

**The Impact of Entrepreneurial Orientation on Market Performance in South
African Commercial Banks**

*A research proposal submitted to the Faculty of Commerce, Law and Management,
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degree of Master of Management in Entrepreneurship and New Venture Creation*

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TABLE OF CONTENTS

ABSTRACT	III
DECLARATION	IV
ACKNOWLEDGEMENTS	V
1. CHAPTER 1: INTRODUCTION	1
1.1 INTRODUCTION	1
1.2 THEORETICAL BACKGROUND TO THE STUDY	2
1.3 CONTEXT OF THE STUDY	5
1.4 PROBLEM STATEMENT	8
1.5 RESEARCH AIMS AND OBJECTIVE	9
1.6 THE CONCEPTUAL DEFINITION OF TERMS	10
1.7 CONTRIBUTION OF THE STUDY	12
1.8 CONCLUSIONS	13
2. CHAPTER 2: LITERATURE REVIEW	14
2.1 INTRODUCTION	14
2.2 CORPORATE ENTREPRENEURSHIP: A LENS INTO ENTREPRENEURIAL ORIENTATION	14
2.3 ENTREPRENEURIAL ORIENTATION	16
2.4 ENTREPRENEURSHIP ORIENTATION DIMENSIONS	21
2.5 ENTREPRENEURIAL ORIENTATION IN EMERGING MARKETS	22
2.6 ENTREPRENEURIAL ORIENTATION IN COMMERCIAL BANKS	23
2.7 MARKET PERFORMANCE: THE EFFICIENT MARKET HYPOTHESIS	24
2.8 HYPOTHESIS DEVELOPMENT: THE IMPACT OF ENTREPRENEURIAL ORIENTATION ON MARKET PERFORMANCE	25
2.9 CONCLUSION	28
3. CHAPTER 3: RESEARCH METHODOLOGY	29
3.1 RESEARCH PARADIGM	29
3.2 RESEARCH DESIGN	30
3.3 POPULATION AND SAMPLE	32
3.4 THE RESEARCH INSTRUMENT	34
3.5 PROCEDURE FOR DATA COLLECTION	37
3.6 DATA ANALYSIS AND INTERPRETATION	40
3.7 ETHICAL CONSIDERATIONS	41

4.	CHAPTER 4: RESEARCH DATA ANALYSIS.....	42
4.1	INTRODUCTION.....	42
4.2	DESCRIPTIVE ANALYSIS.....	42
4.3	CORRELATION.....	44
4.4	OLS REGRESSION.....	46
5.	CHAPTER 5: DISCUSSION OF THE RESULTS.....	49
5.1	INTRODUCTION.....	49
5.2	PROACTIVENESS.....	50
5.3	INNOVATIVENESS.....	52
5.4	RISK-TAKING.....	53
5.5	CONCLUSION.....	53
6.	CHAPTER 6: CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS.....	55
6.1	LIMITATIONS OF THE STUDY.....	55
6.2	IMPLICATIONS OF THE STUDY.....	55
6.3	RECOMMENDATIONS FOR FUTURE RESEARCH.....	56
6.4	CONCLUSION.....	57
	APPENDIX A: CONSISTENCY MATRIX.....	58
	APPENDIX B: RESEARCH INSTRUMENT.....	61
	REFERENCE LIST.....	66

ABSTRACT

Heterodox economics has been fundamental in shaping our understanding of the importance of entrepreneurial activity in contributing to economic growth both at a micro and macro level. A large part of facilitating this growth is through the intermediation functions of the financial services sector who like any profit maximising organisation relies on renewal strategies to create value for its customers and generate wealth for its shareholders. To this effect EO represents key entrepreneurial processes by which organisations continuously renew their strategic outlook intended to drive performance and achieve long-term economic value. However, it is difficult to drive renewal strategies for improved performance in the face of scarce information. The motivation of this study was driven by the need to contextually understand the dynamics of the EO-performance relationship in South African listed commercial banks. This study endeavoured to elaborate on and clarify the associative links between the presence of EO dimension (proactiveness, innovativeness and risk-taking) cues and their direct impact on market performance. Secondary textual data gathered from the annual integrated reports of the listed commercial banks was obtained through text analysis to extract the presence of EO cues. The presence of these cues was then assessed in relation to stock price movements which relied on the event-study methodology. Due to small sample challenges, findings from the analysis were not in-line with the priori expectation of the study across all variables and lack generalisability. The study's finding also add contextual relevance considering the South African regulatory context and the current market dynamics of the financial services sector.

Key words: entrepreneurial orientation; market-performance; commercial banks; South Africa; financial services sector, innovation; proactiveness; risk-taking.

DECLARATION

I, Thato Shandu, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the Field of Entrepreneurship at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Thato Melisizwe Shandu

(Type your name in full here, and sign in the space above)

Lonehill

Signed at

28

February

On the day of 2023.

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1. CHAPTER 1: INTRODUCTION

1.1 Introduction

As is with all industries, organisational renewal strategies aid in maximising resilience and preserving the core business. Investor relations play a significant role in influencing the strategic direction of an organisation especially in the case of publicly traded firms. Extant research has been integral in demonstrating and highlighting the important role of entrepreneurial orientation (EO) and its interplay with firm performance (Schroder, Tiberius, Bouncken, & Kraus, 2020). Further, research has been crucial in moulding our understanding that the strength of this relationship is conditioned by various internal and external circumstances (Shroder et al., 2020; Lumpkin & Dess 1996). Therefore, an industry specific view the study is warranted to further extend the applicability of EO research in different industries and geographical contexts.

The South African financial services industry, particularly the banking environment is changing as new industry players are entering the market. In recent developments, much research attention from independent firm reviews have extensively discussed the importance of FSPs to sustain revenue streams in the face of disruptive trends taking shape in the market (Ravjee & Mamabolo, 2019; Anthony, Gilbert, & Johnson, 2017). Broadly speaking, the African market has experienced a trend of growth in mobile money and fintech absorbing a large percentage of the unbanked population which draws out some of the conceptually differentiated approaches that entrepreneurial behaviour breeds (Anthony et al., 2017; Ketley, Naidoo, Smith & Zylstra, 2019). The existence of (EO) within an organisation usually finds expression in its strategic posture towards entrepreneurship which is demonstrated through its processes and behaviours (Schroder et al., 2020). The pursuit of such behaviours has been found to enable the discovery and exploitation of renewal activities necessary to sustain business and achieve favourable outcomes (Schroder et al., 2020) such as equity returns for investors. Further, a thematic scheme highlighted in EO literature is the importance of top-level management in shaping the organisation's entrepreneurial dominant logic to progress these outcomes (Wales, Covin, & Monsen, 2018).

Inspired by the seminal work of Lumpkin & Dess (1996) there is a pronounced understanding that such an inclination contributes highly to performance. However, in the South African context, and more so within the financial services sector, the extent to which an entrepreneurial stance of an organisation has been observed in relation to performance is scarcely researched. The purpose of this research was to examine the relationship between the three interrelated organizational entrepreneurial dimensions of innovativeness, proactiveness, and risk-taking (Miller, 1983) and market performance in the South African financial services sector.

1.2 Theoretical Background to The Study

Heterodox economics has been fundamental in shaping our understanding on the importance of entrepreneurial activity in contributing to economic growth at a micro and macro level. Primarily, economic theory mainly concerns itself with the concept of resource allocation, and it is in this area where entrepreneurial efforts have proven to be most efficient. Knowledge drawn from the Neo-Schumpeterian perspective (Grebel, 2007) crystalizes the idea of an entrepreneur as an innovator who introduces economic change which is fundamental in achieving sustenance.

The fundamental theoretical domain of this study is rooted on the role of EO and its impact on stock market performance. In literature, the concept of EO has widely been linked with a firm's strategic orientation noting it to be a strong predictor of company growth (Oosthuizen, 2015; Lumpkin & Dess, 1996). Recent academic interests in the field of EO literature have considered performance as a contingency of the presence of EO cues (Wales et al., 2020). In support of this notion, the Neo-Schumpeterian perspective (Grebel, 2007) provides that firm-level entrepreneurship concerns itself with the nature of creating new knowledge and using a collection of resources to pursue productive opportunities. It is further delineated that the organisational architecture is one that assures a continuous congruence between its entrepreneurial vision and behaviours (Ireland, Covin & Kuratko, 2009). This embeds an understanding that EO intrinsically explains the mindset and proceedings of firms in engaging in entrepreneurial activities such as pursuing opportunities proactively (proactiveness), engaging in risky ventures (risk taking), and fervently going after innovative ideas (innovativeness) (Miller, 1983). In the same vein, other salient dimensions of EO include corporate venturing which infers the creation of new ventures

within an existing company (Sharma & Chrisman, 1999), self-renewing (Antonicic & Hisrich, as cited in Oosthuizen, 2015) and competitive aggressiveness and autonomy (Lumpkin & Dess, 1996). Underpinned within these theories is the basis on which the creation of value is founded on, whereby organisations entrepreneurially arrange themselves in order to gain long-lasting economic impacts such as wealth creation for shareholders (Oosthuizen, 2015). Additional theory further argues that the process by which value is created hinges on leadership's role in cultivating a an entrepreneurially inclined organisational culture (Ireland, et al., 2009). While the concept is broadly studied, especially in developed economies such as the United States (Tang, Tang, Marino, Zhang & Li, 2008; Urban & Verachia, 2019) the concept of EO in emerging markets like South Africa requires further research. This is particularly due to the complex phenomena that exists within entrepreneurial processes as suggested by Lumpkin & Dess (1996) as the measure of EO and performance are contingent on external factors as well.

The theoretical roots of this study are founded on the conceptualisation of EO as an organisation's acclimatisation to entrepreneurially informed strategy making practices and firm-level behaviours. Inspired by the historical accounts of Schumpeter (1934) and Mintzberg (1973), Miller's (1983) seminal work on theorising the entrepreneurial mindset of the firm is captured in three dimensions: innovativeness, proactiveness and risk-taking which forms the basis of this study. Briefly discussing the three dimensions, innovativeness as a dimension depicts the behaviours that advocate for creativity and experimentation. Long-standing in entrepreneurship academic literature, innovativeness has been recognised as a strong proponent of introducing new products or services or entering new markets (Miller, 1983). Proactiveness as a dimension adds a futuristic consideration to the conversation. Identified to pre-empt trends in the environment, a proactive stance helps organisations shape the competitive environment through the introduction of products, technology, or administrative techniques rather than taking a reactionary stance (Wales et al. 2020). Risk-taking as a dimension considers the degree to which leadership is open to make risky resource commitments in a speculative context (Wales et al., 2020). The three dimensions notably add to an organisation's myriad of strategic considerations and in theory capture the behavioural attributes that lead to entrepreneurial actions (Wales et al., 2020). Delving into the mechanics of Miller's (1983) work, the theory of EO gained its impetus as the organisational style leading toward long-lasting entrepreneurial processes. To date, literature has depicted this acclimatisation as a configuration of the organisation (Wales et

al., 2020) which lends itself to effectively exploiting the three synergistic dimensions as a means of spearheading the competitive environment.

This paper further recognises the inherent bilateral relationship these dimensions have to each other, which is supportive of the theoretical understanding depicted in literature as synergistic in nature. Noteworthy in the EO organisational configuration theory is the extension of the EO dimensions by Lumpkin & Dess (1996) who further granulise the theoretical framework to be inclusive of competitive aggressiveness and autonomy. According to Lumpkin & Dess (1996, p.431) “competitive aggressiveness reflects the intensity of a firm’s efforts to outperform industry rivals, characterized by a combative posture and a forceful response to competitor’s actions”. Unpacking Miller’s (1983) conceptualisation, the construct of innovativeness is representative of an organisation’s tendency towards exploiting novel methods as a means of gaining competitive advantage. Underpinned within this understanding is that competitiveness is presumed as a goal of innovation (Wales et al., 2020) extrapolating the bilateral nature of the relationship. Further, Lumpkin & Dess (1996) define “autonomy as an independent action by an individual or team aimed at bringing forth a business concept or vision and carrying it through to completion.” Early developments of the EO theory placed much emphasis on the importance of autonomy in the attainment of organisational entrepreneurial goals. For example, authors in this field recognised that autonomy is a key component in enabling innovation from entrepreneurial pursuits (Peterson & Berger, 1971; Burgelman 1983; Miller, 1983; Guth & Ginsberg, 1990). This highlights another presumption inherent in Miller’s (1983) work that the absence of autonomy inhibits the organisation’s ability to exhibit proactive or innovative behaviour (Wales et al., 2020). The introduction of the two dimensions essentially add granularity to the EO organisational configuration discussion. Given this understanding, recent literature identifies the selection of the three dimensions versus the five as a matter of granularity instead of parsimony (Wales et al., 2020). As such, this study has taken the approach of observing the three synergistic EO dimensions as proposed by Miller (1983) on the notion that competitive aggressiveness and autonomy are presumably an inherent consequence of taking an innovative stance.

Delineated above, it is understood that the entrepreneurial process lends itself to the creation of value necessary to gain wealth. As such, studying the effects of EO on market performance renders itself appropriate in further understanding the complexities involved

in entrepreneurial phenomena (Jancenelle, Storrud-Barnes & Javalgi, 2016; Tang et al., 2008). Further, the study of market performance helps draw its associative links to the sought after long-term economic benefits as stock prices are assumed to reflect the present value of an organisation's future income streams (Jancenelle et al., 2016). The construct of market performance is promulgated on the theory of the 'efficient market' hypothesis which states that successive price changes are immediately reflected in common stocks with a market that adjusts quickly to new information (Fama, Fisher, Jensen, and Roll, 1969). Fama et al. (1969) tested this theory to observe speed of price adjustment to specific kinds of information like the announcement of dividend changes. Their study concluded that the market's judgement concerning new information is 'efficient' in the sense that stock prices adjust quickly (Fama et al., 1996). Additional interests in this field produced literature further observing whether this 'efficiency' is triggered by the way in which investor related information is communicated and if investors are influenced by it (Henry, 2008). This nature of research is gaining strides in emerging markets to further understand the nuances involved in performance phenomena (Tang et al., 2008).

1.3 Context of The Study

The Regulated South African Financial Services Sector

South African Financial Service Providers (FSPs) play a key role in enabling the country's economic activity through their intermediation function. Historically, this highly regulated industry was dominated by the four major banks who focused on servicing a wealthier segment of consumers to cover the high costs associated with providing financial services (Ketley et al., 2019). This is up until new players in the field started a new wave of disruption in the sector by making banking services available to a previously unbanked market and thereby promoting financial inclusion. In an emerging economy like South Africa, access to financial services is fundamental in supporting economic activity, protecting households from economic shocks, and enabling savings and investment. However, despite this knowledge and high demand for financial services, research indicates, that below 45% of the African market, including South Africa, remains unbanked due to high costs associated with providing financial (Ketley et al., 2019). Zoning further into the South African market, it is understood that the commercial banking sector is highly concentrated with 83% of the industry's market share being held by the four major banks (FSCA, 2022) epitomising an

‘oligopoly like’ market structure. However, new digitally driven banks who are offering innovative distribution channels at reduced transaction fees are steadily increasing the total banked population and leading incumbents to developing similar low priced value propositions (FSCA, 2022). Reviews have also indicated that African regulators continue to remain cautious in their approach to regulating financial innovation (Ketley et al., 2019). These form key characteristic nuances that are astronomical in shaping the emerging market context in comparison to a developed economy (Demirkan, Yang & Jiang, 2019). Urban and Verachia (2019) further purport that very little is known about the organisational contexts which may influence EO and firm performance. The core challenge in effecting entrepreneurial transformation remains in the institutional routines and company developed rules that prove to be impervious to change (Anthony et al., 2017).

The study of Entrepreneurial Orientation in emerging markets

Given the range of disruptions challenging traditional banking, research indicates a growing need for embedding a culture of innovation within FSPs (Grosskopf, Beyers, Velden, Roopnarain & Stonebridge, 2016). To this point, the literature identifies corporate entrepreneurship as an avenue for existing organizations to inculcate a mindset of innovativeness (Oosthuizen, 2015). The literature strongly depicts that the presence of an entrepreneurial mindset or entrepreneurial orientation (EO) within organizations is significant in promoting capabilities directed towards value and wealth creation (Oosthuizen, 2015; Ireland et al., 2009). Further, an entrepreneurial mindset is also likened to promote the level of proactiveness in pioneering new processes and taking bold actions in pursuit of opportunities (Oosthuizen, 2015; Lisboa et al., 2011). There are limited studies related to examining the relationship between EO and market performance in a developing economy like South Africa to which this study seeks to pursue. Furthermore, this study acknowledges that there are mixed results emanating from the EO-performance relationship studies suggesting that in some instances finding are not supported and in some they are (Urban & Verachia, 2019). This notion highlights the importance of this study to determine what contextual specifics are supportive and which are not - this observation is supported by Tang et al. (2008), and Demirkan et al. (2019). While an abundance of literature exists within developing economies in terms of the drivers and contexts contributing to corporate entrepreneurship outcomes, reviews are particularly lacking within the arena of emerging markets (Tang et al., 2008; Demirkan et al., 2019). This evidences a strong need to

contextualise the impact of EO in relation to its outcomes in emerging market organisations (Demirkan et al., 2019; Urban & Verachia, 2019).

Company reports and stock market performance

Many listed companies in South Africa use annual reports as a means to communicate their financial performance to investors (Marx & Mohammadali-Haji, 2014). These give insight into a company's accounting-based measures and are indicative of its strategic initiatives. These typically contain corporate reports from a company's C-Suite which include the Chairman, CEO, CFO and other executives within the organisation. The listing of publicly traded companies in South Africa is found on the JSE (Johannesburg Stock Exchange) which provides an effective price determination facility (JSE, 2022). Previous studies have found annual reports of companies to serve a dual purpose to impart facts regarding performance (informational) and serve to persuade a favourable view of the organisation (promotional) (Henry, 2008) and have been purported to trigger price movements in the stock market. Leveraging the help of academic literature in disciplines such as economics, and financial journals the study borrows some stock market related concepts to derive the definition of market performance. Research identifies the stock market serves a number of important functions in financial systems (El-Wassal, 2013; Hooper, Sim, & Uppal, 2009) one of which is to allow companies raise capital for growth and expansion. Therefore, stock market performance constitutes a measurement of returns or a change in the value of a financial asset triggered by company or economic related information that is monitored by investors (Hooper et al., 2009). This performance is typically measured through indices, one of which is relevant for this study is the FTSE/JSE All Share Index that is widely used in South Africa to measure a range of listed entities on the JSE (JSE, 2022). The study borrows from accounting-based theory to measure stock market performance. Literature focussed on stock market performance measurement studies strongly advocates for the use of event study methods which help examine the stock market reaction to company announcements and in this case the SENS (Stock Exchange News Services) announcement and release of annual reports by listed banks (Fama et al., 1969; Merkl-Davies & Brennan, 2007).

1.4 Problem Statement

Academic literature has cast a wide net on the utility and relevance of EO in generating long-term organisational value (Wales, Kraus, Filser, Stockmann, & Covin, 2020). However, extant research has found that its theoretical understanding weighs heavily towards developed economies such as the USA and less so in emerging markets (Wales, Gupta, & Mousa, 2013; Urban & Verachia, 2019). Entrepreneurial Orientation in the South African financial services sector is scarcely studied, based on findings from previous research in the industry it can be inferred that this is a result of the perceived operational rigidities (Ravjee & Mamabolo, 2019) and stringent regulatory controls (Ketley et al., 2019). To the suggestion that both internal and external factors may moderate the EO performance relationship (Lumpkin & Dess, 1996) understanding the context specific nuances that exist within the South African market and its drivers were of particular interest in this study.

Internally, driving transformation in banking organisations is often combatted by infrastructure that constrains innovation and continues to spike maintenance costs (Ketley et al., 2019). Externally, regulatory reforms often prove to be resistant to many types of change putting pressure on banks to manage returns (Grosskopf et al., 2016). Despite this, the banking industry continues to face relentless change given the rise of new competitors who are challenging the status quo forcing incumbents to find more nimble ways of providing financial services (Grosskopf et al., 2016). Although the EO-performance relationship has been richly observed in mature economies and scarcely so in developing ones (Demirkan, Yang & Jiang, 2019) there are striking differences in an emerging economy that could yield great insight into the role of EO and the market performance of South African financial services providers. As EO naturally links with an organisation's strategy, Lumpkin and Dess (1996) strongly purport that EO represents key entrepreneurial processes that answer the question of 'how' as opposed to 'what' indicating its role in repositioning and renewing business for long lasting results (Anthony et al., 2017). In observing annual integrated reports, Investors can often get a sense of how an organisation intends to achieve the financial goals and whether this is entrepreneurially informed is part of this study's exercise to determine.

The management implication of having limited contextual understanding in what directs the EO-performance relationship in emerging markets perpetuates a cycle of parochialism in the field (Wale et al., 2011). A lack of empirical EO research may result in reliance on non-

contextually fitting models. This constitutes of a serious management dilemma of having misdirected strategic guidance. Addressing this problem in this study poses practical benefits of contextually understanding the widespread phenomenon and creating long lasting economic localised benefits.

1.5 Research aims and objective

Drawing from the understanding that entrepreneurship in emerging economies occurs in a different context relative to developed markets, this research endeavours to broaden the theoretical base on the constructs of EO dimensions in the South African banking climate. Empirical research in this area not only advances the geographical understanding of EO, but it also provides an opportunity for practical management application. As such, using quantitative methods and drawing on supplementary knowledge from accounting-based theories this research seeks to depict whether the presence of EO cues have an impact on stock market performance.

The release of a company's annual integrated report consists of an accounting portion and discretionary information about its strategic plans consisting of linguistic devices to create a positive corporate image (Henry, 2008). This information is meant to be persuasive and is reasonably expected influence investors, as would be indicated by market reactions (Henry, 2008). Thus, the aim of this research was to determine whether the presence of EO cues found in corporate communication, particularly annual integrated reports of commercial banks, play a role in influencing investor decision making. Keeping in mind the understanding that contextual nuances are essential in observing entrepreneurial processes (Lumpkin & Dess, 1996) there is a strong need to comprehend these activities in markets that are fundamentally different to those that are developed (Demirkan et al., 2019). That is, investor sentiment in a developed economy may differ to that of an emerging market thereby influencing the level of entrepreneurial activity in an organisation.

Research purpose

Looking into an emerging economy like South Africa, there is insufficient knowledge on the effect of EO on the market performance of publicly traded banks. Thus, the purpose of this study was to examine the relationship between the EO dimension cues and the market performance of South African listed commercial banks. The study focused on EO literature

to investigate present organisational level entrepreneurial cues corresponding with Miller's (1983) conceptualisation of the three related dimensions – proactiveness, innovativeness and risk-taking. Following Jancenelle et al. (2016) prescriptions these dimensions were observed at a disaggregated level to help depict the individual effects of the dimensions. The annual integrated reports of the listed commercial banks announced on the SENS are a way that commercial banks communicate the release of their annual performance and encapsulates their strategic direction.

Consistent with Short, Broberg, Cogliser and Brigham (2010) and Jancenelle et al. (2016) methodological guidance on observing EO cues, text-analysis software from these annual reports was applied. These EO cues were hypothesised individually linking market performance. Market performance was observed to assess its reaction towards the presence of EO cues. Similar to Jancenelle et al. (2016), the study relied on accounting-based methodologies to capture the reactionary movements of stock prices following a company announcement (Fama et al., 1969). The study also lends theory from capital markets and behaviour research to help determine whether or not South African markets are impacted by company announcements on the disclosure of financial performance (Merkl-Davies & Brennan, 2007). Practically, managers will be in a position to anticipate whether markets are influenced by the presence of EO cues and may inform decision making at an overall business strategic level and shape communication strategies.

Research question

The research question that was addressed in this paper was as follows: To what extent do EO dimensions in innovativeness, proactiveness, and risk-taking impact the market performance of South African listed commercial banks following the announcement of annual results?

1.6 The conceptual definition of terms

Entrepreneurial Orientation (EO)

Academic literature recognises several conceptualisations of EO. The study finds roots in Miller's (1983) seminal work of the three covarying EO dimensions which explain organizational innovation, proactiveness, and constructive risk-taking in the pursuit of new opportunities. EO in the study is deemed to carry behavioural qualities that drive these

dimensions in the organization (Ireland et al., 2009; Covin & Slevin, 1991). The three dimensions are defined below.

Innovativeness

pioneered in the neo-Schumpeterian age, innovation has consistently been understood as a process of creating or initiating renewal or innovation within an existing organisation. the conceptualisation of innovation in entrepreneurial studies was further beaconsed by authors like Miller (1983) and Lumpkin & Dess (1996) who subsequently delineated the term to encapsulate a tendency of an organisation to generate new and novel ideas resulting in new methods, products, services or solutions. As such, this study understands the EO innovativeness dimension as representative of an organisation's inclination toward experimental exploitation as a means of gaining competitive advantage.

Proactiveness

Complementary to the definition of innovation, proactiveness captures the organisational inclination toward anticipating and pursuing new opportunities (Lumpkin & Dess, 1996). in their seminal work, Lumpkin and Dess (1996) purport that proactiveness forms a crucial element to Entrepreneurial Orientation because it suggests a forward-looking perspective that is accompanied by innovative" and entrepreneurial activity. in agreement with this definition, this study recognises the EO dimension proactiveness as an organisational mindset of seizing opportunities and actively shaping the competitive climate of an industry as opposed to taking a reactive stance.

Risk-taking

Highly revered as an aspect of entrepreneurial pursuits, risk-taking encapsulates the organisation's propensity to take bold and aggressive steps in exploiting opportunities for maximum gain (Lisboa et al., 2011). this study recognises the EO dimension risk-taking

Market Performance: Abnormal Returns

Stock market performance and market performance are henceforth interchangeably used terms in this study. Stock market performance in this specific study essentially examines market-based performance measures that behave in a reactionary way to new information released such as how price movements react to the presence of EO cues in annual reports (Jancenelle et al., 2016). Leveraging accounting-based measures, the theory of efficient market hypothesis which at its core suggests that financial markets are informationally efficient meaning that stock prices are reflective of all publicly available information about i.e., a company (Fama 1965). The construct of market performance also leveraged the event-based methodology which in simple terms encapsulates an investment strategy that identifies short-term price movements that are caused by specific new information (Fama et al, 1969), i.e., the announcement of financial performance and the strategic direction of the company. Consistent with Jancenelle et al. (2016) the construct of market performance was analysed using abnormal stock returns which is the difference between the actual (closing) price of a share and the expected return derived from the historical performance of the All-Share Index.

1.7 Contribution of the study

Entrepreneurship provides a conducive foundational ground for organizations to innovate and pursue renewal strategies to sustain revenue and generate long-term economic benefits. Therefore, knowledge acquired from empirical analyses provides practical approaches to directing the entrepreneurial activities of an organisation. This research provides the following contributions: entrepreneurial orientation research in an emerging market and more particularly in the South African financial services sector needs to be broadened and contextualised in order understand the current landscape and entrepreneurship's role in influencing performance. Delineated above, it was learned that emerging markets vary in terms of their institutional, social, and economic make up (Demirkan et al., 2019). Therefore, this study was helpful in shaping understanding on the nature of the EO-performance relationship in South African commercial banks. Clearly understanding the contributors of performance are key to maintaining long-term success as research in this specific context is currently limited. Secondly, combining observations from two distinct spheres of knowledge, entrepreneurship and trading markets is a novel approach in South African entrepreneurship literature. In previous literature, EO related studies conducted in the South African banking sector area had limitations in accounting for the size of the

organization providing minimal insight on the differences in the behaviour of each (Ravjee & Mamabolo, 2019). The research also accounted for the market size of the listed commercial banks as control variable which helped further evaluate the reactionary differences in market performance and further contextualise the study's findings.

1.8 Conclusions

Over the past four decades, a resounding amount of research has elucidated much knowledge on the consequences and antecedents of EO (Wales et al, 2011). Much of these observations have been primarily concentrated in more mature economies and lack the empirical gravitas in developing economies like South Africa. As much as the focus was previously centralised in developed markets, the advent of technological innovations in emerging economies has captured a degree of entrepreneurial research interests. This is due to the unique contextual circumstances present in these economies. It is also to enable appropriate business application and informed strategic decision making. Moreover, extant research in EO studies has observed the effectiveness of EO in relation to performance (Wales et al., 2020). To further contextual the EO effectiveness conversation, this study aims to expand our empirical knowledge base within the South African financial services context. The following chapters delve deeper into the theoretical developments of EO and highlights some theoretical considerations drawn from accounting based literature to unpack the study's dependent variable. Subsequently, the methodological approach and data analysis are expanded upon which will be followed by the study's discussion points and conclusions.

2. CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The evolution of financial analysis dates back to the industrial age with the advent of the financial sector becoming a more predominant force in the economy (Fintibi, 2019). Financial analysis in the stock market is widely practiced in pursuit of generating wealth. Some arguments have gone as far as advocating for its contribution to upholding an economy (Lobel, 2020). One of the approaches investors use to project a company's likely success is known as fundamental analysis (Fintibi, 2019). This approach helps investors predict a company's probable price evolution and is achieved by an evaluation of its management, business decisions and intrinsic value (Fintibi, 2019). What was of particular interest in this study was the extent to which the existence of EO cues are factored in fundamental analysis to drive the performance of stock. The discussion in this research is to unravel specific entrepreneurial nuances in South African commercial banks that affect reactionary movements in the stock market. The literature review provides a theoretical account of the evolution of organizational entrepreneurial orientations. The discussion also provides literary accounts of market performance and its observations in the entrepreneurial body of knowledge which shapes the directive of this research in the context of commercial banks in South Africa.

2.2 Corporate Entrepreneurship: A lens into Entrepreneurial Orientation

A historic observation on the development of entrepreneurial phenomena, particularly in economic literature, reveals a good deal of contention around the concept of the 'entrepreneur' (Grebel, 2007; Urban, 2010). Due to the phenomena's inherent dynamic nature, economists in the neo-classical age found the conceptualisation of the entrepreneur to be imponderable (Grebel, 2007). This was up until the Neo-Schumpeterian age where the dynamic aspect of the economic process was elucidated thereby giving rise to entrepreneurship theory and the first signals of corporate entrepreneurship (Grebel, 2007). According to Grebel (2007) Schumpeter expanded the concept of entrepreneurship to focus on firm level innovation processes which further invoked attention on corporate venturing literature commencing in the early 70s. Briefly defined, corporate entrepreneurship is widely understood as a process of creating or initiating renewal or innovation within an

existing organisation (Sharma & Chrisman, 1999). Drawing on from the Neo-Schumpeterian thoughts, records in literature exhibit the work of Peterson and Berger (1971) in exploring the concept of corporate entrepreneurship as a strategy for large organisations to cope with turbulent market environments. In their research, Peterson and Berger (1971) were the first to highlight a critical contribution in literature of isolating the entrepreneurial function, which drew a lot of emphasis on the aspect of autonomy. In the early 1980s, an appreciation of corporate entrepreneurship literature grew and gained independence with authors like Burgelman (1983) and Miller (1983) further delving deeper into the processes driving the concept. For instance, Burgelman (1983) investigated the process by which major diversified firms used internal corporate venturing to transform their research and development initiative into new business. Miller (1983, p.770) evaluated the “process of entrepreneurship and the organisational factors which foster and impede it”.

Understanding the processes involved further invoked knowledge on the orientation styles of the firm in generating a long-lasting inclination towards entrepreneurship (Miller, 1983). The 1980s served to highlight two notable considerations in academic literature. First, the need to be cognisant of internal friction that occur within organisations when contending with the idea of corporate entrepreneurship (Peterson & Berger, 1971; Burgelman 1983; Miller, 1983; Guth & Ginsberg, 1990). Second, decentralisation or autonomy enables the organisations to adopt and innovate (Peterson & Berger, 1971; Burgelman 1983; Miller, 1983; Guth & Ginsberg, 1990).

Expounding further on the concept of corporate entrepreneurship Guth and Ginsberg (1990) offer two complementary features: business venturing and strategic renewal. According to Guth and Ginsberg (1990, p. 5), business venturing refers to “the birth of new business within existing organization” and strategic renewal is understood as the transformation of organizations through the renewal of the key ideas on which they are built”. Expanding on and complementing these features, Zahra (1996, p.1715) included a third component of innovation which delineates on the firm’s “commitment to creating and introducing products, production processes and organisational systems”. These three categories were further emphasised by Sharma and Chrisman (1999) who notably purported corporate entrepreneurship as a process instigated or created either by an individual or a group of individuals in association with an existing firm. Fundamentally, the focus of corporate entrepreneurship in the 90s was to establish its base with much theoretical attention

centralised towards firm continuation activities. For instance, in a similar fashion, Covin and Miles (1999) conceptualised corporate entrepreneurship into four categories namely, sustained regeneration, organisational rejuvenation, strategic renewal and domain redefinition.

Grasped from a theoretical account of corporate entrepreneurship, a chronological review of literature reveals that the conceptualisation is deeply embedded in processes geared towards the creation of new business within established firms. Another route depicted in literature and contextualised alongside the theoretical foundations of corporate entrepreneurship is a focus on creating long lasting values that support the continued process of internal venturing. Scholarly articles coined this as Entrepreneurial Orientation (EO). At its core, the concept encapsulates the behaviours that are necessary in driving and inculcating a companywide entrepreneurial mindset to drive growth through renewed strategies (Oosthuizen, 2015). Compositions by Lumpkin and Dess (1996, p.136) further provide EO as the “processes, practices, and decision-making activities that lead to new entry”. Directly contextualising EO to corporate entrepreneurship; the study of EO leans toward the entrepreneurial domineering mindset that supports entrepreneurial behaviour among the firm’s employees to pursue entrepreneurial activities. Therefore it can be deduced that a firm with a strong EO basis is more likely to support corporate entrepreneurship processes. It can be further deduced that the concepts are intertwined.

2.3 Entrepreneurial Orientation

In a similar vein, a historic context of EO is depicted in the works beacons by the Schumpeterian school of thought (Wales et al., 2020). As already depicted, the early roots in the conceptualisation of EO dates back to the 1980s with the works earmarked by Miller (1993) who prescribed that an entrepreneurial organization is one that subscribes to innovation activities, proactive innovations, and constructive risk-taking. These three synergistic dimensions lay the foundations of this study’s operationalised construct in relation to market performance. Miller’s (1983) seminal work on these organisational factors illuminated some key foundational aspects pertaining to the orientations that are allied with a proclivity toward entrepreneurship. These findings provide that the more hostile and dynamic an environment is, the more entrepreneurially orientated it will be. Moreover, the structure of the organisation has an influence on its entrepreneurial outlook;

decentralised environments allow the firm to adapt and innovate. Reflecting on Miller's (1983) prescriptions, a further deliberation on the aspects that make EO effective was later emphasised by Covin and Slevin (1991). Covin and Slevin (1991) purport that a firm-behaviour model of entrepreneurship as a central echoing to the concept and serves as advantageous because it gives meaning, it is measurable and manageable and provides a basis for differentiating between more and less entrepreneurial firms. Furthermore, three types of behaviours that signify a firm's entrepreneurial posture are indicated through a) top-level managers risk taking in relation to investment decision and strategic actions in the face of uncertainty; b) the extensiveness and frequency of product innovativeness toward technological leadership; and c) the firm's propensity to aggressively and proactively compete with industry rivals (Covin & Slevin, 1991).

Developments in the 1990s also found bearings in the expanded dimensions that incorporated autonomy – highlighting the independent actions by organisational teams to bring forth a business concept - and competitive aggressiveness – which is reflective of an organisation's intense stance to outperform industry rivals - summing the dimensions to five (Lumpkin & Dess, 1996). In academic literature, there is a balance on the use of three of five dimensions. Some papers argue that the Lumpkin and Dess (1996) strengthened the theoretical grounding of the EO phenomena (Ravjee & Mamabolo, 2019) whilst others argue that the three dimensions defined by Miller (1983) are the key elements of EO. Through a thorough account of EO (Wales et al., 2020) further denote the works of Lumpkin and Dess (1996) in providing a broader direction to organisational configuration (stemming from the configuration theory) which simply speaks to the achievement of sustainable competition through a unique configuration of resources and capabilities. As a result of this foundational understanding, authors such as Lee, Lee and Pennings (2001) and Wales, Covin, and Monsen (2020) emerged. Rooted in the Resource based view rationale (Barney, 1991) which accounts for a firm's resources and capabilities as its primary determinants to competitive advantage and performance, Lee et al., (2001) purport EO as an intangible resource entrenched in its organisational routines, i.e., how it is internally directed pertaining to its routines, structure, and culture as elaborated by Wales et al., (2020). In summary Wales et al., (2020) offer three principal ways in which entrepreneurship manifests as an organisational attribute through top-management style, organisational configuration, and new entry initiative. The manifestations of top management styles describe what is valued, supported and communicated by leaders who filter or reinforce entrepreneurial dominant

views; secondly drawing on top management style, organisational configuration capture the way in which firms' structure and design themselves in order to achieve their objectives giving way to new entry initiatives. Wales et al., (2020, p.647) depict that "firms are more entrepreneurially oriented when they prospect—finding and exploiting new product-market opportunities—and less entrepreneurially oriented when they conservatively defend their established product-market domains".

Finding bearing in Lumpkin and Dess (1996) who provided that the extent of the EO and performance relationship is contingent on the business context in which the entrepreneurial processes occur, much of the 21st century outlook on EO literature is centred on the concept's dependence on contextual circumstances (Covin & Wales, 2012; Urban & Verachia, 2019; Wales et al., 2020). For instance, recognising that the applicability of extant research in EO models originates from the USA and is mostly skewed toward a developed market context, Wales et al., (2013) further emphasize the level in which EO may vary in different external contexts. This is further emulated in systematic review of EO literature by Wales et al., (2021) which contributes various topical and thematic clusters that are central to enhancing the EO conversation. These thematic clusters provide an overarching view of studies in EO, covering the prominently studied 'defining pieces' of the phenomena's research, alongside methods and measurements (Wales et al., 2021). Fundamental to this study's contributions and continuing on the same thread of the phenomena's dependence of contextual circumstances, Wales et al., (2021) further depicted clusters relating to contingencies and impacts of EO. Wales et al., (2021) note that there exist many other potential dependent variables to further advance the understanding of EO contextually and additionally emphasize a strong need within literature to ruminate over and apprehend how the impact of EO on performance is intimately tied to contingencies to which this present study endeavours to fill the gaps.

The table (Table 1) below is a depiction of the entrepreneurial phenomena in corporate entrepreneurship and entrepreneurial orientation. Most of the studies between corporate entrepreneurship and EO overlap with each other and are often used interchangeably. The structure indicated herein merely illustrates the theoretical accounts reviewed for this study.

Models of Entrepreneurial Phenomena in Corporate Entrepreneurship (CE)		
Author(s)	Focal Entrepreneurial Phenomenon	Definition
Peterson & Berger (1971)	Entrepreneurship leadership style, strategy to manage turbulent market environment	Explore the concept of entrepreneurship as a strategy for large organisations to cope with turbulent market environment. The adaptation of entrepreneurship involves three organisational strategies; a) segregation of the environment linked segment; b) isolation of the entrepreneurial function; c) limitation of entrepreneurial liability.
Burgelman (1983)	Internal Corporate Venturing (ICV)	Investigates and illustrates a process model of key managerial activities within different levels in the organisation that render new business through ICV.
Guth & Ginsberg (1990)	Business venturing, strategic renewal	Purposed to clarify corporate entrepreneurship and introduced two categories of CE activities.
Zahra (1996), Sharma & Chrisman (1999)	Innovation, business venturing, strategic renewal	Authors take on the same dimensions of corporate entrepreneurship. Identify corporate entrepreneurship as a process whereby an individual or a group of individuals in association with an existing firm create a new organisation or instigate renewal within that organisation.
Covin & Miles (1999)	sustained regeneration, organisational rejuvenation, strategic renewal, and domain redefinition	It explores the overlap between strategy, entrepreneurship and

the nature of entrepreneurial strategy making construct.

Models of Entrepreneurial Phenomena in Entrepreneurship Orientation (EO)		
Miller (1983)	EO, product market innovativeness, risk taking, proactiveness.	Focused on the process of entrepreneurship and the organisational factors which foster and impede it. The characterisation of an entrepreneurial firms is one that engages in product market innovation, uptakes somewhat risky venture and is the first to come up with proactive innovation.
Covin and Slevin (1991)	Top management risk-taking, extensive and frequent product innovation and aggressively and proactively compete with industry rivals	Emphasize the importance of firm behavioural actions within the theorisation of EO reflecting on three types of behaviours and provides a framework for subsequent research.
Barney (1991)	NA <i>Resource Based View (RBV) is a topical perspective in EO literature as it captures how organisations utilise resources, orchestrate, and configure themselves for the process of opportunity exploration and value creation.</i>	Offers a complementary perspective to the entrepreneurship conversation which provides a rationale for why EO enhances performance and significantly affects a firm's competitive advantage.
Lumpkin & Dess (1996)	Autonomy, innovativeness, risk-taking, proactiveness and competitive aggressiveness	Delineates that the concept of an entrepreneurial orientation (EO) is potentially important to entrepreneurship and builds on previous work on the EO construct.
Lee, Lee & Pennings (2001)	Organisational configuration will be most visible in terms of the innovative, proactive,	Leveraging RBV theory, views EO as a critical organisational resource for venture

	risk-taking product market entries	performance and competitive advantage.
Wales, Gupta, & Mousa, 2013	EO	An empirical analysis on EO literature identified several environmental and cultural aspects that affect the EO-performance relationship.
Wales, Covin, & Monsen (2020)	Three manifestations: Top management style, organisational configuration, new entry initiatives	Views EO as an organisational orientation focusing on how EO manifests and captures an entrepreneurial quality of the firm.

Table 1 – Models of CE & EO Phenomena

2.4 Entrepreneurship Orientation Dimensions

The body of knowledge provides that the link of EO engendered in organizations is related to the pursuance of entrepreneurial activities by adapting structure, management, and processes to the required agility, speed, and creativity to maintain sustenance (Abuya, 2016). EO has been additionally observed in varying contexts across multiple industries and the literature herein focusses on the financial services industry. The key precept of EO observed in this study relates closely to its behavioural views which helps support the analysis of market performance reactions adopted in the research. As noted above, the study of EO is prominently understood to manifest as an entrepreneurial organisational behaviour which leans towards risk-taking, innovativeness and proactiveness (Miller, 1983; Lumpkin & Dess, 1996).

The innovation dimension is consistent in all theoretical developments of EO as entrepreneurship itself naturally encapsulates innovation. According to the Neo-Schumpeterian perspective, Grebel (2007) outlines that innovation is a specific tool that entrepreneurs use to exploit change. Innovation as a dimension reinforces creative thinking, casting a net to capture large market segments (Anthony et al., 2017), and experimentation. The literature further proposes that innovation can be observed from a lens revolutionary or radical innovation and routine or incremental innovation (Urban, 2009) which supports exploration and exploitation theories. Studies further uncover that smaller firms are more

likely to drive radical innovations and larger firms are more likely to drive incremental innovation (Urban, 2009; Anthony et al., 2017).

Proactiveness as a dimension in EO focuses on the forward-looking perspectives of an organization that is accompanied by innovative activity (Lumpkin & Dess, 1996). In research, proactiveness is leveraged as a measure that analyses the level in which organizations uphold a competitive posture by initiating actions to which the market then responds (Lisboa, et al., 2011). The dimension is reinforced by the orientations of top-level management in taking initiatives to ultimately drive wealth creating value (Oosthuizen, 2015). This provides knowledge on the current study in eliciting how the forward-looking perspectives are perceived in the market in driving shareholder value.

The Risk-taking dimension embodies the bold and aggressive posture organizations use to maximize the probability of exploiting opportunities (Lisboa et al., 2011) which most often entails the willingness to pursue opportunities in the face of uncertainty (Oosthuizen, 2015). Previous research in the banking context, particularly in Kenya, risk-taking has been found to be positively related to firm performance (Abuya, 2016) on condition that it is cautionary. In the South African context, there is limited literature available to suggest the same outcome holds to which this study seeks to cover the gap in knowledge. Although the dimension analyses the proclivity for a high-risk entrepreneurial stance, literature additionally outlines that entrepreneurs may take steps to minimize exposure by taking calculated risks (Lisboa et al., 2011).

2.5 Entrepreneurial Orientation in emerging markets

Conditions in the global market and the proliferation of entrepreneurship in emerging markets demands for the applicability of entrepreneurial models that are contextually fitting (Wales et al., 2013). However, the breadth and intricacy of EO literature in emerging markets is presumably still in its infancy stage as more researchers and practitioners come to the fore for a nuanced grasp of the theory. For instance, Tang et al., (2008) highlight that most entrepreneurial studies are centred within the US or developed market contexts and a further contextual understanding is required in emerging markets. Wales et al., (2013, p. 364) further relay “that more than half of all EO studies have been conducted in countries in the Anglo, Nordic Europe and Latin Europe clusters”, and Urban and Verachia (2019) additionally indicate that there is a dearth of empirical research on EO in an African

Context. An understanding of the contingencies and impact of EO, specifically in emerging markets, arms researchers in guiding practitioners in structuring strategies better suited for the local context (Wales et al., 2013). Though notably, China as an emerging country that is gaining prominence in global business and economics (Peng, Luo, Shenkar, & Wang, 2001) and is outshining its counterparts in contextualising the understanding of EO as more entrepreneurial scholarly articles are being produced in China relative to Brazil, Russia and India. For instance, from their GLOBE clustering Scheme Wales et al., (2013) pinpoint that EO research in Brazil, Russia and India is virtually non-existent. Also considered to be among the most rapidly emerging major economies, South Africa is presumably straddling behind China in EO research as scholars emerge to obtain a better understanding (Ravjee & Mamabolo, 2019; Urban & Verachia, 2019).

2.6 Entrepreneurial Orientation in Commercial Banks

As depicted in the contextual background discussion, there is an identified need for driving a culture of innovation in South African FSPs. Theory suggests that organizations with a predisposition in entrepreneurial cognitions are most likely to pursue entrepreneurial opportunities (Ireland, Covin, & Kuratko, 2009). This section discusses the relevant theory on the research question and explores the extent to which the presence of EO cues in South African commercial banks impact market performance. The advent of a digital economy has introduced some core changes in the financial services industry (Grosskopf et al., 2016) pushing industry leaders to be more innovative around their banking systems (Abuya, 2016; Ravjee & Mamabolo, 2017). The rate of digitisation in the financial services industry is peaking at a global scale. Evidence from literature indicates that traditional banking concepts are increasingly being challenged to shift into new forms of digital financial services (Niemand, Rigtering, Kallmunzer, Kraus, & Maalaoui, (2020; Ravjee & Mamabolo, 2017; Anthony et al., 2017; Ketley et al., 2019) given this, incumbents have an option to take an entrepreneurial stance or non-entrepreneurial approach. Within the banking sector, by taking an entrepreneurial approach to advancing the technological landscape of the organisation, EO has been found to moderate the levels of performance (Niemand et al., 2020). This means that solely enhancing technology for the sake of upgrading it, without any entrepreneurial cognitions in place, showed no effect on bank performance (Niemand et al., 2020). With an understanding that the South African Banking environment faces a disruptive wave from new technology entrants, are these signals driving incumbents to

entrepreneurially apply themselves in digitizing their services and are these cues enough to influence market performance? This is a contributory aspect of this study.

Although entrepreneurial orientation is a widely researched discipline in academic literature, its relational linkages to organizations in the financial services industry are limited (Niemand, 2020). Further filtering down into emerging markets there is a dearth of knowledge in literature representing the EO-performance relationship in banks. The shortage of empirical research in this area introduces an opportunity to clearly understand the applicability of EO at an industry level and will enhance EO research at a larger scale. Rapid transformations in technology have translated a need for adopting an entrepreneurial stance for organizations to gain a competitive advantage (Lisboa et al., 2011). A common recommendation detailed in literature studies on EO within FSPs is the need to enable a flexible environment that will encourage innovation (Abuya, 2016; Ravjee & Mamabolo, 2017). Corporate entrepreneurship literature provides that a reengineering of operational processes and enhanced capability in research and development for technology is necessary to maximize resilience (Anthony et al., 2017). The maximisation of resilience and the applicability of the theory can be best achieved with an understanding of the environmental and industry contingencies involved (Lumpkin & Dess, 1996). To this effect, this study helps cover this gap by identifying how the presence of EO related cues within South African commercial banks affects market performance. The research will contribute to the literature by contextualising EO with local conditions and can be leveraged as a guide by researchers and managers to avoid the adverse consequences of relying on developed market view. The study will draw out the inherent features of FSPs that are either promotional or inhibiting to driving a culture of innovation.

2.7 Market Performance: The efficient market hypothesis

Inculcated in the development of this study's dependent variable, market performance, is the theory of efficient market hypothesis. Efficient market hypothesis is a theory used in financial economics which gained popularity in the 1960s (Malkeil, 1962; Fama, 1965; Samuelson 1965) and has been the cornerstone of modern asset pricing over the past 50 years (Fakhry, 2016). The theory of efficient market hypothesis prescribes that prices should be reflective of all available information and is underpinned by the neoclassical economy or neoclassical finance school of thought which has been prominent in expounding the

behaviour of financial markets under uncertainty (Fakhry, 2016). In 1965, the random walk model was produced (Fama, 1965) suggesting that the efficient market hypothesis is associated with and follows this model. This was further later evidenced by Fama and Malkiel (1970) following reviews that it lacked empirical observation (Samuelson, 1965). Briefly explained “The logic of the random walk idea is that if the flow of information is unimpeded and information is immediately reflected in stock prices, then tomorrow's price change will reflect only tomorrow's news and will be independent of the price changes today (Malkiel, 2003, p.56).” Although the theory has been prominent in mainstream finance, there has been mixed evidence on the predictability outcomes of this theory (Fakhry, 2016). Arguments on this notion mainly contend that price is also a reactionary measure of market participants attributing the imperfections of this theory highlighting that the mainstream theory does not account for cognitive biases and other human errors in reasoning and information processes (Barberis & Thaler, 2003). In relation to the theory's ties to entrepreneurship phenomena, past literature (Jancenelle et al., 2016) has followed the Fama's (1969) prescriptions of event-study methodology and similar to this study has been additionally used to examine the behaviour of company's stock prices around corporate events i.e., company announcements (Henry, 2008; Patelli & Pedrini, 2013; Jancenelle et al., 2016).

2.8 Hypothesis Development: The Impact of Entrepreneurial Orientation on Market Performance

Research has crystallised the understanding that context is of particular importance in accurately driving decisions that impact economic outcomes. In the African banking context, there has been a proliferation of entrepreneurially driven non-conventional approaches to bring financial services to an underserved market (Ketley et al., 2019) thereby motivating the need to understand the EO-performance relationship dynamics empirically and contextually. Drawing on knowledge from prescriptions provided in previous literature (Jancenelle et al., 2016; Abuya, 2016), this study made several observations to understanding whether EO in the South African financial services industry is a driver of market performance as EO is understood as a precursor to sustainable economic outcomes (Lisboa et al., 2011; Oosthuizen, 2015). Earlier studies explored in the South African financial services (Ravjee & Mamabolo, 2019) have helped further expound on the specific dynamics present in the country's regulatory framework and inform the

construction of this study's hypotheses. This research aims to study the impact of EO on market performance in publicly traded South African commercial banks. This subsection discusses the hypotheses that will be leveraged by the study to explain the associative links.

Proactiveness

Proactiveness refers to the pioneering and initiative-taking orientation of an organization (Oosthuizen, 2015). It relates to the anticipation of and responsiveness to market signals and demands organizations to better understand their customers' needs (Lumpkin & Dess, 1996). The objective of this construct in the study is to observe FSPs' proactiveness posture in pioneering new processes in order influence market performance (Jancenelle et al., 2016). In this view, EO facilitates the forward-looking stance in that organisations are well-able to create value. This type of entrepreneurial process and behaviour is closely tied with an organisation's ability to recognise and exploit opportunities and thereby advancing its competitive capability and strategic repositioning (Ireland et al., 2009). Therefore, the hypothesis seeks to identify whether South African commercial banks effectively communicate this ability to act in advance to environmental changes (Jancenelle et al., 2016) in order to persuade market performance (Henry, 2008). It is expected that the annual integrated reports of commercial banks that have present EO proactiveness cues are assessed by the market as well positioned to create sustainable economic outcomes and thereby influencing positive market reactions (Jancenelle et al., 2016).

H1: *There is a positive relationship between the entrepreneurial orientation dimension of proactiveness and the market performance of South African Commercial Banks.*

Innovativeness

Innovativeness refers to the organizational tendency to support novelty, creativity, and R&D in the development of products/services or processes to enhance the competitive stance of the firm (Lumpkin & Dess et al., 1996; Oosthuizen, 2015). Contextualising this construct to an African market (Abuya, 2016), a positive association between innovativeness and performance has been previously supported. The impetus of this construct is to analyse the South African view on commercial bank's predisposition to support new ideas and favour change in order to i.e., serve a larger market and generate greater wealth for shareholders. In this view, it is contended that EO innovativeness is a driver of market performance in that leaders are seen to take a stance in sustaining an organisation's competitive posture for its

long-term economic success. Therefore, the study posits that when the annual integrated reports of commercial banks include EO innovativeness cues, shareholders should perceive this as the bank's ability to generate long-term sustainable value and thereby influencing positive market reactions.

H2: *There is a positive relationship between the entrepreneurial orientation dimension of innovativeness and the market performance of South African Commercial Banks.*

Risk-taking

In the risk-taking construct, the objective of the study is to observe the FSPs' proclivity for acting confidently without certainty of the consequences (Oosthuizen, 2015). In this vein, EO embraces a willingness to break away from the tried and tested strongly advocating for novel like related innovations as encapsulated in Anthony et al. (2017) company research. Previous research has highlighted the risk-taking construct to be positively related to performance (Jancenelle et al., 2016; Abuya, 2016) and have had supporting evidence of this notion (Abuya, 2016). However, the need to take a context specific view was heavily relied upon for this construct in this particular. Delineated in the previous chapter which contextually outlines the dynamics typical to a South African FSP, the idea of a high-risk taking entrepreneurial stance may be limited given some of the regulatory restrictions faced by the sector (Ketley et al., 2019). In observing the annual integrated reports and their EO related cues, risk-taking was seemingly favourable in relation to the other constructs. However, giving a closer look to the reasoning behind this, it was found that annotations on risk in the annual reports was more aligned with mitigation and minimising exposure and not so much geared towards adopting a risky stance. This seemingly goes against the notion that risk-averse organisations experience performance downturns as previously expected (Abuya, 2016). Therefore, given the current understanding it is conceptualised that well applied regulations ensure the safety and stability of commercial banks, shareholders should perceive this as acts of protecting the interests of consumers and safeguarding business continuity. Thus, for this construct observed risk-taking EO cues negatively influence market performance.

H3: *There is a negative relationship between the entrepreneurial orientation dimension of risk-taking and the market performance of South African Commercial Banks.*

The hypotheses in the study are in support of the research question at hand which aims to unravel what extent does EO, as per Miller’s (1993) defined elements influence the market performance of South African commercial banks. Considerations of the size of the FSP using market capitalisation is factored in as a control variable to highlight the influence of market size on market performance. As such. The conceptual model is illustrated in figure 1 below.

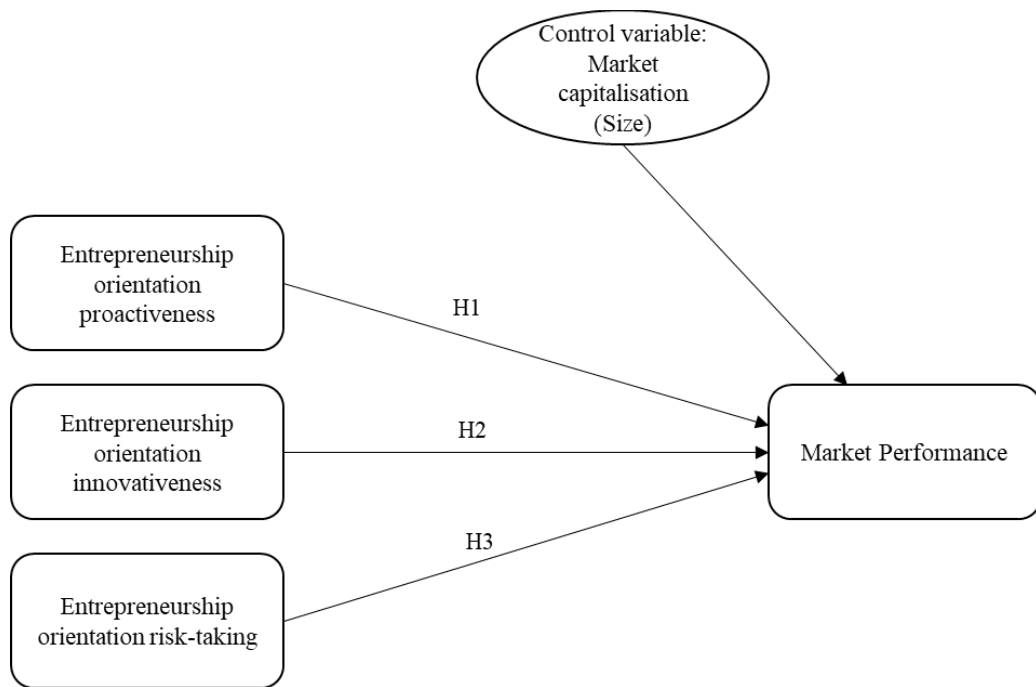


Figure 1 – Conceptual Model

2.9 Conclusion

The evaluation above outlines a scholarly account of themes, discussions, and theoretical aperture on the conceptualisation of EO. A depiction of the entrepreneurial phenomena in corporate entrepreneurship and entrepreneurial orientation is synthesized to inform and to build on the literature in a way that is contextually fitting to the South African market. The development of the hypothesis statements is provided to guide the scientific observations of the study and a conceptual model to illustrate the relationships of the study’s variables. The accounts provided in this section provide a literary scaffolding for this study’s methodological approach, analysis, and discussion to follow.

3. CHAPTER 3: RESEARCH METHODOLOGY

This section gives an account of the strategy and methodology employed in conducting the research, collecting the data, and the analysis of the data.

3.1 Research Paradigm

Academic research in the field of entrepreneurial orientation is scarcely examined in emerging economies like South Africa, more so it is grossly underrepresented in strategically important sectors such as the financial services industry. Following the proposition by Miller's (1983) theorized and operationalized entrepreneurial orientation dimensions, the purpose of this study was to analyse South African commercial bank's proclivity towards innovativeness, proactiveness, and risk-taking and their influence on market performance. The main objectives of the research were to:

- Contextualise an under-researched topic in the South African financial services industry.
- Determine the influence of entrepreneurial orientation on market performance in South African listed commercial banks.

This study followed a positivist approach. A positivist approach in the literature is defined as a research paradigm that takes a scientific route to research (Cresswell, 2009). The major elements in this paradigm include determination, reductionism, empirical observation and measurement, and theory verification (Cresswell, 2009). This research closely assimilates to a reductionistic view, which Cresswell (2009) explains that the intent is to reduce the ideas into a small, discrete set to test, such as the variables that comprise hypotheses and research questions. The research followed a quantitative approach which Cresswell (2009) further defines as a means for testing objective theories by observing relationships among variables so that numbered data can be analysed using statistical procedures. Further, the study also analyses EO cues signalled by top-level management which demonstrates their perceptions on taking an entrepreneurial stance within the organisation. As such, the study also abides to a degree of qualitative analysis. Given these two perspectives, the research followed a mixed method approach whereby both elements quantitative and qualitative elements are used. A combination of these elements was used to take an approach of empiricism in looking at the impact of EO dimensions on market performance. Further, the

quantitative approach of the research followed a non-experimental stance as the variables in the study were not controlled by the researcher but were observed for naturally occurring factors (Khaldi, 2017). As per the main objectives indicated above, this study's philosophical underpinnings are rendered as causal-comparative research as the aim is to deduce the relationship between the independent variable EO dimensions and dependent variable market performance as hypothesised in the previous chapter.

3.2 Research design

There are three methods in which to choose from to conduct the research, these are namely quantitative, qualitative, and mixed method (Cooper & Schindler, 2013). A quantitative method is defined as an approach for evaluating objective theories by examining relationships among variables (Cooper & Schindler, 2013). A qualitative method entails an approach for exploring and understanding the meaning of individuals or groups and lastly, a mixed method entails an inquiry that combines the forms of data from qualitative and quantitative (Cooper & Schindler, 2013). As stipulated in the preceding sub-section, the aim of this research was to draw out the associative link between entrepreneurial orientation dimensions and listed commercial banks in South Africa. To achieve this, a mixed method approach was leveraged whereby the collection of annual reports served to understand the opinions and experiences of top-level managers and comprised as the non-numerical (observing text) basis of the study. The quantitative aspect of this study was served through the collection and analysis of stock market data. A mixed research design helps achieve generalisability and credibility of the study. For example, the weaknesses of solely following a qualitative design are mitigated by the comparative strength of its quantitative element and gains more credibility through a process of triangulation (Cooper & Schindler, 2013). The quantitative design aspect of this research provides several advantages like testing and validating constructed theory, it will aid the research with precise numerical data, and it will enable the research to be seamlessly replicated on different populations should the analysis be required in a different industry. Consistent with Jancenelle et al, (2016) study of earnings conference calls on firms listed on the S&P 500 New York Stock Exchange, this research makes use of secondary data observing the annual integrated reports of the JSE (Johannesburg Stock Exchange) listed commercial banks in South Africa together with their stock related performance. Much alike the information sourced from conference calls (Jancenelle et al, 2016) South African annual integrated reports provide an account of

an organisation's top management team including the Chairman, Chief Executive Officer (CEO) and a suite of other company executives. The analysis of annual reports has previously been found to be statistically reasonable in indicating real organisational activity (Bowman, 1978). Annual reports typically include communication on the organisation's strategy, forward-looking information, and a discussion on the operational context (Collins, Davie & Weetman, 2012) and are likely to provide a reflection on an organisation's entrepreneurial stance. As discussed in the hypothesis formulation, the observation herein was to determine the likely impact of the EO cues extracted from annual reports and their impact on stock price movement.

Reliability and validity design considerations

Merging the qualitative and quantitative methodologies offers several advantages for this research. The approach affiliates to a comprehensive and panoramic understanding by means of drawing on the strengths of both qualitative and quantitative elements. This approach also provided a degree of freedom in the data collection approach. Both text data and stock performance (numerical) data are integrated to deepen the insights aimed at clarifying the research question. The research probed to understand the extent to which the EO dimensions impact the market performance of South African listed commercial banks following the announcement of annual results. To answer this, textual data was sourced from the listed commercial banks to extract the presence of EO cues. Following this, based on the announcement dates, stock performance data of the respective listed commercial banks was collected to provide insights on the effectiveness of the EO cues. This research process is understood as triangulation and is commonly understood to increase the perceived quality of the research (Cooper & Schindler, 2013) as opposed to solely conducting a qualitative or quantitative research this approach helped bridge the shortcomings of either methodology by looking at areas of convergence whereby both results from the different methodologies support each other to address the research question. Given this deliberation, the specific type of process used in this study is known as methodological triangulation. The research advantages gained from this process further justifies its selection for this study.

For credibility purposes, the process aided in reducing the inherent biases present in a single method, the qualitative method aided in contextualising the specific EO insights while the quantitative method assisted in aiding the study's generalisable trends and patterns, lastly by

corroborating the results through different approaches aided in enhancing the reliability of this research (Streefkerk, 2019).

To increase the degree of confidence in this research the following measures were taken to address internal and external validity issues. In research studies, internal validity pertains to the degree of confidence to which the results of a study reflect the true causal relationship between the studied variables without the influence extraneous factors or variables (Streefkerk, 2019). Potential factors closely related to this study that may impact internal validity were confounding variables which are variables other than the independent variable that might affect the dependent variable and selection bias that occurs with a non-randomised sampling method (Streefkerk, 2019). To enhance the study's validity the sampling method employed ensured that there is consistency with the population group and that it is diverse as the population group. secondly, the study also controlled for extraneous factors such as the size of the commercial banks and included a control variable for market capitalisation. Further, external validity concerns itself with the degree to which the findings of the study are generalisable to a broader population (Streefkerk, 2019). Again, sampling methods may potentially impact the external validity of the study and the mitigation strategy has been highlighted above.

3.3 Population and Sample

Population

To measure the impact of EO on stock performance the study makes use of the South African financial services industry. The JSE provides a wide list of listed financial services providers comprising of institutions that include insurance companies, investments and stock brokerage firms, wealth management, portfolio management, and banking (IMF, 2022) which approximately tallies up to north of 100 companies (JSE, 2022). The broader population group of this study consists of JSE (2022) listed financial organisations.

Sample and Sampling Frame

A key aspect of this analysis is to find observable organisations within the financial services sector where a sense of urgency to act entrepreneurially (Urban, 2020) exists more substantially relative to other industry players. In a nutshell, this means that some

organisations within the financial services industry would readily benefit from entrepreneurial strategies relative to others because of their daily business activities. For example, retail banks interact with its customers daily which makes observing changes to any entrepreneurial activity more quickly. Aligned with these interests the sample of this study focused on financial institutions known to provide everyday consumer banking services such as retail banks.

According to the South African Reserve Bank (2022) the number of banks recorded in in the country equates to 69 and is inclusive of registered banks, mutual banks, co-operative banks, Local branches of foreign banks, and foreign banks with approved local representative offices. Since the study's focus is on the South African market, a total of 42 foreign banks were excluded from the analysis. Further the study's aim was to focus on banks that were established for a commercial purpose and are defined as a public company registered as a bank in terms of the Banks Act, owned by shareholders (SARB, 2022). Therefore, Co-operative banks which focuses on specific services, i.e., agricultural services and mutual banks who do not have shareholders but are owned by its depositors were excluded. This resulted in 18 registered banks to be observed in the study. In order to ensure that secondary textual data can be obtained from the commercial bank's annual reports and share price data can be obtained the study further zoned into publicly traded commercial banks in the country. The logic in observing traded commercial banks hinges on the perspective that assessing changing consumer behaviour and demographics will seamlessly illustrate the impact on the strategic course of the commercial banks (Ketley et al, 2019). It is also consistent with gratifying a sense of urgency to act entrepreneurially (Urban, 2020) on bank managers. Therefore, the Johannesburg Stock Exchange website (JSE 2020) was consulted to identify this list. Important to note, the key aspect considered for the sample was to:

- Ensure consistency with the population group and that the sample is as diverse as the population.
- Ensure transparency regarding the procedures followed to reach a sampled frame (Jha, 2015).

As such, the sampled listed commercial banks have similar distribution characteristics to that of the population group. For example, in addition to everyday banking services

commercial bank's also offer insurance services, wealth management services and investment services similar to those highlighted in section 3.3.1.

To obtain the sample, a cluster sampling approach (Cooper & Schindler, 2013) was leveraged where the financial services companies listed in the JSE were obtained. Using the labelling guide from Sharenet, this list was further segmented to enable the selection of companies classified as 'Bank' (Sharenet, 2022). The list of the firms identified were further observed and filtered against IG Groups (2022) list of best traded and listed JSE Banks. A list of 5 South African publicly traded commercial banks were gathered from the process.

The 5 South African publicly traded commercial banks were then used to extract the Chairman's and CEO's review from the respective bank's annual reports between the period of 2018 to 2022. The daily close share price history data for the respective commercial banks necessary for observing performance was obtained from Sharenet which provides financial information for South African markets (Sharenet, 2022). This sampling strategy was advantageous for this study as it presented an opportunity for reduced variability as the subgroups have homogeneity between them but reserve heterogeneity within them (Cooper and Schindler, 2013), which will elucidate desired behavioural observation of stock performance.

3.4 The Research Instrument

This section details the research instrument used in the study based on how the study's constructs were operationalised. The approach of the study first draws on EO literature to examine how the presence of EO cues trigger a response in the stock market. Consistent with Jancenelle et al. (2016) the study initially draws on secondary textual data retrieved from the annual integrated reports of South African listed commercial banks to assess and extract the presence of EO dimension cues as per Miller's (1983) prescription. The presence of these cues was extracted and constructed using guidance from Short et al. (2010) validated computer assisted text analysis. In their research, Short et al. (2010) further substantiates the use of alternative software tools for text analysis that have proven reliability than manual human coding. As such, the study leveraged an open-source R platform which maintains a wide-range of text analysis packages required to draw out EO cues from the annual reports (Welbers, Van Atteveldt & Benoit, 2017) as per Short et al. (2010) prescriptions. Furthermore, using Short et al. (2010) validated EO cues word list,

please see table 1, a dictionary was created in R to specifically extract the EO related words grouped as topics. Using dictionaries has been proven as a computationally powerful method in performing fine grained analyses such as text analytics and has been used to observe subjects such as media attention and framing in corporate news which are similar to this study's sought-after objectives (Welbers et al., 2017). Each of the EO dimensions namely, proactiveness, innovativeness and risk-taking were extracted and normalized for analysis.

EO Dimensions	Word Lists
Proactiveness	Anticipate, envision, expect, exploration, exploratory, explore, forecast, fore glimpse, foreknow, foresee, foretell, forward-looking, inquire, inquiry, investigate, investigation, look-into, opportunity-seeking, proactive, probe, prospect, research, scrutinization, scrutiny, search, study, survey
Innovativeness	Ad-lib, adroit, adroitness, bright-idea, change, clever, cleverness, conceive, concoct, concoction, concoctive, conjure-up, create, creation, creative, creativity, creator, discover, discoverer, discovery, dream, dream-up, envisage, envision, expert, form, formulation, frame, framer, freethinker, genesis, genius, gifted, hit-upon, imagination, imaginative, imagine, improvise, ingenious, ingenuity, initiative, initiator, innovate, innovation, inspiration, inspired, invent, invented, invention, inventive, inventiveness, inventor, make-up, mastermind, master-stroke, metamorphose, metamorphosis, neoteric, neoterism, neoterize, new, new-wrinkle, innovation, novel, novelty, original, originality, originate, origination, originative, originator, patent, radical, recast, recasting, resourceful, resourcefulness, restyle, restyling, revolutionize, see-things, think-up, trademark, vision, visionary, visualize
Risk-taking	Adventuresome, adventurous, audacious, bet, bold, bold-spirited, brash, brave, chance, chancy, courageous, danger, dangerous, dare, daredevil, daring, dauntless, dicey, enterprising, fearless, gamble, gutsy, headlong, incautious, intrepid, plunge, precarious, rash, reckless, risk, risky, stake, temerity, uncertain, venture, venturesome, wager

Table 2 – EO Word Lists

Note: Short et al., (2010) created and tested these wordlists for content, external, discriminant and predictive validity. This table contains an extract of the three dimensions and excludes autonomy and competitive aggressiveness that can be sourced from Short et al., (2010) Journal.

The event-study methodology (a precept from the efficient market hypothesis) was leveraged to help operationalise the study's dependent variable, market performance. Event-study was examined by Fama et al. (1969) to assess the speed of price adjustments to specific kinds of new information. The methodology is fundamental to the study as it helps statistically examine the impact of new or specific information on of common stock prices

(Fama et al., 1969). In summary, as prescribed by Fama et al. (1969) the methodology consisted of the steps:

- Obtaining the listed commercial bank’s closing stock price on the specific event day- SENS announcement and release of annual integrated reports - and calculating the event day’s rate of return

$$R = \frac{V_f - V_i}{V_i}$$

- Calculating the stock’s rate of return against its index rate of return as per the estimation window – 45-day window (Jancenelle et al., 2016) and calculating the difference between the returns obtained on the announcement day and the average index returns.
- The control variable was simply observed by obtaining the logarithm of the respective commercial bank’s market capitalization.

Construct/Variable	Literature Sources	Comment on Instrument
Entrepreneurial Orientation dimensions (IV) a) Proactiveness b) Innovativeness c) Risk-taking	Welbers et al. (2017) Silge & Robinson, 2016 Short et al. (2010)	Please see ‘ <i>Coding the EO dimensions</i> ’ sub-section.
Market Performance (DV)	Fama et al. (1969) Jancenelle et al. (2016)	Event days Rate of return 45-day return-series beginning at day t-47 and ending at t-2 (45-day average) Abnormal returns: Event day’s rate of return less the 45-day average.
Market Capitalisation (CV)	Jancenelle et al. (2016)	Natural Log of Market Capitalisation

Table 3 – Measurement Instrument

Coding the EO Dimensions

The operationalisation of the EO dimensions ascribed to the prescriptions provided by Silge and Robinson (2016) to extract the specific text related to the study’s required independent

variables i.e., proactiveness, innovativeness and risk-taking. The sections extracted from the annual reports were saved as PDF files for compatibility purposes. Using the open-source R platform a set of packages that contain a set of standardised collection of code and documentation were required to run the text analysis. This included pdftools, tidytext, dplyr, and tidyr (Silge & Robinson, 2016). Through using a function called ‘lapply’ in R, the uploaded PDF files were converted into a list which was used as the study’s data frame. A general process that is used in natural language processing for text-analysis is the removal of numbers and stop words which are commonly used words but do not add much information to the text i.e., articles, prepositions, conjunctions, etc. (Silge & Robinson, 2016). Given this, it was easier to determine the total count of words in each of the annual report data sets required for normalising (controlling for varying word counts). To finalise this process and obtain word assignments of the three EO dimensions a dictionary was created which had representative words based on Short et al., (2010) EO word list. Leveraging the LDA algorithm which returned a data frame with a frequency count of words associated with either proactiveness, innovativeness and risk-taking, extracted from the pdf documents.

3.5 Procedure for Data Collection

Entrepreneurial Orientation Dimensions (Independent Variable)

The annual integrated reports of the sampled commercial banks from the year 2018 to 2022 were sourced from their respective investor relations website. The Chairman’s report, CEO’s review, and strategy were extracted from the annual reports which tallied up to a total of 22 documents as some commercial banks report on performance a year behind the current. In a similar vein to Jancenelle et al. (2016) the EO dimension variables were operationalised following the guidelines provided by Short et al. (2010). In their construct validation research, Short et al. (2010) used the construct of entrepreneurial orientation suggested by Lumpkin and Des (1996) covering five dimensions – autonomy, innovativeness, risk-taking, proactiveness and competitive aggressiveness. A wordlist which makes up these dimensions was statistically validated and evidenced to control for discrepancies and provide a near-perfect reliability (Short et al., 2010).

A derived wordlist of the EO constructs is provided in Table 1. Short et al. (2010) further identify that the use of Computer-Aided Text Analysis (CATA) may be substituted by a

variety of other human-coded analysis trade-offs. This study leveraged a form of text analysis in R - a programming language for statistical computing (Grolemund, 2014) - known as topic modelling. In topic modelling a collection of documents such as articles, news and in this case annual reports are used to find natural groups of items through a process called Latent Dirichlet allocation (LDA) (Silge & Robinson, 2016). One of the approaches of the of the LDA algorithm is assigning each word in each document to a topic (Silge & Robinson, 2016). An adopted approach for this study was to create a dictionary of topics based on Short et al. (2010) operationalised wordlist for each of the three hypothesised dimensions. The 22 documents of annual integrated reports were run through a topic modelling R code to extract a count of words linked to their respective EO dimension topics. A total sum of 156999 words were obtained following the removal of numbers and stop words – frequent words that provide little information. A total 673 of these words were associated with the EO dimension topics. Consistent with Jancenelle et al. (2016) in order to control for varying word counts in the data, each EO dimension word count per document were normalised by dividing it to the number of words from the extracted reports.

Performance (dependent variable)

An impressive body of empirical knowledge exists in the field of measuring a company's entrepreneurial stance to performance (Abuya, 2016; Jancenelle et al., 2016) and particularly in how stock price movements react to company announcements (Patelli and Pedrini, 2013; Henry, 2008) This provides a rich guideline for applying the study in a South African banking context. Consistent with Jancenelle's et al. (2016) recommendation, the methodology for collecting and structuring performance related stock data followed the event-study approach. Leveraging the methodology assisted in measuring the impact of EO cues on stock performance. In the event-study method Fama et al. (1969) examined the process by which common stock prices adjust to information providing a rigorous approach to fulfil the objectives of this study. This entailed adjusting stock price returns for general market conditions (Fama et al. 1969) and was accommodated by leveraging abnormal returns rate (Jancenelle et al, 2016) which allowed the analysis to track performance of an individual asset relative to a certain benchmark. The advantage of this approach is that it measures the true extent of performance gains or losses as Fama et al. (1969) explains that this accounts for the general stock market conditions. In their research, Fama et al. (1969) further substantiate the effective use of the event study methodology explaining the behaviour of stock returns in light of new market information. This study aims to draw out

the specific associations of this behaviour with EO dimension related cues. The respective commercial bank's closing stock price on the day of the announcement and release of annual performance was used to obtain the stock price reaction and was calculated as a single day's event window as per (Jancenelle et al, 2016) prescriptions. The exact dates of the announcements were obtained from Sharenet (2022) where a list of JSE Stock Exchange News Services (SENS) releases are available. The relevant closing stock price performance data for the respective announcement days was obtained by looking at the share price history available on Sharenet for the period of 2018 to 2022. In a similar fashion to Jancenelle et al. (2016), the study relied on a benchmark index to calculate the abnormal returns using a 45-day return-series beginning at day t-47 and ending at t-2. The All-Share Index was used to obtain these figures. Once each of the stock price returns from the single day's window and the 45-day average window were obtained, the difference between the two were calculated to obtain the abnormal return performance for each of the announcement days.

Control variables

To eliminate the possibility of biasness from the study's results, the market size control variable was used to observe whether the reactionary outcomes might be influenced. Originally as per Jancenelle et al. (2016) methodology, both the market size of the respective commercial banks and missed earnings – earnings per share (EPS) figures – were observed. However, in the South African context sources for company guidance on EPS figures were unavailable. As an alternative analyst forecasts on company's EPS were extracted from Bloomberg. Despite this approach, in observing these forecasts to the actual EPS figures it was found that all reported estimates were consistently overstated throughout the period selected for the study rendering the missed earnings variable. As a result, this control variable was eliminated from this study. The control variable for size was processed by using the natural logarithm of each of the respective commercial bank's market capitalisation on the day of the SENS announcement and the data for these values was obtained from Bloomberg (2022).

3.6 Data analysis and interpretation

The collected data was analysed using open-source platform R for the text analysis (Welbers et al., 2017; Silge & Robinson, 2016) and Stata a general-purpose statistical software.

The following analysis methods were leveraged:

- Descriptive statistics
- Correlations for the study's variables to assess association and multicollinearity
- Ordinary Least Squares regression to test the three sub-hypotheses

Descriptive statistics

Descriptive statistics reveal important characteristics of the data's distribution relating to central tendency, variability, and shape (Cooper & Schindler, 2013). Descriptive analytics are observed in this study to assess the sample characteristics of the data and possibly highlight possible relationships between variables.

Correlation Coefficients

The primary objective of conducting a correlation analysis, according to Gujarati and Porter (2009) is to measure the strength or degree of linear associations between variables. It is further advised that correlation coefficients range from -1 to +1 respectively indicating negative linear relationship or positive linear relationship (Gujarati and Porter, 2009). In this study, running a correlation analysis assisted in determining the substantiality in further investigating the variables. Additionally, through running a correlation analysis, the study will be able to depict whether there are issues of multicollinearity. According to Gujarati and Porter (2009) multicollinearity looks at the existence of a perfect linear relationship among some or all explanatory variables, if found to be perfect it renders the independent variables indeterminate. The correlation coefficient was used to assess the degree of association between the variables required for this study.

Ordinary Least Squares (OLS) Regression

Consistent with Jancenelle et al. (2016), this study applied the OLS regression analysis. The method of least squares is said to provide some optimum properties and is a commonly used procedure for regression analysis (Gujarati & Porter, 2009). The method of least squares is used to find the best-fitting line for a set of data points and results in the least amount of

difference in the data points (Field, 2009). Over and above following the methodological prescriptions provided in Jancenelle's et al. (2016) research, the OLS regression model was advantageous for this study as it helped identify the line that best represents the observed data (Field, 2009) and is understood to hold properties of the 'best linear unbiased estimator' (Gujarati & Porter, 2009) meaning that the estimator:

- It is a linear function of a random (dependent) variable
- It is unbiased - the average expected value is equal to the true value
- It has minimum variance

3.7 Ethical considerations

This academic research adheres to the University of the Witwatersrand code of ethics for conducting this research. A clearance certificate was issued by the University for the final research report.

No participants were required for the data collection. Secondary data that is publicly available was used.

A commitment to avoid plagiarism will be provided and will acknowledge all sources used and a declaration will be signed.

Protocol Number: WBS/BA1448638/744

4. CHAPTER 4: RESEARCH DATA ANALYSIS

4.1 Introduction

This section presents the results of the collected data and the statistical analysis. The research question discussed in the first chapter guided the type and collection of data to meet the research objective and was constructed as per the methodological guidance in the third chapter. Following the data preparation process, the study retained 66 observations for the analysis. The descriptive analysis and regression analysis are deliberated further on in this chapter.

4.2 Descriptive Analysis

EO Cues

A total of 673 EO related words grouped under proactiveness, innovativeness and risk-taking were extracted from the annual integrated reports. 53% of these words belonged to the innovativeness topic, 30% belonged to risk-taking and the remaining 17% to proactiveness. Figure 2 depicts the percentage spread of EO cues.

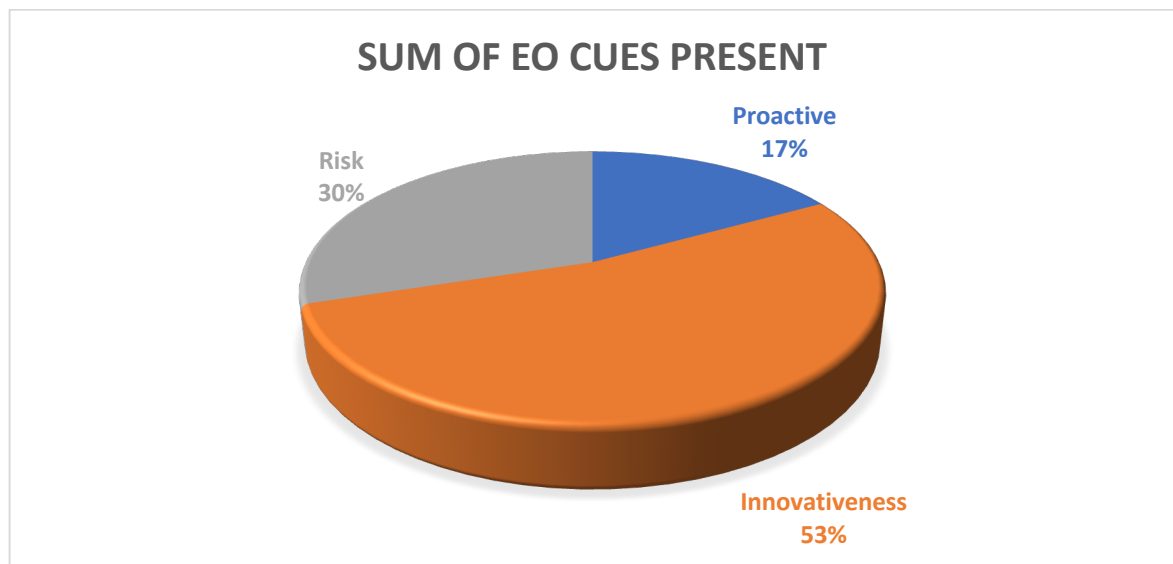


Figure 2 – Sum of EO Cues Present

Market Capitalisation (Size)

The study further observed the size of each of the listed commercial banks, on average Bank 1 ranked first, followed by Bank 2, Bank 5, and Bank 3. Bank 4 had the least average of the observed listed commercial banks as illustrated in Figure 3.

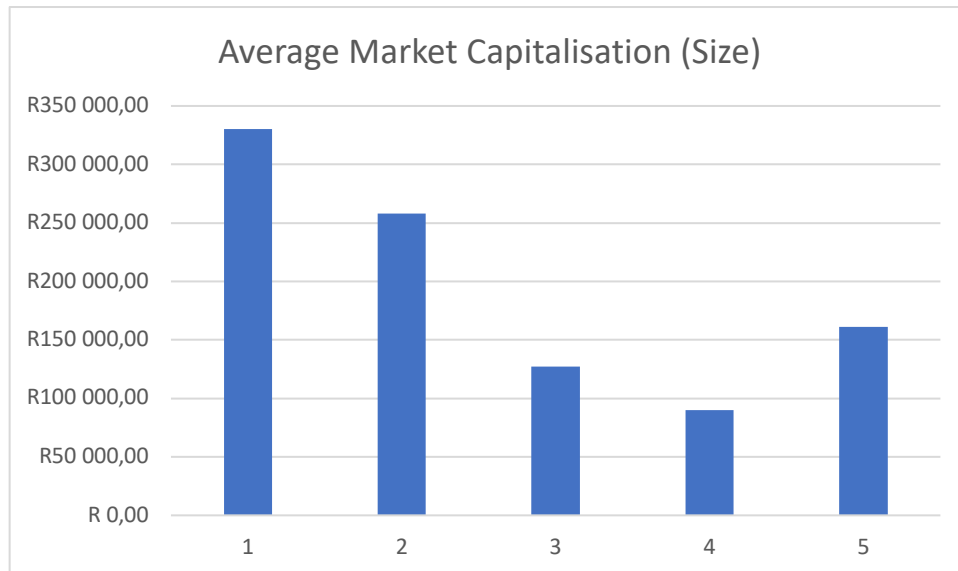


Figure 3 – Average Market Capitalisation (Size) by Bank

Interesting to note was the presence of EO dimensions in each of the listed commercial banks. Again, Bank 1 illustrated a higher value of 194, followed by Bank 4 at 163. Bank 2 showed a value of 142, followed by Bank 3 at 111 and lastly Bank 5 at 63. Please see figure 4 for the graphical representation.

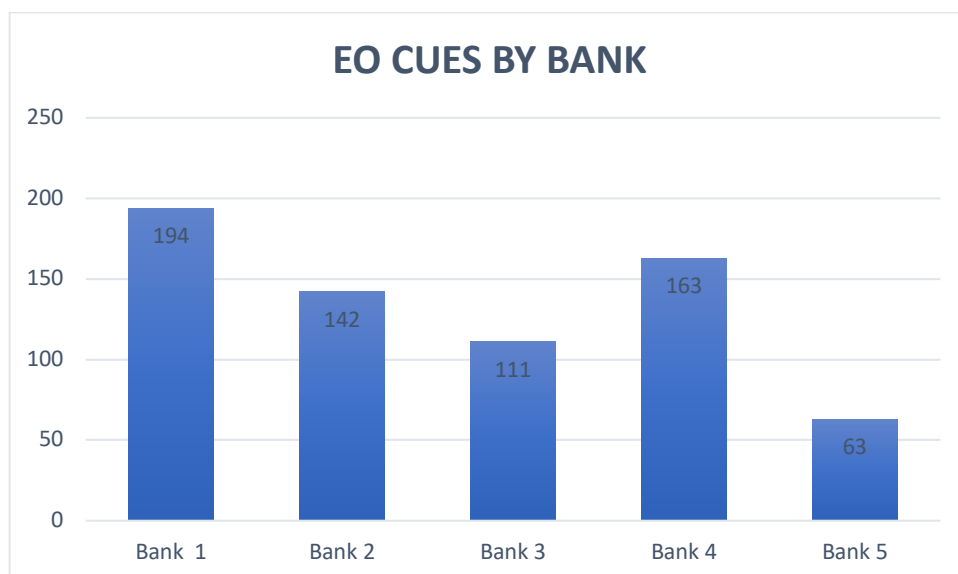


Figure 4 – EO Cues by Bank

4.3 Correlation

Descriptive Statistics

Variable	Observations	Mean	Std. Dev	Min	Max
1. Market performance (Abnormal Returns)	66	.0041504	.0211672	-.0330623	.0385553
2. Size	66	12.06118	.5402242	10.9506	12.84212
3. Proactiveness	66	.0007336	.001382	0	.0053257
4. Innovativeness	66	.0021807	.0034422	0	.0126582
5. Risk-taking	66	.0012589	.0020844	0	.008344

Table 4 – Descriptive Statistics

Table 4 depicts the descriptive statistics on each variable and table 4 the correlation coefficients of the study's variables. In summary the findings indicate a low standard deviation showing that the data is closely spread around the mean value for each of the variable and proving its reliability. Secondly, the findings indicate that the correlations are negatively associated with abnormal returns revealing that size (-0.0997) has a near perfect negative linear relationship, followed by innovativeness (-0.0627), proactiveness (-0.0387), and risk-taking (-0.0129) respectively. Consistent with previous similar market performance studies (Jancenelle et al., 2016; Henry, 2008), the correlation between the variables is below 0.5 suggesting a low level of multicollinearity.

Correlation Coefficients

Variable	Correlation Coefficient	Abnormal Returns	Size	Proactiveness	Innovativeness	Risk-taking
1. Market performance (Abnormal Returns)	Pearson Correlation		1			
	Sig. (two-tailed)					
2. Size	Pearson Correlation	-0.0997		1		
	Sig. (two-tailed)	0.4256				
3. Proactiveness	Pearson Correlation	-0.0387	-0.0648		1	
	Sig. (two-tailed)	0.7574	0.6054			
4. Innovativeness	Pearson Correlation	-0.0627	0.0783	-0.3415**		1
	Sig. (two-tailed)	0.6172	0.5320	0.0050		
5. Risk-taking	Pearson Correlation	-0.0129	-0.0090	-0.3256**	-0.3885**	
	Sig. (two-tailed)	0.9180	0.9430	0.0076	0.0013	1

Notes: Statistical significance at the following levels * p < 0.05; ** p < 0.01; * p < 0.001**

Table 5 – Correlation Coefficient

4.4 OLS Regression

Table 6 presents the model summary and coefficients computed for the OLS regression analysis. The EO dimensions were computed individually in relation to Abnormal returns. The table presents a summary of the three sub-hypothesis results. H1 was not supported as the EO Cues of proactiveness ($R = -1.994954$) showed an inverse relationship to abnormal returns. H2 was also not supported with EO cues of Innovativeness ($R = -.8785882$) showing an inverse relationship to abnormal returns. H3 with EO cues of Risk-taking ($R = -1.134491$) indicated that risk taking in the financial services sector has an inverse relationship with stock performance, however this variable also had an insignificant prediction level and is therefore not supported.

Table 7 presents the bootstrapped results with a (S.E. = 9999) standard error. The results of the bootstrapped model were consistent with the initial model in that the priori expectation of the study was not met.

Variables	Model 1				Model 2			
	Coefficient	S.E.	t	Sig.	Coefficient	S.E.	t	Sig.
Intercept	.0512827	.0588365	0.87	0.387	.0552641	.0601874	0.92	0.362
Control Variable								
Size	-.0039078	.0048734	-0.80	0.426	-.0038393	.0049725	-0.77	0.443
Independent Variables								
Proactive					-1.994954	2.429021	-0.82	0.415
Innovativeness					-.8785882	1.001455	-0.88	0.384
Risk-taking					-1.134491	1.641858	-0.69	0.492
Model Properties								
F-Value		0.4256				0.8118		
R ²		0.0099				0.0252		
Adjusted R ²		-0.0055				-0.0387		

Table 6 – OLS Regression Results

	Model 3				Model 4			
Variables	Coefficient	S.E.	z	Sig.	Coefficient	S.E.	z	Sig.
Intercept	.0512827	.0661606	0.78	0.438	.0552641	.0660403	0.84	0.403
Control Variable								
Size	-.0039078	.0054809	-0.71	0.476	-.0038393	.0055722	-0.69	0.491
Independent Variables								
Proactive					-1.994954	2.357237	-0.85	0.397
Innovativeness					-.8785882	.9532043	-0.92	0.357
Risk-taking					-1.134491	1.810404	-0.63	0.531
Model Properties								
Chi²		0.4759				0.7360		
R²		0.0099				0.0252		
Adjusted R²		-0.0055				-0.0387		

Table 7 – Bootstrapped Results

5. CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

The thematic property of EO literature alludes to a commonly understood notion that the disposition of top-level management shapes the dominant logic of the overall firm and influences its proclivity toward entrepreneurial thinking (Wales et al.,2021). This puts into gear the routines (organisational configuration) to better exploit opportunities through a functioning of proactivity, innovation and risk-taking (Wales et al., 2020). Therefore, the level of existence of EO in an organisation equates to its purposefulness and strategic intent to bring about the rewards associated with entrepreneurial activity. For a profit driven public company this level of purposefulness and strategic direction can often be influenced by its shareholder's financial goals. For example, evidenced in literature, an organisation's entrepreneurial processes can enhance a shareholder's value through a work environment that gives its employees an opportunity to use their creative skills and quickening its response to market (Zarah, 1996). However, because the process of entrepreneurship often require unorthodox approaches literature also strongly depicts that it often introduces a managerial dilemma of balancing mainstream corporate activities (Miller, 1983; Burgelman 1983).

Moreover, there are other contributory factors that fall outside the official power of organisations belonging to a highly regulated industry that may impede some of their sought-after entrepreneurial activities. The results of the study were indicative of some of these contributory factors. The results indicated insignificant levels of association across the study's independent variables to abnormal returns suggesting that the outcomes were not in line with the priori expectation of this research. Caution is advised when interpreting the study's outcomes given its limitations. The results are discussed in further detail below.

5.2 Proactiveness

Consistent with Lumpkin and Dess (1996) view of proactiveness, the intention of assessing this dimension in this study was partly to assess the perspective characteristics of the respective commercial banks leaders' foresight in strategically eliminating operations which are mature or declining in their stages of their life cycle. In anticipation of future demand, this would entail a discussion on product or service innovation in the annual reporting by the Chairman and CEO triggering the EO dimension cues to persuade activity in the share market.

H1: *There is a positive relationship between entrepreneurial orientation proactiveness and the market performance of South African Commercial Banks.*

The findings of the study established evidence that the existence of EO cues associated with proactiveness in the context of South African listed commercial banks is not a significant predictor of market performance. Starting this discussion on an entrepreneurially focused lens, findings from the study regarding this construct are evidenced by Lumpkin and Dess (1996) that a firm's proactiveness will be less strongly associated with high performance the more mature an organisation is in its industry life cycle. As is the case with any industry, incumbents often place a heavy load of confidence on their experience in the market and the South African commercial banking sector is no different. With a reported market share of 83% in 2022 indicating a highly concentrated South African banking environment (FSCA, 2022) is suggestive of the idea that the depicted commercial banks are well into their industry life cycle. Furthermore, leveraging the findings from Miller (1983) that hostile and dynamic environments breed entrepreneurially oriented organisations, and further confirmed by Lumpkin and Dess (1996) that proactiveness is positively related to performance in hostile environments applying this understanding to an oligopoly like market structure of the South African commercial bank context, it is deduced that the environment is not significantly hostile enough to induce a level of proactiveness to influence effects that are evident in the share market. However, caution must be taken as this fits the current context as it stands.

Competition in the industry has been increasing with new technologically focused entrants are absorbing the untapped market share and have fee structures that are

attracting the existing pool of customers, incumbents are forced to place emphasis on innovative products that will retain and attract low-income earners (FSCA, 2022). Not to be remiss of justifiable factors, incumbents must navigate through high-cost legacy infrastructure that could mitigate against its sought-after level of proactiveness (Niemand et al., 2020; Anthony et al., 2017; Ketley et al., 2019). However, relative to new industry players, incumbents also have treasure troves of data that could be used to provide value-added services to their customers (Anthony et al., 2017). Thus, the question boils down to whether the top-level leaders of South African commercial banks have an entrepreneurial posture to begin with as postulated by Covin and Slevin (1991). Perhaps an avenue for future research. Vis a vis the shareholder's perspective, this finding was also consistent with Jancenelle et al. (2016) who purport that proactiveness cues may be discounted by shareholders as impression management which is typically expected in market communication. Part in parcel of this view may be similarly reflected from a South African commercial bank's perspective whereby the text portion of the annual integrated reports serve a duality purpose of being informational and promotional (Henry, 2008). Henry (2008) asserts that the informational purpose is to impart facts about the company's performance while the promotion purpose aims to influence a favourable view from investors to increase their estimated values of the firm's securities. In the same vein, the annual integrated reports published by South African commercial banks serve to be informational and promotional; where financial and non-financial aspects of the company are detailed and although they are not explicitly meant to persuade investors their promotional aspects which deliberate on the organisation's prospects serve in informing investment analysis. Circulating back to the question posed earlier on whether the top-level management of South African commercial banks have an entrepreneurial posture, Ireland et al., (2009) posits that the consequential evidence of using an entrepreneurship strategy presents itself in the organisational processes and behaviours that would lend themselves to an organisations ability to advance its competitive capability and strategic repositioning.

Additionally, drawing back on the organisational configuration conversation it is learned that the "organisational processes, routines, structural choices and cultural climate foster and support a pattern of new entry" (Wales et al., 2020, p. 644). Applying this logic, it is safe to infer that the preceding years would have evidenced the 'proactive' organisational routines meaning that the EO cues discerned by shareholders in the

annual integrated reports would serve as confirmation of the actual intentions of the commercial banks. This simply reinforces the principles of cognitive psychology that human beings use ‘experience’ to interface the world (Zdanty, 2020) – that is, experiences generate responses which influence attitudes and behaviour. Thus, emanating from this it is reasonable to suggest that the existence of these cues are discounted as impression management

5.3 Innovativeness

The propensity to engage in new idea generation, experimentation as well as research and development reflects an organisation’s proclivity toward innovativeness (Lumpkin & Dess, 1996).

H2: *There is a positive relationship between entrepreneurial orientation innovativeness and the market performance of South African Commercial Banks.*

Conversely, the regression results showed that the existence of EO cues associated with innovativeness for South African listed commercial banks is not in line with the study’s expectations. This is inconsistent with previous findings and the convention that innovativeness supports performance in the EO-performance relationship (Jancenelle et al., 2016; Abuya, 2016). The lack of relationship between innovativeness and market performance in the South African commercial bank lens may be explained by the argument of perception. In the preceding chapters, it was learned that Shareholders engage in the practice of fundamental analysis which helps them determine their buy or sell positions. A close examination of the South African banking sector evidences the fact that the country is highly dominated by the listed commercial banks sampled in this study (South African Reserve Bank, (SARB) 2021); leading to a reasonable deduction that there are minimal factors motivating for fast-paced innovation as would be the case for organisations belonging to a perfect competition market structure. Although new entrants are introducing innovative concepts of what banking should look like, incumbents are still held back by legacy systems that impede on speedy transformations to absorb a large unbanked market share (Ketley et al., 2019). Moreover, from a traditional regulatory standpoint of the country, although there is still quite a trajectory that has to be covered for regulators to have clear positions on technology and innovation

in financial services the advent of cloud banking solutions by new entrants relays some evidence that the Reserve bank is taking a proactive stance not to stifle industry players (Ketley et al., 2019). However, well beknown and as research suggests there remains a growing need for embedding a culture of innovation within incumbent FSPs (Grosskopf et al.,2016). These perceptions are likely the driving force behind a lack of performance.

5.4 Risk-taking

H3: *There is a negative relationship between entrepreneurial orientation risk-taking the market performance of South African Commercial Banks.*

A large part of upholding an FSP's reputation is managing the strength of it risk mitigation processes. Financial sector regulators also enforce and uphold certain standards that ensure the safety and stability of the sector and ensures appropriate levels of business continuity (Ketley et al., 2019). As such, risk-taking was expected to have an opposite effect on market performance in contrast to the proactiveness and innovativeness dimensions. The study confirmed that he existence of EO cues associated with risk-taking for South African listed commercial banks are negatively associated with market performance. However, the results indicated an insignificant prediction level suggesting that the theory is not supported. The challenge could emanate from low sample size issues indicating that there is not enough evidence in the study to support the hypothesis.

5.5 Conclusion

Contextualising the findings to the South African commercial bank market, the experiment provides a new understanding regarding the EO-performance relationship. Although previous literature has extolled the implicitly assumed positive relationship between entrepreneurship and performance outcomes, evidence from this study confirm the proposition that entrepreneurial processes do in fact involve complex phenomena that may not always be aligned with strong performance outcomes (Lumpkin & Dess, 1996). There are a couple of observable and plausible overarching themes in explaining the outcomes of this experiment. Firstly, the ramifications of the study may be reflective of the selected period that the experiment was conducted. The Covid-19 pandemic

proved stressful to many organisations including South African banks. The pandemic was accompanied by low economic activity and uncertainty about the future which caused most banks to self-impose restrictions such as provisioning for non-performing loans (Shandu, 2022). This had an impact on the bank's profitability ratios which, *ceterus peribus*, consequently mean that these circumstances are likely to adversely influence investor behaviour thus resulting in a weakened market performance outlook. Secondly, as discussed above other forces at play may relate to discounting the existence of EO cues as impression management. The application of fundamental analysis used by investors to evaluate performance may be a contributing factor of this perception. Henry (2008) suggests that sophisticated investors are likely to compliment the text portion of their analysis with financial statement information rendering them to be less likely to be misled by lack of clarity or consistency. As such, the EO-performance relationship observation in this case is multifaceted and does not only rely on the qualitative analysis of annual integrated reports.

6. CHAPTER 6: CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

6.1 Limitations of the study

As with most experimental studies, there are limitations that need to be acknowledged. The generalisability of the results is limited by the small sample size from which to draw inferential statistics about the South African FSPs. To try improving the small sample challenge, bootstrap standard errors equal to 9999 were ran through the OLS regression again, however the results remained inconsistent with the study's priori expectation. The challenge could emanate from the sampling design. Although the cluster sampling design provided some advantages from which to draw an unbiased estimate of the population, there are some disadvantages that were encountered in the study. As the cluster sub-groups tend to be homogeneous, they are often found to produce lower statistical efficiency or much more error in the analysis (Cooper & Schindler, 2013). This is depicted in table 5 and 6 of the OLS regression models. Additional limitations encountered in the study resulted from its dependence on a finite number of words in the EO wordlist prescribed by Short et al. (2010). This limited the number of synonymous words that could be included as part of the text analysis.

6.2 Implications of the study

The results of the study suggest that the presence of EO dimension cues in South African listed commercial banks are not strong in influencing market performance. The key themes in explaining these outcomes are direct consequences of a highly regulated market, market events that are outside the control of management and the management of perceptions regarding the analysis of annual integrated reports. In an industry as highly regulated as the South African financial services industry practitioners require a deep understanding of the regulatory framework in order to navigate 'how' they capitalise on their entrepreneurial capabilities. Although the listed commercial banks reportedly hold 90% of the market share (BusinessTech, 2020) the executives of incumbents do face a dual challenge of modernising their business models whilst having to keep up and stave off competition from new entrants. Following the suggestion by Lumpkin & Dess (1996) the implications for practitioners would be to narrow focus on addressing questions of 'how' entrepreneurial process are

managed. Incumbents are encouraged to direct focus on how to rearchitect their business aligned with the regulatory terrain to extend services to a large unbanked market. To diffuse market communication perceptions practitioners must stand ready to implement and communicate their new implementations to the market to strongly indicate their entrepreneurial stance. For academic research, the study of EO dimensions and their relationship to market performance in the South African listed commercial bank market is a novel one. The research hereon presents a number of opportunities in order to achieve the generalisability of the results as presented in the recommendations section.

6.3 Recommendations for future research

The study of entrepreneurship in the South African financial services sector is an interesting one. The financial services sector is deemed as a crucial component of a functioning economy as a great deal of the market depends on its intermediary services. This research marks the first paper to study the direct effect of EO dimension cues on market performance in a South African commercial banking context and provide novel insight into the entrepreneurial dynamics that exist within the specific environment. As with many other research endeavours, this study had limitations that could be addressed in future research inquiries. An observation of the theory suggests that EO may be reflected in three types of behaviour i.e., a) top-level management risk-taking and strategic actions, b) frequent product innovation and tendency toward technological leadership and c) the firm's propensity to compete with industry rivals (Covin & Slevin 1991). Given this a recommendation for future research would be to observe the presence of these behavioural competencies within the South African commercial banking industry to extrapolate whether or not EO cognitions exist. A further recommendation is made to run the inquiry in an economy that has a large number of commercial banks. The effects of EO cues on market performance in a larger data sample may result in different prediction levels providing more insight into the contextual differences and the EO-performance relationship dynamics within the financial services industry. Future research could incorporate the quantitative aspect of fundamental analysis as moderating variables by looking at financial statements in addition to the qualitative textual analysis of annual reports. Different design methods to obtain the sampling frame i.e., stratification could be observed to determine if there are differences in the prediction levels.

6.4 Conclusion

The aim of this research was to determine the associative links of EO on market performance in South African listed commercial banks. The research drew on information from EO and corporate entrepreneurship literature as well as accounting-based theory to contextually depict the effect of EO on market performance. To achieve this, the research leveraged secondary textual data from the listed commercial bank's annual integrated reports to assess the EO constructs using the open-source R platform for text analysis. Based on the quantitative analysis, the priori expectation of the study was not supported due to a number of limitations in the study. However, the study also highlighted a number of contextual insights on the EO-performance relationship in South African listed commercial banks. To some degree, the regulatory standpoint of the country degree influences the entrepreneurial processes that can be adopted by commercial banks. Moreover, incumbents are still held back by legacy systems that impede on speedy transformations to absorb a large unbanked market share. These perceptions are likely the driving force behind the resultant market performance reactions. The implications therefore are for incumbents to adopt a deliberate and action-oriented stance in rearchitecting communicating their entrepreneurial processes in order to diffuse the perception of annual integrated reports being used as impression management.

Appendix A: Consistency Matrix

Exploring the impact of Entrepreneurial Dimensions (EO) on market performance in South African listed Commercial Banks							
Aim of the Research	Literature Review	Hypotheses	Research question	Variables (IV & DV)	Sources of Data	Type of Data	Analysis
This study aims to determine the impact of the EO innovativeness dimension on the market performance of South African listed Commercial Banks	Corporate Entrepreneurship and market performance: A content analysis of earning conference calls (Jancenelle et al., 2016)	H1: EO Innovativeness cues present in an annual integrated report are positively related to market performance	To what extent does the EO innovativeness impact the market performance of South African listed Commercial Banks	IV = EO Innovativeness DV = market performance Control Variable = Size of the Bank (Market Capitalisation)	Construct: EO Innovativeness Innovativeness: Annual Integrated Report (2018 to 2022) Dependent variable: Abnormal Returns Control Variables: Market Capitalisation	Innovativeness: Nominal Data Market performance: Continuous Data Market Capitalisation: Continuous Data	Correlation Coefficients Ordinary Least Squares Regression

<p>This study aims to determine the impact of the EO proactiveness dimension on the market performance of South African listed Commercial Banks</p>	<p>Corporate Entrepreneurship and market performance: A content analysis of earning conference calls (Jancenelle et al., 2016)</p>	<p>H2: EO Proactiveness cues present in an annual integrated report are positively related to market performance</p>	<p>To what extent does the EO proactiveness impact the market performance of South African listed Commercial Banks</p>	<p>IV = EO Proactiveness DV = market performance Control Variable = Size of the Bank (Market Capitalisation)</p>	<p>Construct: EO Proactiveness Innovativeness: Annual Integrated Report (2018 to 2022) Dependent variable: Abnormal Returns Control Variables: Market Capitalisation</p>	<p>Proactiveness: Nominal Data Market performance: Continuous Data Market Capitalisation: Continuous Data</p>	<p>Correlation Coefficients Ordinary Least Squares Regression</p>
<p>This study aims to determine the impact of the EO risk-taking dimension on the market performance of South African listed Commercial Banks</p>	<p>Corporate Entrepreneurship and market performance: A content analysis of earning conference calls (Jancenelle et al., 2016)</p>	<p>H3: EO risk-taking cues present in an annual integrated report are negatively related to market performance</p>	<p>To what extent does the EO risk-taking negatively impact the market performance of South African listed Commercial Banks</p>	<p>IV = EO Risk-Taking DV = market performance Control Variable = Size of the Bank (Market Capitalisation)</p>	<p>Construct: EO Risk-taking Innovativeness: Annual Integrated Report (2018 to 2022) Dependent variable: Abnormal Returns</p>	<p>Risk-taking: Nominal Data Market performance: Continuous Data Market Capitalisation:</p>	<p>Correlation Coefficients Ordinary Least Squares Regression</p>

					Control Variables: Market Capitalisation	Continuous Data	
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Appendix B: Research Instrument

The research instrument provided herein is supplementary to the information detailed in section 3.4. The code below illustrates the process that was taken for one of the commercial banks. Please note that for privacy reasons, the bank's name has been anonymised to Bank 1. The same process was followed for each bank across the sampled years.

R Code:

```
require(pdftools)
```

```
require(tidytext)
```

```
require(dplyr)
```

```
require(tidyr)
```

#load pdf

```
Bank1_document<- list.files(pattern = "2021 Bank1 AR.pdf$")
```

```
Text<- lapply(Bank1_document, pdf_text)
```

#pdf documents will load as a list, this variable will need to be converted into a vector

```
text1<- unlist(Text)
```

#Convert vector into data frame

```
Bank1_2021_df <- data_frame(page=1:9, Text=text1)
```

#unnest_tokens (sentence, text, token= "sentences")

```
tidy__Bank1_pdf <- Bank1_2021_df %>%
```

```
  unnest_tokens(word, Text)
```

#Remove stop words

```
new_pdf_clean <- tidy__Bank1_pdf %>%
```

```
  anti_join(stop_words)
```

#Remove numbers

```
new_pdf_clean<- new_pdf_clean[-grep("\\b\\d+\\b", new_pdf_clean$word),]
```

#Frequency of words

```
new_pdf_clean %>%  
  count (word, sort = TRUE)
```

#Determine frequency of words

```
Bank1_frequency_df = new_pdf_clean %>% count(word) %>% arrange(desc(n))
```

```
proactive_data<- filter(Bank1_frequency_df, word %in% c("Anticipate", "envision", "expect", "exploration", "exploratory", "explore", "forecast",  
"fore glimpse", "foreknow", "foresee", "foretell", "forward-looking", "inquire", "inquiry", "investigate", "investigation", "look-into", "opportunity-  
seeking", "proactive", "probe", "prospect", "research", "scrutinization", "scrutiny", "search", "study", "survey"))
```

```
innovativeness_data<- filter(Bank1_frequency_df, word %in% c("Ad-lib", "adroit", "adroitness", "bright-idea", "change", "clever", "cleverness",  
"conceive", "concoct", "concoction", "concoctive", "conjure-up", "create", "creation", "creative", "creativity", "creator", "discover", "discoverer",
```

```
"discovery", "dream", "dream-up", "envisage", "envision", "expert", "form", "formulation", "frame", "framer", "freethinker", "genesis", "genius",  
"gifted", "hit-upon", "imagination", "imaginative", "imagine", "improvise", "ingenious", "ingenuity", "initiative", "initiator", "innovate",  
"innovation", "inspiration", "inspired", "invent", "invented", "invention", "inventive", "inventiveness", "inventor", "make-up", "mastermind",  
"master-stroke", "metamorphose", "metamorphosis", "neoteric", "neoterism", "neoterize", "new", "new-wrinkle", "innovation", "novel", "novelty",  
"original", "originality", "originate", "origination", "originate", "originator", "patent", "radical", "recast", "recasting", "resourceful",  
"resourcefulness", "restyle", "restyling", "revolutionize", "see-things", "think-up", "trademark", "vision", "visionary", "visualize"))
```

```
risk_data <- filter(Bank1_frequency_df, word %in% c("Adventuresome", "adventurous", "audacious", "bet", "bold", "bold-spirited", "brash",  
"brave", "chance", "chancy", "courageous", "danger", "dangerous", "dare", "daredevil", "daring", "dauntless", "dicey", "enterprising", "fearless",  
"gamble", "gutsy", "headlong", "incautious", "intrepid", "plunge", "precarious", "rash", "reckless", "risk", "risky", "stake", "temerity", "uncertain",  
"venture", "venturesome", "wager"))
```

#Visualise

```
require(ggplot2)
```

```
tidy_pdf_clean %>%
```

```
  count (word, sort = TRUE) %>%
```

```
  filter(n>30) %>%
```

```
  mutate (word = reorder(word, n)) %>%
```

```
  ggplot (aes(word, n)) +
```

```
geom_col() +  
xlab(NULL) +  
coord_flip()
```

REFERENCE LIST

- Abuya, P. O. (2016). Entrepreneurial orientation and performance of commercial banks in Kenya. Retrieved from <http://erepository.uonbi.ac.ke/handle/11295/100273>
- Anthony, S., Gilbert, C., & Johnson, M. (2017). *Dual Transformation: How to Reposition Today's Business While Creating a Future*. Boston, Massachusetts: Harvard Business Review Press.
- Asmundson, I. (2022). *Financial Services: Getting the Goods*. Retrieved from <https://www.imf.org/external/pubs/ft/fandd/basics/finserv.htm>
- Barney, J. B. (1991). Firm resources and competitive advantage. *Journal of Management*, 17, 99–120.
- Bloomberg (n.d). Retrieved from <https://www.bloomberg.com/professional/solution/bloomberg-terminal/>
- Bowman, E. H. (1978). Strategy, annual reports, and alchemy. *California management review*, 20 (3), 64-71.
- Burgelman, R. A. (1983). A Process Model of Internal Corporate Venturing in the Diversified Major Firm. *Administrative Science Quarterly*, 28(2), 223–244.
<http://dx.doi.org/10.2307/2392619>
- Collins, W., Davie, E. S., and Weetman, P. (2012). Management Discussion and Analysis: An Evaluation of Practice in UK and US Companies. *Accounting and Business Research*, 23 (90), 123-137. <https://doi.org/10.1080/00014788.1993.9729870>
- Cooper, D., and Schindler P. (2013). *Business Research Guidance*. 12th edition. New York: McGraw-Hill Education.

Covin, J. G., & Miles, M. (1999). Corporate Entrepreneurship and the Pursuit of Competitive Advantage. *Entrepreneurship Theory and Practice*, 23, 47–64.

<https://doi.org/10.1177/104225879902300304>

Covin, J. G., & Wales, W. J. (2012). The measurement of entrepreneurial orientation. *Entrepreneurship Theory and Practice*, 36(4), 677–702.

Cresswell, J.W. (2009). *Research Design: Qualitative, quantitative, and mixed methods approaches*. The United States of America: SAGE Publications, Inc.

Demirkan, I., Yang, Q., & Jiang, C.X. (2019). Corporate entrepreneurship of emerging market firms: current research and future directions. *New England Journal of Entrepreneurship*, 22 (1), 5-30.

El-Wassal, K. A. (2013). The Development of the Stock Market: In search of a Theory. *International Journal of Economics and Financial Issues*, 3 (3), 606-624.

Fakhry, B. (2016). A Literature Review of the Efficient Market Hypothesis. *Turkish Economic Review*, 3 (3), 431-442.

Fama, E.F., Fisher, L., Jensen, M.C., & Roll, R. (1969). The Adjustment of Stock Prices To New Information. *International Economic Review*, 10 (1), 1-21.

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London: SAGE publications Ltd.

Financial Sector Conduct Authority (FSCA). (2022). Financial Sector Outlook Study. Retrieved from

<https://www.fsca.co.za/Documents/FSCA%20Financial%20Sector%20Outlook%20Study%202022.pdf>

Fintibi. (2019). *History and the development of financial analysis*. Retrieved from <https://www.fintibi.com/history-and-the-development-of-financial-analysis/#:~:text=How%20fundamental%20analysis%20was%20invented,nov%20in%20its%20fifth%20edition>

- Grebel, T. (2007). Neo-Schumpeterian perspectives in entrepreneurship research. In Hanusch, H., & Pyka, A. (Editors). *Elgar Companion to Neo-Schumpeterian Economics*. Edward Elgar Publishing Limited.
- Grolemund, G. (2014). *Hands-On Programming with R*. USA: O'reilly Media Inc.
- Grosskopf, J., Beyers, S., Van Veldon, L., Roopnarain, R., & Stonebridge, D. (2015). *Growing in turbulent times: A major banks analysis – South Africa*, PWC. Retrieved from <https://www.pwc.co.za/en/assets/pdf/major-banks-analysis-march-2016.pdf>
- Gujarati, D.N., & Porter D.C. (2009). *Basic Econometrics* (5th Edition). Asia: McGraw-Hill.
- Guth, W., & Ginsberg, A. (1990). Guest Editor's Introduction: Corporate Entrepreneurship. *Strategic Management Journal*, 11, 5–15.
- Henry, E. (2008). Are Investors Influenced by How Earnings Press Releases Are Written? *The Journal of Business Communication*, 45 (4), 363-507.
- Hooper, V., Sim, A. B., & Uppal, A. (2009). Governance and stock market performance. *Economic Systems*, 33, 93-116.
- IG Group (n.d) Retrieved from <https://www.iggroup.com/>
- Ireland, D., Covin, J., and Kuratko D., (2009). Conceptualizing Corporate Entrepreneurship Strategy. *Entrepreneurship Theory and Practice*. Baylor University.
- Jancenelle, V.E., Storrud-Barnes, S. & Javalgi, R.G. (2016). Corporate entrepreneurship and market performance: a content analysis of earnings conference calls. *Management Research Review*, 40 (3), 352-367.
- Jha, G., (2015, July 2017). *Sampling Techniques: How to choose a representative subset of the population*. Retrieved from https://humansofdata.atlan.com/2017/07/6-sampling-techniques-choose-representative-subset/#3_Probability_Sampling_Techniques
- Johannesburg Stock Exchange (n.d). Retrieved from <https://clientportal.jse.co.za/companies-and-financial-instruments>

Ketley, R., Naidoo, B., Smith, A., & Zylstra, P. (2019). Outlook for cloud banking in Africa: The regulatory opportunity. Retrieved from <https://www.genesis-analytics.com/projects/cloud-based-banking-could-significantly-reduce-costs>

Khaldi, K. (2017). Quantitative, Qualitative or Mixed Research: Which Research Paradigm to Use? *Journal of Educational and Social Research*, 7 (2), 15-24.

Lee, C., Lee, K., & Pennings, J. M. (2001). Internal capabilities, external networks, and performance: A study on technology-based ventures. *Strategic Management Journal*, 22(6/7), 615–640.

Lisboa, A., Skarmeas, D., & Lages, C. (2011). Entrepreneurial orientation, exploitative and explorative capabilities, and performance outcomes in export markets: A resource-based approach. *Industrial Marketing Management*, 40, 1274 – 1284.

[doi:10.1016/j.indmarman.2011.10.013](https://doi.org/10.1016/j.indmarman.2011.10.013)

Lobel, B. (2020). *How Does the Stock Market Affect the Economy? A Trader's Guide*. Retrieved from <https://www.dailyfx.com/education/understanding-the-stock-market/how-the-stock-market-affects-the-economy.html>

Lumpkin, G.T., & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21 (1), 135 – 172. Retrieved from <https://doi.org/10.5465/amr.1996.9602161568>

Marx, B., & Mohammadali-Haji, A. (2014). Emerging trends in reporting: an analysis of integrated reporting practices by South African top 40 listed companies. *Journal of Economic and Financial Services*, 7 (1), 231-250.

Merkel-Davies, D.M., & Brennan, N.M. (2007). Discretionary Disclosure in Corporate Narratives: Incremental Information or Impression Management. *Journal of Accounting Literature*, 27, 116-196.

Miller, D. (1993). The correlates of entrepreneurship in three types of firms. *Management Science*, 29 (7), 770 – 791. <https://doi.org/10.1287/mns.29.7.770>

Niemand, T., Rigtering, J. P. C., Kallmunzer, A., Kraus, S., & Maalaoui, A. (2020). Digitalization in the financial industry: A contingency approach of entrepreneurial orientation and strategic vision on digitalization. *European Management Journal*, 39 (3), 317-326.

<https://doi.org/10.1016/j.emj.2020.04.008>

Oosthuizen, J., (2015). Corporate Entrepreneurship. In Venter, R., Urban, B. (2015). *Entrepreneurship theory in practice* (3rd Ed.). South Africa: Oxford Southern Africa.

Patelli, L., & Pedrini, M. (2013). Is the optimism in CEO's letters to Shareholders sincere? Impression management versus communicative action during the economic crisis. *Journal of Business Ethics*, 124 (1), 19-34.

Peng, M. W., Luo Y., Shenkar, O. & Wang, D.Y. (2001). Treasures in the China house: A review of management and organizational research on Greater China. *Journal of Business Research* 52(2), 95–111.

Peterson, R. A., & Berger, D.G. (1971). Entrepreneurship in Organisations: Evidence from the popular music industry. *Administrative Science Quarterly*, 16(1), 97-106.

Ravjee, B., & Mamabolo, A. (2019). The impact of corporate entrepreneurship on service innovation: A case of a South African banking institution. *The South African Journal of Entrepreneurship and Small Business Management*, 11 (1), 1-12. Retrieved from <http://doi.org/10.4102/sajesbm.v11i1.155>

Schroder, K., Tiberius, V., Bouncken, R. B., & Kraus, S. (2020). Strategic entrepreneurship: mapping a research field. *International Journal of Entrepreneurial Behaviour & Research*, 27 (3), 753-776. DOI [10.1108/IJEER-11-2020-0798](https://doi.org/10.1108/IJEER-11-2020-0798)

Sharenet (n.d). Retrieved from <https://www.sharenet.co.za/>

Sharma, P., & Chrisman, J.J. (1999). Toward a reconciliation of the definitional issues in the field of corporate entrepreneurship. *Entrepreneurship Theory and Practice*, 23 (3), 11 – 27. doi: 10.1007/978-3-540-48543-8_4

Sharma, P., & Chrisman, S. J. J. (1999). Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship. *Entrepreneurship Theory and Practice*, 23(3), 11–27.

Short, J.C., Broberg, J.C., Cogliser, C.C. and Brigham, K.C. (2010), “Construct validation using computer-aided text analysis (CATA): an illustration using entrepreneurial orientation”, *Organizational Research Methods*, 13 (2), 320-347.

Silge, J., & Robinson, D. (2016). *Text Mining with R*. USA: O’reilly Media Inc.

Streefkerk.R. (2019). Internal vs. External Validity | Understanding Differences & Threats. Retrieved from <https://www.scribbr.com/methodology/internal-vs-external-validity/>

Tang, J., Tang, Z., Marino, L.D., Zhang, Y., & Li, K. (2008). Exploring an Inverted U-Shape Relationship between Entrepreneurial Orientation and Performance in Chinese Ventures. *Entrepreneurship Theory and Practice*, 32 (1), 219-239.

Urban, B. (Editor), (2010). *Technopreneurship. Perspectives in entrepreneurship: a research companion*. South Africa: Heinemann.

Urban, B., & Verachia, A. (2019). Organisational antecedents of innovative firms: a focus on entrepreneurial orientation in South Africa. *International Journal of Business Innovation and Research*, 18 (1), 128-144.

Wales, W. J., Covin, J. G., & Monsen, E. (2020). Entrepreneurial orientation: The necessity of a multilevel conceptualization. *Strategic Entrepreneurship Journal*. DOI: 10.1002/sej.1344

Wales, W. J., Gupta, V. K., & Mousa, F.-T. (2013). Empirical research on entrepreneurial orientation: An assessment and suggestions for future research. *International Small Business Journal*, 31(4), 357–383.

Welbers, K., Van Atteveldt, W., & Benoit, K. (2017). Text Analysis in R. *Communication Methods and Measures*, 11 (4), 245-265. <https://doi.org/10.1080/19312458.2017.1387238>

Zahra, S. A. (1996). Governance, Ownership, and Corporate Entrepreneurship: The Moderating Impact of Industry Technological Opportunities. *Academy of Management Journal*, 39(6),1713–1735.

<http://dx.doi.org/10.2307/257076>

Zdanty, I. (2020). *Understanding human behavior: The softer side of experience management*. Retrieved from <https://www.qualtrics.com/blog/understanding-human-behavior/>