysed using quantitative methods. Qualitative research "seeks to contribute to a better understanding of social realities and to draw attention to processes, meaning patterns and structural features" (Jenner et al., 2004, p. 3). Qualitative research seeks to determine the meaning of and develop an understanding of the data (Leedy & Ormrod, 2005). As the aim of the study is to determine how South African companies are using social media as an effective medium for stakeholder engagement, an understanding of the use of social media by South African companies is required. This understanding is obtained through a content analysis of the posts made by companies on social media.

Quantitative research methods will be used to analyse the data. Numerical representation of data and interpretation using numerical methods such as descriptive statistics is considered quantitative research (Sukamolson, 2007). The results of the content analysis will be coded numerically and analysed using descriptive statistics. The analysis of different elements of social media posts will be recorded and interpreted using quantitative methods to determine the effectiveness of the stakeholder engagement attempts in the social media posts made by companies.

3.2. Research framework

The information to be coded and analysed will be based on prior literature in this field. Section 2 discussed the various elements and features on social media which can be used by companies to achieve effective stakeholder engagement. These features will be used to develop a research framework to conduct the content analysis.

3.2.1. Content analysis

Krippendorff (2018, p. 10) defined content analysis as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use". Content analysis allows the researcher to draw conclusions about the communicator, the message, the circumstances surrounding the message, and the effects of the message to provide insights and develop an understanding of particular actions (Krippendorff, 2018; White & Marsh, 2006). A content analysis is typically used to understand and interpret the form

communication (Leedy & Ormrod, 2005). It is also used to code and categorise a large amount of data which can then be analysed and interpreted to determine trends and patterns (Vaismoradi et al., 2013).

This makes content analysis a preferable method for this research as the study seeks to understand how companies communicate and engage with stakeholders. There is much data to be collected and analysed from social media. To answer the research questions, a content analysis is conducted by reading and examining each post and coding the data. The categorising and coding of the data are based on features discussed in section 2.5 of the Literature Review which describes how companies use social media to communicate various types of information with stakeholders. These features are summarised in Appendix A and was used to create the framework for coding the data. A summary of the features which aid stakeholder engagement is included in Appendix A. The features presented in the table in Appendix A was used to analyse and code the social media posts. Each post was read and analysed based on the features in Appendix A. For example, after reading a post, the sentiment of the post is noted based on the prior literature discussed above and then coded.

Each post made on each platform will also be categorised depending on the information conveyed. The categories used based on prior research are: information dissemination; product promotion and marketing; customer service; thought leadership; CSR related posts; and, dialogue strategy posts (Chen et al., 2017; Saxton & Waters, 2014). Based on prior literature, certain categories of posts are considered to be stakeholder engagement posts as the content of these posts communicates information about the company to stakeholders and also are used to build relationships with stakeholders (Chen et al., 2017; Saxton & Waters, 2014). These categories are information dissemination posts, thought leadership posts, CSR-related posts and dialogue strategy posts (Chen et al., 2017). The stakeholder engagement posts were further classified into the six capitals as determined by the King Code (IoDSA, 2016). The posts were then examined and coded based on the features present or included in the post per Appendix A.

The remaining posts – product promotion and marketing and customer service posts were classified as non- stakeholder engagement posts. Certain posts could not clearly be placed into any of the categories used in this study and were classified as “not explicitly in category”. These posts included repeat posts made by companies on social media platform or profile picture updates of the company’s account on social media.

In total, there were 19 265 posts coded. However, only 13 262 posts were stakeholder engagement posts. For the purposes of research question 1, only posts relating to stakeholder engagement were coded further as this is the purpose of this research. Regarding the coding

of sentiment, emoticons and exclamation marks usage, only posts that included text were further coded for these features as the determination of sentiment is dependent on the choice of words used, use of emoticons and exclamation marks. As only 7 756 posts included text, only these posts were coded further for sentiment, emoticons and punctuation marks.

For the purpose of answering research question 2, all posts were considered except for “cover picture and profile picture updates” and “reply” posts.

3.3. Population size and sample

This study focuses on how listed South African companies are using social media as a tool for effective stakeholder engagement. JSE-listing requirements require these entities to comply with the King Code, establish a social and ethics committee and prepare integrated reports, all of which require stakeholder engagement to be a part of the entities’ strategy and decision-making processes (JSE, 2019). The sample for this study is the JSE Top 40 companies as of 31 March 2020. The JSE Top 40 Index includes the 40 largest companies on the JSE based on market capitalisation and is used to monitor the benchmark performance of the JSE (JSE, 2019). Because of the coronavirus disease (COVID-19), the period for which the data were assessed was limited to financial years ending on or before 30th November 2019. The limitation is imposed because the JSE allowed companies an extension for the submission of the audited annual reports and may result in companies with a 31 December 2020 year-end or later experiencing a delay in audited results being released and communication with stakeholders.

3.4. Data sources and collection

The posts made by the companies on the various social media platforms are analysed for the purpose of this research. These posts will be found on the profiles and pages of each company on their respective social media sites. The sites that will be considered for this study are Facebook, Twitter, Instagram, and LinkedIn. Facebook was considered as it is the most popular social media platform, according to We Are Social, an agency focused on using social media to create business value (Kemp, 2020). Twitter was considered because of its popularity amongst businesses (Lovejoy et al., 2012). Instagram features predominately multimedia posts and will provide insights into whether media is more engaging than text (Carboni & Maxwell, 2015; Lee et al., 2015; Pittman & Reich, 2016). LinkedIn is a professional network used by many companies to engage with employees who are also considered stakeholders and this provided insight into the type of engagement on this platform (Bonsón & Bednárová, 2013). The social media posts were identified by searching for the company handles on each platform. The company handle names were obtained from the company website and these handles were used to search for the company accounts. To verify that it

was the actual account of the company, the profile picture and account name were inspected to ensure that it was the official company account. The posts made on these accounts were then analysed and coded for this study.

The name of the company, listing on the JSE and corresponding market capitalisation is recorded. The industry of the company is classified in terms of the JSE listing requirements. Using content analysis, the features of a post per Appendix A is analysed. The analysis was recorded using a nominal system. If a post contains a particular element, it was given a score of 1 and a score of 0 was given if it was not included. The number of reactions on each post (likes, comments, shares, retweets) was also recorded. As the primary aim of content analysis is to describe the phenomenon, in this case, how companies are making use of social media, the data are analysed using quantitative means to be interpreted (Leedy & Ormrod, 2005; Vaismoradi et al., 2013). The data will be analysed using descriptive statistics. Descriptive statistics are used to summarise and display data in a manner in which trends and patterns can be uncovered (Nick, 2007). Through descriptive statistical methods, the researcher interpreted and discovered patterns in the data collected to develop an understanding of how companies make use of social media.

A Pearson Chi-Square test was used to determine the significance of the relationship among the data. This test was used to determine if there is a statistically significant association between the capitals and various features coded on posts. This was used to support the descriptive analysis of the features being used by South African companies on social media. The Pearson chi-square test is a non-parametric tool which determines the significance of a relationship between two variables (McHugh, 2013). The strength and significance of two variables are determined by the asymptotic significance value (p-value) of the Pearson chi-square at a confidence level of 95%. If $p<0.05$, there is a statistical significance between the two variables and it is not caused by chance whereas if $p>0.05$, the association between the variables is not statistically significant.

A Kruskal-Wallis test was used to calculate the significance of the relationship between data. This was used to answer research question 2 to determine what features are more effective for stakeholder engagement in a post on social media. A Kruskal-Wallis test is a one-way ANOVA used to compare two or more independent data sets with a similar sample size (Ostertagova et al., 2014). The Kruskal-Wallis test is a non-parametric measure which assumes that the observations in each data group come from populations with the same shape of distribution and that the samples are random and independent. The strength of the relationship is judged from the asymptotic significance value (p-value) at a 95% confidence

level where if $p<0.05$, there is a relationship between the variables and if $p>0.05$, there is no association between the variables.

3.5. Validity and reliability

Validity refers to whether the research measures what it was intended to measure and if the findings are truthful and accurate (Golafshani, 2003; Leedy & Ormrod, 2005; Noble & Smith, 2015; Potter & Levine-Donnerstein, 1999). The research methodology chosen should have both external and internal validity. This study is qualitative research and is performed using a content analysis that is inherently subjective. The following will be done to ensure the validity and reliability of this study.

External validity is the extent to which the results of the study can be applied to situations beyond the study itself – i.e., the reality of companies are posting information on social media to engage with stakeholders (Leedy & Ormrod, 2005). External validity can be achieved by obtaining a sample representative of the population (Leedy & Ormrod, 2005). The JSE Top 40 companies were selected as a sample for this study. External validity is achieved as the market capitalisation of the JSE Top 40 companies represents roughly 80% of the total market capitalisation of all JSE Listed entities (Shares, 2021).

Internal validity refers to the extent to which the research method design allows the researcher to draw accurate conclusions about the relationships of the data (Leedy & Ormrod, 2005). An element of internal validity is construct validity. Construct validity relates to the theories which underlie the measurement scale, in this study, the various features and characteristics of posts on social media (Leedy & Ormrod, 2005). The research framework of this study is based on prior literature. Similar studies were also conducted based prior literature (Bonsón & Ratkai, 2013; Chen et al., 2017; Lovejoy et al., 2012). The measurement scale was reviewed by other academics to ensure that the scale will address the research question adequately and reduce any researcher bias.

A pilot study was performed before the data collection to identify any deficiencies and evaluate the methods of the study. A pilot study describes the initial study conducted in research which are used to provide insight into the research method tested (University of Surrey, 2001). The pilot study allows the researcher to identify potential problems in the chosen research methodology as well as any changes that could be made to make the methodology used better (University of Surrey, 2001). After the pilot study was performed, it was identified that the methodology used would be appropriate for the study, however it was also identified that certain changes were required. to the information being. This included for instance, the number of likes on a post on Instagram were no longer visible after an update in 2020 by Instagram and therefore the number of likes on an Instagram post could not be coded. The

pilot study also provided insights into how the data could be laid out in a more efficient manner and how the coding could be made to be more efficient.

Reliability refers to the consistency of the results of the measurement data (Golafshani, 2003; Leedy & Ormrod, 2005; Noble & Smith, 2015; Potter & Levine-Donnerstein, 1999). To ensure reliability, a test-retest approach was followed for a random selection of the data (Golafshani, 2003). A random selection of posts will be re-examined, and the original data will be assessed based on the second examination to ensure the results are the same.

4. Results and discussion

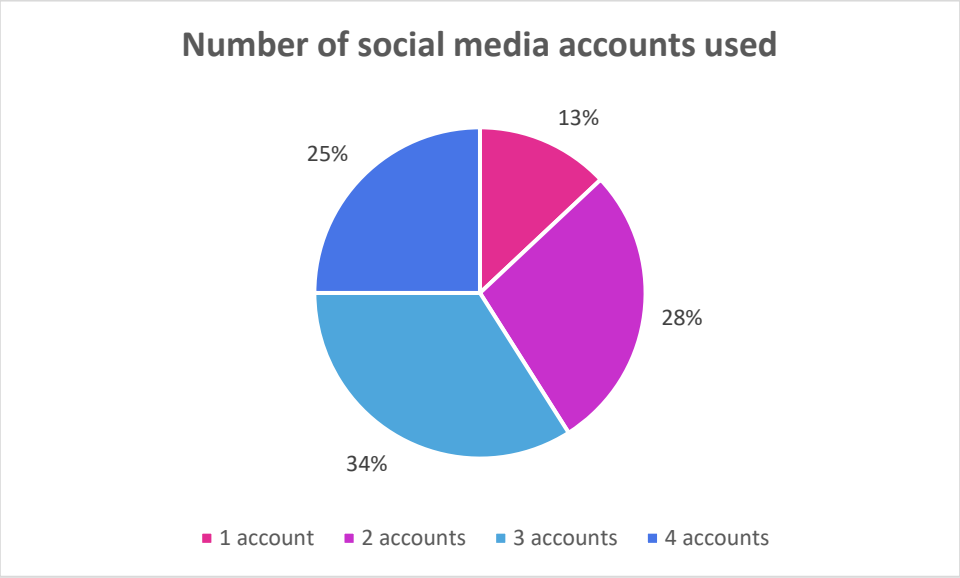
Section 4.1 presents and discusses the descriptive statistics relating to the use of social media platforms by South African companies. Section 4.2. presents the results of the content analysis of the study and discusses how South African companies used social media through a content analysis of the posts made by companies including a discussion relating to the elements of effective communication found in the 6 capitals. Section 4.3. includes a discussion regarding the features used by companies on social media to communicate effectively. Section 4.4 looks at the relationship between each feature and the reactions received on a post.

4.1. Overall descriptive statistics: use of social media

Social media accounts used

The sample comprises 40 companies and it was found that 80% (32) of companies had at least 1 social media account. 20% (8) companies did not have any account on any social media platform. There were 85 social media accounts used in total by the companies with at least one active account, resulting in an average of 2 social media accounts per company. Based on this, it does appear that companies are using social media as a communication medium and are aligned with the wide-spread adoption of social media for information exchange (Chen et al., 2017; Lombardi & Secundo, 2020).

Figure 1: Number of social media accounts used



Although companies are using at least one of the four social media platforms, companies are not using every social media platform. Referring to Figure 1, it appears that most companies are choosing to use 3 social media platforms as 11 companies (34%) used 3 social media accounts. Based on this companies appear to be communicating with users using a range of social media accounts. Given that each social media platform has a different audience, this

finding indicates that South African listed companies are making use of a range of platforms to reach a wider range of users (Bonsón & Bednárová, 2015; Bonsón & Ratkai, 2013; Gomez Vasquez & Soto Velez, 2011; Lee et al., 2015; Lovejoy et al., 2012; Saxton & Waters, 2014).

Table 1 provides a breakdown of the how many companies are using a particular social media platform.

Table 1: Social media accounts used by companies

Social media platform	Number of accounts	Percentage (number of companies/total)	Number of posts on the platform	Percentage (number of posts/total)
Facebook	19	22.35%	1 835	9.53%
Instagram	17	29.41%	1 850	9.6%
LinkedIn	24	20.00%	2 114	10.97%
Twitter	25	28.24%	13 466	69.90%
Total	**85**	**100%**	**19 265**	**100%**

Twitter is the most popular account used by companies as most of the accounts were Twitter accounts and the most posts are made on this platform. This may be because Twitter is the preferred platform where users can share information in real time to engage with stakeholders (Lovejoy et al., 2012). Twitter is also considered to be the most value-adding platform as it appears on Google searches, uses hashtag features to make it easier to find topics and helps businesses create an online presence (Bose et al., 2019). It is also the account on which the most posts were made (69.9%). Instagram is the least used social media platform, and this may be due to Instagram predominantly including pictures as posts as opposed to text (Lee et al., 2015). It may also be due to the audience of Instagram is younger and mainly used. An industry analysis regarding the use of social media is provided next.

Industry analysis

An analysis of the type of social media accounts used per industry is shown in Table 2. Across the different industries the type of social media platform differs. respectively (Bonsón & Bednárová, 2013).

Table 2: Social media accounts used per industry.

Industry	Number of Facebook accounts	% (In relation to sector)	Number of Twitter accounts	%	Number of Instagram accounts	%	Number of LinkedIn Accounts	%	Total
Industrial and Basic Materials	5	23.81%	6	28.57%	3	14.29%	7	33.33%	21
Consumer Goods and Services and Health Care	6	26.09%	6	26.09%	5	21.74%	6	26.09%	23
Financials	7	21.88%	10	31.25%	8	25%	7	21.88%	32
Technology and Telecommunications	1	11.11%	3	33.33%	1	11.11%	4	44.44%	9
Total	**19**		**25**		**17**		**24**		**85**

As mining companies (within the Industrial and Basic Materials) industry post frequently about the safety and development of their employees, this may be the reason LinkedIn is the dominant social media platform used as LinkedIn posts frequently focus on job and employee-related posts (Bonsón & Bednárová, 2013). All 4 social media platforms allow users to share information with a wide range of users and can be used by companies to advertise their products and services (Bonsón & Ratkai, 2013). Companies in the consumer goods and services industry may be using all social media platforms to a larger extent the most due to these advertising features to advertise their products. The features of Twitter enable companies to engage directly with other users and reply to their concerns and comments (Lovejoy et al., 2012). it was noted that companies in the finance industry use Twitter to respond to customer queries and complaints which could be why these companies predominantly use Twitter.

Table 3: Posts made per industry

Industry	Number of companies with social media accounts per sector	%	Number of posts	Percentage
Industrials and Basic Materials	10	31.25%	4 228	22%
Consumer Goods and Services and Health Care	8	25.00%	4 939	26%
Financials	10	31.25%	7 406	38%
Technology and Telecommunications	4	12.50%	2 692	14%
Grand Total	**32**	**100%**	**19 265**	**100%**

Based on Table 3 the financial industry posts the most on social media (38%) which can be supported by the fact that companies in the financial services industry use social media to engage with customers and attend to customer service queries in addition to building their brand (Chanda & Zaorski, 2013). There were only 4 companies in the technology and telecommunications sector which impacted the results of this sector resulting in the industry posting the least on social media.

The next section discusses the results of the content analysis of the posts including a discussion of the how social media is being used to communicate information relating to the 6 capitals.

Reactions to the posts made per industry

Reactions to posts vary dependent on the industry these are illustrated in Table 4.

Table 4: Reactions per industry

Industry	Number of likes	%	Number of comments	%	Number of retweets	%	Number of shares	%
Basic Materials and Industrials	3617	30,13%	4046	29,17%	3616	30,11%	3616	30,10%
Consumer Goods and Services & Health Care	2144	17,86%	2619	18,88%	2151	17,91%	2152	17,92%
Financials	4735	39,44%	5509	39,72%	4734	39,42%	4735	39,42%
Technology and Telecommunications	1509	12,57%	1697	12,23%	1508	12,56%	1509	12,56%
Total	**12 005**		**13 871**		**12 009**		**12 012**	

The financials industry and basic materials industry have the most reactions. The higher number of reactions on posts made by companies in the financial and basic materials industries indicates that these industries have a more active stakeholder base. This may be due to banking companies which form part of the financial industry and mining companies which are a major part of the basic materials industry contribute significantly to the South African Gross Domestic Product (GDP) and stakeholders have more interest in these entities (Minerals Council South Africa, n.d.; Berger et al., 2020). This is supported by the descriptive in Table 5 as the financials industry obtained the most reactions overall (approximately 39%) followed by the Basic Materials Industry.

4.2. Content analysis of posts

Based on the information in Table 5, thought leadership posts are the most frequently posted category on social media (35%). Thought leadership posts are typically posts relating to the industry the company operates in and is used to increase the exposure of the company as the post is shared on social media and therefore allows for the growth of stakeholder relations (Chen et al., 2017). Companies therefore could be using thought leadership posts to post build relationships with stakeholders on social media. The next most frequently posted categories related to both product promotion and marketing posts and CSR-related posts at 21%. This supports the literature on social media which indicates that companies use social media as a marketing tool (Constantinides, 2014). Social media platforms are being used by companies for corporate reporting and this supports the fact that 21% of the posts made by companies relate to CSR (Chen et al., 2017; Lovejoy et al., 2012; Saxton & Waters, 2014).

From the posts coded that relate to stakeholder engagement, dialogue strategy posts were the least posted (0.49%). This indicates that companies are not using social media to interact and engage in dialogue with stakeholders but rather to convey one-way information about the company.

Table 5: Number of posts made per category

Category of post	Number of posts	Percentage
Cover picture/profile picture update	68	0.35%
CSR	3 996	20.74%
Customer services	1 001	5.20%
Dialogue Strategy	94	0.49%
Different Language	11	0.06%
Information dissemination	2 394	12.43%
Product promotion and marketing	4 119	21.38%
Reply	7 71	4.00%
Thought leadership	6778	35.18%
Not explicitly in category	33	0.17%
Grand Total	**19 265**	**100%**

Reactions to categories of posts

Table 6 shows the number of likes, comments, shares and retweets received per category of post. Reactions are a measure of the level of engagement on a post on social media (Lovejoy et al., 2012; Saxton & Waters, 2014). Most reactions were obtained on thought-leadership posts and this aligns with the literature as this category of post is used to build relationships with stakeholders (Chen et al., 2017). A higher number of reactions indicates a higher level of engagement which in turn indicates that companies effectively engaged with stakeholders through posting thought-leadership posts.

Table 6: Reactions to the category of post

Category of post	Number of likes	%	Number of comments	%	Number of retweets	%	Number of shares	%
CSR	3 568	30%	4 009	29%	3 569	30%	3 571	30%
Customer services	1	0%	11	0%	1	0%	1	0%
Dialogue Strategy	76	1%	94	1%	77	1%	77	1%
Information dissemination	2 233	19%	2 392	17%	2 233	19%	2 234	19%
Product promotion and marketing	1	0%	565	4%	1	0%	1	0%
Thought leadership	6 108	51%	6 778	49%	6 110	51%	6 110	51%
Grand Total	**12 005**		**13 871**		**12 009**		**12 012**	

An analysis of the reactions obtained in posts that include particular features are discussed in the next section.

Analysis of reactions using the Kruskal-Wallis test

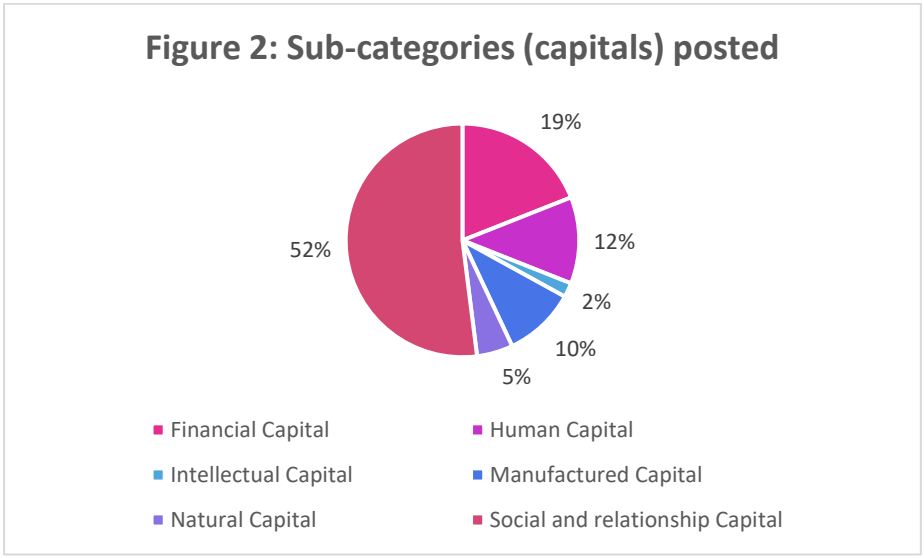
A Kruskal-Wallis test was performed to determine whether there is a relationship between the particular characteristic or feature of a post and the number of reactions the post obtained. The asymptotic difference (p-value) reflects whether there is a relationship or not. The asymptotic significance value is 0.000 when comparing the category of post to the reactions which indicates a significant relationship between these two variables.

The zero p-value indicates that the category of post does influence the reactions a post attains. This means that certain categories of posts such as thought leadership, CSR-related and information dissemination posts receive more reactions than product promotion and marketing and customer service posts. This is expected and stakeholders are not primarily interested in advertising by the company but rather prefer information about the company such as annual result and the value-creation information and strategy decisions (Boesso & Kumar, 2007; Greenwood, 2007; Hoffmann & Lutz, 2015; Tilling, 2004).

The capitals and social media posts

Figure 2 provides an overview relating to which capital is most shared on social media. Social and relationship capital relates to the relations between the company and various stakeholders (IIRC, 2021). Companies appear to be posting about social and relationship capital the most (52%) as they are using the social media platforms to communicate with stakeholders as well as build relationships with them. Companies are also using social media to post financial capital related information (19%) relating to the financial results of the company which could also be seen as the company using social media as a platform for corporate reporting. Intellectual capital is important to stakeholders and thus the results appear to contrast the literature as only 2% of posts were about intellectual capital (De Villiers & Sharma, 2017). This may be due to intellectual capital being a valuable asset to the company and if it is disclosed on social media, it is also available to competitors which can result in the company losing their competitive advantage (Brennan & Connell, 2000).

Figure 2: Sub-categories (capitals) posted



The total number of capitals mentioned in a single post were also analysed. The results are displayed in Table 7.

Table 7: Total Capital mentions per post

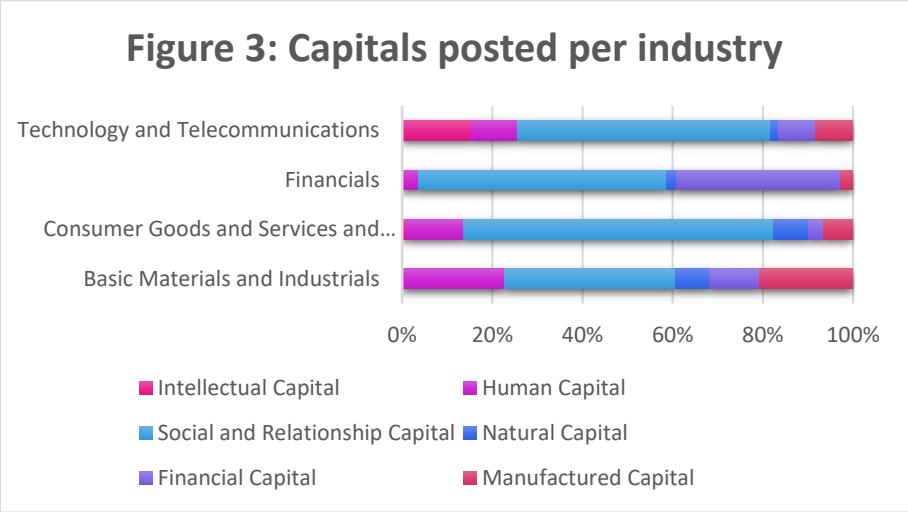
Number of Capital mentions	Number of posts	Percentage
0	6 001	31.00%
1	11 538	60.00%
2	1 651	9.00%
3	73	0.38%
4	1	0.01%
5	1	0.01%
Grand Total	**19 265**	**100%**

Based on Table 7, most posts mentioned 1 capital (60%) and the reason for this may be because of companies wanting to focus the content of the post on only 1 capital at a time. As social media are used to convey messages quickly in real-time that is easily understood by users, the posts contain only one capital to avoid the posting too much information at once (Lovejoy et al., 2012; Qiyang & Jung, 2019).

Industry analysis of capitals posted

Figure 3 indicates the sub-category (capitals) posted per industry.

Figure 3: Capitals posted per industry



Overall, across all four industries, social and relationship capital is most posted which aligns with the discussion above as these posts are intended to build relationships with stakeholders.

The technology and telecommunications industry posted the most about intellectual capital. As companies in this industry rely on intangible assets such as software and technology to derive value. Companies in the financial industry companies posted second-most about financial capital. This is also expected as companies in the financial industry are primarily banks which derive their value from financial services provided to clients and financial capital is the more important performance metric.

It appears the capital content posted by companies is dependent on the industry in which the company operates. Companies post more frequently about capitals relevant to their industry and company which may be a mechanism to reduce the information asymmetry and meet stakeholder needs (Abeysekera & Guthrie, 2005; Brennan & Merkl-Davies, 2018; De Villiers & Sharma, 2017; Farneti et al., 2019).

After social and relationship capital, human capital was most posted for both the Consumer goods & services and Health care industry (20%) and Basic materials and industrials industry (61%). Companies in this industry depend largely on their employees (salespeople in selling goods, employees for providing consumer and health services) and human capital is the value-driver of these companies. The same can be said for the basic materials and industrials industry. This industry is mainly made up of mining companies that rely on their employees to work and mine the natural resources which will be refined and sold to derive value. Natural

capital was also posted frequently by the basic materials and industrials industry (50%) because of dependency on natural resources such as coal, gold, platinum and other resources to generate value for the companies.

4.3. Features of effective communication

This section discusses the results of the content analysis for the elements of effective communication that are present for each of the six capitals. A Pearson-Chi test was also performed, and the asymptotic significance value (p-value) shows whether there is an association between the features and the capitals.

Sentiment

Companies may convey a sentiment – negative, neutral or positive – through the use of certain words to evoke feelings in stakeholders (both positive and negative) which is viewed as mechanism of effective communication (Paltoglou & Thelwall, 2012; Zavattaro et al., 2015). Table 8 shows the sentiment of posts relating to each capital and how many posts were categorised as either positive, negative or neutral per capital. Table 8 also shows the asymptotic significance (p-value) determined by the Pearson Chi-square test which determines if a significant association exists between the capital and sentiment of the post.

Table 8: Sentiment analysis of posts

	Negative	%	Neutral	%	Positive	%	Total	p-value
Intellectual Capital	0	0,00%	79	84,00%	16	16,00%	95	0,924
Human Capital	5	0,03%	1 217	77,00%	367	23,00%	1 589	0
Social and Relationship Capital	8	0,00%	2 786	84,00%	504	15,00%	3 298	0,005
Financial Capital	0	0,00%	759	81,00%	177	19,00%	936	0,059
Natural Capital	1	0,00%	536	84,00%	105	16,00%	642	0,958
Manufactured Capital	2	0,00%	1 031	86,00%	163	14,00%	1 196	0,012
Total	**16**		**6 408**		**1332**		**7 756**	

Based on the Table 8, across all capitals, neutral posts are most frequent. Companies rarely conveyed a negative sentiment through their posts as evidenced by the low percentages. The sentiment of the posts impacts the engagement and responses of users on social media (Kim & Yoo, 2012; Stieglitz & Dang-Xuan, 2013b) and more positive and negative sentiments have more reactions and responses. As posts across all capitals are mainly of a neutral sentiment the aim of the companies appears to be more one-way communication. This is because by using a neutral sentiment companies are avoiding a negative, or positive impression of the matter posted (Yang & Liu, 2017).

Sentiment – emoticons and punctuation marks

Both emoticons and punctuation marks are related to sentiment in that they can also evoke negative and positive emotions in the user (Paltoglou & Thelwall, 2012; Zavattaro et al., 2015). Based on Table 9, companies do not include emoticons in their posts as the highest percentage of posts with emoticons is 3% relating to natural capital posts.

Table 9: Emoticons used in posts

Emoticons used	No	%	Yes	%	Total	p-value
Intellectual Capital	95	10%	0	0%	95	0,179
Human Capital	1569	99%	20	1%	1589	0,057
Social and Relationship Capital	3235	98%	63	2%	3298	0,237
Financial Capital	924	99%	12	1%	936	0,195
Natural Capital	621	97%	21	3%	642	0,003
Manufactured Capital	1167	98%	29	2%	1196	0,085
	7611		**145**		**7756**	

There does not appear to be an association between the use of emoticons and the capitals posted. This may be because the use of emoticons having a negative impact on the impression made by a company (Glikson et al., 2018). The exception is natural capital posts as the p-value indicates that there is a significant relationship between natural capital posts and the use of emoticons. This may be because of companies including emoticons of trees and plants on posts relating to this capital. Prior literature has found that the use of emoticons in a business or formal setting may make the company appear less professional and competent which may be the reason emoticons are not used frequently in social media posts made by companies (Glikson et al., 2018). A similar conclusion can be drawn regarding the use of exclamation marks as shown in Table 10.

Table 10: Exclamation marks used

Exclamation marks used	No	%	Yes	%		p-value
Intellectual Capital	87	92%	8	8%	95	0,226
Human Capital	1456	92%	133	8%	1589	0
Social and Relationship Capital	3119	94%	179	6%	3298	0,426
Financial Capital	928	99%	8	1%	936	0
Natural Capital	602	94%	40	6%	642	0,385
Manufactured Capital	1159	97%	37	3%	1196	0
	7351		**405**		**7756**	

The use of punctuation marks is however, notably, higher than the use of emoticons as the average inclusion of punctuation marks is 5% as opposed to 2% for the use of emoticons. This indicates that companies are more inclined to use punctuation marks, but it is still not a prevalent feature in their posts. This is further evidenced by p-values for three of the six capitals – intellectual, social and relationship and natural capital – as $p<0.05$ which indicates that there is no relationship between these capitals and the use of punctuation marks.

Similar to the sentiment analysis, it appears that companies are not using emoticons and punctuation marks to evoke feelings in stakeholders which in turn result in more reactions and engagement from stakeholders to the posts (Kim & Yoo, 2012; Stieglitz & Dang-Xuan, 2013b). This feature and element of effective communication is not frequently used by South African listed companies to better engage and effectively communicate with stakeholders.

Links and hyperlinks

The usage of links was also examined and there appears to be a distinction between which capital-related posts include links and those which do not as shown in Table 11.

Table 11: Links/hyperlinks used

Links used	No	%	Yes	%	Total	p-value
Intellectual Capital	28	8%	302	92%	330	0
Human Capital	948	53%	852	47%	1800	0
Social and Relationship Capital	4742	60%	3120	40%	7862	0
Financial Capital	1769	63%	1053	37%	2822	0
Natural Capital	272	36%	482	64%	754	0
Manufactured Capital	639	42%	873	58%	1512	0
	8398		**6682**		**15080**	

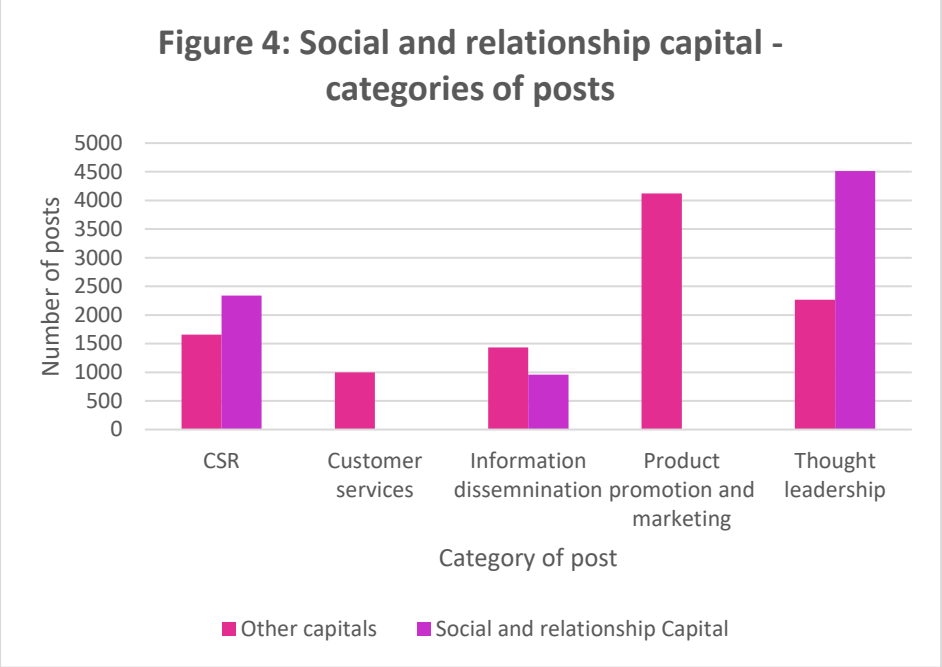
The results indicate that companies intend to share additional information about intellectual and natural capitals via the lin to another webpage (Lovejoy et al., 2012; Viglia et al., 2018). As intellectual capital relates to how the company generates value, more information is provided via a link as all of the content cannot be included in the post (De Villiers & Sharma, 2017). There is an increased awareness of the impact companies have on the environment and natural resources and companies would therefore convey this information via a link in a post relating to natural capital (Lehman, 2004). There is a significant association between the usage of links and intellectual, natural and manufactured capitals ($p<0.05$) and this indicates that companies frequently use links to convey additional information about this capital to stakeholders.

In contrast, most human capital, social and relationship capital and financial capital posts do not include links (53%, 60% and 63% respectively). The difference may be because of the type of information being conveyed by companies relating to the capitals, which was observed in the data collection process. In some instances, all the information could not be included in a post as this would become too long for the stakeholder to read and become ineffective and the inclusion of a link allows stakeholders to read more information if they want to (Baruah, 2012; Lovejoy et al., 2012; Viglia et al., 2018).

Posts relating to human capital were job advertisement posts and others relating to warnings about job advertising scams. There were also posts about the number of accidents that occurred at specific mines and these were predominantly posted by mining companies. As the content and intention of the posts varied, so did the use of links as a link may be included in a job advertisement post to enable a potential job seeker to apply on the website whereas posts about job scams and reporting did not include a post as all the information was already conveyed in the post itself and there was no need for additional information through a link.

Social and relationship capital pertains to the relationships between the company and its various stakeholders (IIRC, 2021). As social media is used to communicate and build relationships with shareholders, posts relating to social and relationship capital are intended to foster and build the relationship than convey information (Chen et al., 2017; Manetti & Bellucci, 2016). Most social capital posts were thought leadership posts as shown in Figure 4, as and as thought leadership posts are meant to engage with stakeholders and provoke thoughts on social media to allow the company to gain more exposure, these posts may not require additional information through a link (Chen et al., 2017).

Figure 4: Social and relationship capital - categories of posts



It is noted that most financial capital posts conveyed information about the company's financial results (interim, quarterly and year-end). Many posts were short and included a picture depicting key performance indicators such as revenue and profits.

99% of posts included only one link.. Links are used to provide additional information to the content of the post to stakeholders (Lovejoy et al., 2012). However, too many links may be considered to be too much information for users to read and process and may detract stakeholders from reading the information as social media is meant to communicate information quickly to stakeholders (Chen et al., 2017; Lovejoy et al., 2012; Viglia et al., 2018). The one post that did include 6 links related to a global graduate program and each link referred the user to a region-specific webpage to apply for the program. This post is therefore an anomaly. It therefore appears that companies are using links effectively to communicate additional information to stakeholders to engage more and gain more responses from them without providing an overload of information through too many links.

Text and length of posts

Table 12: Text used in posts

Text included	No	%	Yes	%	Total	p-value
Intellectual Capital	2	3%	93	97%	95	0,497
Human Capital	99	9%	1490	91%	1589	0
Social and Relationship Capital	54	3%	3244	97%	3298	0
Financial Capital	31	6%	905	94%	936	0,002
Natural Capital	6	2%	636	98%	642	0
Manufactured Capital	39	4%	1157	96%	1196	0,615
	231		**7525**		**7756**	

Most posts made by companies across all six capitals contain text as indicated in Table 12. More than 95% of posts across all six capitals contained text. Words easily convey information as the stakeholder can read the contents of the post to understand what information the company wishes to convey. The use of text would thus be preferred by companies to effectively communicate information to stakeholders. This is also indicated by the asymptotic significance value as $p<0.05$ for 4 of the indicating that the association between the use of text and the capital is statistically significant. Although the p-values for intellectual and manufactured capital indicate that the association is not significant, it is important to note that most posts on social media for all capitals include text. It can be concluded that, the use of text in intellectual and manufactured capital posts may not be a specific characteristic of those capitals but may be a characteristic of how companies convey information in general across all capitals.

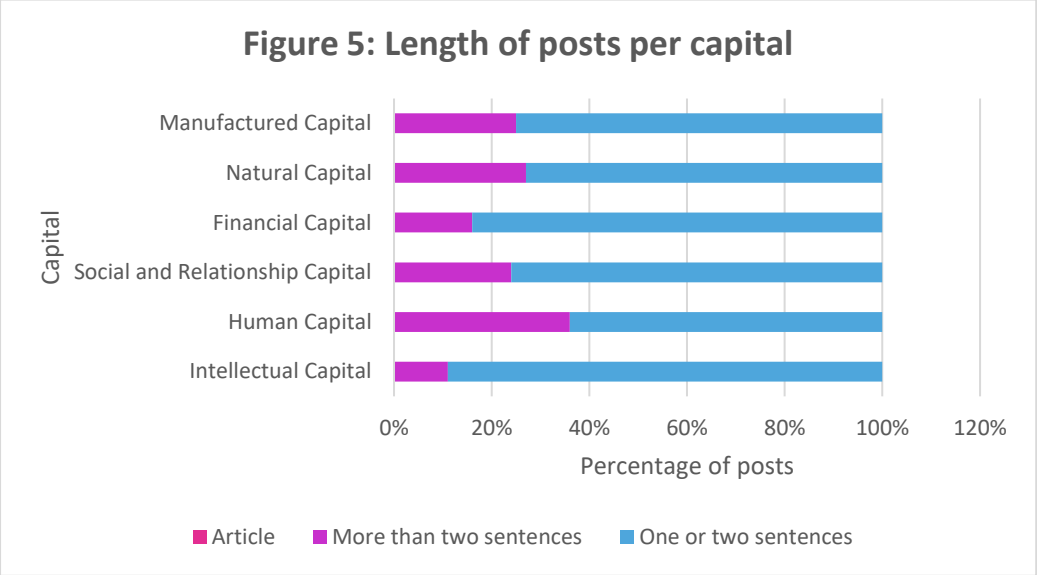
Across all capitals, most posts were one or two sentences in length as shown in Figure 5. This is consistent with the literature as social media posts are effective mechanisms for communication and engagement due to the shorter length of the content posts (Lovejoy et al., 2012). Certain social media platforms such as Twitter also have a limit on the number of characters in a post and this could be a reason why posts are not longer than two sentences (Lovejoy et al., 2012).

The results indicate that posts relating to human, natural, manufactured and social capital were more likely to be longer than posts about the other capitals. A possible reason could be that human capital posts were typically about job advertisements, achievements of employees and injury updates in the mining industry companies. This type of content would typically require more than one sentence to communicate all the information and thus the posts are longer. Natural capital posts provide information on the use of natural resources by the

company and as there is an increased awareness around the use and conservation of natural resources, posts relating to natural capital were longer to explain this to stakeholders (Du Toit et al., 2017; IIRC, 2021). Manufactured capital relates to the assets used by the company and as the assets are used by the entity to generate value, longer posts may be used to communicate this information to stakeholders (IIRC, 2021).

Intellectual capital posts, in contrast, typically included links to provide users with more information as has been discussed in the links and hyperlinks section above and shown in Table 11. As these posts included a link to provide additional information, the posts were shorter in length as there was no need to provide additional content in the post.

Figure 5: Length of posts per capital



Most posts were only one or two sentences in length which is the key in effective communication on social media as a shorter length of posts is considered to be more effective (Carboni & Maxwell, 2015; Viglia et al., 2018). This is supported by the results of the Pearson-Chi test as the asymptotic significant value (p-value) is below 0.05 which indicates that there is a statistical significance in the association between the capitals posted and the length of the post. However, for intellectual capital posts, there does not appear to be a significant association as the p-value is greater than 0.05 as shown in Table 13. This could be due to companies using longer posts to communicate information regarding intellectual capital as it provides stakeholders with valuable intel on what the company uses to operate and perform well (De Villiers & Sharma, 2017).

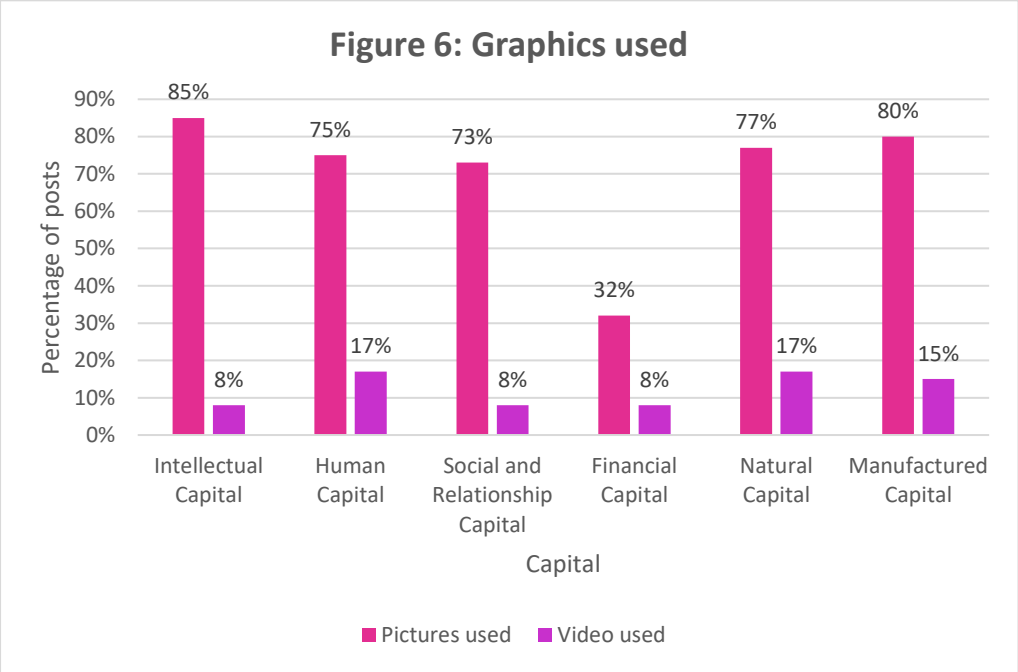
Table 13: Length of posts – Pearson Chi asymptotic significance	
Length of post	**p-value**
Intellectual Capital	0,067
Human Capital	0
Social and Relationship Capital	0
Financial Capital	0
Natural Capital	0
Manufactured Capital	0

Graphics: Pictures and Videos

Figure 6 shows the use of pictures and videos in posts relating to each capital. When considering the use of pictures in posts, across all capitals excluding financial capital, pictures are included in most posts. The use of pictures in posts supports prior literature that pictures enhance cognition and engagement in posts as they allow stakeholders to experience the post differently and evoke a reaction (Carboni & Maxwell, 2015; Lovejoy et al., 2012; Pittman & Reich, 2016).

The p-values determined from the results of the Pearson-Chi test run comparing the characteristic of graphics used to the capital posted indicate that there is a statistically significant association between these two variables for all the capitals except for financial capital. Posts related to financial capital were typically about the financial results of the company and did not include pictures as the results were communicated via text. This may explain why most financial capital posts did not include pictures.

Figure 6: Graphics used in posts



In contrast, videos were not frequently included in posts related to all capitals. Although videos, like pictures, allow users to experience content in a more dynamic manner and thus evoke more emotion and engagement (Pittman & Reich, 2016). However, social media is meant to be used as a means for quick communication with stakeholders (Hoffmann & Lutz, 2015; Lovejoy et al., 2012; Nadaraja & Yazdanifard, 2013; Qiyang & Jung, 2019). Videos typically take longer to view as they are around more than 30 seconds long. A picture, on the other hand, can be viewed in less time and would be the preferred method to communicate rapidly with stakeholders. It thus appears that companies are making use of graphics effectively and quite frequently to effectively communicate with stakeholders as most posts include pictures.

Hashtags, cashtags and direct mentions

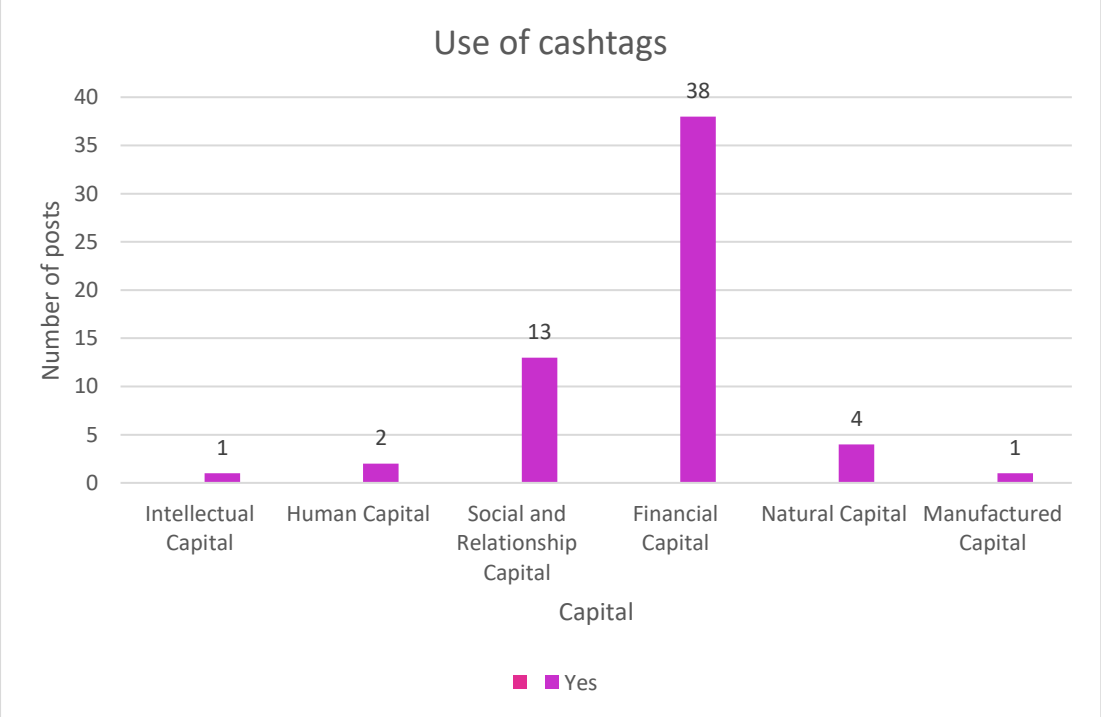
Table 14: Hashtags used in posts

Hashtags used	No	%	Yes	%	Total	p-value
Intellectual Capital	60	18%	270	82%	330	0
Human Capital	777	43%	1023	57%	1800	0,865
Social and Relationship Capital	2540	32%	5322	68%	7862	0
Financial Capital	2073	74%	749	26%	2822	0
Natural Capital	312	41%	442	59%	754	0,856
Manufactured Capital	612	41%	900	59%	1512	0,303
	6374		**8706**		**15080**	

As shown in Table 14, hashtags were frequently included in posts for five of the six capitals except for financial capital. This indicates that overall, companies are making use of hashtags in their posts. Intellectual capital-related posts included the most hashtags (82%). As hashtags categorise and allow users to find the information relating to that hashtag easily (Lovejoy et al., 2012), companies may be using hashtags to enable users to find information relating to intellectual capital through a search. This is also supported by the statistical significance of the relationship between intellectual capital and hashtags as $p<0.05$. Financial capital posts, in contrast, do not frequently include hashtags as only 26% of posts included hashtags. This may be related to financial capital posts including more cashtags than the other capitals.

In contrast, cashtags were not used as frequently. As shown in Figure 7 below, the most cash-tags used were 38 for financial capital posts. Cashtags are used similarly to hashtags but are more focused on the financial information and results of the company (Rajesh & Gandy, 2020). Therefore, it supports the data in that mostly financial capital posts included cash tags. The association between financial capital and cashtags is statistically significant as $p<0.05$ indicating that cashtags are frequently used in posts relating to financial capital posts. However, while financial capital posts do contain more cashtags than the other 5 capitals, it is still not significant enough to be considered effective use of cashtags as only 38 posts included hashtags.

Figure 7: Use of cashtags across the capitals



Direct mentions were not a frequently used feature in posts across all six capitals as indicated in Table 15. Social and relationship capital and natural capital posts included the most direct mentions. This is reinforced by the p-values and there is a significant relationship between the direct mentions and the capitals. Direct mentions can be used by companies to engage directly with a stakeholder on social media (Lovejoy et al., 2012). As social and relationship capital posts are used to engage with and build relationships with stakeholders, the use of direct mentions is expected as it would enable the company to respond to certain stakeholder directly and build a relationship.

Table 15: Direct mentions included in posts

	No	%	Yes	%	Total	p-value
Intellectual Capital	300	91%	30	9%	330	0,202
Human Capital	1532	85%	268	15%	1800	0,161
Social and Relationship Capital	6109	78%	1753	22%	7862	0
Financial Capital	2664	94%	158	6%	2822	0
Natural Capital	590	78%	164	22%	754	0
Manufactured Capital	1318	87%	194	13%	1512	0
	12513		**2567**		**15080**	

Overall, it appears that companies are making use of hashtags to effectively communicate with stakeholders as most posts include a hashtag. This would make is easier for stakeholders to find information about a topic or a company. Cash tags and direct mentions on the other hand are not being used by companies to effectively engage with stakeholders as they are not frequently included in posts.

4.4 Effectiveness of features on social media

A Kruskal-Wallis test was conducted to determine the effectiveness of the features of social media in stakeholder engagement in relation to the reactions obtained. The results of the Kruskal-Wallis test are presented in Table 16.

Table 16: Kruskal Wallis Test – features

Element of effective communication	Number of Likes*	Number of Comments*	Number of Shares*	Number of Retweets*
Sentiment	✓	✓	✓	✓
Emoticons	✓	✓	×	✓
Punctuation	✓	✓	×	✓
Link/hyperlink	✓	✓	✓	✓
Text	✓	✓	✓	✓
Length of post	✓	✓	✓	✓
Picture	✓	✓	✓	✓
Video	✓	✓	✓	✓
Hashtag	✓	✓	✓	✓
Cashtag	×	×	✓	✓

* "✓" represents a p-value < 0.05 indicating the relationship is statistically significant and "×" represents a p-value > 0.05 indicating that the relationship is not statistically significant.

Overall, the results in Table 16 indicate that the use of the elements of effective communication does result in more likes, comments, shares and retweets obtained. This means that stakeholders engage more when posts include these different features which is consistent with prior literature. (Carboni & Maxwell, 2015; Lovejoy et al., 2012; Pittman & Reich, 2016; Stieglitz & Dang-Xuan, 2013b; Viglia et al., 2018; Xu & Saxton, 2019; Zavattaro et al., 2015).

There are two exceptions: the use of emoticons and punctuation and the number of shares; and the number of likes and comments relating to the use of cashtags. The findings indicate that the use of emoticons and sentiment does influence the number of reactions on a post. There is no significant difference between the shares a post obtains and the sentiment. This may be due to stakeholders being unwilling to share posts that convey a certain sentiment to avoid making an impression to all their users.

There is no significant difference between the number of likes and comments on posts that include cashtags. This may be due to the purpose of cashtags being a type of "ticker" used on social media used to link companies with their posts, mainly relating to their financial performance (Evans et al., 2019). As financial performance related posts of a company are popular to the public, it is likely that stakeholders may be sharing and retweeting them as opposed to liking and commenting on the posts.

Summary of results

Overall, the various elements of effective communication on social media in terms of prior literature have been supported by the results of this study. This is summarized in Table 17.

Table 17: Features used for communication

Effective communication feature	**Effectively used by South African listed entities**	**Explanation**
Sentiment	×	Most posts contained a neutral sentiment and companies conveyed positive and negative sentiment to a much lesser extent.
Sentiment – emoticons and punctuation marks	×	Companies did not frequently make use of emoticons and exclamation in their posts.
Links/hyperlinks	✓	Most posts included links overall which indicates that companies are making use of links to provide additional information where necessary.
Text and length of posts	✓	Most posts included text and were one or two sentences in length. This enables information to be rapidly conveyed in an easy manner through words.
Pictures/videos	✓	Companies frequently included pictures in their posts which enable rapid communication of information and is more engaging to stakeholders. Videos were used to a lesser

		extent but that may be due to it requiring more time for the user to process the information and soes not align with the purpose of rapid dissemination of information concept.
Hashtags, cashtags and direct mentions	✓	Hashtags were used frequently by companies which allows stakeholders to find information quickly. Cashtags, were however used much less in comparison but this may be due to the specialised purpose of cashtags being for financial information. Direct mentions appear to be used by companies to a larger extent when communicating with stakeholder directly which allows for effective stakeholder engagement.

The sentiment of the post – conveyed via word choice, emoticons, and punctuation marks -, the use of text and the length of a post, the inclusion of links, pictures, videos, and hashtags are elements of effective communication on social media. This is evidenced by the results of the Kruskal-Wallis test which indicate a significant relationship between the various features and the reactions received on a post. The use of cashtags, in contrast, do not appear to increase the number of reactions in a post. The summary in Table 17 indicates that the JSE Top 40 companies are using social media effectively as most of the features are being used. However, there is room for improvement to increase stakeholder engagement using social media.

5. Conclusion

5.1 Summary and findings

The purpose of this study is to determine whether South African companies are using social media platforms as a means of effective communication with various stakeholders. Social media, due to its communication features, can be used as an effective medium for stakeholder engagement (Bonsón & Bednárová, 2013; Greenwood, 2007; Viglia et al., 2018). Based on the results of the study indicate that 80% of the top 40 JSE-listed companies have at least one social media account indicating that South African listed companies are making use of social media. This is expected given the global adoption of social media usage in the exchange of information (Bonsón & Bednárová, 2013; Lee et al., 2018). Twitter is the most frequently used social media platform as 29% (25 companies) of companies had active Twitter accounts (either as the only social media platform used or in addition to accounts on other platforms) and the most posts were made on this platform. Instagram is the least used social media platform and that may be due to the limiting features of the platform as pictures are predominantly posted and the has a younger audience.

A further analysis of the content of posts indicates that the most posted category on social media overall is thought leadership posts (35.18%). As found by Chen et al. (2017), this category of post is primarily used to engage with stakeholders and build a relationship with stakeholders,. CSR-related posts are the next most posted category and this indicates that companies are using social media to report to stakeholders and reduce information asymmetry (Chen et al., 2017; Lovejoy et al., 2012; Saxton & Waters, 2014).

In terms of the capitals, the most frequently posted capital is social and relationship capital, followed by financial capital. This finding suggests that companies are predominantly using social media to engage with stakeholders and maintain relationships with stakeholders (De Villiers & Sharma, 2017; Farneti et al., 2019). Companies are maintaining legitimacy as the increased engagement with stakeholders is perceived as the companies being more accountable for their actions towards stakeholders (Greenwood, 2007). Financial capital posts are expected as companies use social media to report the financial performance figures to stakeholders and the public in real-time (Brennan & Merkl-Davies, 2018; Farneti et al., 2019). This indicates that companies are using social media to engage with stakeholders disseminate information to reduce the information asymmetry.

In terms of effective communication, South African social media features align to prior research in that – sentiment (Stieglitz & Dang-Xuan, 2013b; Xu & Saxton, 2019; Zavattaro et al., 2015), punctuation marks (Paltoglou & Thelwall, 2012; Zavattaro et al., 2015), emoticons (Barcelos et al., 2018; Derks et al., 2008; Walther & D'addario, 2001), links (Lovejoy et al.,

2012; Viglia et al., 2018), text (Lovejoy et al., 2012), length of post (Lovejoy et al., 2012), pictures and videos (Bonsón & Bednárová, 2013; Carboni & Maxwell, 2015; Lee et al., 2015; Lovejoy et al., 2012; Pittman & Reich, 2016), hashtags (Lovejoy et al., 2012; Xu & Saxton, 2019) and cashtags (Evans et al., 2019) – have a statistically significant relationship with the number of reactions obtained for a post.

Findings suggest that South African listed companies are making use of the features of social media to effectively engage with stakeholders but there is room for improvement in this area. The use of links and hyperlinks, text, graphics and hashtags are effectively used by companies to convey information in posts and engage with stakeholders. However, the use of sentiment, emoticons, exclamation marks and cashtags are the features that are not used effectively.

The results align with prior studies conducted to examine the use of social media by companies in other countries (Bonsón & Ratkai, 2013; Chen et al., 2017; Lovejoy et al., 2012). Prior literature has concluded that companies are making use of social media to engage more with stakeholders and build relationships with them but are yet to take full advantage of the various features present on social media to enhance engagement (Chen et al., 2017). Companies are still attempting to determine how to best use social media and the available features to more effectively engage with stakeholders (Lovejoy et al., 2012). The findings of this study are also supported by prior literature in that companies use social media to report on CSR-related information to gain some form of legitimacy (Bonsón & Ratkai, 2013).

Overall, it appears that companies are making use of social media and using them to communicate information with stakeholders to reduce information asymmetry. Companies are also using social media to report to stakeholders. Most of the features available on social media are being used by companies to communicate more effectively and gain more reactions from stakeholders. However, the focus from companies is primarily to reduce information asymmetry as opposed to directly engaging with stakeholders. As the corporate reporting spectrum extends further into reporting and engaging via social media, companies need to use social media more effectively to both report to and communicate with stakeholders.

5.2 Limitations and areas of future research

Limitations

A limitation of this study is that it only examined the Top 40 JSE Listed companies in South Africa which is only one jurisdiction. The results of the study may not be entirely applicable to other jurisdictions as JSE listed companies have to comply with the JSE regulations in the content that is communicated to stakeholders.

A further limitation is that only a 12-month period was considered for the purposes of this study. As this is a short period, the results may not be a true representation of how companies use social media as a longer period may provide a more detailed representation.

This study did not analyse the comment reactions in detail. As comments indicate the level of dialogue engagement received on a post, an analysis of the comments on posts may provide more insight on the effectiveness of a post based on the views and information conveyed by stakeholders in the comments on a post.

Areas of future research

This study focused on how social media is used by South African listed companies as a medium for stakeholder engagement. Further research can be conducted by expanding the scope and examining how other companies not listed (including small-to-medium sized enterprises (SMEs) and non-profit organisations (NPO)) use social media to engage with their stakeholders which will provide insight into how unlisted entities make use of social media. Further studies may also examine a longer study period which will provide a better understanding of how companies make use of social media over a period of longer than one year.

This study did not look at the types of comments that were made on posts and further studies may exclusively consider the comments made on a post to determine whether the post was obtaining meaningful interaction from stakeholders. Future research could also consider the changed feature on Instagram where likes can now be counted which can provide further insight into the number of likes received on Instagram.

The findings of this study indicated that financial capital was one of the most frequently posted capitals on social media. This may be a concern as these companies are communicating financial capital information through various other avenues as well – annual and integrated reports as well as SENS (Stock Exchange News Service) announcements (JSE, 2019). This may indicate that companies are engaging in impression management by posting frequently about financial capital and this can be explored in future studies.

6. Appendix A

Characteristics or features which enable stakeholder engagement

Characteristic or feature	Explanation	Link to theoretic framework
Social media platform used (Facebook, Twitter, Instagram and LinkedIn)	Each platform has a different audience and some unique features (Bonsón & Ratkai, 2013; Chaffey, 2020; Lee et al., 2015; Lovejoy et al., 2012).	By using a range of different platforms, different audiences can be engaged with and this would reduce agency costs (Jensen & Meckling, 1976).
Sentiment using word choice: • Positive: happy, excited, thrilled, etc. • Negative: angry, disappointed, etc.	Certain words evoke positive emotions such as "excited", "thrilled", "excellent" whilst some words evoke negative emotions such as "disappointed", "poor", "angered" (Paltoglou & Thelwall, 2012; Zavattaro et al., 2015).	Sentiment, the use of text, length of posts, usage of links, hyperlinks, pictures, videos, hashtags and direct mentions are characteristics which enable effective communication and ultimately better stakeholder engagement. Better and more meaningful stakeholder engagement occurs when incorporating these features into posts on social media which results in reducing the information asymmetry gap and agency costs (Greenwood, 2007; Jensen & Meckling, 1976). It is perceived that the increased interaction and engagement using these features will make companies more accountable towards stakeholders which enhances the legitimacy of the company(Tilling, 2004).
Sentiment using punctuation (exclamation marks, etc.).	Certain punctuation marks such as an exclamation mark ("!") evoke excitement (Barcelos et al., 2018; Paltoglou & Thelwall, 2012; Zavattaro et al., 2015).	
Sentiment using emoticons: • Positive: smiley faces • Negative: sad faces.	Happy emoticons such as smiley faces evoke positive feelings and sad emoticons evoke negative feelings (Barcelos et al., 2018; Walther & D'addario, 2001).	

Text	Allows information to be conveyed through words (Walther et al., 2001).	
Length of post	Shorter posts are more effective as it is easier for stakeholders to process (Lovejoy et al., 2012).	
Link or hyperlink used	Provides additional information on the topic by leading the user to another webpage (Lovejoy et al., 2012).	
Pictures Videos	Graphics such as pictures and videos are more dynamic and allow the stakeholder to experience the post differently (Carboni & Maxwell, 2015; Lovejoy et al., 2012; Pittman & Reich, 2016).	
Hashtag or cash tag	"#" or "$" symbols used before a word or phrase which enable stakeholders to find posts related to a particular topic easily (Lovejoy et al., 2012; Xu & Saxton, 2019).	
Direct mention	The use of the "@" symbol which enables direct communication with stakeholders (Lovejoy et al., 2012; Xu & Saxton, 2019).	
Number of likes Number of comments Number of shares Number of retweets	These reactions provide evidence of the emotion of stakeholders as well as the popularity of the posts (Bonsón & Bednárová, 2013; Lovejoy et al., 2012)	The reactions on the posts are evidence of stakeholder engagement. The more reactions a post receives indicates that more stakeholders are reading and engaging with the company through the post and that there is a valuable interaction and relationship forming between the company and the stakeholder – the underpinning of the stakeholder engagement theory (Greenwood, 2007).

7. References

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