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Correlates of organisational culture, employee creativity, and innovation towards explaining entrepreneurial banks

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in Entrepreneurship and New Venture Creation.

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ABSTRACT

The South African commercial banks have undergone immense regulatory and technological changes post-1994, to such an extent that these changes have increased competition among the big players in South Africa, which have forced financial innovations, and other strategies to reduce costs and propel intrapreneurship.

In this research, the relationships between organisational culture and entrepreneurial orientation, as well as human resource management and entrepreneurial orientation were explored. Furthermore, the relationship between employee creativity and innovation, were investigated using the perceptions of employees at specific banks selected for the study. Entrepreneurial orientation was applied using its three dimensions, innovation, risk-taking and pro-activeness. The banks selected for convenient sampling were: FNB, ABSA, Standard Bank, Nedbank, Investec, and RMB.

A structured online survey was used to examine the constructs: organisational culture, employee creativity, human resource management, innovation, and entrepreneurial orientation. A link was sent to the employees in the selected banks and once all responses were received, the data was cleaned and the relevant statistical tests were applied.

The results showed an inter-relationship between the constructs. It was determined that a significant relationship existed between organisational culture and entrepreneurial orientation, human resource management and entrepreneurial orientation, as well as employee creativity and innovation.

The study concluded by noting the importance of leaders in organisations in driving a culture of inclusion where employees were given resources to innovate, and were motivated and encouraged to be entrepreneurial.

DECLARATION

I, **Skhumbuzo W Gcabashe**, 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 Entrepreneurship and New Venture Creation in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Skhumbuzo W Gcabashe

Signed at ……

On the …….. day of November 2018.

DEDICATION

I would like to dedicate this research to my family, especially my wife, for the continuous support and encouragement. Having completed this research means a great deal to me.

I love you guys.

ACKNOWLEDGEMENTS

A big thank you to all the professionals in academia who assisted with this research. Thank you to Dr McEdward Murimbika for supervising this research and assisting with your invaluable knowledge. A further thank you is extended to Dr José Barreira for starting this journey with me.

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CHAPTER 1. INTRODUCTION

According to the Banking Association of South Africa, the country has developed an efficient and well-regulated banking operation that is competent and acknowledged worldwide as one of the best. After 20 years of democracy, this sector has transformed through mergers, technology advancement, and legislative improvements (Banking Association of South Africa, 2013). Oldenboom and Abratt (2000) further asserted that organisations should understand innovation and the economy from a wider perspective in order to be internationally competitive.

This study investigated the relationship between organisational culture (OC) and entrepreneurial orientation (EO). The study continued to investigate the relationship between human resource management (HRM) and EO and the relationship between employee creativity (EC) and innovation in the banking environment. The research hypothesised whether a relationship existed between the constructs, as perceived by the employees of the chosen banks. According to theory, EO had a positive impact on business success (Dess & Lumpkin, 2005; Kuratko, Morris, & Covin, 2010; Lockwood, 2007; Poon, Ainuddin, & Junit, 2006; Gilson & Shalley, 2004; Urban, 2008; Urban & Barreira, 2010). The research aimed to test the main constructs, which were OC, HRM, EC, innovation, and EO. In this study, OC, HRM, and EC were the independent variables. EO and innovation were the dependent variables.

1.1 Purpose of the study

The purpose of this research was to investigate the relationship between OC and EO, the relationship between HRM and EO and whether the creative and innovative ideas suggested by creative individuals/employees in the banking sector, were implemented as innovations. Innovative thinking was impetus to sustained regeneration in the banking sector. According to various scholars such as Kuratko et al. (2010), and Urban and Barreira (2010), the individual champion or corporate entrepreneur was the most critical. If it were not for

individuals who thought ‘out of the box’, would the bank be successful in satisfying customer needs and producing newer and better products? This question was addressed in the research.

1.2 Context of the study

The banking industry of South Africa has introduced a number of excellent innovations to make banking simpler, easier, and user-friendly. Nevertheless, HRM and OC were important components of this industry. According to Kuratko (2017), entrepreneurship began with people and there were no entrepreneurial organisations without entrepreneurial individuals. This research assessed the banking industry’s entrepreneurial intensity (EI) through creativity and innovation, and further explored whether OC and human resources played a role. According to Arshi (2012), EI was measured through a comparison between the frequency of entrepreneurship (how often a firm created new processes and products), and the degree of entrepreneurship (how big the innovation {for example when the ATM was introduced, it was an industry changer}). In this research, the investigation focused on whether there was a relation between OC and EO, HRM and EO, and EC and innovation. The perceptions of employees/bankers regarding their organisational environment were used to study the relationships.

The study was conducted in and focused on the banking industry of South Africa, however not all major South African banks were used to conduct the study. The survey was conducted in the greater Johannesburg area, the central hub of the identified banks, and the economic capital of South Africa.

1.3 Problem statement

1.3.1 Main problem

The main problem of this study is that we do not know the extent of the impact of the culture, the creativity of employees and the innovativeness of a particular organisation in relation to its success/progression. This research has identified

the relationship between specific constructs to determine the influence they have on the organisation. These constructs may have positive, negative or no influence at all. The relationships between OC and EO, HRM and EO, and EC and innovation using perceptions of employees at different major South African banks were investigated to better understand the research problem. EO was viewed by taking into consideration its three dimensions, innovation, risk taking, and pro-activeness (Irwin, Landay, Joshua, McDowell & Geho, 2018; Kuratko, 2017; Kuratko et al., 2010; Lee & Peterson, 2000). Other scholars included more than these three dimensions; however, these were not applicable to this research.

1.3.2 Sub-problems

i. The first sub-problem was based on the notion that the relationship between OC and EO has not been explored in the South African banking industry and given its importance to organisational success as supported by research, this would close the gap in that banks would better understand the benefits of the relationship if any.

ii. The second sub-problem was to determine the impact of HRM in the South African banking industry, the impact of HRM on EO has not been explored in the South African banking industry but extensive research has been completed which posits that EO is impetus to business success.

iii. The third sub-problem was to determine whether employees are creative in their respective banks. Secondly, we wanted to know if that creativity, had an influence on innovation of that bank and thus impact innovation in the banking industry in South Africa.

1.4 Significance of the study

The study filled a gap as it identified whether OC and HRM have a relation to EO. EO was stated to have a positive influence on the growth of a firm (Dess & Lumpkin, 2005; Gilson & Shalley, 2004; Kuratko et al, 2010; Lockwood, 2007;

Poon et al., 2006; Urban, 2008; Urban & Barreira, 2010). The relationship between EC and innovation was also explored. Theory asserted that creativity is the heart of entrepreneurship and important for identifying trends for opportunity. The corporate individual had to be very creative to secure deals, sponsorships, and resources to be competitive in the hostile external environment (Cai, Lysova, Khapova, & Bossink, 2018).

The study could potentially provide guidance to the human resource component of business in relation to how necessary it is to develop, guide, motivate and encourage employees for them to be productive and creative (Irwin et al., 2018). The study could potentially guide employers in the banking sector to align OC with entrepreneurial spirit. The research on creativity contributed to the substantial interest of academics and practitioners in the field (Arshi, 2012). According to Arshi (2012), many large firms struggle to display high creativity and innovation. This study may not benefit only the banking sector, but other sectors including insurance, real estate, and business services, that are interested in creativity as a turnaround strategy for business innovation. According to Irwin et al. (2018), Kuratko (2017), and Poon et al. (2006), EO has a positive impact on business performance.

1.5 Delimitations of the study

The scope of the study was limited to South African banks. These banks were further grouped under commercial banks and private banks based on their specialisation and contribution to the sector. Six banks were selected to participate in the study based on these reasons:

- Nedbank is the fourth biggest bank in South Africa taking into consideration asset value (Swart, 2017).
- Standard Bank is present in 20 African countries and is the biggest bank in South Africa in terms of market share (Swart, 2017).
- ABSA bank is one of the biggest banks in South Africa due to the sale of its Barclays share.

- FNB (First National Bank) is one of the biggest banks in South Africa trading under First Rand Bank and has a unique and competitive branding and marketing strategy (Swart, 2017)
- Investec Bank and RMB (Rand Merchant Bank) are one of the biggest South African private banks in terms of asset management, structured finance, and specialised lending (Swart, 2017).

Figure 1 shows the banks on which the study was based.

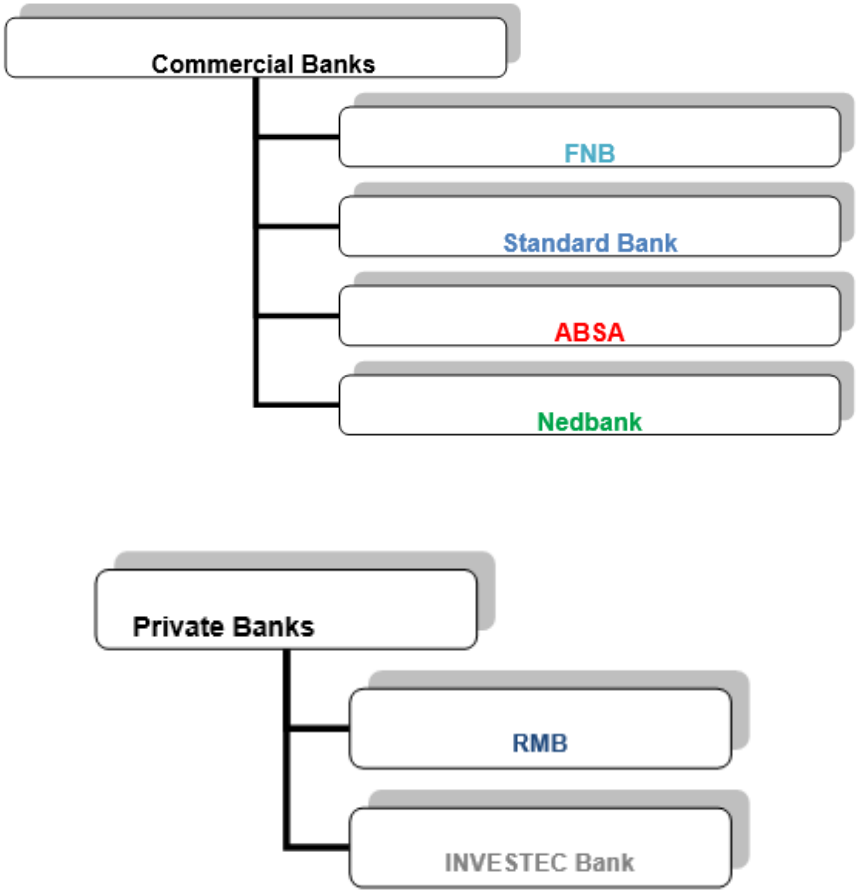


Figure 1: Banks in the study

1.6 Definition of terms

Table 1: Definition of terms

Term	Definition
Autonomy	Independent action taken by entrepreneurs or teams to bring a new venture into fruition/completion (Rauch, Wiklund, Lumpkin, & Frese, 2004).
Bank	An institution that specialises in lending, saving, safekeeping, and exchanging money.
Bureaucratic organisations	Organisations that are strict and rigid and do not give importance to human relations (Morris, 1998).
Corporate entrepreneurship (CE)	The development of new business ideas and opportunities within large, established corporations (Venter, Urban, Beder, Oosthuizen, Reddy, & Venter, 2015).
Creativity	The use of a person's imagination to produce something different.
Credit liquidity	The amount of capital available in credit for spending by an organisation.
Discovery Holdings	An organisation specialising in medical aid insurance, life insurance, and investment portfolios for consumers and organisations.
Entrepreneurship	A fundamental posture within a firm, important to strategic innovation, particularly under shifting external environmental conditions (Urban, 2008). It involves and includes aspects related to business judgements, anticipation of market movements, opportunity recognition emanating from anticipation, risk taking, creativity, and innovation, resourcefulness, and actual implementation of the concept (Venter et al, 2015).
Entrepreneurial behaviour	The sum of a company's efforts aimed at innovation, pro-activeness, and risk-taking.
Entrepreneurial intensity (EI)	A measure of the level of entrepreneurship within an organisation and comprises of both the frequency and degree of entrepreneurship activities (Kuratko et al., 2010).
Entrepreneurial orientation (EO)	The level of innovativeness, pro-activity and risk taking that a company projects (Dess & Lumpkin, 2005).
Gross domestic production (GDP)	The total amount of goods and services produced by a country in a specific period (Van Rensburg, mccornnell, & Brue, 2011).
Hellopeter	An internet site where clients raise their concerns and complaints.
Human capital	The educational level, work experience and social skills within an organisation.
Human resource	The management of a company's human workforce and managing the leadership and culture of the organisation (Kuratko, Hornsby & Bishop,

Term	Definition
management (HRM)	2005).
Individual creativity	The creativity of a person.
Innovation	The combination of technology with ideas to produce new revamped products or services (Venter et al., 2015).
Intermediary	Someone who offers intermediation between two parties or entities. In other words, an intermediary is a mediator/middleman (Okeahalam, 2006).
Interest rate	The percentage of an amount of money charged for its use.
Intrapreneurship	The development of new business ideas and opportunities within large, established corporations (Venter et al., 2015).
Organisational culture (OC)	Cognitions that are shared by people. These are values, beliefs, and principles that promote behaviour (Lok & Crawford, 2001).
Quality management	Practises in an organisation that propel success through co-ordination and employee management.
Variables	Things that can change, e.g. They can vary between people, locations, funds etc. (Field, 2013).
VISA	A payment system used all over the world.

1.7 Acronyms

- **ABSA** is Amalgamated Banks of South Africa.
- **ADT** is Automated Deposit Terminals.
- **ATM** is Automated Teller Machine.
- **FNB** is First National Bank.
- **MTN** is Multinational Mobile Telecommunications Company.
- **RMB** is Rand Merchant Bank.
- **R&D** is Research and Development.
- **Std Bank** is Standard Bank.

1.8 Assumptions

- All participants who received the survey had completed without skipping any questions.
- The respondents had enough knowledge about banking operations, processes, and OC, and were employed by the organisation.
- The respondents had answered the survey objectively and fairly without fear or interference from the organisation.

CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

The literature review begins by explaining entrepreneurship, corporate entrepreneurship (CE), and the function of banks in SA, and continues to discuss the relevance of OC, HRM, and EC in the corporate environment, and how these topics are the key to innovative, productive, and successful firms. The perception of bankers pertaining to OC, HRM, EO, EC, and innovation are explored. The main constructs are rigorously discussed as a basis for the development of the hypothesis. The chapter concludes with the presentation of the theoretical framework for the study.

2.2 Background discussion

2.2.1 Entrepreneurship

Entrepreneurship is defined as a process where resources are moved from a low productive arena into a higher productive arena (Anderson, Kreiser, Kuratko, Hornsby & Eshima, 2015; Kuratko, 2017). Entrepreneurship goes beyond operational and technical skills of business formation; it involves and includes aspects related to business judgements, anticipation of market movements, opportunity recognition emanating from anticipation, risk taking, creativity, and innovation, resourcefulness, and actual implementation of the concept (Venter et al., 2015). Similarly, Kuratko (2017) and Stevenson and Jarillo (1990) posited that entrepreneurship is a process of creating value by bringing a unique combination of resources to exploit opportunities.

2.2.2 Corporate entrepreneurship (CE)

Corporate entrepreneurs have the same principles and characteristics as their entrepreneurial counterparts; the key difference is that their entrepreneurial activities are within the corporate environment (Hughes, Coen Rigtering, Covin,

Bouncken, & Kraus, 2018; Kuratko, 2017; Venter, et al., 2015). According to Dess and Lumpkin (2005), CE has two aims of which one is the creation of new venture opportunities and the other is the strategic renewal of the firm. CE is defined as a process whereby an individual or group of individuals in an organisation create a new organisation within the current one, or accelerate innovation and strategic renewal within the organisation (Hughes et al., 2018; Kuratko, 2017; Kuratko et al., 2010, Venter et al., 2015).

2.2.3 The entrepreneurial organisation

An entrepreneurial organisation is one that seeks opportunities by always finding new ways to enhance business growth. The culture and mission of the organisation promotes entrepreneurial behaviour and practise (Hughes et al., 2018). These organisations strive to exploit product market opportunities by constantly innovating and adopting proactive behaviour (Hughes et al., 2018). The banking sector of South Africa is a combination of various types of banks ranging from commercial, to retail, and private banks. These banks are highly entrepreneurial since they constantly come up with new products and processes to increase competition and ultimately grow their market share. One of many things that they have in common is that they are governed by the same legislation and contribute towards the Gross Domestic Product (GDP) of the South African economy (Hawkins, 2004).

According to Shane (2003), entrepreneurial opportunities differ from normal opportunities in that they require a new framework, rather than maximising on the old one, these entrepreneurial opportunities can sometimes be un-profitable. Shane (2003) was of the view that entrepreneurial opportunities are recombined resources that result in products or services, new geographical markets, new raw materials, new methods of production. Shane (2003) further posited that in any business or major corporate, decision-making also involves creativity where the entrepreneur must create a new framework for valuing resources in relation to the market, taking into consideration competition, economic trends, and the technological effect of the targeted market.

2.2.4 The South African banking sector

The traditional role of banks has been that of intermediary services, which is known as the facilitation of borrowers, lenders, and savers/depositors (Okeahalam, 2006). This can be done for a sustained period with the careful management of credit liquidity and interest rate risk. As depositors primarily fund banks, banks have an obligation to ensure that the risk that the depositors' funds are exposed to is minimised (Okeahalam, 2006).

In the banks' role as intermediary, they have developed systems to facilitate the transfer of funds, almost instantaneously, with minimal risk to the parties involved. In fact, South Africa is ahead of many developed nations in this regard (Okeahalam, 2006). The banking system ensures the efficient allocation of resources in an economy through lending to businesses and individuals using sophisticated credit scoring systems. Additionally, banks facilitate business through the settlement of funds and the provision of credit to consumers. They also provide 24-hour access to funds and facilities to save and invest safely. Banks must continually upgrade their technologies, products, and services in order to facilitate economic transactions and economic growth, while maintaining their focus on the minimisation and management of risk (Hawkins, 2004). "The Global Competitiveness Report 2005/06 noted the positive contribution banks make to the ease of doing business in South Africa in its ranking South Africa 15th out of 117 countries for the soundness of its banks." (Snowdon & Stonehouse, 2006, p. 168)

2.2.5 Entrepreneurial intensity (EI)

According to Arshi (2012), EI can be measured through comparison between the frequency of entrepreneurship, which is continuous innovation, and the size of breakthrough that is termed the degree of entrepreneurship (innovativeness, pro-activeness and risk taking). The entrepreneurial grid is used to measure both frequency and degree. Individual EI is important in that it not only signifies how frequently individuals brainstorm and implement ideas in the company, but also highlights the level of plausibility of that idea, suggested innovative product or suggested model and if it is worth the risk and the effort (Morris, 1998).

Figure 2 demonstrates the grid that measures frequency and degree of EI for an individual. This individual grid is not limited to the Chief Executive Officer (CEO) or founder of the organisation, but it can also be extended to creative and innovative employees in an organisation who contribute invaluable knowledge and propel the success of that specific organisation. The example seen below is Mr Adrian Gore who is the group CEO of Discovery Holdings.

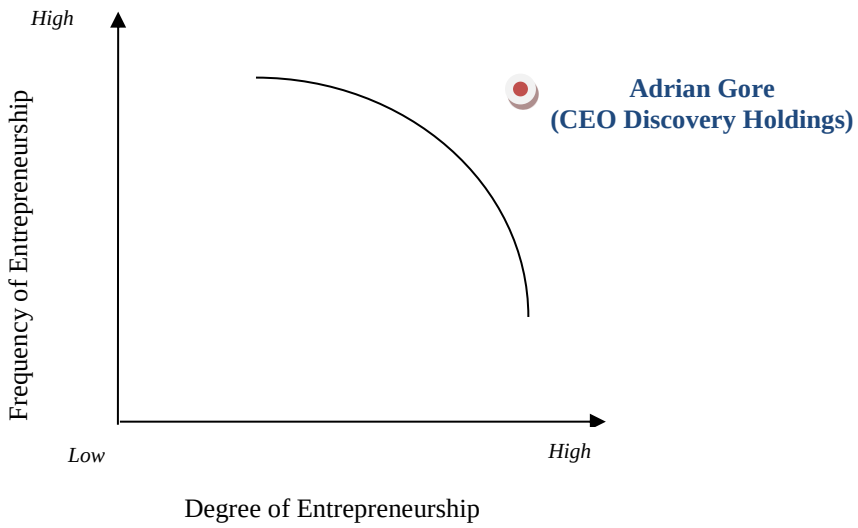


Figure 2: The EI grid of an individual

Adapted from Beswick and Urban (2012).

Entrepreneurs can fall into different areas of the entrepreneurial grid. Another way in which the grid can be applied to individuals would involve characterising how the entrepreneur approaches external change. Many individuals and firms achieve success by quickly adapting to the external environment (Morris, 1998). For example, Gore was involved in the creation and development of Discovery Holdings with a minimal investment of R20 million from RMB and developed the company into a multibillion rand empire (Beswick & Urban, 2012).

One of the factors that contributed to Gore's success was his entrepreneurial family and his passion. His passion was to change lives, so he was forever innovating to improve the products of Discovery Holdings (Beswick & Urban, 2012) He and Discovery members created the Discovery Medical Aid Scheme and Discovery Vitality, which is a discount and reward system for the group.

They also created Discovery Investments, Discovery Life Insurance, personalised customer service, and individualised premiums. After Discovery Holdings success, most South African insurance companies used similar concepts and structures (Beswick & Urban, 2012).

The moral of the story was the creativity and innovative initiatives of Discovery members and employees that had resulted from individual managers and employees (Gilson & Shalley, 2004; Pirola-Merlo & Mann, 2004; Cai et al., 2018; Zhou & George, 2001). This was a collaboration of creative minds. These creative minds produced products that were attractive in the market and this increased market share for Discovery Holdings and hence increased profitability (Beswick & Urban, 2012).

The link and the effectiveness of EI and entrepreneurial management with several financial benefits, such as increased profitability, sales, and revenue asset growth have been established by scholars. (Morris, 1998, Morris & Kuratko, 2002) On the other hand, Arshi (2012) stated that financial indicators might not be the only determinants of financial success; brand equity can also be a strategic determinant of EI. Brand equity is a business's approach to recruitment and retention by making the business attractive to current and future employees (Theurer, Tumasjan, Welpe, & Lievens, 2018).

According to Arshi (2012), firms in high growth industries show more innovative capabilities. Good examples would be South African banks, because they are forever changing their products and processes. It is now possible to deposit money in the SA banking industry, whereas in 2010 this was not possible.

In the information communication industry, MTN is aggressively tapping into Africa's e-commerce market. This sector has become a crucial part of the mobile network's growth strategy. MTN operates in 22 countries and has recently acquired 33.3 per cent of AIH, which is a joint venture between Rocket Internet and Millicom International Cellular, to develop internet businesses in Africa (Mungadze, 2014). MTN has further introduced tailored financial products such as short term insurance solutions, utility payments, and remote payments for airline tickets. In South Africa, the services have been extended beyond a

phone wallet and include a bank account that complies with legislation and further allows transactions at a VISA point of sale and ATM (Mungadze, 2014). The strategy to acquire and cease new opportunities is clear evidence of high EI at MTN.

2.3 Organisational culture (OC) in banks

When applying the link between organisational structure and creativity, leaders can do many things to ensure that the climate of their organisation, division, or general work area, is one that supports creativity. According to research by Gilson and Shalley (2004), Hughes et al. (2018), and Cai et al. (2018), structures, which promote openness and on-going contact with external stakeholders or partners, or the seeking of information from different or multiple sources, were related to creativity.

Morris (1998) is also of the opinion that CE is heavily dependent on OC and the adoption of policies aimed at propelling entrepreneurial behaviour. The recent views of Hughes et al. (2018) and Ngo (2018) further enhances Morris' (1998) premise, suggesting that CE requires a culture built around emotional commitment, autonomy, empowerment, earned respect, and a strong work ethic. The entrepreneurial organisation is one where managers are inclined to take business related risks in enhancing innovation, competitiveness, and growth.

Terblanche and Martins (2003), posit that OC seems to have an influence on the degree to which creativity and innovation are stimulated in an organisation. This may be evident in situations where employees are involved in decision-making, and employees with creative characteristics are appointed but the organisation may not necessarily be entrepreneurial. According to Kuratko et al. (2010), Ngo (2018), and Zang and Bartol (2017), a strong OC is one that portrays shared values and ensures that every employee, including shareholders, have adopted the strategy and mission of the organisation in order to succeed. The role that culture plays in an organisation can be divided

into functions of OC (Table 2) and the influence it has on the various processes of the organisation.

2.3.1 Positive versus negative OC

In a truly entrepreneurial organisation, entrepreneurship is not only affected by the culture, but is the core element. Culture can be defined as an organisation's core beliefs and elements that drive the behaviour of the members and portray an image to the greater public (Kuratko et al., 2010). Culture is collective, which means that all or most members of the corporate share it. Although every company has a culture, they may differ along dimensions:

- *Positive culture:* It is difficult to measure unless a survey is distributed to the employees that refer to the culture as positive. This is always in line with the organisation's mission, vision, and strategy. Positive culture implies a fit between culture and the external competitive environment and this is usually built around entrepreneurship (Kuratko et al., 2010).
- *Negative culture:* No correlation with the mission, vision, and strategy of the organisation (Kuratko et al., 2010). The culture of Nando's South Africa is different to Nando's International (Blois & Klein, 2000). This is based on the population and culture of that specific country. It is also difficult to measure unless an internal survey is completed by an employee that, based on their perspectives, refers to the culture as negative.

2.3.2 The role of leadership in organisational survival

Gutierrez-Gutierrez, Barrales-Molina, and Kaynek (2017), Morrisette and Oberman (2013), Ngo (2018), and Cai et al. (2018) posited that technological advancement, globalisation, and the sudden change in the banking and financial sectors, has disrupted the operations of many organisations. Firm competitiveness has reached high levels, which has forced many organisations to rethink methods of leadership. There is an increasingly popular perspective

that organisations should adopt an entrepreneurial culture, which is composed of transformational leadership and a progressive approach to strategic goals.

Table 2: Functions of OC

Internal Integration	Co-ordination
This is the social aspect of new members of the organisation and their commitment to the identity of the organisation.	This refers to creating a competitive edge and making sense of that particular environment through behaviour, understanding, and effective communication.

Adapted from Terblanche and Martins (2003).

OC compliments managerial tools by indirectly influencing behaviour (Terblanche & Martins, 2003). Rational tools and processes, including strategic direction, goals, tasks, structure, decision-making, technology, and social capital, are designed to achieve objectives and propel the organisation in a positive direction. These tools fill the gap of what is formally announced and what actually takes place. Figure 3 contains the integrated interactive model, which highlights the influence of the dimensions that describe OC, and the degree to which both creativity and innovation take place in the organisation.

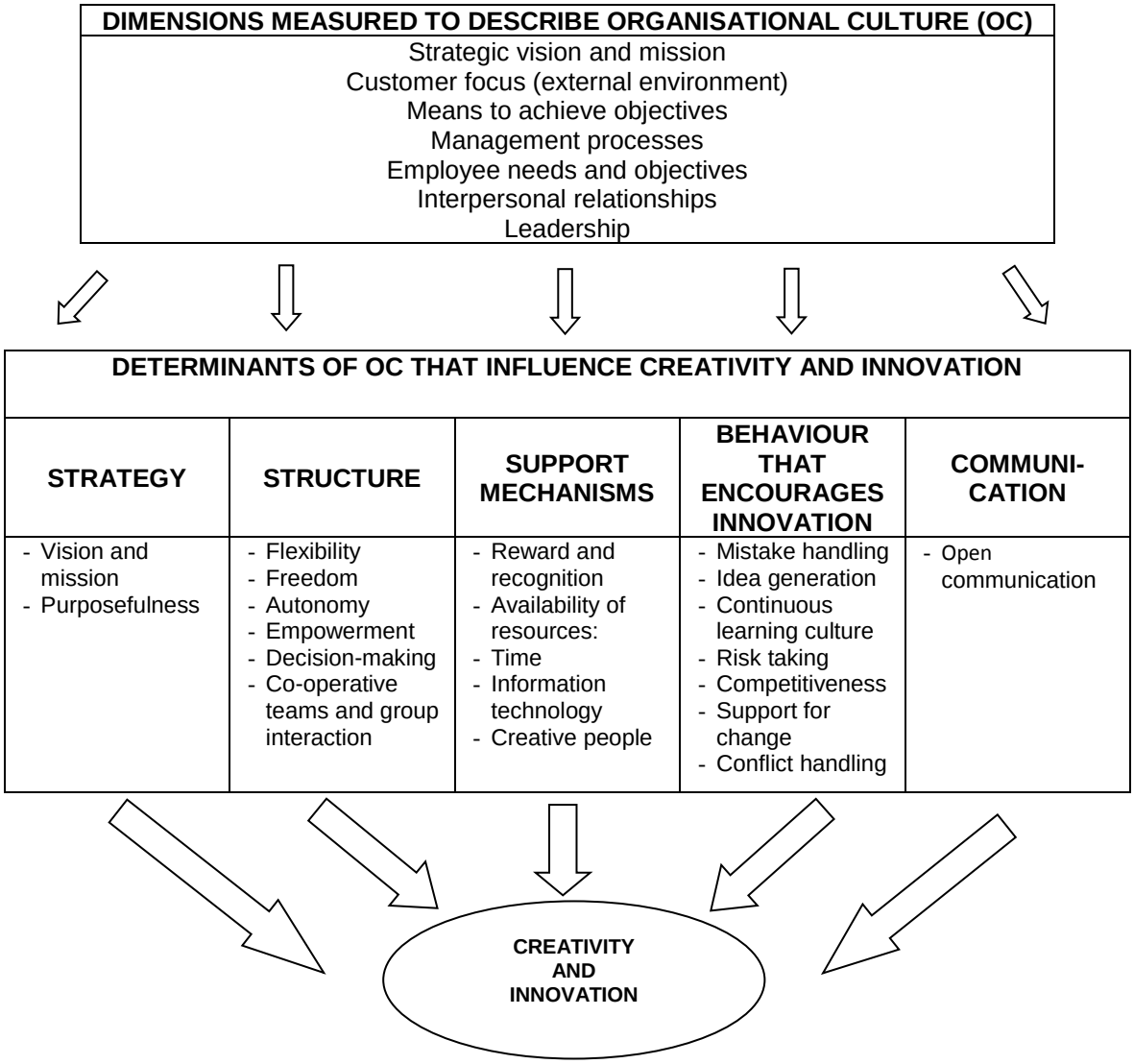


Figure 3: Influence of OC on creativity and innovation

Adapted from Terblanche and Martins (2003).

The integrated interactive model was created to explain cultural values and norms that have an influence on creativity and innovation (Martins & Martins, 2002; Terblanche & Martins, 2003). This model was used as a starting point in developing the determinants of OC that influence creativity and innovation. The model illustrates how the dimensions describing OC have an influence on the degree to which creativity and innovation take place in a firm. This influence can be further divided into five determinants of OC:

i. *Strategy:* Promotes the development and implementation of new products, processes, and services (Terblanche & Martins, 2003), which further highlights the importance of the vision and mission of an organisation that ties to creativity and innovation.

ii. *Structure:* OC has an influence on the operations and structure of the organisation, and emphasises organisational values, interaction, and approachability of executives, managers, and officials (Terblanche & Martins, 2003).

iii. *Support mechanisms:* This should be part of the culture of an organisation to ensure creativity and innovation (Terblanche & Martins, 2003), and includes the availability of resources, information technology, excellent reward systems for employees, buy in from all structures of management, and essential as a support system.

iv. *Behaviour that encourages innovation:* Norms and values that encourage innovation seem to manifest into behavioural tendencies that either promote or inhibit creativity or innovation. Furthermore, tolerance of mistakes can be an essential element in the development of culture (Terblanche & Martins, 2003). An environment where new ideas are encouraged with limited criticism, but more investigation, is good for creativity and innovation. At the same time, the criticism should not discourage employees, but be a motivator to do an even better job.

v. *Communication:* Communication that is transparent and based on trust will have a positive influence on promoting innovation. An open door policy and honesty with sensitivity can be good for creativity and innovation (Martins & Martins, 2002; Terblanche & Martins, 2003).

The five dimensions of culture, as highlighted by the integrated interactive model, are crucial for the development of an entrepreneurial organisation. All these dimensions accelerate entrepreneurship in one way or another. In banking, intrapreneurship is important for the development of the industry. Today access to smartphones with banking capabilities is widespread, unlike 25 years ago. It is crucial for the banking industry to continue innovating to make it easier for their clients to interact with them. Furthermore, an open door policy is

important because it allows interactions and interdependence. This further creates a perfect platform for interaction between people, roles, technology, and the external environment. Entrepreneurial leadership is instrumental in directing and assisting followers to achieve firm goals by exploiting opportunities through their creativity (Cai et al., 2018).

2.3.3 Hypothesis 1

H_1: OC in a bank is positively related to EO, as perceived by bank employees.

In H_1, EO is the dependent variable and OC is the independent variable.

2.4 Entrepreneurial orientation (EO) in an organisation

EO is viewed as a firm's strategic posture towards entrepreneurship and is becoming a predominant construct in research (Anderson et al., 2015). Scholars have highlighted that the definitions and operations of EO vary, but more research leads to the notion that entrepreneurial organisations generally outperform the conservative ones (Irwin et al., 2018; Kuratko, 2017; Kuratko et al., 2010; Lee & Peterson, 2000).

2.4.1 The five dimensions of EO

EO is a product of three main dimensions, innovativeness, pro-activeness and risk taking; however, literature (Anderson et al., 2015; Kuratko, 2017; Kuratko et al., 2010; Rauch et al., 2009) extended these dimensions to include an extra two. This research focused, identified, and explained the initial three crucial dimensions that scholars deem necessary to enhance business success.

Table 3: Five dimensions of EO

Dimension	Definition
1. **Autonomy**	Refers to independent action undertaken by the entrepreneurial leaders or teams directed at bringing about a new venture and seeing it to fruition (Anderson et al., 2015; Irwin et al., 2018; Kuratko, 2017; Rauch et al., 2009).
2. **Innovativeness**	The predisposition to engage in creativity and experimentation through the introduction of new products or services as well as technological leadership via R&D in new processes (Anderson et al., 2015; Irwin et al., 2018; Kuratko, 2017; Rauch et al., 2009).
3. **Pro-activeness**	An opportunity-seeking, forward-looking perspective characterised by the introduction of new products and services ahead of the competition and acting in anticipation of future demand (Anderson et al., 2015; Irwin et al., 2018; Kuratko, 2017; Rauch et al., 2009).
4. **Competitive Aggressiveness**	The intensity of a firms' effort to outperform rivals and is characterised by a strong offensive posture or aggressive responses to competitive threats (Anderson et al., 2015; Irwin et al., 2018; Kuratko, 2017; Rauch et al., 2009).
5. **Risk Taking**	Taking bold actions by venturing into the unknown, borrowing heavily, and committing significant resources to ventures in uncertain environments (Anderson et al., 2015; Irwin et al., 2018; Kuratko, 2017; Rauch et al., 2009).

Adapted from Anderson et al. (2015), Irwin et al. (2018), Kuratko (2017), and Rauch et al. (2009).

According to Anderson et al. (2015), Irwin et al. (2018), Poon et al. (2006), Rauch et al. (2009), Urban, (2008), and Wiklund and Shepherd (2003), it is very likely that EO has positive performance implications for organisations, and can help these organisations explore opportunities that are critical to the success factor of banks in South Africa. These banks may be looking to grow their operations, create new products and processes in the market, and expand in SA and external countries.

Culture is a very important aspect of an organisation, which can affect EO within a firm. Irwin et al. (2018) and Lee and Peterson (2000), focused on culture, EO, and global competitiveness, which make their work somewhat relevant to the research topic. On the other hand, Zhou and Li (2007), and Peng (2003), posited that in China many new firms are innately entrepreneurial. This

suggests that an increase in EO generated by increased incentives have contributed to economic growth in China.

Liu, Li, and Xue (2011) further posited that EO provides a foundation on which a business can build its interactions with dynamic foreign markets. These orientations are said to determine the firm's behaviour and international performance. Irwin et al. (2018), and Liu et al. (2011), continued to argue that EO is more prevalent in firms with high ownership concentration, which may direct or encourage a CEO/Managing Director of a company to pursue riskier, long-term ventures. According to Dess and Lumpkin (2005), Poon et al. (2006), and Rauch et al. (2009), EO is a key ingredient for organisational success. The result of a study of performance measures, conducted by Rauch et al. (2009), concluded that EO enhances financial outcomes.

Hansen, Deitz, Tokman, Marino, and Weaver (2011) reviewed the scale for EO, proposed by Covin and Slevin (1989), and observed that innovative behaviours arise from an ability and tendency for firms to enter into experimentation, supporting new idea formation, and steering away from traditionally established practices. Proactive behaviours have been found to reflect a preference to act aggressively towards rival firms in the pursuit of more favourable business opportunities and environments. This is very prevalent in the South African banking world.

Mobile banking through smart phones is growing continuously. Finally, risk-taking behaviours have been found to occur from the willingness of firms to make investments in projects that have uncertain outcomes, or unusually high profits and losses for example: maintaining and expanding bank branches is quite expensive due to uncontrolled rental increases of malls, office parks and continuous risk upgrades needed at bank premises. Therefore, developing and having more consumers using internet, and mobile and telephone banking is more profitable because of less human interaction and less capital costs. On the other hand, internet based banking can be riskier due to system errors and possible software loopholes for fraudsters. Creating new innovative systems, such as mobile banking, internet banking, and telephone banking is a risk but a necessary one.

Multiple scholars (Poon et al., 2006; Urban & Barreira, 2010; Liu et al., 2011; Irwin et al., 2018), that researched and presented findings on EO have noted that although the EO construct has been used extensively across multiple literatures, its definition and measurement have generated considerable debate. This is due to confusion, or conflicting points of view, as to what constructs effectively make up a firm's EO or lead to a firm's elevated levels of EO. This research looked at the traditional, much reviewed three constructs which are (Innovativeness, Pro-activeness and Risk-Taking) that are the primary make-up of EO, as recognised by scholars (Poon et al., 2006; Urban & Barreira, 2010).

2.5 Human resource management (HRM) in an organisation

HRM is very important in the entrepreneurial organisation. Historically, HRM was concerned with the facilitation of employment benefits, rules and regulations, company policies, dismissals, and employment of new staff members (Azmi, 2010). Today, the HRM function plays a strategic role in developing competencies and enhancing competitive advantage between firms (Gutierrez-Gutierrez et al., 2017; Irwin et al., 2018; Kuratko, 2017; Kuratko et al., 2010). Various scholars suggested that HRM policies could produce higher or lower levels of entrepreneurship in a company (Gutierrez-Gutierrez et al., 2017; Kuratko, Hornsby et al., 2005; Irwin et al., 2018; Kuratko, 2017).

According to Gutierrez-Gutierrez et al. (2017), Morris (1998), and Cai et al. (2018), entrepreneurial activities require employees to act and think outside the mentality of bureaucratic organisations. They further posit and emphasise the adoption of the following characteristics for successful entrepreneurial efforts:

- Creative and innovative behaviour;
- Risk-taking;
- Result driven;
- Long-term orientation;
- Flexibility to change;
- Co-operation;
- Independent behaviour;

- Tolerance of ambiguity; and
- Preference to assume responsibility.

CE, and the proactive entrepreneurial behaviour through which it is practiced, are used in established organisations for a host of purposes, in addition to innovation, including increased profitability. Kuratko (2017), Kuratko, Ireland, Covin, and Hornsby (2005); Kuratko et al. (2010) identified key elements of HRM to create an entrepreneurial environment.

In Figure 4, Kuratko et al. (2010) clearly highlight the importance of people in any organisation in order for it to be entrepreneurial and exploit new opportunities. These new opportunities can be in the form of innovative products, processes, or services.

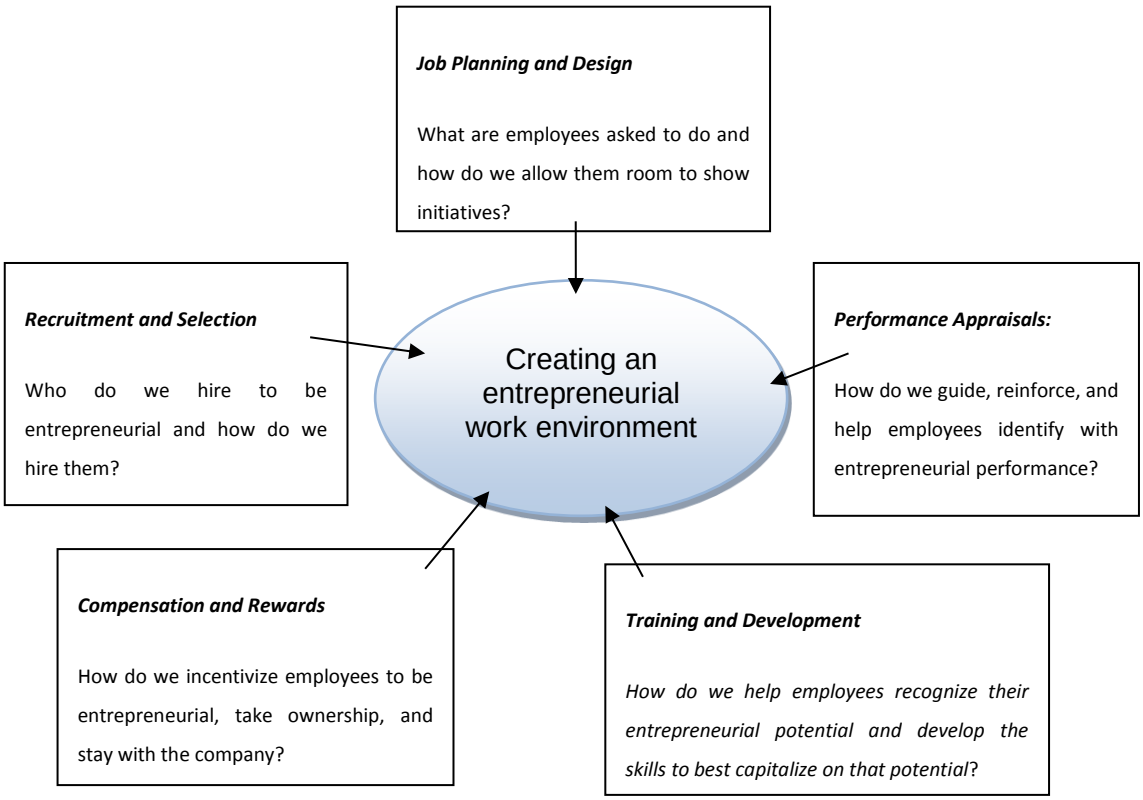


Figure 4: Creating an entrepreneurial work environment

(Kuratko et al., 2010, p. 185)

Once the environment is conducive to intrapreneurship, the organisation now needs to identify the internal and external environmental factors that can initiate

and propel the process of entrepreneurial initiatives within the firm. According to Irwin et al. (2018), Kuratko (2017), Kuratko et al. (2010), and Cai et al. (2018), there are five stable organisational antecedents of entrepreneurial behaviour, by middle managers, that are necessary for organisational development. These antecedents are:

i. *Management support:* Company executives, together with their senior managers, must be willing to support, facilitate, and promote entrepreneurial behaviour.

ii. *Work discretion/autonomy:* Company executives, together with their senior managers, must be committed, with a holistic tolerance to failure, and should delegate authority to middle managers.

iii. *Rewards/reinforcement:* A reward system based on performance should be developed by the HRM department, which should encourage the pursuit of challenging work and expose achievements.

iv. *Time availability:* Assurance of sufficient time should be made to individuals or groups who are required to fulfil the corporate entrepreneurial strategy so that they can pursue innovations.

v. *Organisational boundaries:* Thorough explanations should be given about the outcomes expected from organisational work and development of mechanisms for evaluating, selecting, and using innovations.

According to Hayton (2004) and Zhang, Wan, and Jia (2008), HRM can promote CE and is strongest in high-tech companies where the enhancement of employee skills and continuous motivation propels creativity, which in turn encourages innovative ideas that improve CE. There are three mediating process for HRM to promote CE (Hayton, 2004; Kang, Morris & Snell, 2007; Zhang et al., 2008):

i. *Perceived organisational support*: The management style, support, motivation, and assistance from leadership are important in ensuring co-operation and commitment of employees (Zhang & Bartol, 2017; Cai et al., 2018).

ii. *Organisational citizenship behaviour*: According to Zhang et al. (2008), a high degree of organisational citizenship behaviour influences employees proactivity and innovativeness such that performance is enhanced; on the other hand, a low degree of organisational citizenship behaviour does not influence creativity and performance of CE.

III. *Social relations*: Social relations are considered efficient ways of sharing knowledge. According to Kang et al. (2007), HRM builds social relations among employees by creating the ability to access each other's knowledge through communications, observations, etcetera.

Figure 5 highlights the three mediating processes of HRM ensuring the achievement of CE related outcomes.

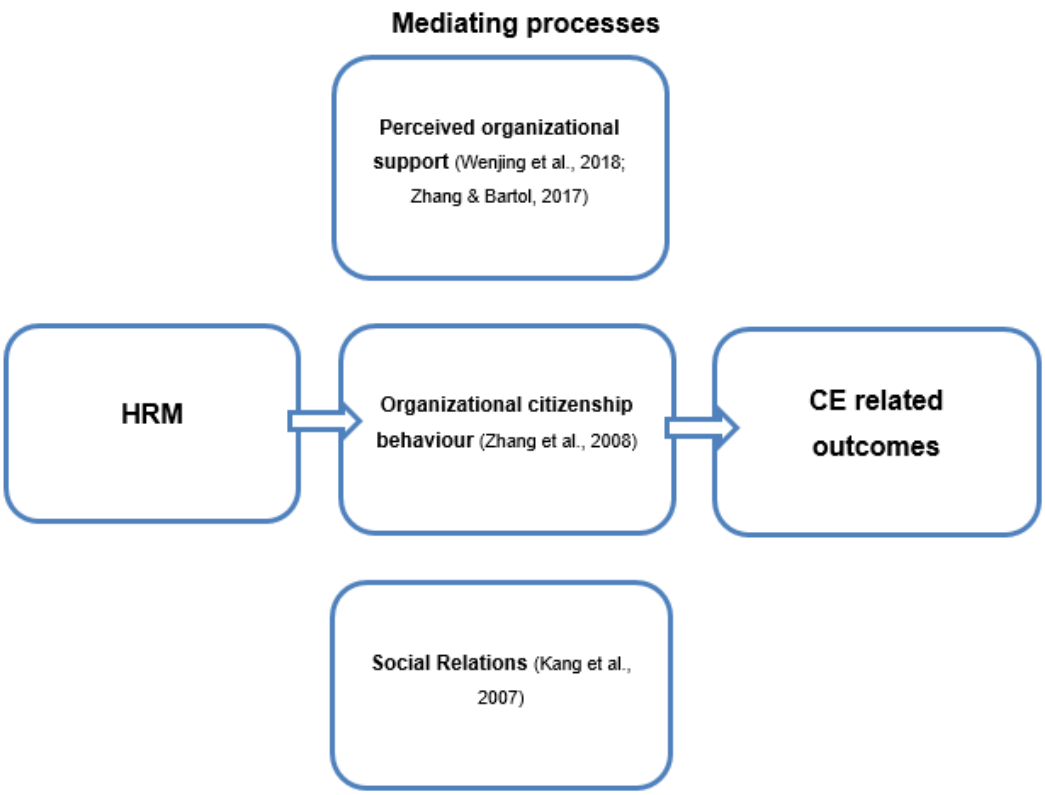


Figure 5: HRM and CE related outcomes

Adapted from Wenjing et al. (2018), Zhang and Bartol (2017), Zhang et al. (2008), and Kang et al. (2007).

2.5.1 Employee engagement for competitive advantage

Employee engagement is defined as the extent to which employees commit to something or someone in the work place, and how long they work and maintain that commitment (Lockwood, 2007; Mone & London, 2017). Nowadays, the challenge is not only retaining talented employees in the workplace, but also fully engaging with them so that they commit mentally and whole-heartedly to the organisation. According to Lockwood (2007), employee engagement is a critical driver for business success in the competitive environment. "Research shows that, the connections between an employee's job and organisational strategy, including understanding how important the job is to the firm's success, is the most important driver of employee engagement" (Lockwood, 2007, p. 6). Mone and London (2017) posited that performance management is crucial for driving employee engagement. They define performance management as a continuous process of engagement, commitment, passion, and empowerment while demonstrating those feelings in work behaviour. The different levels of engagement and corresponding behavioural traits are described in Table 4.

Table 4: Levels of employee engagement

Levels	Behavioural Traits
Engaged	Employees work with passion and feel a profound connection to their company. They drive innovation and move the organisation forward.
Not Engaged	Employees are essentially "checked out". They are sleepwalking through their workday, putting time but not energy or passion into their work.
Actively Disengaged	Employees are not only unhappy at work; they are acting out their unhappiness. Every day, these workers undermine what their engaged co-workers accomplish.

(Lockwood, 2007, p. 3)

Various studies (Lockwood, 2007; Mone & London, 2017; Vance, 2006) have focused on employee engagement and its relation to company performance and sustainability. According to Vance (2006), the level of employee engagement highlights whether people are productive and stay with the firm, or move to a competitor. Research shows that employee connection to the organisational

strategy and goals, acknowledgment for work well done, and a culture of learning and development, propel high levels of engagement (Lockwood, 2007; Mone & London, 2017; Vance, 2006).

Without a work environment conducive to employee engagement, staff turnover can increase and efficiency can decline, leading to loss of clients and decreased stakeholder value. Ultimately, because the cost of poor employee engagement will be detrimental to organisational success, it is vital to foster positive, effective people managers, along with workplace policies and practices that focus on employee well-being, health, and work-life balance (Lockwood, 2007; Mone & London, 2017)

It is the duty of the bank to monitor its employees and ensure that they are fully engaged in terms of client interaction; hence, line managers are crucial in this line of work.

2.5.2 Hypothesis 2

H_2: There is a positive relationship between HRM and EO as perceived by bank employees.

In H_2, EO is the dependent variable and HRM is the independent variable.

2.6 Employee creativity (EC)

Entrepreneurial firms, including banks, are attributed with key characteristics such as creativity and innovation (Arshi, 2012). Creativity means using the imagination to develop something new (Kuratko et al., 2010; Cai et al., 2018) While entrepreneurship is about making things happen and the implementation of those things, creativity is involved with the development of ideas, concepts, process, and products.

According to Cai et al. (2018, cited in Amabile and Mueller, 2008), there are at least three components that need to be explored for the success of creativity in an organisation:

i. *Expertise:* This is the person's knowledge of specialisation e.g. investment banker. It defines the intellectual capacity of the person to do the job.

ii. *Motivation:* This can be intrinsic or extrinsic or both. Extrinsic could be the desire of the employee to receive a reward whether it is monetary not. Intrinsic is an internal desire to do well, and show passion and interest in a specific field.

iii. *Creative thinking skills:* This refers to different ways in which individuals approach issues and provide solutions. The technique of doing research and consulting experts and colleagues is a good example of how to provide a great solution.

According to Amabile (1998), and Amabile and Mueller (2008), and as stated by various authors, the organisation must emphasise culture and managerial practises that will result in the motivation, excitement, and pro-activeness of employees in the work environment, and ensure the availability of all necessary resources to execute projects. Similarly, practises that result in supportive, well structured, and diverse teams are likely to spur creativity.

Furthermore, creativity requires cognitive thinking that has diverse information, accurate memory, effective heuristics and the ability to concentrate for longer periods when required (Amabile & Mueller, 2008; Gilson & Shalley, 2004). According to Vermeulen and Curseu (2008), cognitive thinking is important for decision-making in the organisation and further offers multiple mechanisms that are driven by theory and at the same time, are empirically robust.

Although creativity is important in the work environment, it can differ from job to job. Managers would agree that there is room, in almost every job, for employees to be more creative, as individual creativity is directly linked to organisational creativity and innovation (Amabile, 1998; Amabile & Mueller, 2008; Gilson & Shalley, 2004). Creativity and innovation in the organisation is directly linked to firm performance and survival (Poon et al., 2006), thus it is crucial for employees to be proactive and creative in their work. It is important to relate the role that management can play in encouraging EC. Most managers

would say that they would appreciate their employees being more creative, but it is blurry as to how they can accelerate creative performance (Gilson & Shalley, 2004).

However, an area where leaders can have a strong impact on EC is through their influence on OC, employee incentives, training initiatives, availability of sufficient resources, and an appealing work environment. Therefore, while much has been written about the direct link between leader behaviours and creativity, less has been written about the more indirect, yet potentially equally or more important, relationship between leadership, context, and creativity (Amabile & Mueller, 2008; Gilson & Shalley, 2004; Cai et al., 2018).

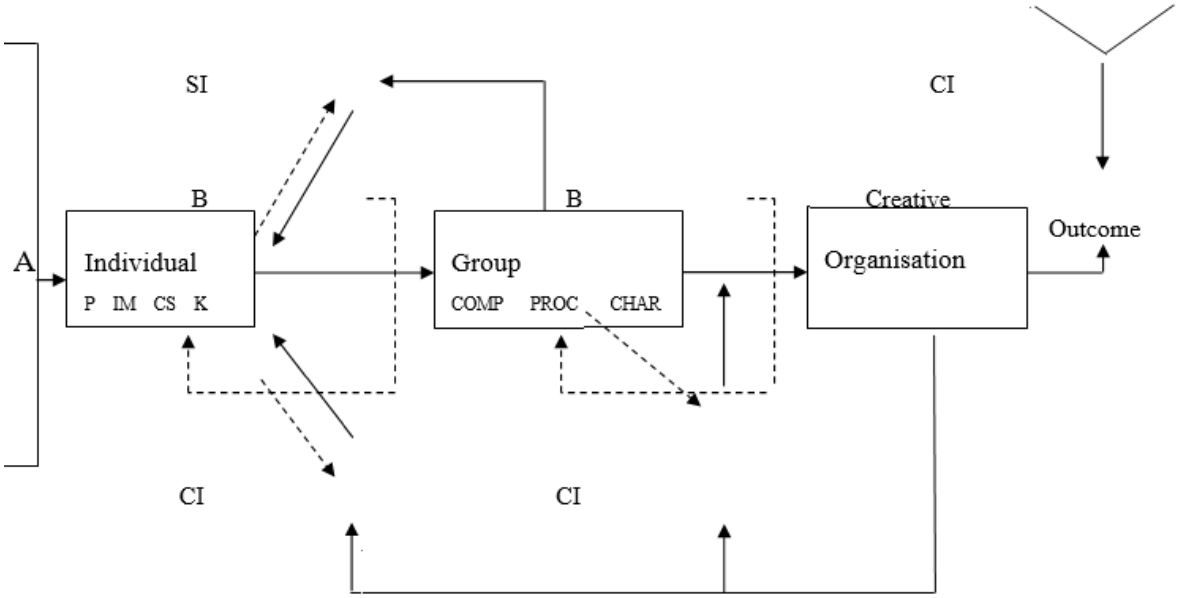
While the constructs of creativity and innovation are closely related, they are based differently on the notion that creativity involves producing novel and useful products, processes, or services (Amabile & Mueller, 2008; Gilson & Shalley, 2004). On the other hand, innovation is the implementation of ideas of an individual, group, and even an organisation (Amabile, 1998; Gao, Hsu & Li, 2018).

2.6.1 Organisational creativity

Since organisational creativity is associated with the creation of valuable, useful, new products, services, and ideas, governance is an important feature of individuals working together in a complex social system. The concept of organisational creativity is framed as a subset of the broader domain of innovation. Innovation is further characterised to be impetus to the broader construct of organisational change, success, or failure. In general, organisations tend to have a basic climate where creativity is directly linked to corporate culture, leadership, human resources, and individual characteristics (Gilson & Shalley, 2004; Kuratko et al., 2010; Lockwood, 2007). If leaders value their organisation and want employees to be creative, they must foster an environment where risk taking is encouraged and uncertainty is inevitably embraced.

2.6.2 The interactionist model of creative behaviour

Woodman, Sawyer, and Griffin (1993), proposed an interactionist model of creative behaviour (Figure 6) at the individual level. In this model, they identify creativity as a complex product of a person's behaviour in a given situation. The situation is characterised in terms of the contextual and social influences that facilitate and inhibit creative accomplishment. The person is influenced by various antecedent conditions, and he or she brings to bear cognitive abilities, traits, or predispositions. This interactionist model provides an integrated framework that combines important elements of the personality, such as cognitive and social explanations of creativity (Woodman et al., 1993).



Individual Creativity	Group Creativity	Organisational Creativity
A=Antecedent Conditions	B= Creative Behaviour	CS= Cognitive Style/ Abilities
P=Personality K= Knowledge	IM= Intrinsic Motivation	SI= Social Influences
CI= Contextual Influences	COMP= Group Composition	CHAR= Group Characteristics
PROC= Group Processes		

Figure 6: The interactionist model of organisational creativity

(Woodman et al., 1993, p. 295)

The interactionist model of creative behaviour provides a framework of relevant factors that can either improve or hinder EC (Woodman et al., 1993). Although these models do not specifically define any particular contextual factor, they present a foundation for suggesting why the context in which employees work is important for their creativity (Amabile, 1998; Amabile & Mueller, 2008; Cai et al., 2018; Gilson & Shalley, 2004; Woodman et al., 1993). According to Woodman et al. (1993), EC is viewed as a contributor to novel ideas, products and processes, a propeller for innovation, and continuous productivity in a firm.

From the literature, the importance of individual and organisational creativity is associated with entrepreneurial orientation, which has an impact on business performance (Dess & Lumpkin 2005; Poon et al., 2006; Rauch et al., 2009). It is clear that HRM plays an important role in facilitating individual and organisational creativity. According to Montoro-Sanchez and Soriano (2011), human resources plays an important role in that it can either encourage or hinder corporate entrepreneurship. Very little literature examines the relationship between HRM and CE (Montoro-Sanchez & Soriano, 2011; Murimbika & Urban, 2013). Although HRM is a huge component of organisations, research on the role of HRM on the entrepreneurial process is just starting to grow.

When linking the HRM component with CE, a perspective of CE would encourage the building of relationships between employees, stakeholders, and other relevant bodies. This would in turn facilitate the flow of knowledge and information, which are the building blocks of entrepreneurial opportunities (Montoro-Sanchez & Soriano, 2011; Murimbika & Urban, 2013). CE focuses on the integration of entrepreneurship and the organisation. Montoro-Sanchez and Soriano (2011), and Murimbika and Urban (2013) further contextualised EO and EI and their contribution to the overall performance of the organisation (Dess & Lumpkin, 2005; Poon et al., 2006; Rauch et al., 2009; Urban, 2008). The concept of EO incorporates the firm level processes, practises, and decision-making styles (Urban, 2008).

Figure 7 shows the intersection between HRM and CE.

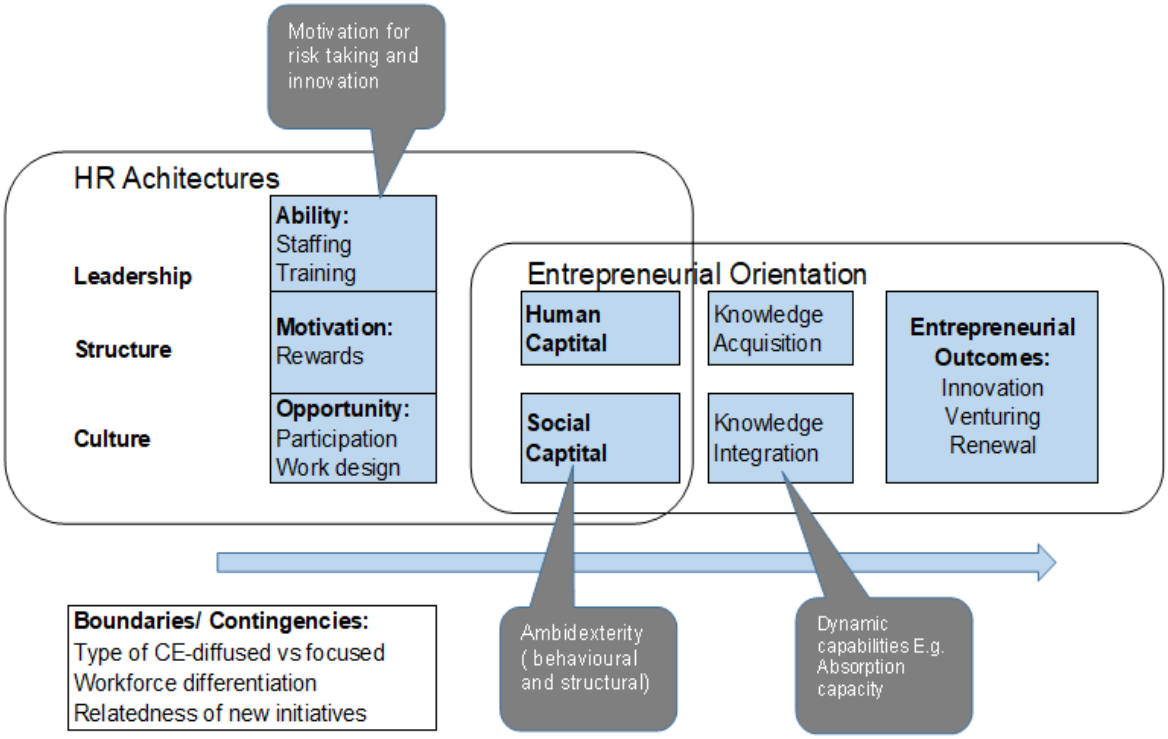


Figure 7: The intersection of HRM and CE

Adapted from Gutierrez-Gutierrez et al. (2017) Irwin et al. (2018), Kuratko (2017), Murimbika and Urban (2013), and Kuratko et al. (2010).

2.6.3 Hypothesis 3

H_3: Employees in the bank who perceive themselves as creative regard the bank as more innovative, than do employees who perceive themselves as less creative.

In H_3, innovation is the dependent variable and employee creativity is the independent variable.

2.7 Innovation

Innovation is defined as the successful exploitation of new ideas, which were not discovered before, but could contribute positively to a business or even the world (Gao et al., 2018). Technological innovation is evidence in modern day

corporates that endeavour to develop and accumulate knowledge, which is now being recognised as a key factor to corporate competitive advantage (Gao et al., 2018; Mina, Tether, Consoli, & Gagliardi, 2005).

Mina et al. (2005) suggested that human capital (education, experience, and social skills) is essential in the process of adopting new technologies and further posited that innovation tends to propel economies and firm growth. Firm survival in competitive environments depends on its capacity to innovate, either its products or processes, and to transform the leadership to align with entrepreneurial culture (Gao et al., 2018).

An entrepreneur is at the centre of value creation. The importance of technological entrepreneurship in the creation of wealth and enhancing economic development and growth has generated interest globally (Kuratko, 2017; Gao et al., 2018; Venkataraman, 2004). Another form of innovation includes developing skills to benefit the business, which might not necessarily be linked to specific products, but rather to enhancing processes and adding value to the business by improving service to clients through personalised service, such as a personal banker being available on holidays and Sundays.

According to Mina et al. (2005), product and process innovation tend to favour the creation of new jobs, and substitute new products and processes for manual labour, thereby resulting in loss of employment. In the Banking industry in SA, an innovative product called the e-wallet at FNB, Cash send at ABSA, Instant money at Standard Bank, and Instant Pay at Nedbank were created to allow consumers to transfer funds to their acquaintances cellular phone number, allowing the receiver to draw funds at any ATM in South Africa (Finmark trust, 2017). A new e-wallet department was created at the banks when the wallet innovation was profitable. More and more consumers used it. A monitoring team, a sales team, and a maintenance team were formed.

2.7.1 The introduction of mobile banking

Africa is viewed as accelerating mobile technology and creating a growing market for mobile payments (Clouse, Gregson, Guererro, & Platt, 2013). Clouse et al. (2013) further posited that mobile banking has created a significant impact in sub-Saharan countries, such as Rwanda, Sierra Leone and Kenya, where the majority of the population lives in rural areas and do not have bank accounts. The majority of businesses in Africa are SMMEs, and are the engines of future growth. Access to banking services through mobile banking, internet banking and delivery channels is empowering SMMEs by making working capital available and providing a quicker and more convenient way to purchase products (Clouse et al., 2013).

The continuous growth of smartphones has increased demand for banking services. Banks, micro finance institutions and software companies are leaning more and more into offering products and services using smartphones (Finmark trust, 2017). Mobile transfer services have become a convenient way of sending money. These wallets are not merely a money transfer tool, but also allows recipients to purchase prepaid airtime for landlines and cellular phones, and prepaid electricity.

According to the GSM Association (GSMA), Africa is the world's second-largest market by connections through smart phones after Asia - and the fastest growing market in the world. Africa has an estimated 700 million subscribers and close to 400 million unique subscribers. The GSMA states that sub-Saharan Africa includes seven of the 10 fastest growing economies worldwide. (Finmark trust, 2017)

RMB, FNB, ABSA, Nedbank, and Investec provide mobile banking in South Africa. Mobile banking allows the consumer or business to perform transactions via a mobile phone (Brown et al., 2003); clients are able to monitor their accounts by checking account balances, making transfers, paying bills, and performing various other transactions. This innovation follows the relatively successful introduction of internet banking, whereby the same clients can

access their accounts through the bank's website or when using a smartphone with a banking application installed on the device.

According to Brown et al. (2003), there are 13 million cell phone subscribers in South Africa; thus, it seems plausible for banks to exploit this opportunity by providing services such as online banking and mobile commerce offerings via mobile network companies. The banking system was created for convenience, and simplicity of managing consumers' funds, while creating revenue for the bank. Traditional banking is not as attractive anymore, due to long queues at branches and the availability of technological devices that enable banking at the comfort of consumers' homes or offices.

2.8 Conclusion of literature review

The literature identified the importance of culture and the human resource component and further emphasised the link between company mission and employee role in elevating the level of interest and engagement for the individual. The theory of individual and organisational creativity emphasised the strong link between individual creativity and innovation that affects EO (Gilson & Shalley, 2004; Kuratko et al., 2010; Lockwood, 2007).

Furthermore, the management style, support, motivation, and assistance is important in ensuring co-operation and commitment of employees while adhering to the strategy and mission of the organisation. The need for companies to be more flexible and innovative has influenced the interest in creativity in both leaders and employees.

Murimbika and Urban (2013) and Urban (2008), highlighted the importance of intrapreneurship in predicting firm growth. The authors further posited that organisations that nurture structures and values conducive to intrapreneurial activities are more likely to grow, than firms that are low in such characteristics. The authors posited that firm level approach is consistent with classical economics in that it identifies the individual entrepreneur as the firm. According to Urban (2008), managers' self-perception is closely related to the behaviour of the company. According to Poon et al. (2006), and Urban (2008), individual self-

concepts are positively related to EO and firm performance. Urban (2008) highlighted the significant interest in EO as a psychological construct, and where it is influenced by business culture.

In theory and extensive literature, an organisation's culture in reflected in its human resources, which may promote or inhibit EC. These in turn promote innovation, which is a dimension of EO. EO is related to firm performance not only in profitability, or such objective and subjective measures, but also in the Triple Bottom Line (Murimbika & Urban, 2013).

2.8.1 The conceptual framework of the research

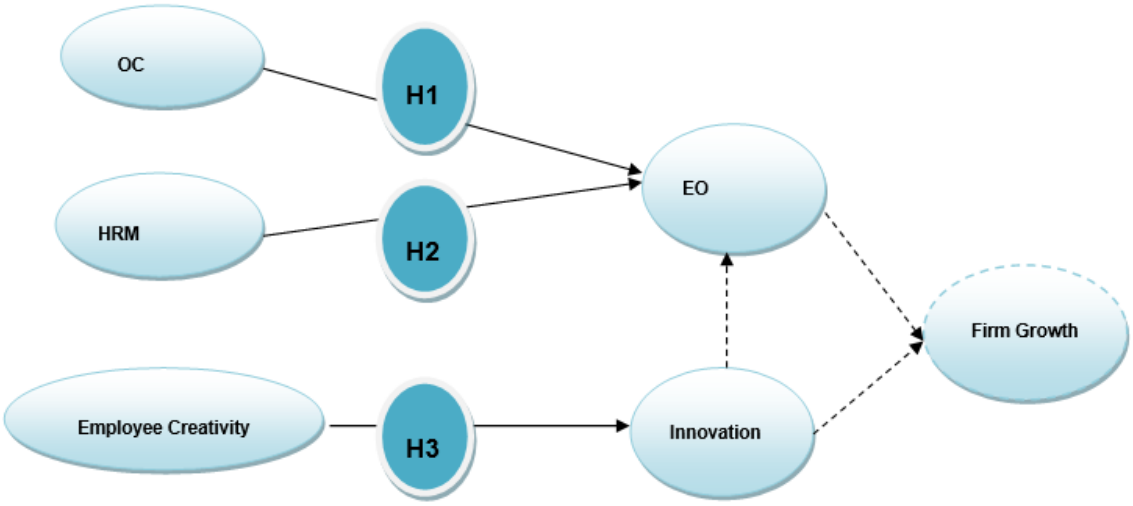


Figure 8: The conceptual framework

In the course of the literature review, three hypotheses were formulated:

H_1: OC in the bank is positively related to EO as perceived by bank employees.

H_2: There is a positive relationship between HRM and EO as perceived by bank employees.

H_3: Employees in the bank, who perceive themselves as more creative, regard the bank as more innovative, than do employees who perceive themselves as less creative.

CHAPTER 3. RESEARCH METHODOLOGY

According to Cooper and Schindler (2008), research methodology refers to the philosophical justification for the approach to research and the use of specific data collection, sampling, and analysis tools (Cooper & Schindler, 2008). This section describes the methodology that was followed to test the hypotheses that were formulated to address the sub problems that were identified. This research was conducted by gathering quantitative data from the selected employees of the identified banks, and reached a conclusion from the statistical analysis and data interpretation. This research was conducted as a non-experimental cross-sectional study.

3.1 Research methodology /paradigm

The research was a correlation cross-sectional study that was conducted by using quantitative data from the various banks that were identified for the study. Quantitative research methods are those in which the observed data exists in numerical form. Quantitative research is a test of theoretical information by assessing the relationships among variables (Cooper & Schindler, 2008). The constructs that were used for the research were OC, HRM, EO, EC, and innovation. The scientific approach involved formulating a problem, developing a hypothesis, testing it and concluding based on results (Creswell, 2017).

The research approach of the study was deductive. A deductive approach describes an encounter whereby the researcher, based on what is known in a particular domain and the theoretical considerations in relation to that field, formulates a hypothesis that is subject to testing (Creswell, 2017).

This approach identified the following steps:

- Hypotheses were formulated by reviewing literature.
- The hypotheses were derived to deduce whether there is a relation among variables.

- Data was collected, compiled, and scrutinised.
- The hypotheses were subjected to analysis.
- The outcome of the inquiry was analysed using statistical techniques.
- The theory was verified or modified (Kock, 2007).

3.2 Research design

The research design entailed both the descriptive perspectives of bankers or employees and the explanatory theory regarding the correlates of variables and constructs that explained the findings. The strategy that was used was an online, web-based survey instrument known as Wits Qualtrics. This survey method was sent via email to respondents, and once the survey was completed, the data was recorded on a database. “Online surveys are very effective for collecting data from large samples because they are automated, cheaper and faster, and can reach a geographically dispersed target population” (Wegner, 2007, p. 30).

3.3 Population and sample

3.3.1 Population

The chosen population for this research were employees of the six banks identified in this study. Six banks were selected to participate in the study based on the following:

- Nedbank is the fourth biggest bank in South Africa taking into consideration their asset value (Swart, 2017).
- Standard Bank is present in 20 African countries and is the biggest bank in South Africa in terms of market share (Swart, 2017).
- ABSA bank is one of the biggest banks in South Africa after the sale of its Barclays share.

- FNB is also one of the biggest banks in South Africa trading under First Rand Bank and has a unique and competitive branding and marketing strategy (Swart, 2017).
- Investec Bank and RMB are two of the biggest South African private banks in terms of asset management, structured finance, and specialised lending (Swart, 2017).

The survey was conducted in such a way that it catered for different levels of seniority in the organisation. This population was categorised based on seniority because it was perceived that different categories of seniority in this sector deliver the best-desired results to the research question. All the banks were examined collectively. The categories in order of seniority were specialists, clerks, consultants, middle management, senior management, and company executives. 200 e-mails were sent to various bank employees including executives to complete the online survey. 60 emails were sent to junior employees (clerks, consultants and specialists), 60 e-mails were sent to middle managers and 60 e-mails were sent to senior managers. Another 20 e-mails were sent to executives within the banks. 125 responses were received in total and not all questions in the survey were answered.

3.3.2 Sample and sampling method

The units of analysis in the sampling frame were the managers and staff of the big four commercial banks in South Africa and two private banks. These were FNB, ABSA, Nedbank, Standard Bank, Investec, and RMB. Emails were sent to the officials explaining the research and objective of the study. Attached to the email was a link to the Wits Qualtrics server, which routed the participating banker or employee directly to the survey. The study used convenience sampling because not all banks within South Africa were included, the banks that were chosen were reputable and known as the big four and were all listed on the Johannesburg Securities Exchange (JSE). Not all banks were listed on the JSE. Furthermore, officials in different ranks within the banks were asked to

volunteer by completing the survey. Two hundred emails were sent out to bank officials from the selected institutions so that they could participate in the research. A minimum of 30 responses was expected from each bank, which totalled 180 responses.

Cooper and Schindler (2008) identified two sampling methods, probability or nonprobability. They further asserted that when applying the probability sample, the researcher could make probability-based confidence estimates of various parameters that cannot be made when applying non-probability sampling. The probability sample was used for this research, the six banks were selected carefully, and respondents were very co-operative. This sample was based on the concept of convenient selection, which was a controlled procedure that assured that each population element was given a known chance of selection.

Table 5: Seniority of the employees assessed

Description of respondent	Number sampled
Clerks / Consultants / Specialists (junior employees)	60
Middle managers	60
Senior managers	60
Company executives	20

3.4 The research instrument

Consistent with the research design, a structured survey was used to conduct the study. The questions that were included in the instrument for EC were based on previous studies conducted on individual creativity in an organisation (Amabile, 1998; Amabile & Mueller, 2008; Gilson & Shalley, 2004; Kuratko, 2017; Kurutko et al., 2010; Cai et al., 2018; Zhou & George, 2001).

For the role of HRM in the entrepreneurial organisation, the survey followed the approach used by Mone and London (2017), Azmi (2010), Lockwood (2007), and Vance (2006), in that the questions were formulated to ascertain the HRM component in terms of employee relations in the organisation. For the HRM

scale, a research instrument Strategic Human Resource Management (SHRM) Inventory was used. This scale was a combination of questions from the four-dimensions and constructs of SHRM (Azmi, 2010). HRM is an important component of OC, which is why the scale was included in this research.

The research questions used to measure OC, benefited immensely from the work of Ngo (2018) and Sirikrai (2006), since they attempted to examine the effect that positive OC has on the success of the organisation. For the measurement of OC, the survey that was used was the focus survey consisting of descriptive and evaluative parts.

The measure for innovation was obtained from a scale, which was previously used by Gao et al. (2018), Hoskisson, Hitt, Johnson and Grossman, (2002), Mina et al. (2005), and Ngo (2018).

Based on prior research on EO, the Entrescale was used to measure EO. According to Urban and Barreira (2010), and Knight (1997), this scale was found to possess strong validity in numerous studies and was refined and found to be highly reliable.

The seven-point Likert scale was used to measure the five constructs of the research: OC, HRM, EC, innovation and EO.

The instrument is attached in Appendices A and B.

3.5 Procedure for data collection

The survey was formulated and designed for distribution to the relevant banking officials of the nominated banks. The banks where the study was conducted were FNB, ABSA, Nedbank, Standard Bank Investec, and RMB. The hypotheses deduced drove the process of gathering data through the selected methods (Kock, 2007). According to Creswell (2017), survey research was a strategic enquiry for quantitative research. The research was an online survey, via Wits Qualtrics, which was a method of collecting data from respondents in the sample frame. Once the respondents had completed the survey online, the

data was automatically accumulated on the drive into Excel format. Emails were sent to the organisations for permission to conduct the research. The email together with the survey was sufficient to attain permission to continue the study.

3.6 Data analysis and interpretation

Data was captured on a separate Microsoft Excel spreadsheet before it was loaded onto IBM SPSS24 software. This was done to ensure proper cleaning of the data. Reverse items (variables) were interpreted by reversing the finding and mistakes on the data were checked, such as numbering of the scale, and missing data was observed. Missing data was problematic as a single variable involved in the analysis missing its data point could cause the statistical program to throw out the entire observation. Multi-item scales were dealt with correctly (Lee, 2014). Once the data was cleaned appropriately, it was loaded and analysed statistically using IBM SPSS24 software.

3.7 Limitations of the study

- The study was limited to six major banks in South Africa for convenient sampling. These banks represented the largest banks in the country and have the largest market share in the industry; however, the respondents were selected carefully, and this may not represent the true population of each bank. It was expected that only 30 respondents from each bank would respond (Hawkins, 2004).
- The small sample size was a limitation as all six banks are a huge financial organisation.
- The study was based on self-report data, incurring the possibility of common method bias. Respondents were provided with anonymity and the survey requested no sensitive data (Kock, 2007).
- The possibility of missing data, due to common method bias, existed.

3.8 Validity and reliability

According to Hair, Black, Babin, and Anderson (2010), the error of measurements would result in distorted relationships between constructs and make multivariate techniques less effective. It was crucial that the reliability and validity of the data was credible. The survey was reviewed and recommended by a statistician. Reliability of a research instrument was a necessity for validity but it was still not sufficient (Cooper & Schindler, 2008).

3.8.1 External validity

External validity is intended to determine whether results of the study would hold for other places should it be generalised (Cooper & Schindler, 2008). The ability and extent to which the research findings were generalised across the population were limited due to the convenience sample method utilised. The research attempted to achieve external validity by sampling respondents from a variety of banks that were reputable in the South African banking industry. As a requirement for statistical purposes, the research attempted to obtain more than 180 responses to the survey. However, the ability to make generalisations was limited by convenient sampling.

3.8.2 Internal validity

Construct validity determines the extent to which questions enables a construct to measure what they are intended to measure (Cooper & Schindler, 2008). This validity of scales could be evaluated using factor analysis, with the intention of discovering whether the items integrated based on prior theory. The construction of the survey attempted to follow academic reasoning. A factor analysis was conducted to determine the validity of the data. The research used a seven-point Likert scale and was important to be standardised between all variables that made up the five constructs in the research instrument.

3.8.3 Reliability

Internal reliability was measured using a form of grouped correlation coefficient called the Cronbach's Alpha. A reflection above 0.7 is reliable and makes the most of the model testing of the instruments. Reliability tests determine the accuracy and precision of the measurement procedure (Cooper & Schindler, 2008).

Consistency of the measurement scale was adopted to determine reliability. Factor analysis was applied to assess the items in their scales and determined whether they separated out into their different variables. Confirmatory factor analysis tested whether the pre-specified groups of variables belonged to and formed factors (Lee, 2014). The Cronbach's Alpha calculated using IBM SPSS24 determined and measured the degree to which the instrument items were homogenous and reflected same underlying constructs (Cooper & Schindler, 2008).

The Pearson Correlation Matrix was used to measure the relationship between OC and EO and furthermore the relationship between HRM and EO. For the measurement to be valid, a linear relationship must have existed between the constructs that were hypothesised. Correlation was the measurement of a covariance relationship between constructs and variables, which could be positively related, negatively related, or not related at all (Field, 2013). The independent variables were OC and HRM. EO was the dependent variable.

For each variable that was measured, a variable in the data editor was created with an appropriate name and entered a participant's scores across one row of the data editor. Once that was complete, the data was checked for bias, which was the degree to which correlations were altered due to the methods effect. If the data had outliers, or was not normal, correlation coefficient that worked on ranked data could be used (Field, 2013).

The Pearson Correlation Matrix was also applied to test for the relationship between EC and innovation. The dependent variable was innovation and the independent variable was EC (Field, 2013). According to Lee (2014),

independent variables are assumed to explain or predict the dependent variable, which could be ratio, interval, ordinal, or categorical.

Since the data was shown to be non-normal, a bootstrap technique was used to produce confidence intervals for the correlation test. It was also used to determine hypothesis tests.

3.9 Demographic profile of respondents

Two hundred emails were sent to respondents for the research with an expectancy of at least 180 responses. The results were less than the expected number of 180 responses. In total, 125 responses were received, of which 12 per cent of the respondents chose not to specify their employment type, gender, seniority, years of service, institution, and education level.

The results, including the demographics, are presented in Chapter 4 of this research.

CHAPTER 4. PRESENTATION OF RESULTS

4.1 Introduction

The results of the research are presented in this chapter. The primary data collected was analysed as discussed in Chapter 3. In particular, as to how the results answered the hypotheses as set out in Chapter 2

4.2 Descriptive statistics

4.2.1 Demographic profile of respondents

Table 6: Type of employment

Type of employment	Frequency	Per cent
Other	15	12.0
Contract employee	14	11.2
Permanent employee	96	76.8
Total	**125**	**100.0**

The majority (76.8 per cent) of the respondents were permanent employees of the six banks and only 11.2 per cent of the employees were appointed on a contractual basis. Of the respondents, 12 per cent chose not to specify their employment status when completing the research survey. A total of 125 respondents completed the research survey.

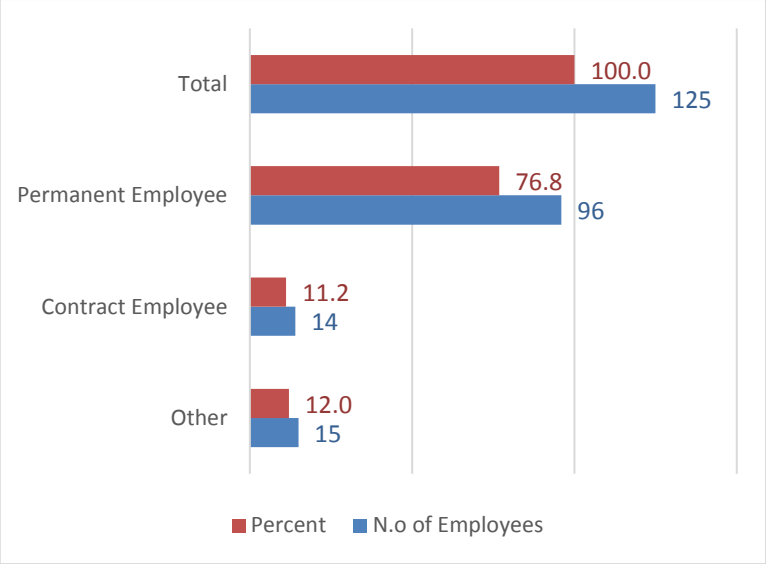


Figure 9: Employment type

4.2.2 Gender profile of respondents

Table 7: Gender of respondents

Gender	Frequency	Per cent
Unspecified	16	12.8
Female	64	51.2
Male	45	36.0
Total	**125**	**100.0**

More than half of the respondents were female (51.2 per cent), and males constituted 36 per cent. The other respondents (12.8 per cent) who completed the survey did not specify their gender.

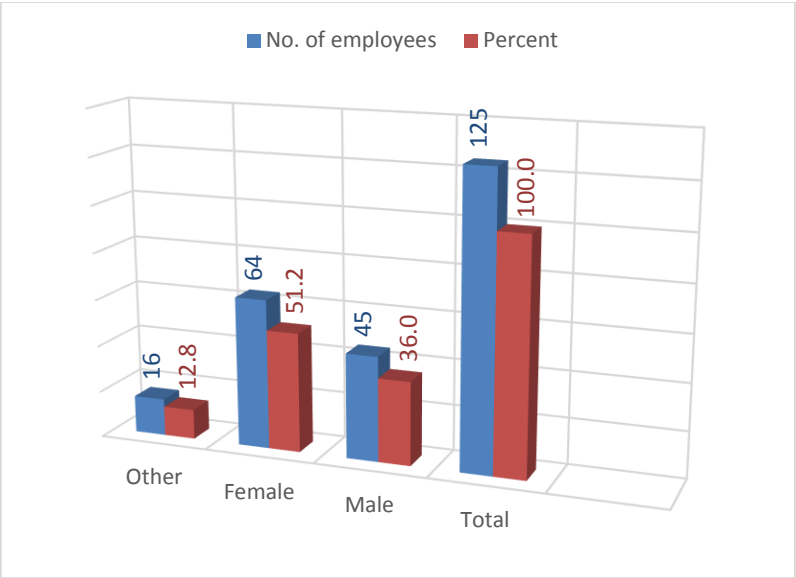


Figure 10: Gender statistics

4.2.3 Financial institution employed

Table 8: Financial institutions

Financial Institution	Frequency	Per cent
Other	16	12.8
ABSA	11	8.8
FNB	45	36.0
Investec Bank	6	4.8
Nedbank	11	8.8
RMB	16	12.8
Standard Bank	20	16.0
Total	**125**	**100.0**

FNB employees made up 36 per cent, followed by Standard Bank that had a total of 16 per cent. RMB represented 12.8 per cent, followed by Nedbank and ABSA each with 8.8 per cent. Investec bank had the lowest number of respondents (4.8 per cent). Having considered all the respondents, it was also important to note that there were 12.8 per cent of the respondents who preferred not to name their bank.

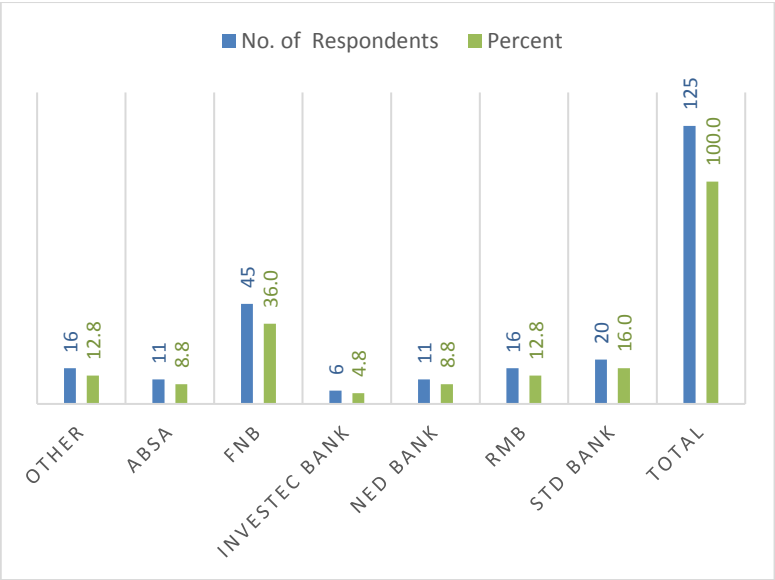


Figure 11: Financial institution

4.2.4 Level of seniority

Table 9: Level of seniority

Level of Seniority	Frequency	Per cent
Other	19	15.2
Executive	1	0.8
Junior employee	34	27.2
Middle manager	52	41.6
Senior manager	19	15.2
Total	**125**	**100.0**

Middle managers constituted 41.6 per cent, followed by junior employees (27.2 per cent). The senior management response was 15.2 per cent, and 0.8 per cent from executives. Only one executive responded to the survey. The respondents who chose not to disclose their rank comprised 15.2 per cent of the sample.

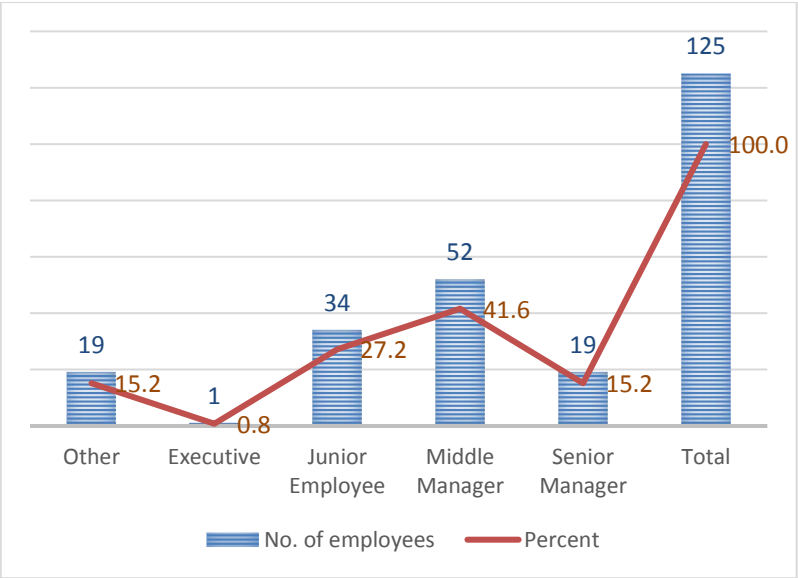


Figure 12: Level of seniority

4.2.5 Tenure with current organisation

Table 10: Tenure with current organisation

Tenure	Frequency	Per cent
Other	15	12.0
0 to 5 years	61	48.8
6 to 10 years	30	24.0
10 to 15 years	12	9.6
15 and above	7	5.6
Total	**125**	**100.0**

The respondents that were employed in their respective banks between zero and five years consisted of 48.8 per cent, followed by employees who had been with their institutions for between six years and 10 years (24 per cent). Employees who were in the employ of the bank between 10 and 15 years constituted 9.6 per cent of the responses, and those employees who were with the organisation for more than 15 years only constituted 5.6 per cent. There were 12 per cent of respondents who did not specify how long they had been with the bank.

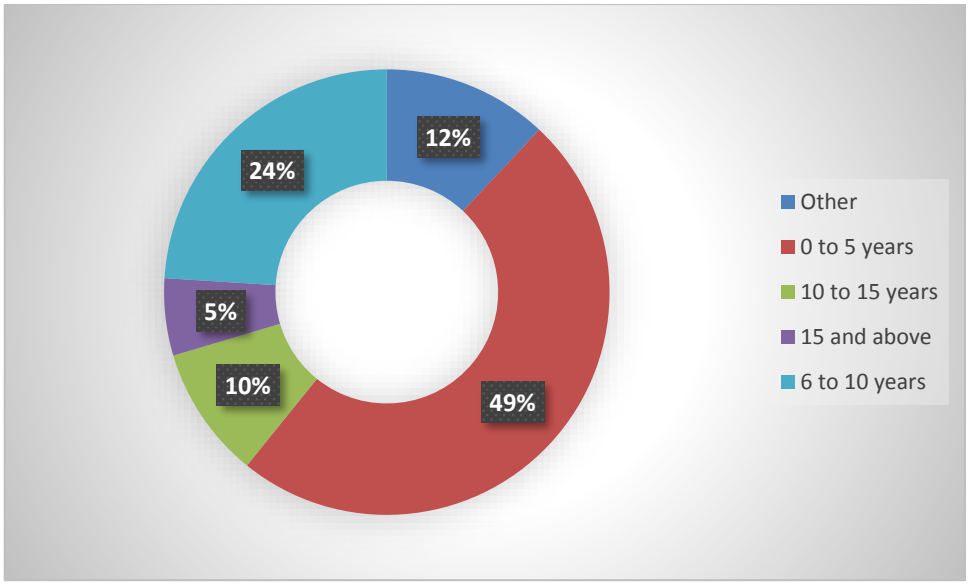


Figure 13: Percentage of employees for different years

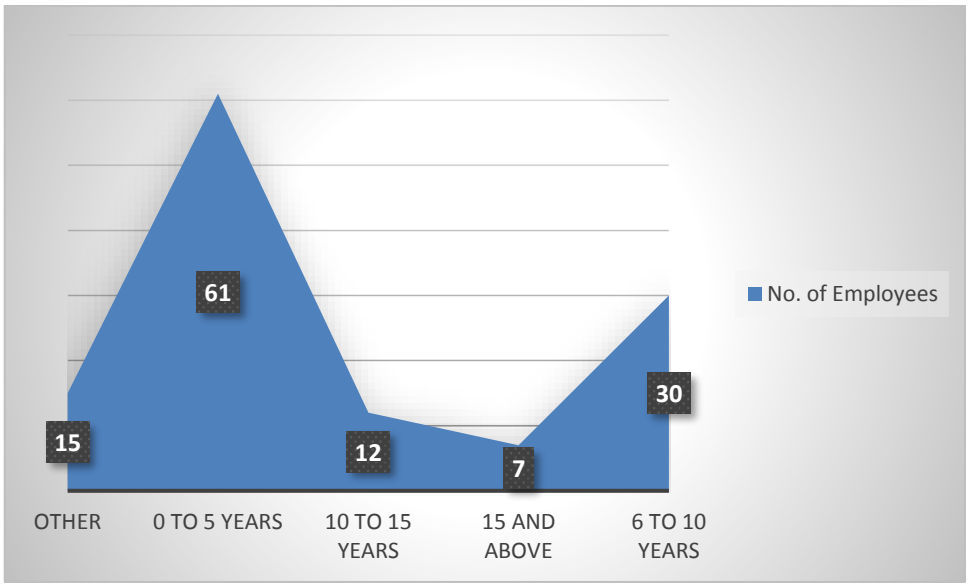


Figure 14: Number of years in the organisation

4.2.6 Highest completed level of education

Table 11: Level of education

Highest completed level of education	Frequency	Per cent
Other	16	12.8
Grade 12 (matric)	11	8.8
Masters' degree	14	11.2
Pre-university but post-school diploma (e.g. 1 -year certified diploma in Auditing)	21	16.8
University honours degree (including 4th year of engineering and the like)	22	17.6
University undergraduate degree or B Tech	41	32.8
Total	**125**	**100.0**

Respondents with a Bachelors' Degree constituted 32.8 per cent, and 17.6 per cent held an honours degree. Respondents with pre-university but post-school diplomas constituted 16.8 per cent. Respondents with a masters' degree constituted 11.2 per cent. Grade 12 (matric) respondents accounted for 8.8 per cent. Of the respondents, 12.8 per cent did not specify their qualification or level of education.

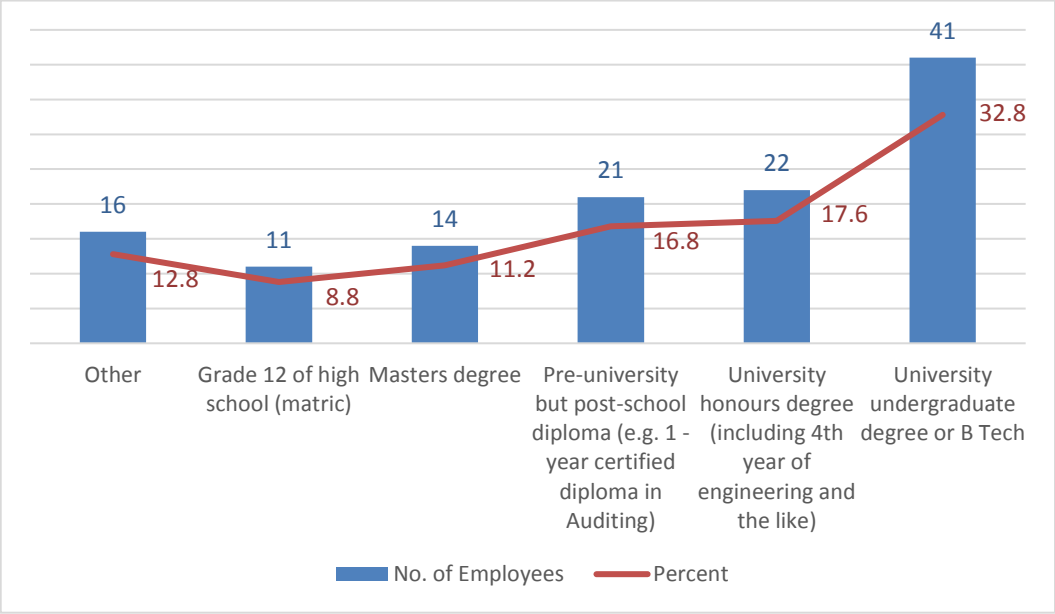


Figure 15: Highest level of education

4.3 Variable analysis

Variable analysis was applied to assess the items in their scales and determine whether they separated out into their different variables.

Table 12: Variable analysis

Analysis	EC	Innovation	OC	EO	HRM
N Valid	98	92	89	83	89
N Missing	27	33	36	42	36
Mean	5.5272	5.1609	4.6015	4.3518	4.8225
Median	5.8333	5.3333	4.8333	4.1667	5.1667
Variance	1.397	1.353	1.019	0.959	1.805
Skewness	-1.047	-0.714	-0.553	0.281	-0.869
25th Percentile	5.0000	4.3333	4.1667	3.6667	4.0833
75th Percentile	6.3750	6.125	5.3333	5.0000	5.9167
90th Percentile	7.0000	6.5	5.6667	5.6667	6.3333

The data was first tested for normality using the Kolmogorov-Smirnov Test (K-S Test).

Table 13: Tests for normality

Variables	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
EC	0.139	83	0.000	0.908	83	0.000
Innovation	0.141	83	0.000	0.939	83	0.001
OC	0.111	83	0.013	0.965	83	0.024
HRM	0.129	83	0.002	0.935	83	0.000
EO	0.129	83	0.002	0.977	83	0.146

Table 13 presents the results from two tests for normality, namely the Kolmogorov-Smirnov Test and the Shapiro-Wilk Test. If the Sig. value of the Shapiro-Wilk Test was greater than 0.05, the data was normal. If it was below 0.05, the data significantly deviated from a normal distribution. It was established that the data was not normal.

4.3.1 Internal consistency reliability of scales

The five constructs (EC, innovation, OC, HRM and EO) were tested for reliability and the results showed that the questions were reliable measures of quality. All the variables except EO showed strong internal consistency and used a benchmark of 0.65 as the level below which a Cronbach Alpha was considered unacceptable (George & Mallery, 2003).

Table 14: Cronbach's Alpha and Inter-item correlation of the constructs

Reliability statistics	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
EC	0.918	0.920
Innovation	0.926	0.927
OC	0.783	0.782
HRM	0.908	0.908
EO	0.623	0.625

A Cronbach's Alpha was calculated using SPSS24 to determine and measure the degree to which the instrument items were homogenous and reflected the same underlying constructs. A Cronbach's Alpha coefficient in excess of 0.70 was a strong measure of internal consistency (Cooper & Schindler, 2008).

The EC scale had a calculated Cronbach's Alpha of 0.92, which is substantially higher than 0.70, which illustrated a strong level of internal consistency.

The innovation scale showed a calculated Cronbach's Alpha coefficient of 0.93, which is higher than 0.70 and continued to illustrate high internal consistency.

The OC scale showed a calculated Cronbach's Alpha coefficient of 0.78, which was still higher than 0.70 and was a good illustration of high internal consistency.

The HRM scale showed a calculated Cronbach's Alpha coefficient of 0.90. It was still higher than 0.70 and was also an illustration of high internal consistency.

Lastly, the EO scale showed a calculated Cronbach's Alpha coefficient of 0.62, which was marginally lower than 0.70. The Cronbach's Alpha coefficient was dependent not only on the level of the correlations among items but also on the number of items in the scale, the lower reliability of this scale may be

partly explained by its shorter length as this scale was composed of six questions.

4.4 Results pertaining to Hypothesis 1

H_1: OC in the bank was positively related to EO as perceived by bank employees

4.4.1 Validity Tests

Validity of a construct tested whether the construct measurements were consistent. Cross-sectional correlations were run between the questions that measured each construct and construct item value (item total) and tested whether there was a significant correlation at the five per cent level (i.e. a p-value of less than 0.05). The p-values in the highlighted red columns were examined.

4.4.2 Correlation of variables making up OC

Table 15: Correlations of variables making up OC

		Q9_1	Q9_2	Q9_3	Q9_4	Q9_5	Q9_6	Item Total OC
Q9_1	Pearson Correlation	1	.595	.400	.588	.303	.499	.815
	Sig. (2-tailed)		0.000	0.000	0.000	0.004	0.000	0.000
Q9_2	Pearson Correlation	.595	1	.348	.413	.341	.433	.759
	Sig. (2-tailed)	0.000		0.001	0.000	0.001	0.000	0.000
Q9_3	Pearson Correlation	.400	.348	1	.246	0.183	0.168	.540
	Sig. (2-tailed)	0.000	0.001		0.020	0.087	0.116	0.000
Q9_4	Pearson Correlation	.588	.413	.246	1	0.160	.433	.706
	Sig. (2-tailed)	0.000	0.000	0.020		0.137	0.000	0.000
Q9_5	Pearson Correlation	.303	.341	0.183	0.160	1	.503	.593
	Sig. (2-tailed)	0.004	0.001	0.087	0.137		0.000	0.000
Q9_6	Pearson Correlation	.499	.433	0.168	.433	.503	1	.733
	Sig. (2-tailed)	0.000	0.000	0.116	0.000	0.000		0.000

The p-values of correlations between the questions asked and the total value of the OC construct all had a p-value less than 0.05. This meant that the correlations were significant and therefore valid for the construct.

4.4.3 Correlation of variables making up EO

Table 16: Correlations of variables making up EO

		Q11_1	Q11_2	Q11_4	Q11_5	Q11_9	Q11_10	Item Total EO
Q11_1	Pearson Correlation	1	.333	.459	.256	.319	-0.016	.679
	Sig. (2-tailed)		0.002	0.000	0.020	0.003	0.889	0.000
Q11_2	Pearson Correlation	.333	1	0.118	.358	0.177	.423	.654
	Sig. (2-tailed)	0.002		0.289	0.001	0.111	0.000	0.000
Q11_4	Pearson Correlation	.459	0.118	1	.369	.248	-0.180	.640
	Sig. (2-tailed)	0.000	0.289		0.001	0.024	0.104	0.000
Q11_5	Pearson Correlation	.256	.358	.369	1	-0.106	.308	.647
	Sig. (2-tailed)	0.020	0.001	0.001		0.340	0.005	0.000
Q11_9	Pearson Correlation	.319	0.177	.248	-0.106	1	.218	.478
	Sig. (2-tailed)	0.003	0.111	0.024	0.340		0.047	0.000
Q11_10	Pearson Correlation	-0.016	.423	-0.180	.308	.218	1	.431
	Sig. (2-tailed)	0.889	0.000	0.104	0.005	0.047		0.000

The p-values of correlations between the questions asked and the total value of the EO construct all had a p-value less than 0.05. This meant that the correlations were significant and therefore valid for the construct.

4.5 Results pertaining to Hypothesis 2

H2: There was a positive relationship between HRM and EO as perceived by bank employees.

4.5.1 Correlation of variables making up HRM

Table 17: Correlations of variables making up HRM

		Q10_1	Q10_2	Q10_3	Q10_4	Q10_5	Q10_6	Item Total HRM
Q10_1	Pearson Correlation	1	.773	.679	.583	.593	.591	.853
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000
Q10_2	Pearson Correlation	.773	1	.677	.541	.543	.591	.836
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000	0.000
Q10_3	Pearson Correlation	.679	.677	1	.574	.495	.593	.814
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000	0.000
Q10_4	Pearson Correlation	.583	.541	.574	1	.474	.596	.755
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000	0.000
Q10_5	Pearson Correlation	.593	.543	.495	.474	1	.845	.806
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000	0.000
Q10_6	Pearson Correlation	.591	.591	.593	.596	.845	1	.859
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000		

The p-values of correlations between the questions asked and the total value of the HRM construct all had a p-value less than 0.05. This meant that the correlations were significant and therefore valid for the construct.

4.6 Results pertaining to Hypothesis 3

H3: Employees in the bank who perceive themselves as more creative, regard the bank as more innovative, than do employees who perceive themselves as less creative.

4.6.1 Correlation of variables making up EC

Table 18: Correlations of variables making up EC

		Q7_1	Q7_7	Q7_9	Q7_10	Q7_3	Q7_5	Item Total EC
Q7_1	Pearson Correlation	1	.791	.725	.603	.502	.507	.814
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000
Q7_7	Pearson Correlation	.791	1	.770	.720	.646	.649	.899
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000	0.000
Q7_9	Pearson Correlation	.725	.770	1	.570	.670	.550	.849
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000	0.000
Q7_10	Pearson Correlation	.603	.720	.570	1	.723	.710	.846
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000	0.000
Q7_3	Pearson Correlation	.502	.646	.670	.723	1	.731	.846
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000	0.000
Q7_5	Pearson Correlation	.507	.649	.550	.710	.731	1	.819
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000		0.000

The p-values of correlations between the questions, asked in relation to the EC construct, all had a p-value less than 0.05. This meant that the correlations were significant and therefore valid for the construct.

4.6.2 Correlation of variables making up innovation

Table 19: Correlations of the variables making up innovation

		Q8_2	Q8_3	Q8_4	Q8_5	Q8_7	Q8_8	Item Total Innovation
Q8_2	Pearson Correlation	1	.777	.579	.752	.710	.606	.862
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000
Q8_3	Pearson Correlation	.777	1	.648	.728	.666	.656	.870
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000	0.000
Q8_4	Pearson Correlation	.579	.648	1	.771	.591	.540	.804
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000	0.000
Q8_5	Pearson Correlation	.752	.728	.771	1	.786	.678	.921
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000	0.000
Q8_7	Pearson Correlation	.710	.666	.591	.786	1	.650	.867
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000	0.000
Q8_8	Pearson Correlation	.606	.656	.540	.678	.650	1	.801
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000		0.000

The p-values of correlations between the questions asked and the total value of the innovation construct all had a p-value less than 0.05. This meant that the correlations were significant and therefore valid for the construct.

4.7 Summary of the results

Not all participants in the research population chose to answer all questions; there were respondents who chose not to answer a particular question. In this research, it was found that a strong measure of internal consistency was evident since the Cronbach's Alpha co-efficient was more than .70 for most of the constructs:

- The EC scale had a calculated Cronbach's Alpha of 0.92, which is higher than 0.70.
- The innovation scale showed a calculated Cronbach's Alpha coefficient of 0.93.
- The OC scale showed a calculated Cronbach's Alpha coefficient of 0.78.
- The HRM scale showed a calculated Cronbach's Alpha coefficient of 0.90.
- The EO scale showed a calculated Cronbach's Alpha coefficient of 0.62, which is lower than 0.70.

Cross sectional correlations were run between the questions, which measured each construct and construct item value (item total) and tested whether there was a significant correlation at the five per cent level (i.e. the p-value of less than 0.05):

- The p-values of correlations between the questions asked and the total value of the OC construct all had a p-value of less than 0.05.
- The p-values of correlations between the questions asked and the total value of the HRM construct all had a p-value of less than 0.05.
- The p-values of correlations between the questions asked and the total value of the EC construct all had a p-value of less than 0.05.
- The p-values of correlations between the questions asked and the total value of the EO construct all had a p-value of less than 0.05.
- The p-values of correlations between the questions asked and the total value of the Innovation construct all had a p-value of less than 0.05.

CHAPTER 5. DISCUSSION OF THE RESULTS

5.1 Introduction

A correlation analysis was completed to determine the relationships between:

i. OC and EO

ii. HRM and EO

iii. EC and Innovation.

iv. EC and EO

5.1.1 Bootstrap technique

Since the data was shown to be non-normal a bootstrap technique was used to come up with the confidence intervals for the correlation test. It was also used to determine hypothesis tests.

5.2 Discussion pertaining to Hypothesis 1

H_1: OC in the bank is positively related to EO as perceived by bank employees.

5.2.1 H_1 Pearson correlations

The results of the Pearson correlations in Table 20 showed that the correlation between OC and EO was 0.247 and was significant at the five per cent level. This was a very mild positive correlation and meant that OC explained around only 6.1 per cent of EO.

Table 20: Correlation analysis of OC and EO

				OC	EO
OC	Pearson Correlation			1	.247*
	Sig. (1-tailed)				0,012
	N			83	83
	Bootstrap[c]	Bias		0	-0,002
		Std. Error		0	0,096
		95% Confidence Interval	Lower	1	0,046
			Upper	1	0,418
EO	Pearson Correlation			.247*	1
	Sig. (1-tailed)			0,012	
	N			83	83
	Bootstrap[c]	Bias		-0,002	0
		Std. Error		0,096	0
		95% Confidence Interval	Lower	0,046	1
			Upper	0,418	1

*. Correlation is significant at the 0.05 level (1-tailed).
c. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

According to the analysis, P was less than 0.05, which meant that there was a significant relationship between OC and EO. According to Field (2013), it cannot be assured whether the relationship goes in one direction or the complete opposite. It was also important to note that the sample for the study consisted of 83 respondents (N) from the banks. This was a small sample.

According to Ngo (2018), OC emerged as a contributor to employees' innovative efforts. Similarly Gutierrez-Gutierrez et al. (2017) posited that organisational change with highly capable managers, a very skilled workforce and effective teamwork creates a unique culture that accelerates organisational learning and innovation, and is essential for encouraging employees to adapt to change for competitive advantage.

OC could be a strategic resource that fosters competitive advantage by promoting learning, risk taking, and innovation (Shaker Zahra & Hayton, 2004)

Similar research was conducted in the USA. The survey targeted manufacturing companies that were in business for a minimum of three years. In the research, 536 responses were received, of which 218 were family businesses, and the other 161 were normal businesses (Shaker et al., 2004). It was found that in family organisations' culture significantly influenced their entrepreneurial activities and had a stronger influence than the non-family firms that were part of the study.

Similarly, in this study, it was found that there was an interrelationship between OC and EO, where EO was the dependent variable and OC was the independent variable. EO is an impetus to business growth (Dess & Lumpkin, 2005; Poon et al., 2006; Rauch et al., 2009; Urban, 2008).

5.3 Discussion pertaining to Hypothesis 2

H_2: There is a positive relationship between HRM and EO as perceived by bank employees.

5.3.1 H_2 Pearson correlations

The results of the Pearson correlation calculated showed that the correlation between HRM and EO was 0.239 and was significant at the five per cent level. This was a very mild positive correlation and meant that HRM explained around 5.7 per cent of EO.

Table 21: Correlation analysis of HRM and EO

				HRM	EO
HRM	Pearson Correlation			1	.239*
	Sig. (1-tailed)				0,015
	N			83	83
	Bootstrap[c]	Bias		0	0,001
		Std. Error		0	0,101
		95% Confidence Interval	Lower	1	0,030
			Upper	1	0,425
EO	Pearson Correlation			.239*	1
	Sig. (1-tailed)			0,015	
	N			83	83
	Bootstrap[c]	Bias		0,001	0
		Std. Error		0,101	0
		95% Confidence Interval	Lower	0,030	1
			Upper	0,425	1

*. Correlation is significant at the 0.05 level (1-tailed).

c. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

According to the analysis, there was a positive relationship between HRM and EO. As highlighted, Field (2013) posited that it is difficult to be certain whether the relationship goes one way or the other. It is also important to note that the sample that was used for this study was a small sample.

According to Gutierrez-Gutierrez et al. (2017), HRM and quality management are recognised as key variables, in that these variables are ingredients for firm performance. HRM practices allow workers to discover and employ knowledge and experience in firms to develop creative ideas and discover opportunities (Prajogo & Oke, 2016).

HRM literature further proposed that these key variables, together with practices, would significantly contribute to organisational innovation (Gutierrez-Gutierrez et al., 2017; Irwin et al., 2018; Prajogo & Oke, 2016).

> Training develops employees' abilities, knowledge, and skills, which can provide a source of new ideas, processes, and practices. Empowerment motivates employees and facilitates decentralization, both of which generate new ideas and opportunities for innovation. Teamwork develops individual initial ideas, encourages employees to exchange knowledge, and produces a divergence of orientation, thereby creating a wider range of options (Gutierrez-Gutierrez et al., 2017, p. 9).

The results from the test between HRM and EO showed that there was a complex interrelationship between the two constructs where EO was the dependant variable and HRM was the independent variable.

5.3 Discussion pertaining to Hypothesis 3

H3: Employees in the bank who perceive themselves as more creative regard the bank as more innovative, than do employees who perceive themselves as less creative.

5.3.2 H_3 Pearson correlation

The results of the Pearson correlation calculated showed that the correlation between EC and innovation was 0.574 and was significant at the five per cent level. This was a mild positive correlation and meant that employee creativity explained only 30 per cent of innovation levels in an organisation.

Table 22: Correlations analysis of EC and innovation

				EC	Innovation
EC	Pearson Correlation			1	.574**
	Sig. (1-tailed)				0,000
	N			92	92
	Bootstrap[b]	Bias		0	0,002
		Std. Error		0	0,062
		95% Confidence Interval	Lower	1	0,441
			Upper	1	0,693
Innovation	Pearson Correlation			.574**	1
	Sig. (1-tailed)			0,000	
	N			92	92
	Bootstrap[b]	Bias		0,002	0
		Std. Error		0,062	0
		95% Confidence Interval	Lower	0,441	1
			Upper	0,693	1

**. Correlation is significant at the 0.01 level (1-tailed).

b. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

About 30 per cent of individuals in a total sample of 92 (N) employees who perceived themselves as creative also perceived the bank as innovative. The other 70 per cent from the 92 (N) respondents held an opposite view or no view at all.

The global business world demands that developed organisations should pursue growth through innovation and entrepreneurship (Gao et al., 2018; Hughes et al., 2018). According to Cai et al. (2018), EC facilitates organisations towards innovation and success and thus plays a critical role in organisational survival and competence. Individual creativity is directly linked to organisational creativity and innovation (Amabile & Mueller, 2008; Gilson & Shalley, 2004).

Similarly, this research showed that EC did have an impact on innovation and thus formed an important part of organisational growth, as innovation is a

dimension of EO, and EO is impetus to firm growth (Dess & Lumpkin, 2005; Poon et al., 2006; Rauch et al., 2009; Urban, 2008). In this research, innovation was the dependent variable and EC was the independent variable.

EC explained a percentage of innovation, and innovation was one of the dimensions of EO. Indirectly, EC would explain a percentage of EO. This research went further and tested the relationship between EC and EO.

Table 23: Correlations analysis of EC and EO

				EC	EO
EC	Pearson Correlation			1	.451**
	Sig. (1-tailed)				0.000
	N			83	83
	Bootstrap[c]	Bias		0	0.000
		Std. Error		0	0.072
		95% Confidence Interval	Lower	1	0.299
			Upper	1	0.597
EO	Pearson Correlation			.451**	1
	Sig. (1-tailed)			0.000	
	N			83	83
	Bootstrap[c]	Bias		0.000	0
		Std. Error		0.072	0
		95% Confidence Interval	Lower	0.299	1
			Upper	0.597	1

**. Correlation is significant at the 0.01 level (1-tailed).
c. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

The correlation between EC and EO was 0.451 and this was significant at the five per cent level. This meant that EC explained around 20.3 per cent of EO. A positive relationship between EC and EO was evident in the banks.

5.4 Conclusion

Based on the Pearson's correlation tests, which were completed on the constructs to test the hypotheses, it was found that there was a significant relationship between the tested constructs, although some lower than were others.

In the results pertaining to H_1, the Pearson's correlation test showed a significant relationship between OC and EO where P was less than 0.05. The null hypothesis, which states that there is no material difference or impact between the two constructs, could be rejected. Failing to reject the null hypothesis meant that the confidence intervals contained a value of no difference (Field, 2013).

In the results pertaining to H_2, the Pearson's correlation test showed a significant relationship between HRM and EO where P was less than 0.05. The null hypothesis, which states that there is no material difference or impact between the two constructs, could be rejected. Failing to reject the null hypothesis meant that the confidence intervals contained a value of no difference (Field, 2013).

In the results pertaining to H_3, the Pearson's correlation test showed a significant relationship between EC and innovation where P was less than 0.05. The null hypothesis, which states that there is no material difference or impact between the two constructs, could be rejected. Failing to reject the null hypothesis meant that the confidence intervals contained a value of no difference (Field, 2013).

The research concluded that OC, HRM and EC does affect EO, which is an ingredient for the success of the banks (Dess & Lumpkin, 2005; Poon et al., 2006; Rauch et al., 2009; Urban 2008). This research continued to highlight the importance of firm regeneration through intrapreneurship for survival and competitive advantage.

This research highlighted the importance of a positive culture and entrepreneurial regeneration in organisations, which could benefit institutions.

This research further showed the importance of organisational support structures, resources, and commitment of leadership to their employees to accelerate a culture of innovation and entrepreneurship through creativity. Everything begins with leadership, including executives, management, and supervisors of an organisation.

CHAPTER 6. CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

As previously stated, the purpose of this research was to investigate the relationship between specific constructs: OC and HRM with EO, and EC with innovation. The intention was to investigate the perception of bank employees on whether the developed constructs have some form of influence, impact, or relationship when compared.

In this chapter, this research is concluded by summarising the findings and proposing recommendations, and making suggestions for future research.

6.2 Conclusions of the study

If it were not for individuals who were creative would the bank still be successful in satisfying customer needs and producing newer and better products? This question was asked at the beginning of this research and is now answered.

OC and HRM play an important role in the success of the organisation as they drive the human element, which includes training of staff, mentoring programs, support structures, and emphasising the vision of the organisation so that employees bring out the best in themselves (Gutierrez-Gutierrez et al., 2017; Murimbika & Urban, 2013). On the other hand, theoretical research highlighted evidence that shows that EC could contribute to organisational innovation, effectiveness, and its survival (Amabile, 1998; Gilson & Shalley, 2004; Shalley, Zhou, & Oldham, 2004; Zang & Bartol, 2017).

According to this research and prior theory, OC, HRM, EC and innovation does have an impact on EO, which ultimately affects business success (Dess & Lumpkin, 2005; Poon et al., 2006; Rauch et al., 2009; Urban 2008). The hypotheses for the constructs show significant inter-relationships between them. In conclusion, it is important for leaders of organisations to drive a culture of inclusion, where employees are provided with resources to innovate, and are

motivated and encouraged to be entrepreneurial. The human resource component of the business must set up the right processes, performance triggers, and employee support initiatives for EO to come to fruition.

6.3 Recommendations

The study could potentially guide employers in the banking sector to align OC with the entrepreneurial spirit so that intrapreneurship is prioritised.

The study could potentially provide guidance to the human resource component of businesses on the necessity to develop, guide, motivate, and encourage employees in order for them to be very productive and creative (Irwin et al., 2018).

Strategic renewal of a firm can be a new focus at certain banks where employees and company executives interact to ensure a unified mission. It is important to review a strategy often, to keep up with the industry and new trends in the market.

This research on creativity may contribute to the substantial interest of academics and practitioners in the field (Arshi, 2012).

6.4 Suggestions for further research

The sample used for the research was a convenience sample, and the survey was distributed in Johannesburg only. In future, it would be ideal for the survey to be distributed to different branches of the banks across South Africa so that it might be further compared to the responses in different provinces.

The sample used was based on 125 responses from bank employees. A large sample (4 000 respondents or more) would strengthen the reliability of future research, and is suggested for further studies.

As it would have been ideal to include all registered banks in South Africa and to further compare the responses of employees from each bank across the country, this is recommended for future research.

Furthermore, the study does not consider the effects of the work environment, which is known to be an important condition that influences the effect of entrepreneurial leadership in a firm (Cai et al., 2018). This would be worth including in similar upcoming studies.

Hughes et al. (2018) posited that a criticism of CE literature is that organisational entrepreneurship can be hard to sustain because it may rely on more than just firm EO. The innovative practice of individuals and groups in an organisation needs to be explored over time.

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APPENDIX A

Survey

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Look & Feel | Survey Flow | Survey Options | Tools | Collaborate

Entrepreneurial Intensity at Banks

This survey is currently LOCKED to prevent invalidation of collected responses! Please unlock your survey to make changes.

Default Question Block

Dear Participant

Major Banks in South Africa are continuously faced with pressure from their competitors who are continuously seeking to disrupt the market by introducing new innovative ways of banking. Corporate Entrepreneurship (Intra-preneurship) is important for the strategic renewal, competitiveness and development of the banking industry, hence this research. My name is Skhumbuzo Gcabashe and I'm a Masters student at Wits Business School. I am interested in studying the **Correlates of Employee Creativity, Organisational Culture, Entrepreneurial Orientation and Innovation in the major banks in South Africa.**

Please be so kind by assisting with answering this voluntary 5 - 10 minute survey; please be advised that you can choose to withdraw at any stage of the process. Participation is treated with confidentiality and anonymity. No individual results will be communicated. If you would like to receive the results of the survey, you can send me an e-mail.
sgcabashe@fnb.co.za

Thanking you in advance for your participation in the study.

Regards

Q1 **Section A: General Information**
Please tick the most relevant information.

Q1 **Please specify your type of employment.**

- Permanent Employee
- Contract Employee

Q2 *Q2* **What is your gender?**

- Male
- Female

Q3 *Q3* **Which financial institution are you employed by?**

Please choose from the list below.

- FNB
- ABSA
- STD BANK
- NED BANK
- INVESTEC BANK
- RMB

Q4 *Q4* **What is your seniority?**

- Junior Employee
- Middle Manager

- Senior Manager
- Executive

Q5

Q5 **How long have you been employed with the Organisation?**

- 0 to 5 years
- 6 to 10 years
- 10 to 15 years
- 15 and above

Q6

Q6 **What is your *highest completed* level of education? (Note: if you started studying at a certain level and did not finish please do not tick that level)**

- Below Grade 12
- Grade 12 of high school (matric)
- Pre-university but post-school diploma (e.g. 1 -year certified diploma in Auditing)
- University undergraduate degree or B Tech
- University honours degree (including 4th year of engineering and the like)
- Masters degree
- PhD or Equivalent

Q7

SECTION B: The Level of Employee Creativity within an Organisation

Pirola-Merlo & Mann (2004) defines creativity in the firm as a judgement of the novelty e.g. using one's imagination to create something different.

Creativity: Scale from Zhou and George (2001).

Please tick the most relevant answer to you.

Q7

To what extent do you think the following statement is characteristic in relation to the bank that has employed you?

	Not at all Characteristic	Seldom	Sometimes	Neutral	Moderately	Most times	Very Characteristic
a) Suggests new ways to achieve goals or objectives.							
b) Comes up with new and practical ideas to improve.							
c) Searches out new technologies, processes, techniques.							

d) Suggests new ways to increase quality.	○	○	○	○	○	○	○
e) Develops adequate plans and schedules for the implementation of new ideas.	○	○	○	○	○	○	○
f) Suggests new ways of performing work tasks.	○	○	○	○	○	○	○

Page Break

Q8

SECTION C: Innovation within an organization:

Innovation is defined as the process by which companies master and put developed designs and manufacturing processes that are new to them. Hoskisson et al (2002)

Innovation: Scale from Hoskisson et al (2002)
R&D is known as Research and Development

Q8
Please tick the most relevant answer to you.

	Nowhere	Very Little	Little	Effective	Quite Effective	Very Effective	Extremely Effective
a) Where do you rate the Banks R&D intensity	○	○	○	○	○	○	○
b) How do you rate the Bank's new product intensity?	○	○	○	○	○	○	○
c) How do you rate the Bank's external acquisitions of New products/clients?	○	○	○	○	○	○	○

Q9

SECTION D: Measurement of Organizational Culture

Organizational Culture is defined as cognitions that are shared by people. These are values, beliefs and principles that promote behaviour. (Sirikrai, 2006)

Q9

Please tick the most relevant answer to you.

	Not at All	Not Often	Barely	Neutral/ Undecided	Quite Often	Very Often	All the Time
a) How often do management practices allow freedom in work?	○	○	○	○	○	○	○
b) How often does the organization search for new product/services?	○	○	○	○	○	○	○
c) How often are instructions written down?	○	○	○	○	○	○	○
d) How often is reward dependent on performance?	○	○	○	○	○	○	○
e) How typical is failure accepted?	○	○	○	○	○	○	○
f) How typical is openness to criticism?	○	○	○	○	○	○	○

Q10

Measurement of Human Resource Management(HRM)

HRM is concerned with the management of people within an organization and this propels the objectives of that particular company. This is exercised through policies, practices, philosophies and strategic benefits to manage employees.

Q10

Please tick the most relevant answer to you.

	Strongly Disagree	Disagree	Slighty Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
a) Employees take part in decision making.	○	○	○	○	○	○	○
b) Top management take interest in HR issues.	○	○	○	○	○	○	○
c) HR activities are internally consistent.	○	○	○	○	○	○	○
d) Performance appraisal decisions are taken with line managers.	○	○	○	○	○	○	○

e) The career path is broad	○	○	○	○	○	○	○
f) Employees' performance is emphasized on their personal development	○	○	○	○	○	○	○

Page Break

Q11

SECTION E: Measurement of Entrepreneurial Orientation (EO):

Entrepreneurial Orientation: is the strategic objective of a company which is comprised of three dimensions namely:
Innovation, Risk-Taking and Pro-activeness of that particular company. Somes scholars extend the definition by adding two extra dimensions known as autonomy and aggressive competitiveness of the firm (Urban, 2011)
Q11
Please tick the most relevant answer to you.

	Strongly Disagree	Disagree	Slightly Disagee	Neutral	Slightly Agree	Agree	Strongly Agree
a) Change in products / services / processes, have been mostly of a minor nature.	○	○	○	○	○	○	○
b) Changes in products / services / processes, has been quite dramatic.	○	○	○	○	○	○	○
c) In dealing with competitors, my bank is very seldom the first business to introduce new products/ services, administrative techniques, operating technologies etc.	○	○	○	○	○	○	○
d) In dealing with competitors, my bank is very often the first business to introduce new products/ services, administrative techniques, operating technologies etc.	○	○	○	○	○	○	○
e) In general, top managers at my bank have a strong proclivity for low risk projects (with normal and certain rates of return).	○	○	○	○	○	○	○
f) In general, top managers at my bank have a strong proclivity for high risk projects (with normal and certain rates of return)	○	○	○	○	○	○	○

APPENDIX B

Question Index for each construct

Index	Research Questions
	Employee Creativity
Q7_1	To what extent do you think the following statement is characteristic in relation to the bank that has employed you? *a) Suggests new ways to achieve goals or objectives.*
Q7_7	To what extent do you think the following statement is characteristic in relation to the bank that has employed you? *b) Comes up with new and practical ideas to improve.*
Q7_9	To what extent do you think the following statement is characteristic in relation to the bank that has employed you? *c) Searches out new technologies, processes,* techniques.
Q7_10	To what extent do you think the following statement is characteristic in relation to the bank that has employed you? *d) Suggests new ways to increase quality.*
Q7_3	To what extent do you think the following statement is characteristic in relation to the bank that has employed you? *e) Develops adequate plans and schedules for the implementation of new ideas.*
Q7_5	To what extent do you think the following statement is characteristic in relation to the bank that has employed you? *f) Suggests new ways of performing work tasks*.
	Innovation
Q8_2	Where do you rate the Banks R&D intensity?
Q8_3	How do you rate the Banks new product intensity?
Q8_4	How do you rate the Banks external acquisitions of New products/clients?
Q8_5	How do you rate the Banks acquisition to build new processes?
Q8_7	How do you rate the Banks desire to create a new market?
Q8_8	In your opinion, do you think that newly created products/processes inventions etc., impact the greater banking industry?

Index	Research Questions
	Organizational Culture
Q9_1	How often do management practices allow freedom in work?
Q9_2	How often does the organization search for new product/services?
Q9_3	How often are instructions written down?
Q9_4	How often is reward dependent on performance?
Q9_5	How typical is failure accepted?
Q9_6	How typical is openness to criticism?
	HRM
Q10_1	Employees take part in decision making.
Q10_2	Top management take interest in HR issues.
Q10_3	HR activities are internally consistent.
Q10_4	Performance appraisal decisions are taken with line managers.
Q10_5	The career path is broad.
Q10_6	Employees' performance is emphasized on their personal development.
	EO
Q11_1	Change in products / services / processes; have been mostly of a minor nature.
Q11_2	Changes in products / services / processes, has been quite dramatic.
Q11_4	In dealing with competitors, my bank is very seldom the first business to introduce new Products/ Services, administrative techniques, operating technologies etc.
Q11_5	In dealing with competitors, my bank is very often the first business to introduce new products/ services, administrative techniques, operating technologies etc.
Q11_9	In general, top managers at my bank have a strong proclivity for low risk projects (with normal and certain rates of return).
Q11_10	In general, top managers at my bank have a strong proclivity for high risk projects (with normal and certain rates of return).