RESEARCH REPORT

The adoption of social media in a South African banking organisation: A qualitative Diffusion of Innovation perspective

Student: Sidima Mehlomakulu
Student number: 1727280

Supervision: Dr. Emma Coleman

Contents

1. INTRODUCTION 4

1.1 Background 4
1.2 Research context 6
1.3 Research gap 7
1.4 Problem statement 8
1.5 Purpose of the study 8

2. LITERATURE REVIEW 10

2.1. Social media adoption in organisations 10
2.1.1 Organisational value of social media 10
2.1.2 Capability, complexity and compatibility of social media 11
2.2. Social media strategy, vision and goal 12
2.3. External and competitive pressures 13
2.4. Internal organisational social and cultural structures 14
2.5. International studies on social media in banking 15
2.6. The South African banking sector and social media 16
2.7. Adoption theories used in social media and other ICT studies 16
2.8. Synthesis of factors influencing ICT and social media adoption 17
2.9. Summary of the literature review 18

3. THEORETICAL BACKGROUND AND RESEARCH FRAMEWORK 19

3.1 Diffusion of innovation 19
3.2 A research framework for the diffusion of social media innovation 19
3.2.1 Relative advantage 19
3.2.2 Compatibility 20
3.2.3 Complexity 21
3.2.4 Trialability 21
3.2.5 Observability 22

4. RESEARCH METHODOLOGY 24

4.1 Philosophical approach 24
4.2 Research design and strategy 24
4.2.1 Exploratory research design 24
4.2.2 Middle range and qualitative approach 25
4.2.3 Case study design 25
4.3 Data collection methods 26
4.4 Ethical considerations 28
4.5 Data analysis process 28
4.6 Evaluation of methods 29
4.7 Research instrument 29

5. FINDINGS AND DISCUSSION 30

5.1 Social media Innovativeness 30
5.2 Relative advantage 33
5.2.1 Marketing, communication and advertising 33
5.2.2 Service 36
5.2.3 Customer engagement 38
5.3 Compatibility 41
5.4 Complexity 44
5.5 Trialability 46
5.6 Observability 48
5.7 Organisational Structures, culture, leadership and change 49
5.7.1 Organisational structure 49
5.7.2 Organisational culture 51
5.7.3 Organisational leadership 53
5.7.4 Organisational change 55
5.8 Competitive, external and reputational pressures 57
5.8.1 Competitor influence 57
5.8.2 External pressures 59
5.8.3 Reputational risk 61
5.9 Social media strategic alignment 63
5.10 A revised social media DOI theoretical framework 65

6. CONCLUSIONS, IMPLICATIONS AND LIMITATIONS 66

6.1 Theoretical implications 67
6.2 Practical implications 68
6.3 Future direction 68
6.4 Limitations 69

7. REFERENCES 71

8. APPENDICES 76

ACKNOWLEDGEMENTS

I would like to convey my gratitude to Dr Coleman for her continued support, guidance and supervision throughout this research project. I would not be able to complete this project without this support.

To my wife Pumeza and children Hlanganisa and Lizwe, thank you for affording me the time and space to focus on this project.

Lastly, to Chumisa Kelepu and Jimmie Mwangi, thank you for being the sounding board and support group since the beginning of this journey.

PLAGIARISM DECLARATION

I have read and understood the Senate Policy on Plagiarism

I understand that plagiarism is the "failure to acknowledge the ideas or writing of another" or "presentation of the ideas or writing of another as one's own" - whether such failure to acknowledge the ideas or writings of others is intentional or unintentional.

I understand what is expected of me in terms of referencing style and how to appropriately acknowledge the ideas or writing of others.

I am aware of the consequences of plagiarism.

Student Number: _1727280____ Course Code: __INFO7008__

Signed: ____-________________Date: 23 September 2019____

Abstract

Social media adoption has seen a rise across businesses in recent history, this is also seen in the increase of publications related to this subject. ICT adoption studies have used many theoretical lenses, in multiple contexts to observe the diffusion phenomenon at an organisational level. However, the understanding of the adoption of social media in large South African organisations has scant research. This study explores the antecedents surrounding the decision to adopt social media, in a South African banking organisation, using an extended Diffusion of Innovation (DOI) theoretical framework. Qualitative, semi-structured interviews are deployed as the methods used to gather insights from decision makers and other impacted business functional areas, to gain a richer understanding of the phenomena.

The theoretical contribution of this study provides an enriched understanding of social media diffusion in a South African banking organisational setting, by incorporating concepts of *strategy, vision and goals*, *internal organisational social and cultural structures*, as well as *external and competitive pressures* to the DOI theory. Findings suggest that further concepts such as reputational risk, social media innovativeness and organisational change, could be further explored. Practically, the findings may be used in the decision process of social media implementation, social media strategy development and to improve business operational efficiencies.

Keywords: social media, social media adoption, banking, diffusion of innovation

1. Introduction

Social media platforms have been widely adopted by people for the purposes of engagement, connecting with friends and family. Over time, these networks have evolved into billions of participants, and organisations have started to tap into these networks to use them as access to engagement channels, for product development and as a customer base to market and sell goods and services (Braojos-Gomez et al., 2015).
The question of *why* organisations adopt these social media platforms for business use has varied responses due to the varied uses of social media, and at times, not well understood. This study aims to shed light on this topic.

1.1 Background

Social media is defined as a group of applications that use Web 2.0 technologies, in an online social context to engage, share content and connect with others. These web-based applications are accessed via the internet and other mobile devices and are generally available for any individual or organisation to use (Hasani et al., 2017).
Social media allows people in different geographical locations and time zones to connect in a much easier and cost-effective way than traditional communication methods (Chen et al., 2017; Ma, 2017).

There are many social media applications in the market, and more being developed (Hsing Wu et al., 2013, Vejačka, 2017), each serves different purposes but can be grouped into the following categories: (1) social networking – which is primarily used for online deep meaning engagement between groups of people. Here, typically, friends and family would connect in a virtual online space to have conversations, share stories or events happening around them. An example of this is Facebook (Braojos-Gomez et al., 2015). (2) Blogging and micro-blogging – in this category the users share their opinions and other content to a group of individuals who subscribe to their blog. Usually, these are individuals who share the same interests. WordPress and Twitter would be examples of applications in this category (Hsing Wu et al., 2013). (3) In the content sharing category of applications, users upload pictures and videos to subscribers or followers who are then able to engage, comment and share this content. YouTube and Instagram are examples of such applications (Khatoon, 2016).

There are many ways for organisations to appropriate these versatile technologies; organisations are using social media to connect with their customers and employees on these platforms to share content and generate engagement (Ma, 2017, Shanmugam, 2015), advertisements are being launched on platforms such as YouTube (Lin et al., 2015), brands being showcased on Instagram and political campaign messages being broadcast on Facebook and Twitter (Risius & Beck, 2015). This indicates that organisations have realised that the following they have on social media sites is a customer base to tap into when wanting to promote a view or product (Hasani et al., 2017).

Hasani et al. (2017) argue that when compared to traditional methods of engagement such as television, newsletters and magazines, social media can be more effective in customer engagement, customer reach and targeted marketing. This is due to the accessibility, ease of distribution of content, integration of social media platforms as well as an established customer base (Hasani et al., 2017; He et al., 2017).
There are many ways to effectively incorporate social media in any organisation regardless of organisational size and disposable resources (Braojos-Gomez et al., 2015; Johnson, 2015).

Social media application developers have moved to develop professional social media tools such as LinkedIn – where professionals, professional bodies and organisations within or across industries connect to share ideas, news and engage with one another, or, on Yammer – where internal users within an organisation share content, company news and engage with one another using social media applications in a business context (Effing & Spli, 2016; Khatoon, 2016). These are further illustrations of the versatility of social media and how the adoption of such technologies at an organisational level can improve operational efficiency – as seen in Hsing Wu et al. (2013) where blog technologies were used for customer relations management. Also, in the drive for customer engagement and advertising - as depicted by Li et al. (2017) where social media is used to process marketing messages and could reduce the uncertainty in the marketing effort. Another example was in the learning and content engagement space – where social media integration into business development and learning functions could enhance the exploratory and product development process (Ashurst et al., 2012).

However, organisations that do not align the selection of their social media technology to their processes and in accordance with the business strategic needs (Burgess & Paguio, 2016), or where the technology is not compatible to the function it is meant to serve or technologies that have large complexities, may result in a failure to realise the intended benefits (Johnson, 2015). These are some of the antecedents that are critical to the success or failure of a technology adoption.

It is therefore imperative that an organisation selects the right social media platform for the right business process or function. Careful consideration of organisation capabilities, the risks and exposure associated with online platforms as well as issues of feasibility needs to be taken in the decision to adopt social media (Effing & Spli, 2016).

1.2 Research context

Although scant, a few international studies have emerged in the social media adoption and usage topic in recent years. These studies tend to focus on the usage between businesses (Lacka & Chong, 2016), or the marketing and cost effectiveness of social media application in influencing or attracting customers when compared to traditional marketing (Vejačka, 2017), or the understanding of the antecedents of social media CRM application adoption for start-up businesses (Hasani et al., 2017). These studies are based in Europe and Asia and many not necessarily factor in all the conditions of the South African banking context.

The organisational level of diffusion has a plethora of studies, however, from the reviewed literature, the context of organisational diffusion of social media, in the South African organisational context, has scant research (Tsitsi Chikandiwa, et al., 2013).

This study was conducted in an organisation that operates in the South African banking sector, here forth referred to as *XYZ Bank*, where a recent adoption of social media, for business operational use, had occurred. In the context of XYZ Bank, social media is used to engage with customers as well as a marketing tool to broadcast advertising and brand related initiatives. A social media team has also been recently formed to manage activities across multiple social media platforms.

This study sought to understand the antecedents that led to the decision to adopt social media technologies, at an organisational level, using an organisational level theory, the Diffusion of Innovation (DOI), as a theoretical framework.

In the context of larger organisations, where bureaucracy and multi-layered decision-making structures are embedded in the ways of working (Braojos-Gomez et al., 2015), the impact of an application adoption decision can have far-reaching implications on the strategy, operational policies and business processes, human capital investment, change management, as well as the financial implications thereof (Chen et al., 2017; Ma, 2017).

The study focusses on mainly two social media applications, *Facebook* and *Twitter*. This is due to the social media studies referring to the two platforms as the most widely used in the South African banking context (Tsitsi Chikandiwa, et al., 2013).

For this study, the Diffusion of Innovation theoretical framework was the lens used to study the adoption of social media in an organisation. In the DOI framework, the five stages a technological innovation passes are the *knowledge* – the stage in which users learn about a technology and form an understanding of its capabilities, *persuasion* – the stage in which the users form an opinion about the technology, *decision* – where the users commit to the use of the technology, *implementation* – where the technology is put to use, and confirmation – where the use of technology is reinforced based on the positive outcomes resulting from the technology use (Johnson, 2015; Rogers, 2010 p. 41). Studies by Adhiarna et al. (2013), Sun and Jeyaraj (2013) and Lin and Chen (2012) use the *persuasion* and *decision* stages of the DOI theory to provide a deeper understanding of organisational adoption of technologies. For this study, the *persuasion* stage and the related characteristics were the focus of the research.

1.3 Research gap

Although the use of social media in organisations has increased, the literature review will show that the antecedents of social media adoption are not well articulated (Khatoon, 2016).

Scant research exists on the application of the diffusion of innovation theory in the understanding of the adoption of social media. Research seems to be on other web-based technologies such internet banking or mobile banking and is rarely at an organisational level (Shanmugam et al.,2015); Tran & Corner, 2016), therefore the contribution of this research enhances the understanding of the social media technology. These signify gaps in the understanding of the conditions required for the successful adoption of social media at an organisational level.

The South Africa banking context is also not well understood in this regard (Tsitsi Chikandiwa, et al., 2013). Recent studies tend to be focussed in the European and Asian regions, such as the Chinese-based study by Lacka & Chong (2016), which assesses the adoption of social media in a Business-to-Business context. Or the Polish-based research by Vejačka (2017) which investigated adoption of social media marketing in the small Polish banking sector. In their study of customer's perceptions of internet banking, Shanmugam et al. (2015) acknowledges the potential impact that social media may have on customers interacting with their banks, and the need for such studies to be further investigated.

Although some of the findings may apply to this study, the context of a large South African bank, as well as the different economic setting, may yield different results.

Therefore, the lack of organisational social media adoption studies, where the DOI is used, shows a gap in the literature. The context of the South African banking sector will contribute to the understanding of diffusion of innovation and social media body of knowledge, thus justifies the need for this research.

1.4 Problem statement

The literature indicated that an inadequate understanding of the antecedents of social media adoption may lead to non-engagement, ineffective processes and policies, missed opportunities and ultimately rejection (Burgess & Paguio, 2016; Johnson, 2015). The capital and human resource expenditure are significant, further aggravating the company-wide implications of an ill-managed adoption approach to social media implementations (Ashurst et al., 2012; 2016; Effing & Spli, 2016). This, therefore, justifies the need for this study.

1.5 Purpose of the study

The study will explore and contribute to the understanding of the antecedents that can lead to, or prevent, the adoption of social media technologies in an organisational setting, using the DOI theory as the theoretical lens through which these conditions are examined.

The following research question and sub-questions are addressed:

What are the antecedents to the adoption of social media in organisations?

I. *How does Roger's (2010) DOI five characteristics of the persuasion stage influence the adoption of social media applications?*
II. *Are competitor and other external pressures considered when selecting social media applications? If so, why?*
III. *How are factors of the organisational goals, vision and strategy considered when adopting social media applications?*
IV. *How do the internal organisational social and cultural structures impact the adoption of social media technologies?*

This investigation attempts to contribute to the understanding of social media adoption in the South African banking context, by applying the DOI theoretical lens, using a qualitative research approach. Practically, the study intends to outline issues that may be considered by organisations faced with the challenges of social media adoption.

The next sections will provide a literature review of the phenomenon described above and this will be followed by a description of the theoretical underpinning of DOI and then the undertaken methodologies are discussed. Finally, the findings and discussion chapter of the study are outlined, followed by concluding remarks that include the implications and limitations.

2. Literature Review

2.1. Social media adoption in organisations

From the observed social media literature, little is understood about the antecedents of diffusion. Instead, many of the studies seem to outline the impact and value of social media adoption (Braojos-Gomez et al., 2015; Nawi et al., 2017), the relational aspect of customer management (Hsing Wu et al., 2013; Risius and Beck, 2015), the strategic development and implications of social media (Effing & Spli, 2016), and the operational efficiencies that can be derived from the implementation of social media technologies (Lin et al, 2015).
He et al. (2017) attempts to study the holistic understanding of social media adoption, however, focuses the study on the impact on business operations and only in the context of small businesses, thus, does not cover the antecedents leading to the adoption.

These perspectives assume adoption and purport ideas on how to assimilate social media technologies into everyday organisational use. These perspectives will be discussed in order to situate this research into the broader area of social media studies in organisations. They do, however, provide researchers with a better understanding of the applications of social media technologies in the improvement of business processes, such as communication.

2.1.1 Organisational value of social media

Examining the relationship implications of social media utilisation, Risius and Beck (2015) analysed the efficacy of different social media activities such as disseminative and conversational content and found that an increase in the relational activity, broadcasting and other engagements on social media lead to improved customer sentiments and brand awareness. Similarly, social media engagement was found to lead to greater advocacy and retention amongst customers leading to greater business value in customer data intelligence and new product development, outperforming traditional marketing and customer management methods (Khatoon, 2016; Lin et al., 2015).

Shen et al. (2013) studied the collective intentionality of the use of social media, such as instant messaging application and online forums and blogs used by a group of customers and how that may lead to the adoption at an organisational level and found that shared values and goals by persons in a group influenced the likelihood to adopt social media applications, should the group decide to adopt. An implication of the study is that it provides practitioners with a tool to identify their target market effectively through targeting potential customers who share the same goals, values and belong to certain social groups (Shen et al., 2013).
This can assist an organisation to counter competitive pressures and derive quantifiable value from the social media investment, by tailoring their social media selection to the platforms already adopted by its customers.

Adopting social media technologies can help organisations utilise financial resources more effectively. These technologies are generally free to use, and marketing and advertising content can be broadcasted at a fraction of the cost associated with traditional marketing channels such as television and print media (Tsitsi Chikandiwa, et al., 2013; Van Zyl; 2009;).

The literature shows that business value can be extracted from the adoption of social media technologies. However, there is a lack of insight into how the decision and conditions leading to the adoption of social media can be better understood. This presents a gap in the literature.

2.1.2 Capability, complexity and compatibility of social media

In the context of social media, capability refers to the proficiency with which the technology can be used for an intended business activity and therefore requires the organisational capability to drive the intended adoption (Braojos-Gomez et al., 2015). Innovation management, marketing management and performance management were found to be key capabilities in the adoption of social media technologies. This implies that organisations must be certain in having the right capabilities to adopt social media platforms that are compatible to their operational needs and have the right personnel to manage the assimilation into the organisation (Braojos-Gomez et al., 2015; Hasani et al., 2017; He et al., 2017).

Social media compatibility refers to the close alignment of social media technology to an existing business process, practice or need. The premise is that the closer the technology is to the needs of an organisation, the more likely that organisation will adopt that application in its ways of conducting business functions (Hasani et al., 2017).

The lack of complexity of social media usage has aided the adoption amongst users. An organisation can leverage this simplified approach to engagement, by using social media platforms to educate customers on new products as well as interact with customers on service-related matters (Tsitsi Chikandiwa, et al., 2013). This removal of complicated communication channels of engagement is seen to contribute to the adoption of social media (Ma, 2016).

These studies examined social media adoption in different countries, organisational size and contexts, and found concepts of compatibility, complexity and capabilities as characteristics that enable the adoption of technologies. These concepts give researchers a perspective of the conditions leading to the adoption of social media and will be explored in this study.

2.2. Social media strategy, vision and goal

Social media *strategy* and *vision* refers to the notion that an organisation must understand its purpose for social media adoption, the intended user and customer of the social media platform and the social media capabilities, investment and processes it intends to establish to support the adoption of these tools (Braojos-Gomez et al., 2015; Effing & Spli, 2016; Risius & Beck, 2015).

Clarity and diversity of a vision can help an organisation find a purpose for social media in both internal operational efficiencies and externally, in how the organisation engages with its customers and other external stakeholders (Miranda et al., 2015).
Effing and Spli (2016) propose a framework for evaluating social media strategies, where organisations are positioned from an exploring the use of social media applications,

before moving to diffusion which then leads into the maturing stage where social media is monitored and assimilated. However, the authors acknowledge that many organisations do not follow a coherent approach to strategy development and social media adoption across an organisation.

The *goals* of social media must be clearly outlined as a measurable target that an organisation must strive to achieve. These goals can be related to the marketing or the operations of an organisation. Goals are underpinned with metrics that measure a range of social media related items such as; social media traffic, the number of views or interactions and the value of the engagement (Lin et al., 2015; Li et al., 2017). The aim is to use the metrics data to profile and market to customers, advance the reputation of a brand and foster social media-based communities (Ashurst et al., 2012; Chen et al., 2017).

A marketing related goal can have metrics such as; the number of subscriptions, the number of advertisements viewed, or the number of followers. Organisations apply measures to these metrics to determine the success or failure of their marketing strategy (Effing & Spli, 2016; Li et al., 2017).
Operations related goals can take the form of a customer relations service conducted on social media, and organisations could be interested in queries resolved on social media as opposed to those resolved through traditional channels (Hsing Wu et al., 2013).

The literature suggests that the strategy building is essential to social media diffusion. There seems to be a focus on the positioning of an organisation in the diffusion spectrum or on the process undertaking needed to move from an exploratory to an operationalised utilisation of social media applications (Miranda et al., 2015; Effing & Spli, 2016). However, there is no clarity on how the strategy, organisational goals and vision influences the decision-making process of social media adoption. This represents a gap in the literature.

2.3. External and competitive pressures

The notion of external pressures refers to the impact that factors outside of the organisation may have on its business activities, such as economic, legislative or environmental. These impacts may range from the diminishing use of paper-based traditional marketing, to having less activity in brick and mortar banking structures, all due to the adoption of digital platforms to perform business activities such as marketing and customer service (Risius & Beck, 2015). There is an expectation for organisations to adopt social media as it has become an expected channel of communication from customers (Hsing Wu et al., 2013). However, with the plethora of social media platforms in the market, organisations tend to be overwhelmed with managing engagements on a multitude of social media platforms (Braojos-Gomez et al., 2015). Therefore, a good understanding of the organisational capabilities can assist in determining the path to take in addressing these external pressures.

Competitive pressures refer to the concept that an organisation's competitors are competing to offer customers a differentiated service through social media. This can be in a form of additional channels of engagement, which gives customers access to the organisation and the capability for this access to extend beyond standard working hours, as well as a marketing and advertising avenue, which is more cost-effective and the ability to accelerate campaigns to market due to digitisation and the ease of access, from a marketing perspective (Tsitsi Chikandiwa, et al., 2013; Chen et al., 2017; Li et al., 2017).

The literature suggests that there is a relationship between social media diffusion and external and competitive pressures. Therefore, when applying the DOI lens, the inclusion of this concept may yield a better understanding of social media diffusion.

2.4. Internal organisational social and cultural structures

In the organisational context, internal organisational social and cultural structures refer to the influence that the internal members, leadership and the internal environment, have on the adoption of social media technologies (Chen et al., 2017; Nawi et al., 2017). The successful adoption of technologies is underpinned by a culture that is open to innovation, where the leaders advocate for innovation and the organisational members are receptive to new technologies (Adhiarna et al., 2013; He et al., 2017).

When examining the management attributes and the organisational environment of a Local Health Departments in the United States public sector, Ma (2017) found that the organisational size, and structures such as the executive board and their willingness to consider innovations, were also determinants to the adoption of social media and other ICTs.

These social, cultural and internal organisational influences are seen to have a relationship with the adoption and diffusion of technologies, including social media (Ma, 2017). However, most of the studies in this regard are based on Asian business adoption of technologies and institutions operating in the service and marketing industry (Adhiarna et al., 2013; Nawi et al., 2017). This study will attempt to incorporate these structures when applying the DOI framework is this social media adoption research.

2.5. International studies on social media in banking

Research shows that the banking sector in Europe, Asia and America has a well-established social media presence and has used the mobile banking access as a mechanism to drive social media adoption (Hasani et al., 2017, Lacka & Chong, 2016, Li et al., 2017, Shanmugam et al., 2015, Vejačka, 2017). Social media is predominantly used to market goods and services to consumers using cost effective tools (Vejačka, 2017), and to remain engaged with consumers on a frequent basis and at a minimal cost when compared to traditional media (Hasani et al (2017). Social media has helped streamline business functions such as advertising, broadcasting and campaign management and has helped digitise banking and other types of organisations in these markets (He et al., 2017, Vejačka, 2017). However, issues such as security concerns and the lack of trust on mobile and online technologies still persist amongst consumers and is a hinderance to adoption, as seen in the New Zealand study on mobile technologies for communication in banking (Tran & Corner, 2016) and the United Kingdom study on the customer perceptions of internet banking (Shanmugam et al., 2015).
A theme emerging from these international studies is that social media has brought about tangible and beneficial change to organisations, such as reduced costs, improved communication processes and the ability to widen the marketing and

advertising footprint and is a key feature in the digitisation of businesses (Lacka & Chong, 2016; Shanmugam et al., 2015; Vejačka, 2017).

2.6. The South African banking sector and social media

As in other developing countries, the South African banking consumer has embraced mobile applications and other web-based technologies in conducting everyday transactions such as online shopping and banking (Van Zyl, 2009). Naturally, the South Africa banking sector has also recognised the adoptions of these web-based technologies, including the presence of their customers on social media platforms.

Although still in its infancy, South African banks are beginning to find ways of using social media beyond general marketing and public relational purposes and are starting to focus on activities such as data analytics, advertising, and sales leads (Tsitsi Chikandiwa, et al., 2013). In a study conducted in New Zealand, Tran and Corner (2016) reveal that whilst the adoption of social media technologies is widely common across banks, consumers still found trust in face-to-face interactions. This is echoed by the findings of Van Zyl (2009) that suggest that the perceived risk of sensitive information being misappropriated was a concern when dealing with banks.

Little research exists in the adoption of social media applications in South Africa banks, however, the findings in existing studies regarding communicating and advertising using digital platforms, others studies on data and personal information security concerns in countries such as New Zealand by Tran and Corner (2016) as well as studies on other social medial and mobile banking applications in countries such as the China and United Kingdom by Lacka and Chong (2016) and Shanmugam et al (2015), can help shed light on the South African banking context. The lack of research in this area justifies the need for this study.

2.7. Adoption theories used in social media and other ICT studies

There is a plethora of technology adoption studies that use the DOI theory as the core theoretical framework. Over time, the focusses varied vastly for example, across different organisational sectors and sizes such as small and medium enterprises, to the study of specific technologies such as the adoption of cloud computing or eLearning

technologies, and in public institutions such as universities (Lin & Chen, 2012; Oni & Papazafeiropoulou, 2014; Panopoulos & Sarri, 2013). These are just some of the wide-scale DOI studies that focus on the organisational capabilities, organisational structures and the innovativeness of technology, that enable diffusion, and in some cases, outline the barriers to the diffusion (Lin & Chen, 2012).
Scant research exists, where the DOI theory is used to investigate the adoption of social media for business use, in the South African context.

Theories such as the organisational capabilities based theory, organising vision theory, lead user theory and technology acceptance model in the literature (Hung et al., 2011; Marsan et al., 2012; Braojos-Gomez et al., 2015; Hasani et al., 2017), are found to provide context on the capabilities, complexities and the infrastructural aspects of the organisation and customer dynamic, as well as how customers must be profiled to better cater to their needs. These insights depict how organisations adopt technologies.

Socially inclined theories such as the social learning theory, social exchange theory, social influence processes and the social construction of technology theory, are used to understand the relations between the organisation and its customers on social media platforms and in understanding customer decision patterns and preferences (Hsing Wu et al., 2013; Shen et al., 2013; Risius & Beck 2015; Chen et al., 2017). The aim is mainly to provide insights into the profile of the customer an organisation is engaging with on social media.
However, the theories in the literature do not shed light on the antecedents in the decision process of the adoption of technologies. This study attempts to close this gap, using the DOI as the lens through which these conditions will be studied.

2.8. Synthesis of factors influencing ICT and social media adoption

The table below depicts a synthesis of the factors that influence adoption, based in the literature review. The themes grouped as concepts to be further explored in the theoretical framework development.

Table 1: Synthesis of factors influencing ICT and social media adoption

Reference	*Theme*	*Theme description*
Ashurst et al., 2012; Van Zyl, 2009	Benefit realisation and advantageous use	Social media and ICT adoption is intended to realise benefits such as efficiencies, revenue, cost savings and other business opportunities such as new sales streams.
Braojos-Gomez et al., 2015; He et al., 2017	Perceived usefulness, trust. Relevance and capabilities	Social media has the potential to streamline the management of marketing operations in an organisation. Social media is perceived to be more useful and effective when users have trust in the application. It can create new capabilities such as the ability to tactically intervene in a short space of time when compared to traditional marketing methods.
Hasani et al., 2017; Oni & Papazafeiropoulou, 2014	Operational purpose and compatibility	The successful diffusion of technologies is strongly linked to the compatibility of the ICT to the organisational framework, strategy, structures and managerial outlook. Social media can be used to drive efficiencies only if compatibility exists.
Burgess & Paguio, 2016; Effing & Spli, 2016; Hsing Wu et al., 2013; Li et al., 2017	Competitive and external pressures	Social media create dynamic methods of dealing with competitive pressures and can be the competitive advantage in industries where resources are scarce, such as the small business industries.
Effing and Spli, 2016; Li et al., 2017; Miranda et al., 2015	Social media strategy, vision and goal	An organisation must determine the strategic purpose of social media, the financial and human resource investment and the application selection process must be guided by the vision and goal.

2.9. Summary of the literature review

Strong themes emerge from the literature and can be linked to the DOI theory. For adoption to occur, some benefit and advantage must be observed by the organisation. This advantage can also be linked to the competitiveness of the utilisation of social media.

The social media must also have the capabilities and functions to meet business operational and strategic needs, such as customer engagement, or targeted marketing, as well as be compatible with the operational activities of the organisation for its users to apply and institutionalise. The innovativeness of social media can also help diffusion as businesses are always looking for ways to improve efficiency and be ahead of their competitors, be it cost saving, revenue generating or data intelligence collecting. Concepts such as social media strategy, vision and goal, internal organisation social and cultural structures, along with competitive and external pressures, emerge as themes additional to the DOI characteristics. The literature suggests that these are critical components that an organisation must articulate in a cohesive manner, in their decision-making process of social media adoption.

3. Theoretical Background and Research Framework

3.1 Diffusion of innovation

DOI describes an innovation – *which could be a new technology or technology new to a specific context*, that is spread among members of a social group – *which could be a group within an organisation or group of organisations*, and the diffusion is observed over time (Hasani et al., 2017; Johnson, 2015; Lin & Chen, 2012; Panopoulos & Sarri, 2013).

Time is important because the adoption of innovations can take different forms over time, there are early adopters who champion change and receive the benefits much quicker than their counterparts at the end of the diffusion spectrum, the laggards (Panopoulos & Sarri, 2013).

The spread of the diffusion takes place through communication channels such as mass media and through the interrelationships or influence that the people in the social group have on each other (Sun & Jeyaraj, 2013).

For this paper, the *persuasion* stage is the stage under which the characteristics of diffusion are explored, in this stage an organisation has acquired knowledge and persuasion and now the organisation needs to understand the factors influencing the decision to adopt and implement new technology (Lin & Chen, 2012).

3.2 A research framework for the diffusion of social media innovation

The persuasion stage of the DOI theory proposes five characteristics that are deemed to be important in the diffusion of technologies; relative advantage, compatibility, complexity, trialability, and observability (Rogers, 2010 p. 38). These characteristics are used in this study to understand the adoption of social media technology.

3.2.1 Relative advantage

Relative Advantage of innovation refers to the notion whereby the adoption of an innovation is perceived to give rise to a superior way of doing things and better than what was previously used. These advantages can be in the form of economic gains or greater efficiencies or effectiveness in executing certain business activities (Sun & Jeyaraj, 2013).

The adoption of social media is perceived to reduce marketing and communication expenditure as well as well as increase efficiencies to broadcasting a message and the management of the organisational reputation, yet some organisations are failing to realise these benefits (Tsitsi Chikandiwa, et al., 2013). It is also perceived to be more effective compared to traditional marketing and communication methods as it uses a known customer base that is affiliated with a brand through means such as 'following' or subscription, depending on the social media platform mechanisms (Ashurst et al., 2012; Miranda et al., 2015). In the decision-making process, an organisation must define the advantages it seeks to gain with the adoption of social media technologies.

This study will explore whether the relative advantage that is associated with a social media innovation may increase the likelihood of the adoption in an organisation.

3.2.2 Compatibility

Compatibility refers to the fit that the functionality and the purpose of the innovation are perceived to have with an organisations' business process and system environment. These are typically internal structures, processes, support activities and business strategic goals (Lin & Chen, 2012; Rogers, 2010 pp. 42-43). The adoption of social media is perceived to be successful if the social media functions and purpose aligns with the organisational goals (He et al., 2017).

The literature reveals that organisations do not always implement ICTs that are compatible with their operational capabilities. This notion brings forth the importance of an organisations' strategy regarding the social media application it elects to use and the purpose that selected social media application will serve in the marketing and communication strategy of the organisation, be it internal or external use (Effing and Spli, 2016).

This study will investigate whether the compatibility of a social media innovation to the processes of that organisation may or may not lead to the adoption of that social media technology.

3.2.3 Complexity

Complexity refers to the degree of difficulty an organisation would have in adopting an innovation or ICT. ICTs are inherently complex systems that integrate multiple people or organisational activities and it is important to ensure that there is ease of use in the development and implementation of innovations (Panopoulos & Sarri, 2013; Rogers, 2010 p. 43).

Social media applications are generally easy to use and have little complexity in implementing, monitoring and integrating into the processes of an organisation (Nawi et al. 2017). The functions, processes, skills and policies required to support social media need to be developed or acquired, the literature suggests that organisations tend to fall short in developing these mechanisms.
It is therefore important that the relative advantage and compatibility are well understood to outweigh the complexity as these are salient attributes (Lin & Chen, 2012).
This study will therefore explore the relationship between the complexity of the social media technologies and the likelihood for an organisation to adopt that technology.

3.2.4 Trialability

Trialability refers to the notion of trying out an innovation before fully adopting it. It is an important part of diffusion as it is linked to the complexity and compatibility of an innovation to the organisational objectives (Rogers, 2010 p. 43). It also reveals the perceived advantages with the opportunity to measure them in order to make a compelling business case for adoption (Hung et al., 2011).

Social media provides an organisation with a unique opportunity to trial an application and simply deactivate the platform if it is not suitable for business use or not compatible, or is too complex for widespread, sustained usage, however, the literature seems to suggest that this only happen in small organisations (Burgess and Paguio, 2016; Shen et al., 2013).

This study will investigate whether social media technologies that are easy to trial and can seamlessly integrate with an organisation's process are likely to be adopted by an organisation.

3.2.5 Observability

Observability refers to the notion of assessing the usability and compatibility of an innovation in action. This allows for a demonstration of the perceived benefits for an organisation to decide whether to proceed with the adoption of an innovation (Lin & Chen, 2012; Rogers, 2010 p. 43).

The literature shows that social media can easily be trialled and observed in an organisational setting, making it an easy decision, should the strategic and operational fit, perceived advantage and compatibility be desirable (Hasani et al., 2017; Oni & Papazafeiropoulou, 2014). However, the literature also indicates that there is a difficulty in showing the value of social media due to complex structural requirements such as the human resource investment, process and skills development needed to demonstrate the observability of social media innovation (Lin & Chen, 2012; Braojos-Gomez et al. 2015). This contradiction thus needs to be investigated further.
This study looks at how the observability of a social media innovation, in an organisational setting, may impact the adoption of the social media innovation.

Three additional concepts emerging from the literature will be used to guide the data and analysis in this study, ***competitive and external pressures***, ***internal organisational social and cultural structures***, as well as the ***social media strategy, vision and goals***. *Competitive and external pressures* drive organisations to find ways to innovate and remain competitive. The adoption of social media helps organisations become more efficient in their marketing and communication processes (Hsing Wu et al., 2013; Li et al., 2017; Risius & Beck, 2015). The literature review suggests that a relationship exists between social media adoption and the competitive and external pressures, thus the inclusion of this concept in the theoretical framework that will be used to examine social media adoption in this case study.

The literature review also suggests that the *social and cultural organisational structures* such as internal members, leadership and the internal environment of an organisation can have an impact on how the social media technologies (Chen et al., 2017; Nawi et al., 2017. Social media technologies may be adopted with less resistance and successfully in an organisation that has a culture of being receptive to innovations (Adhiarna et al., 2013; Nawi et al., 2017). The impact of these structures on social media adoption will be examined in this study.

Due to the many social media technologies available in the market, and the different uses an organisation may appropriate these technologies in their operations, the literature review suggests a strong relationship between the adoption of social media and the concept of having a *social media strategy, goal and vision*. This concept is also included in the framework that will be used to examine the adoption of these innovations in a South African organisational context.

Figure 1 depicts the initial DOI theoretical framework that was used to answer the research questions in this study.

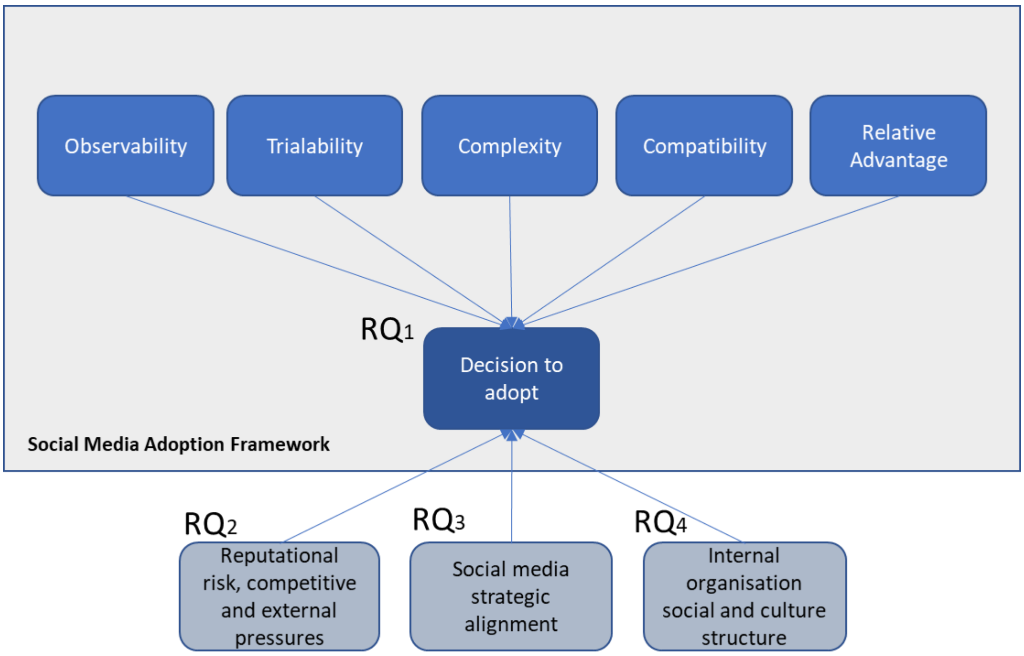

Figure 1: A theoretical framework for the adoption of social media innovation

4. Research Methodology

The following section outlines the undertaken research strategy, methods and the data analysis approach in this study.

4.1 Philosophical approach

The philosophical paradigm that this qualitative study is based upon is interpretivism. In the interpretive paradigm, the researcher does not seek to find the absolute truth but rather seeks to immerse herself in the setting of the subjects or the phenomenon being studied. Here, the aim is to explore the relationships in the phenomenon, understand the different meanings and add value to the current understanding (Walsham, 1995).

In contrast, the opposing view, the positivist paradigm is premised on that something can be verified to be true or false. This means that it can be observed or validated through scientific methods to be existing. Positivism, therefore, is a paradigm that takes a stance of objectivity in research by removing the researcher from influencing or being influenced by the subject or phenomenon being observed, to get closer to an unbiased truth (Johnson & Onwuegbuzie, 2004).

For this study and due to the quest of attempting to understand the holistic landscape of social media adoption, an interpretivist paradigm is adopted to better understand the contextual implication of the adoption in an organisational setting, as well as to help clarify the antecedents that influence organisations into adopting these technologies (Saunders, 2011, p. 154; Shanmugam et al., 2015).

4.2 Research design and strategy

4.2.1 Exploratory research design

An exploratory study is one that is generally conducted in an area of research that is not well understood or is under-researched. The purpose of such a study is to identify key concepts and relationships regarding a phenomenon or problem (Walsham, 1995; Tran & Corner, 2016). It may also be to examine what is happening in a specific setting.

An exploratory study will help understand concepts such as; strategy, vision and goal, internal organisation social and cultural structures; and external and competitive pressure, that are not well researched in the context of this study (Bernard, 2011, p. 9; Bhattacherjee, 2012, p. 6). This will help shed light onto the antecedents surrounding the diffusion of social media innovations, in the South African banking sector.
For these reasons, the exploratory objective was best suited as a design strategy, to respond to the research questions.

4.2.2 Middle range and qualitative approach

Many approaches exist in the inductive research strategy, a researcher may opt to develop theories using observation, or through conceptual analysis, or through the application of existing theories in different contexts (Bhattacherjee, 2012, p. 4). In contrast, the deductive strategy seeks to test the hypothesis of a theory with the aim of identifying the strengths of the relationships that may exist within a phenomenon (Bernard, 2011, p. 9). The examination of the DOI theoretical framework in the context of social media diffusion will enrich our understanding of adoption.

The middle range approach is used where a combination of both deductive and inductive research strategies are used (Hedström & Udehn, 2009). This research aims at testing the existing DOI framework along with the additional themes emerging from the literature, however, the researcher was open to an inductive approach that may be revealed in the data gathering process (Hedström & Udehn, 2009).

Given the research methodology, an interpretive and middle range strategy was undertaken, as these methods would aid in responding to the research questions (Bernard, 2011, p. 493; Bhattacherjee, 2012, pp. 93-95).

4.2.3 Case study design

Case studies are methodologies used to get rich data in a highly contextualised situation, hence they have strengths such as value-adding and internal validity, and weaknesses such as subjectivity and external generalisability. However, researchers argue that generalisability is not necessarily the goal of case research as the findings are rich and insightful enough to be applicable in similar settings to the one being observed and the hypotheses resulting in these inductive studies can be tested at a later stage through deductive means (Bernard, 2011, pp. 124-125; Bhattacherjee, 2012, pp. 93-94; Shanmugam et al., 2015).

Case research can take multiple forms in their observation; a researcher can observe a phenomenon over time or before or after an intervention, and the research can be conducted in a single or multiple setting (Walsham & Sahay, 1999).

The researcher is also highly entrenched in the research environment and therefore an element of subjectivity is always in question, however, prospects of the deepened understanding and the value gained from the rich data gathered in the process are highly beneficial to the research project (Golden-Biddle & Locke, 1993).

Due to these benefits, conducting qualitative case research was found to be suitable for this topic and research objectives.

4.3 Data collection methods

XYZ Bank is an organisation that recently adopted social media application such as Twitter and Facebook and has incorporated these applications as a mechanism for organisational communication and customer service. Theoretical sampling has been used to determine XYZ Bank as a case site. This was to ensure that the right size and context will adhere to the nature of the questions that the research will attempt to resolve (Bhattacherjee, 2012, pp. 95-96), as well as the timeline constraints of the course duration which does not allow for time consuming data collection techniques found in other qualitative studies such as ethnographical field studies (Bernard, 2011, p. 383; Bhattacherjee, 2012, p. 40).

Interview data collection methods allow researchers to make broad relational conclusions and outline opportunities that can be later explored to understand the phenomenon. Typical to inductive studies, interviews can assist the researcher in gaining depth in the insights using a semi-structured interview format, which is suitable when the respondents are experts in their field and can help lead the conversation into different directions (Bernard, 2011, p. 212; Burgess and Paguio, 2016).

These individuals are members of the organisation who oversee the social media function and were involved in the decision-making process of selecting the social media applications to conduct business-related activities such as marketing, customer service and communication, or, are affected by the decision. These individuals are experienced professionals and therefore, best placed to provide insight to the conditions and decision process of social media adoption, as well as the impact on other operational functions within the organisation (Ashurst et al., 2012; Lin & Chen, 2012).
The following decision-making roles were interviewed as part of this study: Social Media Manager, Digital Manager, Communications Manager and Chief Information Officer. The researcher also interviewed individuals managing divisions and departments that were impacted by social media adoption, such as Media Relations Manager, Brand and Sponsorships Manager, Customer Services Manager, and Social Media Coordinators.

In the case of XYZ Bank, nine interviews were conducted across participants who were involved in the decisions leading to adoption and rejection of social media business use as well as the processes that helped sustain the adoption of these social media applications. The interviews were between thirty-five minutes to an hour. Audio recordings devices were used to record the engagement, to allow for a free-flowing and engaged discussion on the social media adoption topic within XYZ Bank, and to allow for accurate manual transcription to take place at a later stage.

Table 2: Sampling matrix

Role	Number of interviewees	Social media Decision authority	Affected by social media
Social Media Manager	1	Yes	Yes
Digital Manager	1	Yes	Yes
Communications Manager	1	Yes	Yes
Chief Information Officer	1	No	Yes
Media Relations Manager	1	Yes	Yes
Brand and Sponsorships Manager	1	No	Yes
Customer Services Manager	1	Yes	Yes
Social Media Analyst/Coordinator (x2)	2	No	Yes

4.4 Ethical considerations

Informed consent is where the research respondent is fully aware of the research, their role, the role of the researcher and the purpose of the study as well as where the findings and data will be used. All the respondents participated voluntarily, and the researcher informed the them of their right to withdraw from the research, should they had wished to do so. (Richey, 2016).
The researcher informed the respondents of the purpose of the study and where the information would be used as well as who in management will have access to the data collected (Bhattacherjee, 2012, p. 139).

The interview process and protocol were approved by the University School of Economic and Business Sciences (SEBS) ethics committee to ensure the due ethical considerations were adhered to. For analysis, interviews were recorded a recording device, upon receiving consent from the interviewees.

Care was taken to ensure anonymity and confidentiality of the organisation and the interview participants through the use of pseudo names in the analysis and documentation of the findings. (Bernard, 2011, p. 215).

4.5 Data analysis process

A thematic analysis of the interviews responses was conducted upon the completion of each interview. Once the data was collected through voice recordings, the initial transcribing was conducted, and the themes were coded in Microsoft Excel, for each participant, using the research concepts of the DOI theoretical framework as the initial guide and overarching themes. A process of merging the thematic codes was conducted and refined as the participants' interviews were transcribed. Sub-themes such as "*Relative advantage – Engagement*" and main themes such as "*Strategic alignment*" and "*Reputational risk*", the began to group and summarise these codes. (Richey, 2016; He et al., 2017).

This iterative approach to analysis enabled a clearer view of the concepts that needed to be probed further, to provide contextual relevance to the theoretical framework

(Bhattacherjee, 2012, pp. 113-114). These emerging concepts are highlighted in the *Findings and Discussion* section.

4.6 Evaluation of methods

Interpretive studies also face the challenge of reliability and validity in the methods used to collect data, as well as the process used to analyse and interpret the findings from the collected data. It is therefore important to be aware and control for these challenges (Saunders, 2011, p. 156; Walsham & Sahay, 1999).

The evaluation criteria are adopted from Golden-Biddle and Locke (1993) in assessing the research process, to reflect on the authenticity, plausibility and criticality of this research. *Authenticity* demonstrate that a researcher "was there" and has, as best as possible, understood the construction of the member's world (Golden-Biddle & Locke, 1993). *Plausibility* is concerned with ensuring that the reader is able to make a connection with the text, from a personal or professional perspective, as well the research demonstrating a distinct contribution to the field being studied (Walsham & Sahay, 1999). Criticality asks the reader to "re-examine their assumptions and beliefs underlying their work" (Golden-Biddle & Locke, 1993).
The purpose is to ensure that the research biases and subjectivity are reflected upon, that the applications of the theory, as well as the data analysis processes, are typical to academic research, and that the research offers the reader a new perspective (Walsham & Sahay, 1999).

4.7 Research instrument

The presented semi-structured interview protocol in Appendix A was used as the tool in the process of gathering information.

5. Findings and Discussion

The objective of this research was to explore the antecedents that Influence organisations to adopt social media application for business use. A theoretical framework based on the DOI theory was used to construct the semi-structured interview questions to give a better understanding of the conditions of social media adoption.

The following sections will discuss the findings on the social media innovation, and the DOI characteristics as well as the additional themes that emerged from the literature as well as the themes emerging from the data gathering and analysis processes.

5.1 Social media Innovativeness

An emergent theme of the innovativeness of social media technologies suggest that the capabilities embedded in the social media technologies, enabled a more effective and diverse. As part of the research framework, the social media technologies themselves, contribute to the adoption due to the combined elements of the DOI, as well as the ability for the developers to respond to customer needs, through the improvement of issues such as usability, collaboration, security and performance of the platform (Hung et al., 2011).

In the case of XYZ Bank, it also became apparent that in the quest to find innovative platforms to perform business transactions, not all social media innovations would bring about the intended business value and may ultimately be discontinued.

Facebook and Twitter emerge as the most widely adopted social media applications in XYZ Bank, due to the resource investment, high level of activities and a high subscription rate to XYZ Bank on these platforms. These platforms were seen to be closely aligned with the service operations of the organisation, thus, the digital strategy of XYZ Bank focuses on entrenching these applications into the organisation's processes.

The predominant activities on social media platforms in this case study were found to be marketing, advertising and customer services. XYZ Bank also acquired an application to funnel all queries received through these social media platforms, into a single process that enabled a more efficient method of managing the interactions with its customers.

These interactions range from complaints to product related queries and even sale origination requests, and through this funnelling process, were routed internally to the applicable department.

"So, customers will always go to Facebook and Twitter because this is where the marketing material live." – Participant 2

"It's a far more effective way for us to get a message out at a far lower cost." – Participant 3

"What digital advertising allows you to be *instant*" – Participant 6

The innovative nature of applications such as Facebook and Twitter, therefore, provides XYZ Bank with an easier and more efficient tool to perform an existing business function such as advertising, making this innovation adoption decision, an easy decision to take. However, this is not always the case with all the social media applications that XYZ Bank invested in; WeChat and WhatsApp messenger application are widely used messaging platforms that were deployed to customers for banking capabilities but did not fit the business use due to the minimum offering on these platforms, the security concerns and the lack of adoption of customers using messaging sites for banking transaction.

Therefore, there are operational activities such as customer service queries, banking transactions and sales lead generation, that an organisation should practically assess for a social media platform they intent on adopting. The more the innovation fits these requirements, the more likely the organisation is likely to adopt.

"So, the WeChat wallet, the WeChat banking and the WeChat capabilities, didn't take off as well as we thought it would. I'm not so sure about WhatsApp either. I'm not so sure if WhatsApp is just another way of doing USSD banking." – Participant 3

Although not related to the banking offer, the lack customer presence can also cause the rejection of social media application in an organisation, as in the case with Google Plus, which the service provider Google, is closing down, is a platform where XYZ Bank did not have enough customer presence to warrant establishing a channel of engagement and there was no fit for purpose from a strategic use of innovation and the application was removed from use. This also attests to the flexibility that social media affords an organisation in the decision process of adoption.

"…because this is a fast-paced environment…some time ago we tried out Google Plus and realised there is no audience there. If it doesn't work, we shut it." - Participant 6

The innovativeness of social media itself was found to also enable a customer or potential customer, with the ability to connect and interact with different types of advertisements and marketing that they may have come across on social media platforms, in ways that were previously not available with traditional media such as television or billboards.

"…I see a billboard and think this is a nice billboard; how do I communicate with that billboard from a digital point?" – Participant 4

Social media may not be new, however, the DOI theory does describe innovation as new to a context (Lin & Chen, 2012). This is the case with XYZ Bank, it is also further illustrated by the organisation building omnichannel processes that help spread the adoption of social media into the different organisational department such as sales and customer services, deeper entrenching the diffusion.

"We went on to a different tool which gives us analytics, we are able to keep information on our customers, and we're even thinking of using it in the Sales process." Participant 2

The DOI also describes *time* as an important factor in the diffusion process (Panopoulos & Sarri, 2013). In this case, we see how, over time, the organisation adopts more social media applications for different uses and places a strategic focus and investment in how it would use these applications in their business operations as it matures.

"One of our big drivers is digitisation. We want to make sure that we're seen as a digital and an innovative banking organisation. There is where social media plays a big role."
Participant 9

In the case of XYZ Bank, the innovativeness of social media has indeed influenced the initial adoption decision. The diffusion into the wider organisational departments as well as the operational alignment is evidence of how effective the social media tools are for operational business use. In this case, it is also evident that the diffusion is supported by a deliberate strategic alignment consideration and a fit for purpose that had measurable benefits such as reduced cost and improved customer sentiments.
Selecting an innovation that can demonstrate an immediate return on investment, aids the adoption decision process and enables a sustained use. Where value cannot be ascertained, the organisation swiftly moved to discontinue its use and diverts investment to more beneficial projects.

Similarly, previous studies on adoption and diffusion suggest that the usefulness of the innovation in the organisational and individual context, the fit for purpose of the technology when pinned against operational needs as well as the enhancement of issues such as security and continuous improvements, yields greater benefits to the organisation and its customers, thereby encouraging sustained usage.

5.2 Relative advantage

Questions were posed to the participants, to understand their perceptions of the advantages of social media in their organisation. Themes such as marketing, communication, advertising, service management and customer engagement, emerged as strong components to the concept of relative advantage. The paper will discuss the findings related to these sub-themes below:

5.2.1 Marketing, communication and advertising

In the case of XYZ Bank, social media was found to be predominantly used for marketing, advertising and communication. XYZ Bank broadcasts messages to customers ranging from events they sponsor, promotional campaigns and general information they wanted their customer base to take note of. This was found to be performed in various forms such as; to republish or reinforce an existing communication or advertisement that may have been initiated on traditional media platforms, or content that was specific to a strategic social media marketing campaign. The cost-effectiveness of social media, when compared to traditional media, enabled XYZ Bank to perform these tasks at little or at no cost to the organisation.

"…not everyone will see the billboard on the highway, and you might not have the money to have billboards on all highways in all provinces. But if you go on social media, the number of clicks is important, the impressions are important because they tell you how many people have seen and acted on your post." – Participant 8

"It is a lot cheaper to do, from a marketing perspective, than traditional advertising. You can do a lot more on social media." – Participant 9

In this case, the return on investment on social media advertising and marketing activities were also found to be more accurately measurable when compared to traditional media. Not only from a cost perspective but rather from a viewership and the ability to draw analytics on the reactions of the viewers as well as the leads into either product or sales enquiry, although XYZ Bank admits that there is much work to be done to convert social media affinity into hard sales as articulated by Participant 3; "… *so how do we create something you really want but leverage social media to give us the insights. I don't think we're very good at that yet*." The main use of the data seems to drive advertising and engagement rather than sales. These processes may integrate as the processes evolve over time.

Another advantage noted was that due to the agility of social media platforms, messages can be re-broadcasted as much as XYZ Bank desires, at a click of a button, giving the message or advertisement, a longer viewership period compared to a traditional media advertisement such as one broadcasted on television or radio, where each broadcast comes at a cost based on the timeslot an organisation purchases from the broadcasting channel.

"…it is also a more sufficient way for targeting customers…it means the teams internally at the bank are held accountable…because we work with channels that are incredibly measurable and will give you a much clearer view in terms of your ROI than a circulation number or a viewership number from TV." – Participant 5

These gains are in line with the DOI framework, from a perspective of cost efficiencies; in the case of XYZ Bank, there is an assertion that social media performs existing tasks at a much lower cost and effort when compared to traditional media, due to the republishing function as well as the agility that enables XYZ Bank to respond to brand and advertising opportunities is a much shorter period.

Although, interestingly, XYZ Bank still budgets and performs all its traditional marketing activities as it did prior to the introduction of social media. One may argue that there is no significant reduction in spend on its traditional media and that social media is perceived to be an additional marketing channel rather than a shift from traditional media to social media. Many of its customers still subscribe to traditional media and others do not have access to social and digital media. therefore, to reach the desired coverage, XYZ Bank must market and communicate with its' customers, on all media platforms.

"XYZ Bank has a customer, that customer is a modern person or that customer is a 'mama' selling fruit on the side of the road…you wouldn't engage with the 'mama' on the side of the road on social media because she doesn't necessarily have the means…" – Participant 6

As the diffusion of social media spreads into the organisation, XYZ Bank is starting to strategise social media as one of its core pillars in its digitisation strategic agenda. Therefore, in future, one can deduce that as the spending on digital platforms increases and as its customers become more digitally savvy, through the rise in the adoption of mobile smart devices (Shanmugam et al., 2015), there will be some reduction of spend and effort on the traditional media platforms. This is evident, as shown in a study conducted New Zealand, where it is indicated that mobile and web-based banking transactions have surpassed those performed on traditional channels such as physical banks, over time (Tran & Corner, 2016). Although the New Zealand market is not identical to the South African market, the global trend of the adoption of smart mobile devices will impact the embracing of social media technologies, over time (Tsitsi Chikandiwa, et al., 2013).

5.2.2 Service

Social media was initially intended to be a marketing tool for XYZ Bank, where advertisement and product information was communicated. However, as the subscriptions became more prevalent, XYZ Bank found that customers were beginning to utilise these channels for daily operations and customer service interaction. XYZ Bank had to, therefore, manage customers queries that came from social media platforms. They also found that customers complained when their query was not attended to, no matter the time of the day. XYZ Bank restructured its service team to deal specifically with social media originated queries as well as having this service operate throughout the day.

"*...we do have capabilities that allow us to respond to a customer, link into operational processes to see if it's a customer issue raised on those platforms, to be able to respond and correct that issue.*" – participant 4

From a service perspective, the bank realised that customers are not confined to the concept of 'business operating hours' on social media platforms and that customers are transacting on online platforms at any time of the day and from anywhere in the world. The constraints of time zones do not exist in the social media sphere, therefore, XYZ Bank needed to streamline its service processes to these customer needs.
Orlikowski (1992) refers to this concept as interpretive flexibility; where an organisation is forced to rethink how it structures its operations and align them in accordance with the flexibilities afforded to it by the technology it uses.

Social media and other digital avenues also enabled some of their customers to no longer make use of the phone call to contact the bank or having to go to the branch to be serviced. These time-consuming and costly exercises were replaced by tweets and direct messages to the bank on social media platforms.

"Social media helps the call centre a lot as far as volumes are concerned and to an extent, helps alleviate branch pressure. "– Participant 5

This phenomenon poses a different challenge to XYZ Bank, one of reputational exposure and damage that may occur as a result of not responding on time to a customer query or responding in a manner that is may not be appreciated by the customer or even through a fraudulent transaction that was initiated on a social media platform by a customer that may have been inadequately authenticated. This emergent theme is discussed later in the paper.

"Brands, for the sake of reputation, make sure that you don't leave queries unanswered on social media." – Participant 5

The issue of verifying the customer was also found to be problematic as banking regulations put the onus of the bank to verify and protect the customer when interacting with them (Tsitsi Chikandiwa, et al., 2013), no matter the channel. Social media users often have pseudo names and multiple anonymous accounts and were therefore difficult to verify. XYZ Bank had to establish rigorous verification processes when to deal with customers on social media platforms.

"*Identity is a massive issue for us. Identifying the person doing the transaction. That whole risk univalve becomes a problem for us."*- Participant 3

XYZ Bank found that when their agents interact with disgruntled customers online, these interactions are at times open to the public and depending on how the Bank's agent responds, the public may perceive the bank to be uncaring or negative towards a customer. Training the customer agents on these engagement protocols helps avert public confrontational encounters or responses that may be damaging to the brand of XYZ Bank.

"…people needed to be trained in terms of social media. To say, this is how we deal with social media, this is the brand tone, you cannot just speak to someone in any manner…, you speak on behalf of the bank." – Participant 2

These are some of the issues that may deter an organisation from adopting social media as the price can be damaging to the organisation, reputationally and financially. Although social media was found to be effective for the bank and its customers, major operational changes and strong risk controls needed to be in place to enable the benefit of social media.
Reduced queues in branches and fewer customer calls to the call centres are replaced with social media messages, which may be more cost effective, it does, however, bring about different challenges. These benefits were, however, found to outweigh the risks in the case of XYZ Bank and the adoption of social media for these service purposes was realised.

As observed in XYZ Bank, for an effective and advantageous social media customer offer, financial resources and support needs to be invested into the social media efforts of an organisation, that is integrated to the internal operational processes such as *customer relations management*. This is likely to lead to a sustainable adoption of the technology.

In a study of mobile banking adoption in the United Kingdom, a similar finding regarding the data sensitivity as one of the deterrents to adoption was made. This indicates that, as social media becomes an online banking channel for banking transaction or engagement, these data risks become more prevalent and organisations need to ensure that they are effectively managed.

5.2.3 Customer engagement

The ability to have meaningful engagements with customers in their online environmental setting is a benefit that social media affords organisations. XYZ Bank found the engagement component of social media to be aligned to their 'customer centricity' agenda and the bank devised plans and marketing campaigns to utilise these online discussions to gain insights on customer sentiments, on products, services and the branding of the organisation. XYZ Bank actively monitors the sentiments data and sought to intervene where a negative comment or engagement is identified, with the aim to turn the customer perception to a position one, through service excellence.

Contacting a call centre or having to go to a branch for a service or product query have a time and cost implication that can be costly to the customer, both of which can be unpleasant experiences. On social media platforms, the customer has the convenience of picking up their mobile or logging onto the computer to action and complete these transactions (Tran & Corner, 2016). Therefore, although the customer having to raise a service query may not be an ideal situation for XYZ Bank or its customer, the fact that a cost-effective and easy to access tool is enabled, provides a customer with a sense of comfort (Lin et al., 2015).

"Those platforms give us the opportunity to engage with the broader audience than going to a branch and contacting the call centre, which is not ideal for really making an emotional connection with our customers...The customer is in a different mindset when on social media." – Participant 9

XYZ Bank was found to use the insights gathered from the engagements in its service and product improvement processes, and in the refining of their targeted campaigns. A significant impact was seen in the brand affinity was realised due to the customer's perception of the image of the bank being enhanced through the engagements along with the services.

"What we manage are the number of conversations happening. We have capabilities that look at the tone of the conversation, so, when we talk about sentiment is not just that there's a negative comment made but it's also how that comment is made. This gives us a scale of how badly we're impacting the customer. It also gives us a view of focus." – Participant 3

The engagement between customers regarding the brand also contributes to the overall sentiments of the bank and creates advocacy without XYZ Bank actively driving the conversation. The spreading of the message among customers, through the sharing functions on social media platforms, created and strengthen the brand.

"The benefits are, if you actually look at social media, if someone comes with negative sentiment and you're able to change that sentiment to positive sentiment, you are able to have other customers see that, and that's where it boils down to, for us as an organisation." – Participant 2

However, not all social media engagements can have a positive outcome, there are disadvantages such as publicly exposed negative sentiments that can damage the image of an organisation when the engagements are ill-managed. XYZ Bank experienced these negative outcomes and had no policies or procedure to deal with the repercussions of negative social media sentiments or publicity.

"… when you speak to the customer over the phone, it's just you and the customer. The issue is when it comes to a public platform." – Participant 2

The advantages of social media-based engagement help an organisation establish a social media presence through bi-directional conversations with its customers. The ease of use that comes with social media engagement platforms and the immediately noticeable benefit further spreads the diffusion of social media technologies and aids the organisation-wide adoption. Prior to the adoption of social media technologies, these conversations would not have been as seamless or easily accessible.

Based on past innovation adoption studies, and related to the concept of relative advantage, the advantages demonstrated must outweigh the risks or cost associated with the benefit derived from the technology for diffusion to take place (Oni & Papazafeiropoulou, 2014). In this case, although there are reservations regarding with personal information and the risk of reputational damage or fraudulent activities, the benefits of social media adoption for the purposes of advertising, marketing, insights gathering, and engagement outweigh these threats.

5.3 Compatibility

In this context, the researcher was interested in understanding the process an organisation undertakes when ensuring that a selected social media application does indeed adhere to the process and activities of the organisations. The findings suggest that XYZ Bank does indeed take into consideration the alignment of the capabilities of the social media application function to the operational process, such as in the case with Twitter and Facebook.

The decision to incorporate these applications into the marketing and customer support services was based on the strengths these applications possess regarding the brand awareness, in the case of Facebook, where the ability to share content and engage were strong features that were useful from a marketing perspective.
In the case of Twitter, the microblogging, tagging and direct messaging features allowed customers and organisations to engage directly with one another, which aligns to support services such as a contact centre.

"If you look at the customer behaviour right now…your social media must be efficient and educational. They must be accessible all the time because people are not willing to stand in queues like the used to do, years ago." – Participant 8

XYZ Bank invested resources in building internal teams as well as technologies that would strengthen this compatibility and to offer its customers a seamless omnichannel experience when dealing with queries or publishing marketing content.

"*…we now have is the Marketing team working very closely with one of the Operations team, our Escalated Complains Teams. We have tied all the technical processes, business processes and social processes behind that.*" – Participant 3

However, the findings also indicate that this intent has not yet been fully realised as there are multiple online channels a customer uses when communicating with the bank, including social media, but there is a disconnect with the branch level service management process, as articulated by Participant 5. This frustrates customers as the branch experienced may not be as fluid and responsive as the online process, due to the branch process not being well integrated with the customer relations management functions.

"…a call service team that is dealing with this information…they would have a history of the person who's communicating with them through the CRM tool they use. As soon as that gets passed over to the call centre or to the branch…there is a loss of information and the consumer has to start again." – Participant 5

Although this issue does not affect the adoption from a support service and marketing perspective, it does highlight inconsistencies from a customer centricity and experience perspective. These kinds of issues are dealt with as the diffusion reaches outlying departments such as the branches that seem to far-removed from the service and marketing-led social media adoption process.

Another interesting observation was that there was a change management intervention that was underway to assist the marketing team on aligning their traditional and digital marketing strategies and processes. Traditional marketers were not familiar with social media marketing and it was therefore not seen to be an integral part of the strategy. There seemed to be silo set of activities and XYZ Bank was not realising the full benefit of social media, from a marketing perspective.

"…more than anything it has created silos. Because people will say 'I'm a traditional marketer, I don't know what you're doing'. And we will say 'we are digital, we don't know what traditional marketing is'. So, integration is still a big problem." – Participant 1

However, this was not an issue on the customer service operations side, as the social media service team was steadily growing as platforms were adopted and the number of queries and escalations they deal with increased. The office hours were also made to be around the clock in order to service customers transacting outside of traditional branch-level core banking hours.

"What we actually found was that customers are moving more to social (media), simply because it's quicker and it's cheaper." – Participant 2

In the DOI framework, the compatibility of technology to an organisational intent, be it process, personnel or strategy related, is essential in persuading the decision to adopt and in the case of XYZ Bank, this assertion was found to be true. Although there is a high level of degree of compatibility when assessing social media technology features with XYZ Bank's marketing and customer relations management processes, there does seem to be a misalignment when it comes to an integrated strategic positioning and in the people aspect.

Although it is acute and therefore not enough to cause a rejection of social media, there does, however, seem to be parallel marketing strategies being implemented, one being traditional and the other being digital. The change management intervention was remedying the situation by attempting to align and integrate the two.

XYZ Bank chose to have a presence on widely used social media applications where its customers potentially operate. This escalated the diffusion of social media from a marketing tool to a customer relations management component, which is highly operational by nature, with business processes that integrate to the wider organisational functions such as query escalations, and sales. This is another consideration that organisations need to make when deciding to adopt social technologies; there is a level of commitment that is not easy to disintegrate once it is entrenched in the bank's way of working.

Studies by Adhiarna et al. (2013) and Hsing Wu et al. (2013) made similar findings on the concept of compatibility and its contribution to the diffusion of technology into an organisation where existing processes are replaced with technologically advanced mechanisms.

5.4 Complexity

As a concept and from a utilisation perspective, social media was found to be relatively easy to implement, use, measure and draw analysis. A widely used application such as Facebook and Twitter have built-in analytical mechanisms and can be overlaid with reporting and service tools that help XYZ Bank refine their use, alert notification management and reporting of social media marketing and service incidents and general engagements.

"We went on to a different tool which gives us analytics, we are able to keep information on our customers, and we're even thinking of using it in Sales…" – Participant 2

In their decision to adopt social media XYZ Bank was faced with the operational challenge of the accessibility of their service to their customers. Due to the nature of online platforms being available at all hours of the day, there was an expectation that organisations that are on social media platforms, will be able to engage at any time of the day.

Another complexity was that internally, the bank's functions and systems do not operate at all hours of the day. Therefore, teams needed to be structured differently to be able to manage the demand from their customers. At XYZ Bank, this happened in the form of having service agents trained on social media content as well as being available throughout the day.

"In this day and age, you would be expecting customers to be wide awake and transaction at night." – Participant 2

"When you have a new platform, you need a new team or unbundle resources to try and get them to be done by other people. So, it is a lot of work on my side." – Participant 1

From a marketing perspective, empowering the social media marketing teams to be more autonomous in their decisions to tactically respond to a social media campaign engagement or even respond to a competitor campaign, removed existing complexities. Social media enabled XYZ Bank to execute this response in a short space of time, a process that would take much longer in a traditional media setting, this is due to the immediacy demands of operating on social media platforms.

"You've got to give the people managing the platforms a certain amount of free range to do what they feel is right at that point in time or situation." – Participant 6

In this case, the complexities of adopting social media application are centred on ensuring the management processes and resources comply with the service expectations of the bank's consumers. The social media technologies are enablers to driving efficiencies that will provide a benefit to the bank's consumers and create a competitive advantage for the bank.

Introducing policies and mandatory training across the organisation, because of social media adoption added complexity to the way business was conducted, be it service, or marketing related. Having to engage on a virtually open platform and in an unscripted fashion raises additional complexity to the customer and brand management functions.

"So, in terms of operational changes, these people needed to be trained in terms of social media. To say, this is how we deal with social media, this is the brand tone…" – Participant 2

The process the bank undergoes when deciding to adopt these social media applications ensures a successful launch with little disruption to its operations and has a low risk from a customer service perspective. This approach was also found to contribute to the diffusion of technology into the Bank's structures.

Similar challenges of lack of skills and training, absent policies and procedures are noted in broadband diffusion studies by Oni and Papazafeiropoulou (2014). These complexities can cause a hindrance to the adoption processes of technologies. XYZ Bank was too, affected by similar challenges. However, XYZ Bank made provisions for these challenges and that enabled a faster rate of adoption, through training and awareness, as well as procedure development, encouraging the companywide diffusion.

5.5 Trialability

The ability to trial social media technology was found to be relatively effortless for marketing and advertising purposes, this is due to the nature of the social media platforms that are available in the market and the type of digital marketing content that already exists and can be adjusted to fit into the social media space, be it audio or visual content. The challenge faced by XYZ Bank was the ability to engage with the consumer of the content on the platform. The existing team were used to manage the trial and once enough data was gathered, and the benefits could be measured and presented to the senior management team, a decision to adopt or reject was taken.

"The manager from a gallery says they want us to test Spotify, we explain to them that this is what we need to take into consideration…and they say yes, we'll support you." – Participant 1

Over time, XYZ Bank developed a thorough and rigorous process of trialling social media tools due to the investment required when implementing a new platform. The management team allows for platforms to be tested but required a strategic framework and business plans to be presented to the management team for approval.

"It's not as difficult as it sounds, to test. What's difficult is trying to get the budget. The process is that we work on a strategy and present it. We first send it to the steering committee and if we get approval, then we can go to the executive committee." – Participant 1

From a customer support perspective, some of the considerations are the risk of exposure and the negative brand impact. The management of a social media platform requires the teams to be trained and geared for launching a new tool. The platform would also need to be incorporated into the policy and listening tools so any negative sentiments and direct inquiries about products can be managed.

"It's something that needs to be sold. If we see a gap in the social media space, for instance, the problem is, because we're a bank, everything goes through a lot of stages, a lot of processes. You can come up with a decision now and it only gets implemented two years from now." – Participant 2

The need to move from paper-based traditional marketing tools and the reduction in face-to-face communication were found to be some of the key drivers of trialling social media applications, the emergence of new social media applications also put pressure on XYZ Bank to have some flexibility when it comes to the decision to test new applications, or risk lagging its competitors. Therefore, although there is rigour in the bank's approach when it comes to trialling new tools, it does allow for test pilots to be undertaken and once the results are positive, the strategic framework will incorporate the new application and the processes and personnel capabilities will be developed to manage the new social media.

"From a marketing perspective, we do that. If an application comes up, you have to trial. You have to stay on trend and relevant to your customers. So, we do test it. We always have a bit of appetite to test applications." – Participant 9

Trialling a social media application can bring about challenges to an organisation when ill-planned. These potential challenges were found to be part of the reasons why it may take longer to introduce new technologies into XYZ Bank, specifically when they are customer-facing and require processes, policies, people management and general oversight.

In a study of E-Mentoring technology adoption in a Taiwanese university by (Panopoulos and Sarri (2013), the trialability concept was rejected due to the long period of time required in implementing and evaluating the success or failure results of the technology. The author found trialability to be irrelevant as a persuasion on the decision to adopt. Similar assertions can be made in the case of XYZ Bank, although the application and environmental factors are not alike, the timeframe of implementation along with the complexities involved did not allow for an effective trial without affecting the organisations brand externally, and the operating procedures internally. Other factors, such as the features of the innovation and the environment the organisation operates in, were used as justification to proceed with the investment before any value is seen internally.

5.6 Observability

The significantly lower costs of advertising and marketing on social media, along with the ability to measure the impact of the social media efforts were also found to contribute to the adoption of social media in XYZ Bank. The cost and time efficiencies of engaging with XYZ Bank on social media rather than through a call centre or branch agent was found to have a positive financial impact when observed from a consumer perspective. XYZ Bank had embraced the fact that a growing number of customers were opting to communicate with the bank through digital platforms, social media being more prevalent due to the accessibility of these applications.

"If you are on a call with the call centre and on the line with an agent, it could cost you about a hundred bucks, whereas sending a tweet or sending a message on facebook costs you next to nothing." – Participant 2

Social media enabled XYZ Bank to communicate directly to its customers on marketing material or service-related issues, which is used to reinforce the brand affinity through service and being perceived as being available for their customers at any time of the day, in line with their customer-centricity strategy.

"…being a connected brand and a connected consumer…is essentially the vision. That is a big part of the number of reasons we've chosen to be on social media." – Participant 5

Being able to generate sales leads was another factor that was found to contribute to the adoption, customers were found to inquire about products and services, which lead to them procuring the bank's services, these customer journeys were measurable and could show a more accurate return on investment when compared to traditional marketing campaigns.

"…for example, a billboard…does not mean everyone saw your advert... social media allows you to get the exact number and the accurate statistics for whatever content…which is more valuable." – Participant 6

The observability of social media benefit for XYZ Bank was found to be self-evident, measurable and a contributor to the adoption.

However, due to the risk-avert nature of the bank and cautious approach to the implementation, the benefits are only realised much later.

Supporting the literature, an appreciation of the complexity of the environment XYZ Bank operates in, requires the internal processes, financial resources and support structures to be defined and in place before a social media tool can be implemented for business use, and for the benefits to be observable.

5.7 Organisational Structures, culture, leadership and change

The literature revealed the organisational culture, organisational social structures and the organisation leadership as structures that influenced the adoption of social media technologies. The findings revealed that the management of organisational change also plays a role in how an organisation adopts these platforms. The paper discusses these findings below:

5.7.1 Organisational structure

Structurally, XYZ Bank separated its traditional and digital marketing team, who have different targets, plans and processes used to market products and services. The perception created was that these were separate marketing teams, with separate strategies, although they were accountable to the same marketing executive. The disparities caused by the disintegration was found to create silos in the marketing division, and the two streams did not collaborate effectively.

"…traditional marketing will say, 'guys you must speak to us' and we [Digital team] will say 'no, you speak to us because we don't know what you're doing'…there is no collaboration." – Participant 1

XYZ Bank did, however, recognise the impact caused by these disparities, XYZ Bank initiated action plans to improve the collaborative and synergies between the two teams as stated by Participant 1: *"we have a Change Manager who teaches us how to work in collaboration."* It is imperative for the organisation to understand that when adoption digital social platforms for business, the organisation needs to change and integrate items such as social media platforms into its digital transformation strategy.

Internal processes such as marketing campaign management were found to be different from those undertaken in traditional media. In the case of social media, XYZ Bank found that these processes become more accelerated and required a more rapid approach when executing and responding, at a far shorter timeframe when compared to traditional marketing.

"We've had to become more adaptable, a lot quicker in terms of turnaround time, because you have to be agile when it comes to social media." – Participant 9

Social media adoption requires an integrated marketing offering that considers the nuances in the marketing processes, such as campaign management and advertising lead times, along with the level of engagement required, to be successfully adopted. Marketing team must ensure the strategies are aligned and integrated.

Interestingly, the service business units in XYZ Bank recognised the need for organisational structural change and the integration into other business units, to provide its clients with a holistic service offering, although there are still divisions that have not yet integrated to the social media service structure, this does indicate that diffusion is taking.

"That is where the whole idea behind having a service team on the social media platform was born. We started off with a team of about two people and it has grown significantly." – Participant 2

"…we've connected the different structural components to the social media team so they able to respond to customers effectively." – Participant 3

The footprint of XYZ Bank on social media platforms has increased significantly as more and more customers adopt the use of social media as the preferred engagement channel. Therefore, although XYZ Bank has capacitated the team to manage the social media offering and service, it was found to be reluctant when having to invest more resources, even though the ratio of customer interactions has increased significantly.

"…for us as a social media team, it has become a staffing issue because you'll find that calls have reduced on call centres, numbers have increased dramatically on social media. We find that selling this to top management becomes very difficult." – Participant 2

Organisations that aspire to have an integrated social media offering for their customers must ensure the teams are fully capacitated to manage the demand of social media, especially when the organisational strategy is to become a digitally transformed organisation (Vejačka, 2017). However, In the case of Bank XYZ, having separate marketing teams does not create an environment that is conducive to diffusion of social media innovation, instead it creates a situation where parallel social media teams are operating towards the same marketing strategy

In this context, the journey of migrating to digital processes is hindered by the varied audience that the bank wants to market to, which consumes both traditional and digital marketing, hence the investment and retainment of traditional marketing. A similar study by Shanmugam et al., 2015) found similar barriers to mobile and online technologies for people living in areas without access to online facilities. This divided market forces XYZ Bank to have a dual approach to marketing and service, as many of its customers would be excluded if XYZ Bank fully embrace a digital marketing and service business model.

5.7.2 Organisational culture

The disintegrated nature of the social media team structures in XYZ Bank wider group incubated a competitive culture that was deeply entrenched within the different business units. This was found to be evident in the multiple social media teams that support different structures of the organisation and seemingly in competition with one another for resources.

"Bearing in mind that we have three South African teams; one that does Centre Management and ours, that does everything else, and another that does sponsorships…we have these three teams fighting to (almost) outdo each other." – Participant 1

Although XYZ Bank initiated a process that would consolidate the social media teams and improve collaboration, it does take time for the organisation to change their ways of working, especially a large, multi-faceted and complex organisation (Ma, 2017).
These efforts are an indication of an organisation wanting to evolve and explore new ways of working in the digital era but keep its cultural identity of professionalism when engaging with its customers on social media platforms. XYZ Bank seem to embrace the changes that social media brought about, however, did seem to be concerned that its reputation of professionalism may be diminished due to the casual and informal manner people generally tend to communicate on social media platforms.

"We're always trying to evolve, we're always trying to stay relevant to the customer. Digitisation and customer centricity are a big driver for us." – Participant 9

"…we need to remain professional when we respond. As much as we can come to a customer's level when engaging, we still need to uphold a certain standard of our values…" – Participant 2

These may not be factors that influence whether XYZ Bank's decision to adopt these platforms, however, they do illustrate that the intent is to maintain uniformity in the customer service experience, irrespective of the engagement channel a customer uses to contact the bank.

The researcher also found new cultural nuances emerge due to the social media adoption in XYZ Bank, aspects such as brand awareness and brand protection on social media by their staff. This advocacy was encouraged by the bank as it wanted its staff to notify the social media teams and management when an issue is raised indirectly on social media platforms, or when XYZ Bank is mentioned in a negative light. This strategy was intended to accelerate social media adoption. Research by Ma (2016) on social media adoption in the public health sector found similar results where employees were encouraged to perform an advocacy role in driving the use of social media in its customers. These actions were also found to improve communication and strengthen the relationship with third party organisation it engaged with.

"*…there's almost a cultural that is starting to be created; in that, we all look out, we all follow the same groups, we all follow the organisation because complaints are not generally, always directed at the organisation, specifically on platforms like Facebook.*" – Participant 3

"That is why it is important to share our strategy, so employees are aware of it and the change that will come. Culturally, there is a drive for social media adoption." – Participant 9

The impact of the culture of XYZ Bank on how it adopts technological innovations was found to not have a significant influence on whether a social media platform was adopted, but rather on the rate of the adoption, and how the bank uses these technologies. The process seems to take a much longer time due to the hierarchical structures of the organisation as well as the multi-division and highly complex siloed structures within it.

The findings suggest that a culture that is conducive to change as well as the adoption of technologies must be a culture that thrives on collaborative efforts and transparency, for those technology adoption decisions to be made and the diffusion to take effect.

5.7.3 Organisational leadership

The leadership of XYZ Bank was found to be actively involved in the decision to adopt social media applications and that they too engage on social media with the bank and its customers. Their involvement was found to also aid the diffusion of these technologies.

"*Most times, it's a decision that they [execs] make for you, they would say 'this is innovative enough to do it…*'" – Participant 1

Incorporating social media into the reporting and business measurement was also found to create more focus and contribute to the awareness and firmwide adoption.

"The leadership is very big on that. If you see our monthly reports today, they look at social media because it plays a role in marketing." – Participant 8

The findings indicate that the senior leadership involvement encourages management and their subordinates to be actively involved in all aspects of the operations of the bank including their participation of on social media platforms. Participant 7 note that the senior management conduct also provides a sense of guide to the employees on how to conduct themselves on social media platforms, and not to harm the brand.

"…we are also aware of how we conduct ourselves internally and that is how we need to portray ourselves on social media because it has got repercussions in terms of the business reputation." – Participant 7

Participant 6 affirms that the social media teams are given the autonomy by the leadership of XYZ Bank to make decisions regarding the social media platforms the organisation should adopt. Although there is a seemingly slow pace when it comes to the executive decision, there seems to be a sense of autonomy that allows the social media teams to prepare the necessary case for the adoption of a certain social media platform.

"I deal with the social media team, they're the ones making the decision of whether we should be on Facebook or on Twitter." – Participant 6

However, Participant 4 asserts that although this autonomy is afforded the team, there tend to be a lack of ownership and assertiveness from the leadership in making these investment decisions, thereby delaying the process if adoption.

"…that is why things are delaying because they are scared to risks and may think that [social media] might cause the downfall of the business." – Participant 4

An executive management team that support and engage on social media platforms of an organisation can help accelerate the adoption process of the social media platforms, through their influence. Equipping the social media management team with the autonomy to make decisions on adoption affects the acceleration of the adoption. Nawi et al. (2017) suggest characteristics such as youthfulness of the management as one of the key drivers to adoption, this was not found to be the case in XYZ Bank. Rather, the participants raise frustration with the slowness of the leadership to make decisions, and although some attribute this to the elderly characteristics, the findings suggest that age is not a determining factor in the decision-making process, but rather, issues such change management approach and the complex organisational structures.

5.7.4 Organisational change

The findings suggest that organisational change and the rate an organisation can absorb change plays an influential role in the success or failure in the adoption of technology. Findings indicate that the organisational change challenge is multi-faceted.

From a structural perspective, change management efforts are being made to improve collaborations between the marketing teams that should not have had separate strategies. Instead of transforming existing structures, XYZ Bank seems to have added a different stream of marketing. This caused issues with the teams not engaging and having little interest or insights into the working of one another. Managing the integration of the two marketing streams is proving to be a challenge, this may be due to the disinterest and general fear that technology will transform the way the marketing is conducted, and traditional marketing roles may seize to exist.

"Every stumbling block brings another different resource. [Someone we didn't know], and they say, this person helps you collaborate..." – Participant 1

The size of the XYZ Bank and its multi-layered hierarchical structure was found to attribute to the slow-paced rate of adoption as the approval processes must pass several gates before an executive decision was made. As a consequence of being a large organisation, the bureaucracy and the multiple processes involved in making a case for a social media adoption as well as the operational and service structures that were required to support the launching of the platform were found to be influencing factors.

"Unfortunately, that is the reality of working for an organisation as big as XYZ Bank. You will find that it takes time for things to get implemented because there are many steps to follow before it gets implemented." – Participant 2

An interesting observation with regards to the organisational change is that there was a perception of the bank being and having a significant amount of 'old people' making or influencing decisions that are related to the adoption of modern technologies. An assertion that the older management teams were reluctant to embrace the modernisation that social media brings and preferred the older ways of working as these methods were familiar and have served them well in the era that preceded digitisation.

"The challenge that I'm seeing, when it comes to advertising, you can change instantly but when it comes to the staff here, you have people that have been working here for thirty years. Some of them are not digitally savvy." – Participant 8

However, the findings also suggest that there is a shift in the position of XYZ Bank when it comes to the adoption of technologies, participants note that the decentralisation of strategy execution gave the social media teams more autonomy and as a result, there are more interventions being undertaken to fast-track the diffusion within the organisation. This is evident by the product developing teams starting to refer to the insights drawn from social media engagements. The teams are starting to use the growth in the subscription numbers to motivate for more resources, and policy and training initiatives were being rolled-out to onboard the teams that were lagging.

"So, it is transforming the old way of doing things into new ways of doing things." – Participant 4

"They went from a complete disregard and overlooking social media…to now saying; we want to spend less money on traditional media and invest it on social media in a smart way." – Participant 5

"It's the world of digitisation. More so to the senior bankers, the adoption is a bit of a challenge, we also try to understand and take it as a slow journey." – Participant 7

It is common practice to ensure that policies, procedures and the processes are in place, before activating a new media platform, however, the rate of change needs to take into consideration the benefits an organisation does not realise for every delay caused by the fear and reluctance to change. Organisations that are on a digital transformation journey need to factor in the ability of the organisation to absorb change, and reskill, communicate and assure its members to be ready for the change.

These findings suggest that an organisation that is able to absorb and adapt to change is more likely to adopt the use of social media applications for business.

5.8 Competitive, external and reputational pressures

5.8.1 Competitor influence

XYZ Bank operates in a highly competitive banking environment where social media is dominated by a competing bank. Therefore, it becomes a natural order of business to inquire about what the competing banks are doing on social media and assess whether those initiatives will work for XYZ Bank.

Participant 1 affirms that when defining the strategy, they tend to review what the competitors are doing and when a new platform is adopted, they will assess if it would need to be investigated for adoption. At XYZ Bank, this was at times motivated by senior executives who would have insight into the strategies of competing banks along with the desire to be on par with the leading competitor.

"…sometimes it's usually an executive that saw what Bank Z is doing and asks, "why are you not doing this and how are you going to do it better, differently?" – Participant 1

Although the strategy development does indicate potential platforms to investigate, findings show that the fact that another bank is successful at using it can be enough of a case for XYZ Bank to pursue, as the offering and structures of the main competing banks are similar, therefore a differentiator must be neutralised. XYZ Bank does, however, seem to try to keep to its values regarding how they implement these technologies and how they conduct themselves on them and ensure excellent customer service and brand integrity.

"If any of the other banks are on a platform and we're not, we will jump on it. We're all fighting for the same customers. It is also a very competitive area; social media is where the emotional connection with customers is built. Competitiveness is huge on social media." – Participant 9

"At the end of the day, it might be innovative, and our competitors can be too, but we always try and stay true to our value and what we stand for, as much as we want to be proactive and service our customers." – Participant 7

A danger of operating in a competitor-led environment is that the competitor tends to become the overriding strategy, especially in an environment where their strategy is to become more innovative. That competitor will tend to adopt all new platforms and the copying organisation run the risk of being the *follower*. However, research in social media adoption in small businesses indicate that this may not always yield negative outcomes as businesses operating in the same sector may face similar challenges and opportunities, thus their use of social media may not be too disparate.

The findings suggest that XYZ Bank is indeed starting to look more internally as the social media platforms being used are maturing and beginning to bear insights that XYZ Bank is using to improve its products and services.

"Previously we only had tools to engage, no we are able to prioritise customers, we are able to build profiles on customers…my personal view is that we should stop looking left or right because each organisation is good at doing their own thing." – Participant 3

Perhaps the reactionary nature of adoption was prevalent in the infancy of social media use, with XYZ Bank's internal structures now affirmed, the process of reacting is no longer one that is available due to the rigour required in getting a new social media platform approved for implementation. This signifies a step towards the third stage of the *innovation-decision process* articulated by Rogers (2010 p. 41) as "the organisation passing the first knowledge stage regarding the innovation and moving towards forming an opinion or attitude towards it, which may lead to adoption or the rejection of that innovation".

5.8.2 External pressures

Themes related to external pressures were environmental, regulatory and digital, with regulatory emerging as the strongest.

From an environmental perspective, Participant 9 suggests that social media provides XYZ Bank with an opportunity to reduce printed marketing materials and to use the environmentally friendly social media which also give the potential customer an opportunity to be directed to the sales process, digitally. With the increase of social media usage XYZ Bank was found to be spending more each year on social media marketing. Although small, the environmental impact that can be achieved through digitisation has the potential to increase. In their study of radio-frequency identification technology adoption, Adhiarna et al. (2013) found that technology can help alleviate carbon-related environmental issues. The similar potential was observed in the case XYZ Bank, although this was not one of the main reasons for implementing social media technologies.

"…we all want to be green. Instead of printing millions of flyers and putting them to branches it is much easier to share information that people are interested in, on social media." – Participant 9

The digitalisation phenomenon in business has a wider impact that involves the marketing agencies sector, as XYZ Bank sustain its social media offering, they are starting to look for agencies that can help define and service their digital platforms. Marketing agencies that have specialised digital marketing solutions are emerging as a necessity and a differentiator in the market. In line with research of Risius and Beck (2015), marketers across sectors are indeed beginning to develop solutions that address the growing digitisation demands of organisations. This is no different in the case of XYZ Bank and the Banking sector they operate.

"*…there is a massive move from the traditional media. Advertising agencies were just shooting for TV or recording for Radio… with the digital revolution, came the requirement for an agency that knows how to play in that space*" – Participant 6

Another digitisation related finding suggested that more people were opting to engage online and on social platforms when engaging with XYZ Bank and the need to reduce the number of physical branches was something being explored. This further supports the notion that digitisation is becoming more prevalent and the younger generation is in the forefront of this paradigm shift and banks should form strategies that will ensure the needs of these customers are catered for, in full. However, there are many customers who only access the bank through traditional means, such as those in underdeveloped areas and those without access to mobile and online or social media technologies. These customers would need to be considered in the strategic direction that XYZ Bank develops.

"The young generation no longer wants to go to a branch, they just want to transact on their app. We are responding quite well to those demands." – Participant 7

From a regulatory perspective, the findings suggest that XYZ Bank had concerns about performing the kind of transaction that may compromise customer data, on social media platforms as the security of the data is not always in the bank's control. The security on social media platforms are managed by the platform service providers and has been breached in the past. Anonymity is also prevalent on social media and thus makes it difficult to verify the customer's details with certainty.

"So, when you have the physical card in your hand, it's a lot easier to control. When it becomes a virtual kind of thing, it's a lot more difficult to control." – Participant 3

The need to protect the customer's assets becomes a risk and the South African regulations put the onus onto the bank to verify and ensure they are dealing with the right person and are not facilitating fraudulent transactions. Although these are general issues banks grapple with on a daily basis, the existing controls do not always prevent fraud and the adoption of social media simply opens another channel for the criminal to exploit.

Mechanisms to authenticate the customer details exist as standard practice, where the bank service agent suspects any fraudulent activity, they request the right level of information from the customer that will provide a high level of confidence that they are indeed speaking to the right person.

"*As much as we're being innovative, the fraudsters are proactive and take opportunities where they can, so we need to make sure we're talking to the actual customer. We even go to the extent where we have to authenticate the customer.*" – Participant 7

The issues of privacy and risk of confidential information being exposed was identified as a deterring factor to the adoption. XYZ Bank grapples with similar security concerns regarding social media technologies. This is a global phenomenon and not limited to the banking sector.

With the multiple Web 2.0 platform that exists, social media being one of them, the need for paper-based marketing and adverting solutions should. Regulatory and environmental pressures compel organisations to protect the interest of their customers as well as the environment, and therefore social media adoption for the purposes of marketing and customer services should be viewed as an opportunity to alleviate these external pressures (Adhiarna et al., 2013).

5.8.3 Reputational risk

Reputational risk is an emerging theme that was not part of the original framework of this study. It is discussed as part of the *competitor and external pressures* theme as it was found to be closely associated with these concepts and therefore, an extension to this theme.

Participants were aware that as much as social media enabled XYZ Bank or its customers to broadcast a positive sentiment or message, very little can be done to prevent a person from showing the bank in a negative light.

"I think more than anything we're are risk-averse because we're a bank. So, anything that paints us in a negative light, we jump at it. So, the risk factor is the biggest one." – Participant 2

Negative sentiments on social media have the potential to inflict serious reputation damage. XYZ Bank had experienced this in the past and has seen customers take their business elsewhere due to negative sentiments shared by the bank on social media platforms.

"They're either on their way leaving, or the damage has been done because others who experienced something but didn't say, are now venting about this as well." – Participant 9

XYZ Bank was proactive by ensuring the right policies and procedures were in place to reduce potential incidents that may cause harm to the reputation of the brand and ensured that as part of training and induction of new recruits, it was not only service and marketing staff that went on training but rather the entire organisation because an incident may also arise from within the organisation, as they've experienced in the past. Processes were also put in place to ensure that any negative sentiment is identified and prioritised for resolution before it spreads.

"*…as far as reputation goes and the bank had to have social media policies for their employees to guide them…especially following the employee incident…the bank to quite seriously and said, 'you can't, as an XYZ Bank employee, post whatever you want'."* – Participant 5

Although reputational damage is identified as an ongoing risk, and XYZ Bank being a risk-averse bank, the reality is that social media platforms are required for the bank to meet its customer demands. XYZ Bank embraces this need and that it supersedes the potential risks.

The findings suggest that XYZ Bank is sensitive to reputational damage and thus should ensure the right policies to govern the customer and the conduct of its employees are shared, understood and reinforced to ensure compliance. Social media analytical tools can be used to highlight potential areas of concerns regarding the negative sentiments, and organisations can take the necessary steps to curb the impact on their brand.

Therefore, although found to be an important factor, in the case of XYZ Bank, the degree of reputational risk was found to not cause social media application to be rejected. Instead, this concept was highlighted as an additional potential risk to articulate and manage as part of the adoption process.

5.9 Social media strategic alignment

Findings suggest that strategic alignment considerations do indeed take place with every social media selection and decision to adopt. XYZ Bank ensures that the main purpose of adopting a social media application is aligned with the function of marketing or customer service, but also considers the improved customer experience and the digitisation organisational vision.

"The strategies are a bit different, predominantly it is Marketing and Service…most of what is being done in the planning for vision, which is around digitisation and what we think customers want." Participant 1

Although this view may contrast with adoption decisions either made by executives or because of competitor pressure element, the findings suggest that the overarching theme is that a strategic alignment process is undertaken when selecting a social media application. The performance against the strategy is measured and the footprint of XYZ Bank on social media is revised and at times consolidated to meet the strategic demands.

"If you went into the app stores, search for [XYZ Bank], there was a huge number of apps. We're correcting that. There's a view of consolidating and putting the right capabilities in place." – Participant 3

Participant 5, however, does feel that the alignment with the organisational strategy is not entirely fulfilled from an omnichannel perspective, where the customer experiences a fully integrated offering be it on all the bank's digital and online platforms. However, this view may change over time as all the bank's divisions and departments become fully integrated into its social media service.

"For example, omnichannel experience has not answered and is not in line with the overall strategic vision of the bank So to be a fully digital bank, that doesn't line up as well as it should." – Participant 5

As the bank's presence and subscriptions on social media platforms grow, XYZ Bank needs to start investing more in ensuring the support teams are capacitated to handle the demand. Participant 2 notes that the significant growth in the volumes of social media queries is an indicator that the strategy is moving in the right direction, but the team growth has stagnated. This may cause disgruntlement amongst the customers and internal support structures, should the team not be fully capacitated.

"So, what we have seen is a huge shift from the call centre, towards the social media platforms. That is one of the reasons where we said we have to grow the team." – Participant 2

A social media strategy is meant to ensure organisations have a sense of direction and should outline mechanisms that will help the organisation meet those strategic outcomes. In highly competitive environments such as the one XYZ Bank operates in, exacerbated by the fact that many social media platforms are being developed in the market, it is important to ensure the selection is driven by key success factors such as a customer, service or product goal, so that alignment is reached and the decision to select an application will bring value to the organisations and its customers (Risius & Beck, 2015).

Findings suggest that indeed the clarity of the social media strategy and the alignment of the selection decision to the organisational strategy does indeed foster the adoption of social media platforms.

5.10 A revised social media DOI theoretical framework

In the case of Bank XYZ, the revised theoretical framework depicts the characteristics of Roger's DOI theory; *observability, compatibility, complexity* and *relative advantage*, to supported. *Trialability* did not emerge to be of significance in the adoption decision, in this case, however, the concept of *innovativeness* of the social media technologies emerged from the data analysis. The concepts emerging from the literature; competitive and external pressures, social media strategy, goal and vision were also found to have a relationship with the decision to adopt social media. When examining the *internal and cultural organisational structures*, the concept of *organisational change management* emerged. The concept of *reputational risk* emerged when the *competitive and external pressures* were examined in this case study. These were found to have a strong relationship with the adoption decisions.

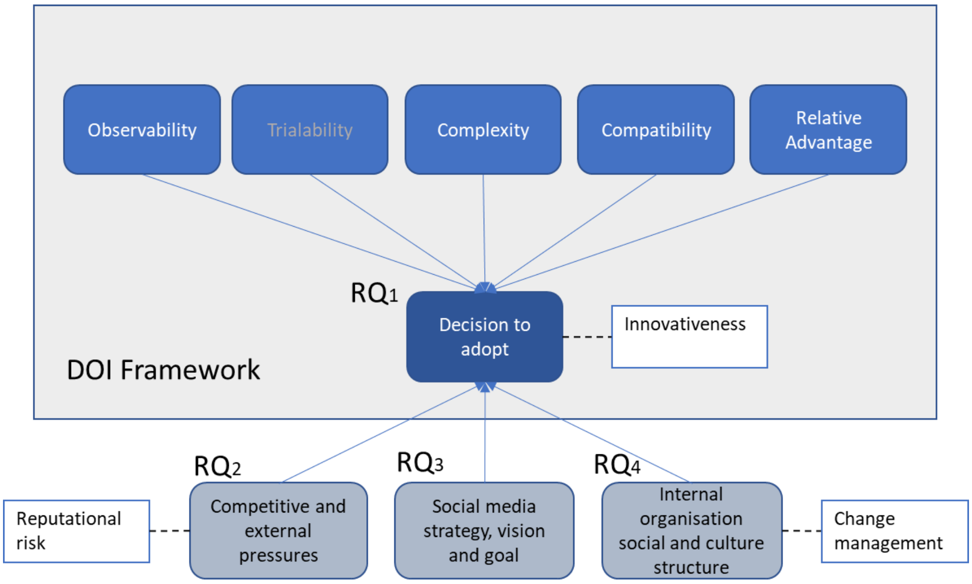

Figure 2: A revised extended theoretical framework for the adoption of social media innovation

6. Conclusions, Implications and Limitations

This study aimed to shed light onto the antecedents of social media adoption in large South African organisations and sought to address the gaps found in the literature regarding the use of the DOI theory being scantly researched in social media adoptions studies, specifically in the South African organisational context. An extended version of the DOI theoretical framework was used in the exploring of these antecedents, with a keen focus on the five characteristics of the persuasion part of the diffusion spectrum which leads to the decision to adopt or reject innovation, which is made up of *relative advantage, compatibility, complexity, trialability and observability*. Additional concepts that emerged for the literature review were included in the empirical study, being *external and competitor pressures*, *internal organisational social and cultural structures*, and *strategy, vision and goals*.

The results and findings of this research reveal additional concepts to consider, being the innovativeness of social media. *reputational risk* and *organisational change management*, as strong themes that emerged from the data gathering and analysis process.

Although these findings may only be applicable to the case study organisation context and not necessarily generalisable to all South African banks or other organisations, these findings do offer insight into concepts that can be further investigated under the social media adoption topic.

Interestingly, what the results indicate that *reputational risk*, a concept that emerged from the data gathering process had a strong impact in the case of XYZ Bank, however the study concludes that the concept may not determine whether an application was adopted or not, but rather that organisations seeking to adopt social media applications should consider the reputation of their organisation when adopting social media applications.

Another interesting observation was that the concept of *organisational change management* was also found to have a strong influence in the companywide adoption of social media technologies. However, this study cautions the generalisation of these findings as other organisations may have different contexts that may yield different results.

6.1 Theoretical implications

Although the DOI theory has been used in many ICT adoption studies (Burgess and Paguio, 2016), this study attempts to respond to calls for more social media and organisational studies from authors such as Shanmugam et al (2015) and for more research on ICT adoption and diffusion studies from authors such as Burgess and Paguio (2016).

This study also attempts to close the gap in the literature by applying the diffusion of innovation theory to social media adoption, in a South African banking context.

This study extends the DOI theory by providing an extended social media DOI theoretical framework which includes concepts such as *strategy, goal and vision*, as well as the *external and competition pressures*, *social media innovativeness*, *reputational ris*k and *organisational change management*.

From a strategy, goal and vision perspective, this study supports the findings by Johnson (2015), that suggest that for innovations to be adopted in a sustainable manner, there ought to be a strategic outlook that drives the selection and implementation of that innovation.

This study supports the literature that purports that the adoption of social media technologies is driven partly by external and competitive pressures (Tran & Corner, 2016).

From a social media innovativeness perspective, this study contributes to the literature by affirming Roger's DOI persuasion characteristics that lead to the adoption of innovation, even though trialability, in this case study, was not seen to have significant impact in the decision. Similar findings were observed in the study by Panopoulos and Sarri (2013).

The emergence of themes such as the *reputational risk management*, caused by the public nature of social media and the potential sensitivity of the online engagement, and organisational *change management*, which is generally internally focused, and the influence these themes have on the social media adoption decision process, further enriches the theoretical understanding of diffusion.

6.2 Practical implications

The literature and the findings of social media adoptions suggests that there are benefits in implementing social media technologies for organisational use.

An organisation seeking to implement social media technologies should start by determining how social media fits into their marketing and communication strategy. The strategic fit can then influence the decision of selection and implementation (Burgess & Paguio, 2016) This will ensure the right capabilities and processes are in place and the organisational employees understand the need to ensure the success of the changes being implemented.

To counter the resistance to change and ensure sound change management processes are in place, an organisation may need to demonstrate results in a short space of time. Measuring and reporting on the successes such as cost-saving and increased marketing reach, may persuade the organisation in adopting social media technologies (Tran & Corner, 2016). This will also serve to demonstrate the observability and trialability characteristics of the persuasion phase of adoption which may lead to the acceptance or the rejection of the technology.

The ill-use of social media has the propensity to damage an organisation's reputation. This can have financial implications and may take some public relations effort to recover. Practitioners should ensure the processes and procedures guard the organisations from this exposure. These procedures must be clear and understood by the entire organisation and those external entities who may impact the organisation's reputation.

Social media is a rapidly growing and an ever-changing technological advancement that is becoming entrenched in everyday aspects of business communication, hence the relevance of this research to business technology professionals.

6.3 Future direction

Contextually, the South African market is complicated by the access to digital platforms and the lack thereof, for many of its consumers, thereby adding a 'digital reach' factor to the diffusion process. The people living in the urbanised regions are more likely to adopt social media platforms than those living in the rural and underdeveloped regions (Shanmugam et al., 2015). A study that investigates these disparities and regional factors using the extended DOI framework may yield results that provide a different perspective on social media technology adoption.

Social media technologies are different in popularity, usability and function and have different applications in business (Vejačka, 2017), applying the extended social media DOI framework to a specific social media technology and for a specific marketing function such as customer engagement or brand awareness, may yield interesting results.

A deeper exploration of the themes emerging from this study, reputational risk and organisational change, may be of interest to research and may shed more light in the understanding of the adoption of social media technologies for business use.

Similar research, with a focus on organisations that operate in different business sectors, could also provide a perspective that may enhance our understanding of social media adoption (Nawi et al., 2017).
Another interesting perspective would perhaps be one that explored social media adoption in small South African organisations to better understand the contrasts and similarities when compared to large organisations.

6.4 Limitations

The online academic databases used do not cover every social media adoption article. The timing of the research project was also a limiting factor, therefore, inferences made in this paper are limited to the reviewed literature. Due to these constraining factors, the findings are this research is limited to the case study and cannot be generalised.

The theoretical perspective and assessment of the characteristics of the DOI theory are limited to the persuasion stage of the theory, which may produce a limited view of the concept of diffusion.

This study is limited to a single organisation that operates in a unique sector and therefore the nuances that emerged may not be the same when conducted in a different type of organisation, in a different sector or of a different size.

Although in line with the research methodology requirements, the number of participants and the roles they hold in the organisations marketing department does impact the findings of this study. An organisation-wide study could yield a different result.

This study did not focus on a particular social media application and therefore the findings are general and limited to the case study organisation and cannot be generalised to all banks or all social media applications.

The evaluation of this study is conducted using the principles of authenticity, plausibility and criticality in research, outlined by Golden-Biddle and Locke (1993). In demonstrating authenticity, this study investigated the adoption of social media in a large organisation, a detailed account of the organisational profile was provided, along with the description of the participants who participated in this research.
In gathering the research data, the author used a recorded, face-face semi-structured interview method, conducted at the premises of case study organisation, with the quest to get the most authentic views from the participants with the scope of focusing of aspects that they deemed important regarding the phenomenon being investigated. Quotations were used to demonstrate being genuine to the field experience.
To account for the plausibility, these accounts provided by the participants were consolidated, transcribed and interpreted using a thematic data analysis approach to code and refine the data as well as categorise it in a rational manner from which patterns and conclusions could be drawn. The distinct contribution of this study also demonstrates the principle of plausibility. The results of the analysis work are discussed, and the findings are presented in a manner that is critical and that attempts to remove biases. The study demonstrates the element of criticality in by illustrating that the extended DOI framework cannot solely be relied upon in adoption studies. The context of a South African bank may have other concepts such as organisational change and reputational risk, that may influence the adoption of innovations.

7. References

Adhiarna, N., Hwang, Y. M., Park, M. J., & Rho, J. J. (2013). An integrated framework for RFID adoption and diffusion with a stage-scale-scope cubicle model: A case of Indonesia. *International Journal of Information Management*, *33*(2), 378-389.

Ashurst, C., Freer, A., Ekdahl, J., & Gibbons, C. (2012). Exploring IT-enabled innovation: A new paradigm?. *International Journal of Information Management*, *32*(4), 326-336.

Bernard, H. R. (2011). *Research methods in anthropology: Qualitative and quantitative approaches*. Rowman Altamira.

Bhattacherjee, A. (2012). Social science research: Principles, methods, and practices. *UFS* Tampa *Bay Open Access Textbooks, Tampa, FL*

Braojos-Gomez, J., Benitez-Amado, J., & Llorens-Montes, F. J. (2015). How do small firms learn to develop a social media competence?. *International Journal of Information Management*, *35*(4), 443-458.

Burgess, S., & Paguio, R. (2016). Examining ICT application adoption in Australian home-based businesses: An innovation-decision process approach. *Journal of Enterprise Information Management*, *29*(2), 276-299.

Chen, A., Lu, Y., & Wang, B. (2017). Customers' purchase decision-making process in social commerce: A social learning perspective. *International Journal of Information Management*, *37*(6), 627-638.

Effing, R., & Spil, T. A. (2016). The social strategy cone: Towards a framework for evaluating social media strategies. *International journal of information management*, *36*(1), 1-8.

Golden-Biddle, K., and Locke, K. (1993). Appealing Work: An Investigation of How Ethnographic Texts Convince. *Organization Science* (4:4), 595-616.

Hasani, T., Bojei, J., & Dehghantanha, A. (2017). Investigating the antecedents to the adoption of SCRM technologies by start-up companies. *Telematics and Informatics*, *34*(5), 655-675.

He, W., Wang, F. K., Chen, Y., & Zha, S. (2017). An exploratory investigation of social media adoption by small businesses. *Information Technology and Management*, *18*(2), 149-160.

Hsing Wu, C., Kao, S. C., & Lin, H. H. (2013). Acceptance of enterprise blog for service industry. *Internet Research*, *23*(3), 260-297.

Hedström, P., & Udehn, L. (2009). Analytical sociology and theories of the middle range. *The Oxford handbook of analytical sociology*, 25-47.

Hung, C. L., Chou, J. C. L., & Dong, T. P. (2011). Innovations and communication through innovative users: An exploratory mechanism of social networking website. *International journal of information management*, *31*(4), 317-326.

Johnson, M. P. (2015). Sustainability Management and Small and Medium-Sized Enterprises: Managers' Awareness and Implementation of Innovative Tools. *Corporate Social Responsibility and Environmental Management*, *22*(5), 271-285.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher*, *33*(7), 14-26.

Khatoon, S. (2016). A conceptual framework for effective organizational adoption of social technologies. *International Journal of Advanced and Applied Sciences*, *3*(9), 78-89.

Lacka, E., & Chong, A. (2016). Usability perspective on social media sites' adoption in the B2B context. *Industrial Marketing Management*, *54*, 80-91.

Lin, A., & Chen, N. C. (2012). Cloud computing as an innovation: Percepetion, attitude, and adoption. *International Journal of Information Management*, *32*(6), 533-540.

Lin, L. F., Li, Y. M., & Wu, W. H. (2015). A social endorsing mechanism for target advertisement diffusion. *Information & Management*, *52*(8), 982-997.

Li, Y. M., Lai, C. Y., & Lin, L. F. (2017). A diffusion planning mechanism for social marketing. *Information & Management*, *54*(5), 638-650.

Ma, L. (2017). What Drives the Adoption of Social Media Applications by the Public Sector?: Evidence from Local Health Departments. In *Public Health and Welfare: Concepts, Methodologies, Tools, and Applications* (pp. 1166-1185). IGI Global.

Marsan, J., Paré, G., & Wybo, M. D. (2012). Has open source software been institutionalized in organizations or not?. *Information and Software Technology*, *54*(12), 1308-1316.

Miranda, S. M., Kim, I., & Summers, J. D. (2015). Jamming with Social Media: How Cognitive Structuring of Organizing Vision Facets Affects IT Innovation Diffusion. *Mis Quarterly*, *39*(3).

Nawi, N. B. C., Mamun, A. A., Nasir, N. A. B. M., Shokery, N. M. B. A. H., Raston, N. B. A., & Fazal, S. A. (2017). Acceptance and usage of social media as a platform among student entrepreneurs. *Journal of Small Business and Enterprise Development*, *24*(2), 375-393.

Oni, O., & Papazafeiropoulou, A. (2014). Diverse views on IT innovation diffusion among SMEs: Influencing factors of broadband adoption. *Information Systems Frontiers*, *16*(4), 729-747.

Orlikowski, W. J. (1992). The duality of technology: Rethinking the concept of technology in organizations. *Organization science, 3(3), 398-427*.

Panopoulos, A. P., & Sarri, K. (2013). E-mentoring: The adoption process and innovation challenge. *International Journal of Information Management*, *33*(1), 217-226.

Richey, M. (2016). *Exploring social media use in small firms: a cultural toolkit perspective* (Doctoral dissertation, Loughborough University).

Risius, M., & Beck, R. (2015). Effectiveness of corporate social media activities in increasing relational outcomes. *Information & Management*, *52*(7), 824-839.

Rogers, E. M. (2010). *Diffusion of innovations*. Simon and Schuster.

Saunders, M. N. (2011). *Research methods for business students, 5/e*. Pearson Education India.

Shanmugam, M., Wang, Y. Y., Bugshan, H., & Hajli, N. (2015). Understanding customer perceptions of internet banking: the case of the UK. *Journal of Enterprise Information Management, 28(5),* 622-636

Shen, X. L., Cheung, C. M., & Lee, M. K. (2013). Perceived critical mass and collective intention in social media-supported small group communication. *International Journal of Information Management*, *33*(5), 707-715.

Van Zyl, A. S. (2009). The impact of Social Networking 2.0 on organisations. *The Electronic Library*, *27*(6), 906-918.

Vejačka, M. (2017). Social media marketing in comparison with other forms of marketing in the Slovak banking sector. *MARKET/TRŽIŠTE, 29(1)*, 23-38

Sun, Y., & Jeyaraj, A. (2013). Information technology adoption and continuance: A longitudinal study of individuals' behavioral intentions. *Information & Management*, *50*(7), 457-465.

Tran, H. T. T., & Corner, J. (2016). The impact of communication channels on mobile banking adoption. *International Journal of Bank Marketing*, *34*(1), 78-109.

Tsitsi Chikandiwa, S., Contogiannis, E., & Jembere, E. (2013). The adoption of social media marketing in South African banks. *European Business Review*, *25*(4), 365-381.

Walsham, G. (1995). Interpretive case studies in IS research: nature and method. *European Journal of information systems*, *4*(2), 74.

Walsham, G., & Sahay, S. (1999). GIS for district-level administration in India: problems and opportunities. *MIS Quarterly*, 39-65.

8. Appendices

Appendix A: Interview protocol

Theme	Concept	Semi-structured interview questions	Research question link
Relative Advantage	Benefit realisation and advantageous use	Which social media tools do you use and what were the intended benefits of your organisational decision to adopt these social media applications?	SQ 1
		How have your organisation's processes been affected by the adoption of social media?	SQ 1
Compatibility	Perceived usefulness, trust. Relevance and capabilities	How did you assess the compatibility of the social media application to the organisation's operations?	SQ1
		What were some of the factors you had to consider in the decision to adopt social media applications?	SQ1
Complexity	Operational purpose and compatibility	What operations changes did you make when adopting social media?	SQ1
		What were some of the biggest challenges you faced in the selection of the social media platforms?	SQ1
Trialability	Trialability	Did you trial or test certain application? How easy or difficult was the process of testing social media for your organisation?	RQ
		How adaptable or flexible was the process of trying different social media applications? Did the adaptability and flexibility influence the decision to adopt?	RQ
Observability	Observability	What convinced your organisation to use social media for the business?	SQ3
Strategy	Social media strategy, vision and goal	Did your social media selection align with your organisational vision and strategy? And how?	SQ3
		What goals were you trying to achieve by using social media for your business?	SQ3
Social media Innovativeness	Social media innovation	Which innovative factors about social media technologies convinced your organisation to adopt?	RQ, SQ1
Competitive and external pressures	Competitive and external pressures	How did your competitors influence your decision to adopt social media?	SQ2
		What external factors influenced the decision to adopt social media	SQ2

Internal, social and cultural structures	Internal organisational social and cultural structures	What was the influence of the leadership in the decision to adopt social media?	SQ4
		How did the culture of the organisation influence the decision to adopt social media?	SQ4

Appendix B: A synthesis of the extended DOI framework

Reference	*Theme*	*Theme description*	*Link to extended DOI framework*
Ashurst et al., 2012; Van Zyl, 2009	Benefit realisation and advantageous use	Social media and ICT adoption is intended to realise benefits such as efficiencies, revenue, cost savings and other business opportunities such as new sales streams.	• Relative Advantage
Braojos-Gomez et al., 2015; He et al., 2017	Perceived usefulness, trust. Relevance and capabilities	Social media has the potential to streamline the management of marketing operations in an organisation. Social media is perceived to be more useful and effective when the users have trust in the application. It can create new capabilities such as the ability to tactically intervene in a short space of time when compared to traditional marketing methods.	• Compatibility • Relative Advantage
Hasani et al., 2017; Oni & Papazafeiropoulou, 2014	Operational purpose and compatibility	The successful adoption of technologies is strongly linked to the compatibility of the ICT to the organisational framework, strategy, structures and managerial outlook. Social media can be used to drive efficiencies only if compatibility exists.	• Compatibility • Complexity
Effing and Spli, 2016; Li et al., 2017; Miranda et al., 2015	Social media strategy, vision and goal, social media alignment	An organisation must determine the strategic purpose of social media, the financial and human resource investment and the application	• Compatibility

		selection process must be guided by the vision and goal.	
Burgess & Paguio, 2016; Effing & Spli, 2016; Hsing Wu et al., 2013; Li et al., 2017	Competitive and external pressures, Reputational Risk	Social media create dynamic methods of dealing with competitive pressures and can be the competitive advantage in industries where resources are scarce, such as the small business industries. The openness of social media creates a risk of reputational damage to an organisation when inadequately managed.	• Relative Advantage • Complexity
Adhiarna et al., 2013; Chen et al., 2017; He et al., 2017; Ma, 2017; Nawi et al., 2017	Internal organisational social and cultural structures, organisational change management	Internal structures such as organisations culture and the leadership characteristics can influence the adoption of diffusion process of technologies. Change management can bring about additional challenges to the operations when ill managed.	• Complexity
Chen et al., 2017; Hung et al., 2011; Miranda et al., 2015	Social media innovativeness	Innovative ways of managing businesses activities have emerged due to the appropriation of these technologies in business.	• Compatibility • Relative Advantage • Complexity • Observability • Trialability