

Proposing a compliance training success framework for South African banks to enhance an entrepreneurial business environment

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ABSTRACT

“Intellectual growth should commence at birth and cease only at death.”

- Albert Einstein

Compliance departments are crucial to maintaining a competitive advantage among South African banks. Compliance departments are perceived to have high costs, compounded by sanctions and the difficulty of proving the value of compliance training. There is a need for banks to be entrepreneurial. Research proves that an increase in corporate entrepreneurship and entrepreneurial orientation increases performance, and that entrepreneurial orientation is a component of corporate entrepreneurship. This study examines the relationship between corporate entrepreneurship and compliance training success with entrepreneurial orientation as a mediating variable. Compliance Officers within the South African banking sector were targeted through purposive sampling. Skills Development Facilitators and compliance contacts within each South African bank were used as an entry point. There was a total of 1 232 possible participants in the study, with 341 surveys returned which represents 27.7% of the participant population.

Structural equation modelling was used in the empirical study. All ten compliance training success models were positively correlated with corporate entrepreneurship, thus proving that an increase in corporate entrepreneurship increases compliance training success. Entrepreneurial orientation positively mediated the relationship between corporate entrepreneurship and the Kirkpatrick training success model. The biographic variable, age, measured a negative relationship with five compliance training success models. Seniority within the organisation measured a negative relationship with the return on investment compliance training success model. According to the descriptive statistics, most respondents agreed or strongly agreed with the statements measuring corporate entrepreneurship and entrepreneurial orientation and furthermore, that compliance training success was evaluated within the compliance departments of South African banks, except for return on investment.

Conclusions and recommendations were made to various stakeholders, such as managers and leaders of compliance departments, South African banks, the People and Culture industry, and regulators of banks, to enhance corporate entrepreneurship and

entrepreneurial orientation within compliance departments of the South African banking sector. Recommendations include considering processes to create the right environment and structures that support and encourage entrepreneurship within the constraints of the regulatory landscape and mandate of compliance. Acceptable entrepreneurial behaviours should be recognised, encouraged and incorporated into performance management contracts. The implementation of RegTech can free up time for innovation, and compliance leaders should become experts in the innovation process, advising their banks on managing compliance risks associated with FinTech solutions.

Theoretical contributions include supplementing the theoretical knowledge on corporate entrepreneurship, entrepreneurial orientation, and compliance training success. Practical contributions include the training success framework proposed for South African banks to enhance an entrepreneurial business environment, supplemented by the quality assurance framework with suggestions on how to evaluate compliance training success, as well as the action plans for various stakeholders to increase entrepreneurship within compliance departments of South African banks. There were limitations, primarily related to the sampling unit. Constant clarification and collaboration were required so that Compliance Officers within the banking sector and employees responsible for designing compliance training completed the survey. Several recommendations were made for future research, such as a longitudinal study within compliance departments and the banking sector, especially with Regulatory Technology (RegTech) and Financial Technology (FinTech) maturing.

The compliance training success framework comprises the overarching training ecosystem and the sequential instructional design process (ADDIE: Analyse, Design, Develop, Implement and Evaluate), which builds the compliance training success factors into the process. An ecosystem of practical training includes the entrepreneurial environment, the communication program, the learning environment that supports the learning process, leadership that reinforces learning and concrete learning processes.

KEYWORDS: Corporate entrepreneurship, entrepreneurial orientation, compliance departments, banking sector, mediating effect, compliance training success factors, learning evaluation and performance.

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DEDICATION

This thesis is dedicated to my late mother.

Thank you, Mummy, for showing me with your example how to be a mother, friend, wife and human being. Thank you for believing in me, always. You are always with me.

“Immortality is to live your life doing good things and leaving your mark behind.” -
Brandon Lee, actor.

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LIST OF ACRONYMS

ADDIE	Analysis Design Develop Implement Evaluate
AML	Anti-money laundering
AVE	Average variance extracted
BANKSETA:	Banking Sector Education and Training Authority
BEPE-A	Battery for the Assessment of the Enterprising Personality
CA	Cronbach Alpha
CEAI	Corporate Entrepreneurship Assessment Instrument
CFA	Confirmatory factor analysis
CFI	Comparative Fit Index
CFT	Combating financial terrorism
CISA	Compliance Institute of South Africa
COSO	Committee of Sponsoring Organisations of the Treadway Commission
COVID-19	Corona Virus Disease of 2019.
CR	Composite reliability
df	Degrees of freedom
EAO	Entrepreneurial Attitude Orientation
EASS	Entrepreneurial Attitudes Scale for Students
EFA	Exploratory factor analysis
EIS	Employee Intrapreneurship Scale
EPL	Entrepreneurial, professional, and leadership
ESG	Environmental, Social and Governance
ESMA	European Securities and Markets Authority
EU:	European Union
FAIS	Financial Advisory and Intermediary Services
FATF	Financial Action Task Force
FCA	Financial Conduct Authority.
FCPA	Foreign Corrupt Practices Act
FICA	Financial Intelligence Centre Amendments
FinTech	Financial Technology
FSA	Financial Services Authority
FSMA	Financial Services and Markets Act
GFI	Goodness of Fit Index
GTES	General Training Effectiveness Scale

MS	Microsoft
OECD	Organisation for Economic Co-operation and Development
POPIA	Protection of Personal Information Act
PRA	Prudential Regulation Authority
RegTech	Regulatory Technology
REMSEA	Root Mean Square Error of Approximation
SAFEX	South African Futures Exchange
SEM	Structural Equation Modelling
TEA	Total early-stage entrepreneurial activity
TLI	Tucker-Lewis Index
UK	United Kingdom
USA	United States of America
WSP	Workplace Skills Plan

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CHAPTER 1 NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

In the international report based on the 11th survey on the cost of compliance by Thomson Reuters, one of the five most significant challenges for boards of organisations includes the volume of regulatory change, and the top compliance challenge for organisations incorporates keeping up with regulatory change (Hammond & Cowan, 2020:3-4). According to Patrick Quinlan, the Chief Executive Officer of Convercent, the compliance industry is of critical importance to business (Marketwired, 2016:1). Regulation, compliance, and risk management have collectively been identified as one of the five essential skills change drivers for the 2020-2025 period within the banking sector by BANKSETA (2020).

The idea of the fourth industrial revolution upholds that technological change drives transformation relevant to all industries (Philbeck & Davis, 2019:17). As a result of a review of financial regulation and significant advances in the development of financial technology, the financial services sector has gradually evolved since the financial crisis in 2008 (Anagnostopoulos, 2018:8). As a result of technology enhancements, compliance functions will be able to take advantage of data analytics and technology with increased efficiency to perform real-time monitoring and anticipate compliance hotspots and potential problems (Searles, 2016:1). In a 2019 survey, Thomson Reuters found that one of the top three financial technology challenges respondents cited was keeping up with technological advancements (Thomson Reuters, 2019:26). Effective training is vital to ensure that employees and third parties understand regulatory changes and the importance of compliance (Haig, 2020:34).

The importance of innovation within the regulatory landscape in which compliance departments operate is evident in the literature. On the one hand, regulation is critical in enabling market-enhancing innovation (Gomber *et al.*, 2018:250). On the other hand, the rise of FinTech (Financial Technology) has paved the way and contributed to the need for RegTech (Regulatory Technology) solutions rapidly entering the marketplace. As technological solutions mature, regulators will continue to raise the bar for financial services organisations, placing additional demands on the banking sector (McCormick, 2018:34). An aspect of these fundamental changes is FinTech, the use of technology in

the delivery of financial solutions (Arner *et al.*, 2017:375). RegTech refers to using information technology in reporting, compliance, and regulatory monitoring (Arner *et al.*, 2020:247).

Regulatory authorities require high-quality financial data at both the standard and aggregate levels, as appropriate, to perform their core function (Shah, 2018:128). Compliance teams should understand technology and have a cultural mandate to embrace innovations to properly vet and deploy RegTech solutions (McCormick, 2018:38). The COVID-19 pandemic has accelerated technology adoption and hastened digital transformation. It has shone a light on the future potential of FinTech and RegTech (Thomson Reuters, 2020:28). RegTech aims to improve reporting capabilities and reduce compliance costs (Walshe & Cropper, 2018:167). Therefore, RegTech and FinTech are essential components within the compliance departments of South African banks.

Innovation has been confirmed as a distinct character and primary factor of corporate entrepreneurship (Castriotta *et al.*, 2021:2842; Ziyae & Sadeghi, 2021:116; Covin & Miles, 1999:47-63). Kuratko and Morris (2018:50) referred to corporate entrepreneurship as consisting of three elements: strategic entrepreneurship, corporate venturing, and entrepreneurial orientation. Thus, entrepreneurial orientation has been identified as a construct of corporate entrepreneurship.

Innovation practices also measure entrepreneurial orientation (Fan *et al.*, 2021:3; Asemokha *et al.*, 2019:427; Covin & Miller, 2014:15; Covin & Lumpkin, 2011:858). In today's global economy, a lack of innovative and entrepreneurial actions is a recipe for disaster (Kuratko & Morris 2018:42). Innovation is also explicitly seen to increase performance. Entrepreneurial orientation in corporate culture gives senior managers an essential means of encouraging radical innovation in business units to improve their financial performance (Hughes *et al.*, 2021:23). According to a recent study, entrepreneurial orientation has positively affected innovation performance in social enterprises (Oduro, 2021:326). Corporate entrepreneurship positively relates to organisational performance (Ziyae & Sadeghi, 2020:113). Enough evidence indicates that entrepreneurial orientation increases performance (Fan *et al.*, 2021:17; Khalid *et al.*, 2020:282; Leksono *et al.*, 2019; Özdemirci, 2011:613; Sharma & Dave, 2011:50; Su *et al.*, 2011:573). Innovation performance is essential for a business to thrive in the current global economy (Ahmed *et al.*, 2018:20). For corporate entities to succeed, it is imperative

to embed an entrepreneurship culture into every aspect of the operations to develop radical innovations (Hughes *et al.*, 2021:1). These operations include compliance departments.

According to the literature, each dimension of entrepreneurial orientation is positively correlated with business performance (Wiklund & Shepherd, 2005:85). Entrepreneurial orientation increases the level of engagement with innovation, which contributes to creating new services and products and pursuing upcoming markets and opportunities (Lumpkin & Dess, 1996:142; Miller, 1983:771). Innovation has also been vital to improving overall entrepreneurial orientation (Stols, 2013:9). The weights of the indicators of entrepreneurial orientation are different when explaining their influence on an organisation's growth, being higher in the case of the propensity for innovation (Moreno & Cansillilas, 2008:523).

Corporate learning goes beyond improving productivity and reducing errors and can provide significant competitive advantages in the right circumstances and with proper management (Bersin, 2013). Furthermore, suppose that one considers the cost of compliance training at an average of five hours for each employee for an organisation with 7,500 employees. In that case, compliance training can amount to over \$1.6 million annually (Rogers, 2016). This example excludes the design and development cost of the training material or the purchase of training material from an external vendor.

The importance of compliance training must be emphasised, and the cost of non-compliance is severe. For example, if one knows of an existing hazard that could harm employees but does nothing to correct it, one could look at fines of up to \$132,598 per violation in the United States of America (Andriotis, 2019). The Securities and Exchange Commission may impose civil penalties for bribery and accounting violations, while the Department of Justice sets criminal penalties. In this regard, Andriotis (2019) points out that in 2017, the typical Foreign Corrupt Practices Act (FCPA) penalty in the United States exceeded \$66 million. A breach of the new South African personal information laws could result in an R10 million fine or ten years in prison (Businesstech:2020).

The success of training programmes is determined using the classical Kirkpatrick training evaluation model. As postulated by Kirkpatrick, there is still widespread use of the four levels of training evaluation today (Kirkpatrick, 2007:35). Using Kirkpatrick's model

provides a constant reminder of the importance of aligning the training measurement and evaluation strategy with the organisation's goals and strategies (Kirkpatrick & Kirkpatrick, 2009:22).

Criticisms have been raised against the Kirkpatrick evaluation model. According to Bates (2004:342), the Kirkpatrick model presents an oversimplified perspective on training effectiveness that ignores contextual and individual influences. This study proposes a framework to evaluate training success applicable to the South African banking compliance industry to enhance an entrepreneurial business environment. Professionals may need help producing evidence of the effectiveness of compliance training (Pedersen, 2003:34). In this regard, the compliance industry globally would benefit from developing a framework for assessing the effectiveness and success of compliance training.

The importance of the financial services sector and compliance departments has been sketched, together with the importance of compliance training to enable adherence to compliance policies and procedures. Next, the previous literature on the subject matter was considered in the preliminary literature review.

1.2 PRELIMINARY LITERATURE REVIEW

Corporate entrepreneurship or entrepreneurial orientation has yet to be assessed within South African banks' compliance departments. The closest research is on innovation within compliance and was conducted by Doyle *et al.* (2014:1156), applying Six Sigma as an example to identify the theoretical structural components of compliance innovation and explain how they relate to using qualitative methods. Furthermore, the relationship between corporate entrepreneurship and the success of compliance training with the mediating effect of entrepreneurial orientation has yet to be researched in compliance departments of South African Banks. The closest related research was carried out in the banking sector (Botha, 2012:1), in the Department of Basic Education (Thabethe, 2019:264) and within public secondary schools (Malan, 2016:1).

Entrepreneurial orientation was assessed in the corporate training divisions of selected South African banks during a study by Botha (2012:129). The study shows that the corporate training divisions of selected South African banks showed an entrepreneurial orientation. A substantial relationship was identified between some constructs of entrepreneurial orientation and corporate training success. Corporate training divisions

within the banking sector operate within a highly regulated environment, which may inhibit entrepreneurial constructs, such as innovation and risk-taking. One of the suggestions for further research recommended determining whether corporate training companies within other industries display a different level of entrepreneurial orientation than those within the banking sector. This study focuses on compliance training, although broadly within the same industry.

In terms of studies on variables that mediate, a recent study found that entrepreneurial orientation mediates the relationship between entrepreneurial passion and technical innovation (Kiani *et al.*, 2021). When a strategic posture and entrepreneurial orientation behaviours are first introduced, entrepreneurial passion predicts the organisation's entrepreneurial orientation and increases technical innovation performance (Kiani *et al.*, 2021). Another study evaluated entrepreneurial orientation as a mediator of the relationship between attention deficit hyperactivity disorder and performance using a sample of Russian subject matter experts (Shirokova *et al.*, 2022).

In the KwaZulu-Natal Department of Basic Education, South Africa, corporate entrepreneurship and organisational performance were investigated in May 2019 (Thabethe, 2019:264). Although this is related to education in the broader sense, environments differ between a formal schooling system and corporate training organisations and functions, specifically compliance training within organisations. This study found that corporate entrepreneurship has a statistically positive and noteworthy relationship with organisational performance. Recommendations to management to improve entrepreneurial intentions in the Department of Education and the public sector generally consisted of management to foster and cultivate innovation by serving the immediate community by constantly promoting and improving services and processes (Thabethe, 2019:269). In addition, employees must be energised to develop new ideas, and there must be a positive relationship between ideas generated and implemented. Not necessarily only ideas involving a monetary contribution. All employees should be involved in development programmes, and their self-worth and self-image should be enhanced when they see that their contributions are considered for implementation. The research recommended that studies between organisations rather than within a specific organisation could provide essential data to test the study results (Thabethe, 2019:278). This study is within the banking sector of South Africa, specifically the compliance departments.

Malan conducted further research on the effect of entrepreneurial orientation on secondary school success in 2016. Recommendations are made with action plans to increase entrepreneurial orientation within public secondary schools (Malan, 2016:339-356).

Research in other industries has also been conducted by examining the relationship between corporate entrepreneurship and the success of automotive companies in certain Sub-Saharan African countries (Kungeke, 2019:1). It is recommended that organisations establish a conducive internal organisational environment through rewards, top management support, reinforcements, and organisational boundaries. Once implemented, the variables can create entrepreneurial orientation. Corporate entrepreneurship can produce organisational success using a partial direct relationship between reinforcement or rewards and entrepreneurial orientation to success factors (Kungeke, 2019:400).

The following suggestions for further research were observed in the preliminary literature review. A recommendation was made to apply the shortened version of the corporate entrepreneurship assessment instrument (Steyn, 2017:11) to assess corporate entrepreneurship. Kuratko and Morris (2018:70) pronounce that entrepreneurship researchers must continue exploring corporate entrepreneurship to uncover the nuances that make this concept difficult for today's organisations to implement.

As Kungeke's recent study (2019:400) found, while evaluating the relationship between corporate entrepreneurship and automotive success, time availability and autonomy did not indicate an association with entrepreneurial orientation, corporate entrepreneurship, or success factors in selected Sub-Saharan African countries. The author suggested that future studies examine the construct validity of the corporate entrepreneurship assessment instrument measuring corporate entrepreneurship. When discussing the relationship between entrepreneurial orientation and performance, Dess and Lumpkin (2005:153) suggested that researchers look beyond economic outcomes as part of performance (such as accounting or market measures), and hence, performance in terms of compliance training success is considered in this study. According to Okeyo *et al.* (2016:188), further research is warranted, as empirical studies contradict each other regarding the relationship between entrepreneurial orientation and performance.

This research study incorporates the research gaps specified above and suggestions for future research. Compliance Officers within the compliance departments of South African banks are responsible, among other things, for training employees and third parties on compliance aspects. The success of compliance training is taken as a collective set of performance measures of compliance departments as the focus of this study. The key concepts are identified next.

1.3 DEFINITION OF KEY CONCEPTS

The following key concepts are defined:

- Corporate Entrepreneurship.
- Entrepreneurial Orientation.
- Compliance training.
- The success of compliance training.

1.3.1 Corporate entrepreneurship

Corporate entrepreneurship is the display of entrepreneurship at the organisational level (Shin & Cho, 2020:2). It is essentially start-up entrepreneurship that has been turned inward within the organisation, according to Thornberry (2001:527). Zahra and Covin (1995:45) agree with Miller (1983:771) that corporate entrepreneurship consists of three distinct elements: proactiveness, risk-taking, and product innovation. The proactiveness of a company can be described as its ability to introduce new services, technologies, or products to the market ahead of its competitors. Taking risks refers to a company's willingness to undertake business ventures or strategies with an uncertain outcome. Product innovation is a company's ability to create original products or modify existing ones to meet the needs of current or future markets. Glinyanova *et al.* (2021) agree with Morris *et al.* (2011) that two significant dimensions of corporate entrepreneurship include strategic entrepreneurship and corporate venturing. Bierwerth *et al.* (2015:255) agree that corporate entrepreneurship involves strategic renewal, innovation, and corporate venturing. Although the conceptualisations may differ, innovation is vital to corporate entrepreneurship (Lampe *et al.*, 2019:789).

1.3.2 Entrepreneurial orientation

Covin and Wales (2019:4) provide construct-specific recommendations on the generation of research on high-value-added entrepreneurial orientation. Entrepreneurial orientation is the degree to which the organisation promotes and displays a sustained pattern of entrepreneurial behaviour (Covin & Wales, 2019:5). It may be viewed as a unidimensional or multidimensional construct. Entrepreneurial orientation is regarded as unidimensional, manifesting within organisations through innovation, risk-taking, and proactiveness (Covin & Slevin, 1989:76). As a multidimensional construct, entrepreneurial orientation in its most basic form is regarded as the manifestation of entrepreneurship as an organisational attribute. It focuses on practices, decision-making activities, and processes that lead to a new entry. Entrepreneurial orientation includes antecedents to new entries, such as innovativeness, risk-taking, autonomy, competitive aggressiveness, and proactiveness (Lumpkin & Dess, 1996:136). Taking into account that Miller (1983:780) and Covin and Slevin (1989:76) view entrepreneurial orientation as a unidimensional construct and Lumpkin and Dess (1996:136) view entrepreneurial orientation as a multidimensional construct, Wales *et al.* (2020:639-640) propose that these conceptualisations can be reconciled when the problem is reframed to consider how entrepreneurial orientation can be manifested across multiple levels of analysis as an organisational attribute. As a vital attribute of an organisation, entrepreneurship can be viewed in three ways. Examples from organisations illustrate these methods. According to one perspective, organisations are entrepreneurial by considering top management styles; according to another perspective, organisations manifest entrepreneurship by combining key organisational elements, and likewise, from another perspective, evidence that an organisation has entered new offerings or domains of operation is indicative of entrepreneurial behaviour.

Anderson *et al.* (2015:1580) proposed another conceptualisation of entrepreneurial orientation. The conceptual domain of organisational-level entrepreneurial orientation relates to behaviour associated with innovativeness, proactiveness, and managerial attitude jointly and severally towards risk.

1.3.3 Compliance training

Compliance training educates employees on relevant regulations, laws, and policies. Compliance refers to accepting, agreeing, and describing the training because of its mandatory nature (Valamis, 2020).

1.3.4 The success of compliance training

The success of training is related to the value that training adds through the evaluation of the training. Training evaluation may include knowledge of the subject content and attitude changes based on what has been trained (De la Fontaine *et al.*, 2021). A recent study conducted in Czech organisations indicates that one of the most preferred methods of evaluating training effectiveness is to assess employee responses immediately following the training and to evaluate whether the employee training plan has been fulfilled (Urbancová *et al.*, 2021).

The compliance training success factors used in this training include the following, which are discussed in more detail in Chapter 3:

- The evaluation model by the classical author Kirkpatrick (1996:55-56).
- The Phillips (1996:20) and Marcheselli (2019) models measure return on investment.
- The learning organisation criteria, as hypothesised by Garvin *et al.* (2008:112-113).
- Extracting business value from compliance training measures (Young, 2017:4).
- Effectiveness of compliance programs, including training and awareness factors as recognised by the Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27).
- Compliance training success as identified by Dixon and Overton (2017:38).
- The desired characteristics of a holistic compliance communication programme including training by Rogers (2022:2-11).
- Factors making training stick by Katz (2014:66).

1.4 PROBLEM STATEMENT

Despite the efforts of organisations, compliance failures still occur (Bird & Park, 2017:285). Administrative sanctions are frequently imposed. Nedbank was fined R35 million for not reporting large cash transactions and maintaining adequate records (Anon., 2022). In May 2022, the South African Financial Sector Conduct Authority (FSCA) revoked Brite Advisors' licence as a financial services provider (Moneyweb, 2022). Compliance risk can be minimised by implementing complex control systems, hiring dedicated staff, and thoroughly training employees (Bird & Park, 2017:298). It is challenging to measure compliance training's effectiveness and impact on employee behaviour (FinSMEs, 2023).

Bank compliance functions vary significantly in size and cost (McKinsey & Company, 2019:22). Finance institutions' compliance costs increased by 18% in 2020 due to the Coronavirus pandemic, and increased oversight (Lang, 2021). Financial crime compliance in the United Kingdom is estimated to cost almost three-quarters of the defence budget for 2021/2022. Financial crime compliance costs are expected to increase by 8% by 2025 (Forrester Consulting, 2023) and the cost of compliance increased by \$33 billion between 2019 and 2020 (Lang, 2021). According to American Banker, almost three-quarters of large and medium banks have experienced higher compliance costs (Alix, 2018). The banking sector complained that the cost burden stifled innovation. Deloitte (Grüter *et al.*, 2021) reports that stakeholders push compliance functions to improve effectiveness. The results of the McKinsey and Company survey (2019: 20) indicate that only six institutions anticipate reducing compliance functions in 2019. There is no doubt that South Africa is home to the most extensive banking sector on the African continent (Galal, 2023), which is the focus of this study, specifically the compliance departments within the industry.

Creating something new or solving a problem, and thus being entrepreneurial, is advantageous for employees in the banking sector (Nymbus, 2022). Compliance departments can be a competitive advantage for banks (Gabruashvili *et al.*, 2023). According to Xianguo *et al.* (2009:566) and Ireland and Webb (2007:50), corporate entrepreneurship, grounded in innovation, is crucial in developing and maintaining competitive advantages. Businesses with a robust compliance programme are also more competitive (Sehested, 2018). Adaptability, innovation, and forward-looking capabilities

may be more critical than ever (Pogson, 2019). Therefore, establishing a compliance business environment encouraging entrepreneurial behaviour is more critical than ever.

The problem statement can be summarised by stating that compliance departments have high costs, exacerbated by sanctions imposed on banks and the difficulty of demonstrating the value of compliance training effectiveness, within the banking sector's need to be entrepreneurial to gain a competitive advantage and increase performance. It was, therefore, valuable to assess the relationship between corporate entrepreneurship and compliance training success and the mediating effect of entrepreneurial orientation. Thus, a compliance training success framework was proposed to enhance an entrepreneurial business environment for South African banks.

Ziyae and Sadeghi (2020:113) have shown a positive relationship between corporate entrepreneurship and organisational performance, and entrepreneurial orientation has also been shown to improve performance (Fan *et al.*, 2021:17; Khalid *et al.*, 2020:282). This study assessed the relationship between corporate entrepreneurship and compliance training success and entrepreneurial orientation, mediating the relationship as a causal subset of corporate entrepreneurship (Kuratko & Morris, 2018:50).

1.5 THEORIES LEADING TO THE CONCEPTUAL MODEL

This section achieves methodological objective 1 in section 1.7.3, namely, identifying and comprehending the theoretical models available.

The researcher considered the theory of innovation, entrepreneurship and economic development theory by J.A. Schumpeter (1939:84) and the resource-based view of entrepreneurial orientation theory (Barney, 1991:99) for developing the entrepreneurial theoretical frameworks leading to the conceptual model and hypotheses.

The other theories related to the success of compliance training considered during this study for developing the training-related theoretical frameworks leading to the conceptual model and hypotheses are discussed in Chapter 3, Section 3.6.2 and include the following:

- Reinforcement management theory by Skinner (Abiola *et al.*, 2023:37).
- Social learning theory by Vygotsky (Khushk *et al.*, 2022:41-42).

- Experiential learning cycle theory by Kolb (Kolb & Kolb, 2018:8).
- Adult learning theory by Knowles (O'Neill, 2023).
- Sensory theory by Laird (Bachhav, 2022:12).

The entrepreneurial theories will now be discussed.

1.5.1 Schumpeter's theory of innovation, entrepreneurship, and economic development (1939:84)

A key aspect of Schumpeter's earlier work (1939:84) was the definition of innovation as establishing new production functions. In this sense, innovation is a spontaneous and discontinuous change in the flow channels, different from what may be observed in circular flow or in the tendency to disrupt equilibrium. Innovators alter and displace the equilibrium state before innovation (Schumpeter, 1939:53). Furthermore, Schumpeter viewed the entrepreneur in the broader sense of the word to include all those who perform the function for which the concept is defined, even if they are an employee of the organisation, therefore referring to corporate entrepreneurship. Schumpeter (1934) asserted that entrepreneurship drives economic growth by creating a disequilibrium, a disruptive force that facilitates economic growth (Malerba & McKelvey, 2020:503-504).

There are three interrelated components to Schumpeter's economic development theory: the development of innovations that he refers to as "new combinations", the use of credit to finance large-scale manufacturing and sale of those innovations, and the entrepreneur (Dalton & Logan, 2020:288), an individual whose energy and dynamism are only comparable to Schumpeter's concept of the economy in its entirety.

Schumpeter begins by assuming that change (though not growth) is absent from the economy (Sweezy, 1943:93). Due to its recurrence in essentially the same channels, the resulting economic system is known as the circular flow. Schumpeter argued that innovation is responsible for the change, defined as doing things differently economically (Sweezy, 1943:93). Entrepreneurs are engaged in innovation activities or functions. In his view, Sweezy (1943:96) did not see any reason to criticise this conception of innovation as an integral component of economic development.

In Hagedoorn's (1996:889) interpretation of the circular flow, the entrepreneur is the only agent of economic change. One can view the entrepreneur as the personification of

innovation that executes new combinations. As a disequilibrating force, innovation has remained a central component of Schumpeter's theory and continues to influence modern business development analyses (Hagedoorn, 1996:892). In current innovation theories, Hagedoorn (1996:893) agrees that entrepreneurship plays a crucial role in understanding the dynamics of innovation in Schumpeter's theory of innovation. It is important to note that entrepreneurial activities can range from one individual acting as an economic agent to a collective entrepreneurial function conducted by a large organisation in modern capitalism.

According to Schumpeter, profit arises only from entrepreneurship that disturbs equilibrium (Freeman, 1997:4). Schumpeter asserted that innovation revolutionises economic structures and is an essential aspect of capitalism (Freeman, 1997:3). Schumpeter failed to demonstrate that entrepreneurship could be exercised differently in different types of organisations and with different types of innovation throughout successive industrial revolutions, according to Freeman (1997:6).

A study by Dekkers *et al.* (2014:8) examined Schumpeter's ideas about innovation in current times. During Schumpeter's early writings, the entrepreneur was placed at the forefront of the innovation process by creating the disequilibrium characteristic of the capitalist system (Dekkers *et al.*, 2014:9). Entrepreneurs are considered innovators in this regard since they drive the competitive process through innovation. Schumpeterian writers later recognised that innovation was becoming increasingly important in the business world and that it was becoming less of a distinction between innovators and managers (Dekkers *et al.*, 2014:9).

Furthermore, innovation is increasingly synonymous with the growth and survival of companies due to creative destruction (Dekkers *et al.*, 2014:11). Throughout Schumpeter's writings, innovation plays a crucial role in achieving competitive advantage and implies that the objective of the competition is not to increase or decrease profits, but to determine the life or death of organisations and nations (Dekkers *et al.*, 2014:13-14).

The entrepreneurial framework can be formed by performing a series of actions following Schumpeter's theory, such as introducing new methods of manufacturing products, creating new products, finding a new market for a particular product, finding a new source of raw materials, and finding a new way to conduct and organise business (Ungureanu,

2020:404). Finding new ways to run and organise the business may be considered part of domain redefinition, thus a dimension of corporate entrepreneurship (Castriotta *et al.*, 2021:2823).

Per Malerba and McKelvey (2020:505), entrepreneurs play a vital role in the economy by performing the following functions:

- Acting as a disequilibrium, disruptive force emerging innately from the market.
- Contribute to the development of broader processes of economic dynamism, which, in turn, contribute to economic revenue growth and society's well-being.

Constant disruptive innovations are occurring in today's environment at an ever-increasing rate (Kuratko & Hoskinson, 2019:1). The classical thought leader Peter Drucker believes that the financial services industry is in trouble since it has not made a single innovation in 30 years (Drucker, 1999:25). The need for innovation has become increasingly crucial to the advancement of the business (Hughes, 2017). It is evident that some of today's most renowned innovative organisations are working overtime to maintain an innovative environment in the face of constant change (Kuratko *et al.*, 2014:38). In an environment that is more dynamic, threatening, and complex, organisations that are more entrepreneurial and innovative are more likely to be able to create a change in that environment.

Innovation is a construct of entrepreneurial orientation (Castriotta *et al.*, 2021:2842; Ziyae & Sadeghi, 2021:116; Covin & Miles, 1999:47-63) and corporate entrepreneurship (Kuratko & Morris, 2018:50). Furthermore, entrepreneurial orientation is a construct of corporate entrepreneurship (Kuratko & Morris, 2018:50).

A study by Kuratko *et al.* (2015:245) indicates that despite the recent expansion of corporate entrepreneurship research, empirical and theoretical knowledge of corporate entrepreneurship and entrepreneurial behaviour remains fundamental and needs further exploration.

The term "corporate entrepreneurship" refers to the entrepreneurial behaviour of established, medium-sized, and large organisations (Kuratko & Morris, 2018:42). Furthermore, entrepreneurial orientation has been defined as an attribute of an organisation based on its ability to support and exhibit a sustained pattern of

entrepreneurial behaviour, reflecting proactive new entry (Covin & Wales, 2019:5). New entry refers to innovations in technological developments, services, products, business models, or markets. The proactive element indicates the time of innovation concerning the conditions present when the new entry is made. The term corporate entrepreneurship refers to certain discrete entrepreneurial activities within an organisation. Therefore, applying Schumpeter's theory of innovation, entrepreneurship, and economic development (1934) to the South African banking sector compliance departments is relevant to frame the conceptual model and evaluate corporate entrepreneurship and entrepreneurial orientation that leads to hypotheses. Corporate entrepreneurship and entrepreneurial orientation within an organisation play a crucial role in understanding the dynamics of innovation, which is an underlying construct of both corporate entrepreneurship and entrepreneurial orientation applied in this study. Furthermore, this study includes employees within the compliance departments of South African banks, finding new ways to conduct and organise business and contributing to economic development by protecting the banks' licences to operate.

This study investigates corporate entrepreneurship and the mediating effect of entrepreneurial orientation in compliance departments within South African banks and the relationship with performance in compliance training success, as set out in the hypotheses covered in Chapter 4.

1.5.2 The resource-based view of entrepreneurial orientation (Barney, 1991:99)

Another theoretical model considered during this study is the resource-based view of entrepreneurial orientation. From this perspective, we can answer the question: what are the reasons for entrepreneurial orientation's impact on organisational performance? What are the mechanisms and resources responsible for this relationship? Entrepreneurial orientation has a significant impact on an organisation's performance as it is rooted in a resource-based view (Barney, 1991:99). Furthermore, entrepreneurial orientation is a construct of corporate entrepreneurship (Kuratko & Morris, 2018:50). Therefore, corporate entrepreneurship is also seen to impact an organisation's performance. As a result of having an organisational orientation, a synergistic alignment of organisational elements promotes a pattern of new entry initiatives that may become significant sources of new value creation for an organisation (Wales *et al.*, 2021). Thus, the resource-based view theory suggests that entrepreneurial orientation can play a significant role in

achieving competitive advantage (Yin *et al.*, 2021:1373), and it has been demonstrated that entrepreneurial orientation can positively impact a new venture's resource acquisition (Yin *et al.*, 2021:1389).

According to Pereira and Bamel (2021:567), the roots of the resource-based and knowledge-based views lie mainly in entrepreneurship, strategic management, information and decision-making, international business knowledge, and intellectual capital science.

According to Wales *et al.* (2021:575), entrepreneurial orientation is also likely to describe how an organisation has demonstrated entrepreneurial characteristics (such as proactiveness and innovation) through its resources and capabilities (such as routines, processes, culture, and structures) but also how it configures and reconfigures an organisation's entrepreneurially orientated resources and capabilities to increase the value (performance) of the organisation. Frequently, the term resource is limited to those attributes that enhance the efficiency and effectiveness of the firm, such as entrepreneurial orientation (Ferreira *et al.*, 2010:100). As entrepreneurial orientation is an essential component of corporate entrepreneurship (Kuratko & Morris, 2018:50), the resource-based view of entrepreneurship (Barney, 1991:91) can also be applied to corporate entrepreneurship. Therefore, it was decided to assess corporate entrepreneurship and the impact on the success of compliance training with the mediating effect of entrepreneurial orientation in the relationship.

Deliberating Barney's (1991:99) resource-based view of increasing performance of entrepreneurial orientation (Lee & Chu, 2017:13) and corporate entrepreneurship (Fis & Cetindamar, 2020:1) increasing performance, this study, therefore, investigates corporate entrepreneurship prevalent within compliance departments within South African banks and the mediating effect of entrepreneurial orientation in the relationship with compliance training success. Thus, entrepreneurial orientation, viewed as a subset of corporate entrepreneurship, is also tested in this study (Kuratko & Morris, 2018:50), as it investigates whether corporate entrepreneurship causes entrepreneurial orientation and thus mediates the relationship between corporate entrepreneurship and compliance training success.

In summary, this study aligns with Schumpeter's theory of innovation, entrepreneurship, and economic development (1939:84) and the resource-based theory of Barney (1991:99). Performance is framed as the success of specific compliance training. This study also proposes a framework for compliance training success to improve an entrepreneurial business environment.

1.6 DEVELOPMENT OF RESEARCH ARGUMENT OR THESIS

Considering the theories that led to the conceptual framework, this research argues, therefore, that Compliance Officers within the banking sector operating within a high-cost, sanctions-driven environment and must be able to display entrepreneurial behaviours that will lead to a higher level of performance, as demonstrated in research (Fan *et al.*, 2021:17; Ziyae & Sadeghi, 2020:113) and tested in the present research. This study evaluated the effectiveness of compliance training as a performance indicator. Creating a compliance training success framework provides a tool for measuring the effectiveness of compliance training and simultaneously improving the entrepreneurial environment in business.

Therefore, this study explored whether corporate entrepreneurship (entrepreneurship at the organisational level, Shin & Cho, 2020:2) causes entrepreneurial orientation (the degree to which the organisation promotes and displays a sustained pattern of entrepreneurial behaviour, Covin & Wales, 2019:5), which ultimately results in an increase in performance through the effective implementation and evaluation of compliance training. The current study is motivated by the finding that entrepreneurial orientation has been identified as a subset of corporate entrepreneurship (Kuratko & Morris, 2018:50), and thus, entrepreneurial orientation was measured as a mediator variable in the relationship between corporate entrepreneurship and compliance training success. This thesis is further developed into the hypotheses in Chapter 4.

There is a broad alignment between this study and the goals of the 2030 Sustainable Development Agenda of the United Nations Development Programme (UNDP, 2023), Department of Economic and Social Affairs, precisely goal number four, which focuses on quality education, and goal number nine, which concentrates on infrastructure, industry and innovation. In South African banks, the compliance department trains employees and third parties in compliance to promote inclusive and equitable education

and lifelong learning opportunities. Infrastructure, industry and innovation are essential to building resilient infrastructure, promoting inclusive and sustainable industrialisation, and incubating innovative ideas. Therefore, there is an alignment to the need for banks and compliance departments to be entrepreneurial and innovative.

The research objectives are considered next.

1.7 RESEARCH OBJECTIVES

1.7.1 Primary objective

The primary objective of this study was to propose a compliance training success framework for South African banks to enhance an entrepreneurial business environment.

1.7.2 Secondary objectives

To achieve the primary objective, the following **secondary objectives (SO)** were set:

SO¹: To investigate and establish the relationship between corporate entrepreneurship and the success of compliance training within South African banks.

SO²: To investigate and establish the relationship between entrepreneurial orientation as a mediating variable in the relationship between corporate entrepreneurship and the success of compliance training within South African banks.

SO³: To investigate the relationship between selected biographic variables and the success of compliance training within South African banks.

1.7.3 Methodological objectives

Detailed below are the **methodological objectives (MO)** required to fulfil the primary and secondary objectives of this study:

MO¹: To identify and comprehend the theoretical models available and constructs measuring corporate entrepreneurship, entrepreneurial orientation, and compliance training success through a literature review.

MO²: To obtain insight into the current state of the compliance industry and compliance training environments through a literature review and propose compliance training success factors.

MO³: To propose a conceptual model and hypothesised model that illustrates relationships between the independent variable in this study, corporate entrepreneurship, the mediating variable, entrepreneurial orientation, and the dependent variables, compliance training success factors.

MO⁴: To describe the research design and methodology employed to achieve the objectives and manage the research questions in this study.

MO⁵: To design a measuring instrument to source data for empirically assessing the hypothesised relationships.

MO⁶: To collect primary data from respondents, statistically analyse the data, and present, illustrate and discuss the primary data generated from this study.

MO⁷: To use the results of the empirical study to draw conclusions and make recommendations, particularly on how to increase corporate entrepreneurship and entrepreneurial orientation within compliance departments where positive relationships and positive mediating relationships are evident with the success of compliance training within the South African banking sector.

A dependent variable, also known as the outcome variable, is a variable whose values the researcher tries to predict from one or more predictor variables (Field, 2018:1028). An independent variable or predictor variable is a variable that is used to try to predict the values of another variable, known as the outcome variable (Field, 2018:1031). A mediator is a variable that reduces the size and/or the direction of the relationship between a predictor variable and an outcome variable and is associated statistically with both (Field, 2018: 1025).

1.8 RESEARCH QUESTIONS

The central question in this research was to determine whether hypothesised measurement instruments to measure the relationship between organisational antecedents, corporate entrepreneurship and entrepreneurial orientation as a mediating

variable and success factors of compliance training have acceptable attributes such as reliability, validity, and unidimensional capacity (Vijayamohanan & Rjumohan, 2020:3; Nazim & Ahmad, 2013:6; Hair *et al.*, 2010:125).

Construct validity requires the observed data on item responses to be unidimensional, i.e., the items should measure only one dimension (Vijayamohanan & Rjumohan, 2020:8).

Confirmatory factor analysis assesses a model construct's unidimensionality, reliability, validity, and fitness. Confirmatory factor analysis is essential to obtain the best-fit model in structural equation modelling (Nazim & Ahmad, 2013:1).

The following were the research questions of this study, which were answered through the achievement of the study objectives:

- Which constructs measure corporate entrepreneurship, entrepreneurial orientation, and success of compliance training?
- What is the current state of the compliance industry and compliance training environments?
- What is the relationship between constructs of corporate entrepreneurship, constructs of entrepreneurial orientation as a mediating variable, and the success of compliance training in South African banks' compliance departments?

1.9 HYPOTHESISED RELATIONSHIPS FLOWING FROM THEORETICAL MODELS INTO THE CONCEPTUAL MODEL

Based on Schumpeter's theory of innovation, entrepreneurship, and economic development (Schumpeter, 1939:84) and Barney's resource-based theory on entrepreneurial orientation and the inferred requirement of organisations and departments to display corporate entrepreneurship (Barney, 1991:99), the relationship between the constructs of corporate entrepreneurship and the success of compliance training success was investigated and the mediating role of entrepreneurial orientation within compliance departments of South African banks.

Organisations can demonstrate corporate entrepreneurship by either undertaking corporate venturing, which involves adding new businesses, or pursuing strategic entrepreneurship, which displays highly consequential internal innovations to achieve competitive advantage. (Kuratko & Hoskinson, 2019:3-4). Kuratko and Morris (2018:50) identified three significant components of corporate entrepreneurship: corporate entrepreneurship, entrepreneurial orientation, and strategic entrepreneurship. Therefore, entrepreneurial orientation is seen as part of corporate entrepreneurship. Hornsby *et al.* (2002:261) postulated five organisational factors to measure corporate entrepreneurship: work discretion, management support, time availability, organisational boundaries, and rewards and reinforcement. For this study, the constructs, as hypothesised by Hornsby *et al.* (2002:261), were used to frame the hypotheses below.

Entrepreneurial orientation is an essential tool in implementing corporate entrepreneurship because it reflects the predisposition of an organisation toward entrepreneurship (Chitimiea *et al.*, 2021:125). Therefore, the entrepreneurial orientation as a mediating variable was investigated. Lumpkin and Dess (1996:137) view entrepreneurial orientation as a multidimensional construct. This construct consists of risk-taking, innovativeness, autonomy, competitive aggressiveness, and proactiveness. In a recent study, Chabaud and Sattin (2019:6) suggested that multidimensional assessments of entrepreneurial orientation, in which each of the five dimensions differentiates, can vary independently (Chabaud & Sattin, 2019:1), should be considered. Covin and Lumpkin (2011:858) view entrepreneurial orientation as sustained behavioural patterns of autonomy, risk-taking, proactiveness, competitive aggressiveness, and innovativeness. Therefore, entrepreneurship is to be recognised as an explanatory attribute. In entrepreneurial orientation research, the Miller/Covin and Slevin (1989) and the Lumpkin and Dess (1996) scales have been widely employed (Covin & Lumpkin, 2011:866). This study follows the approach that entrepreneurial orientation is a multidimensional construct using second-order confirmatory factor analysis. Second-order confirmatory factor analysis can interpret scales as multidimensional by bringing all dimensions under one higher-level factor (Gould, 1987). The latent construct has independent dimensions: autonomy, innovativeness, risk-taking, competitive aggressiveness, and proactiveness (Covin & Lumpkin, 2011:863). For this study, the Covin and Lumpkin constructs (2011:863) were used as mediator variables to measure

entrepreneurial orientation in the relationship between corporate entrepreneurship and the success of compliance training.

In this study, performance is related to the success of compliance training. Constructs were researched through an in-depth literature review on corporate and compliance training. The success factors of compliance training used in this research included the evaluation model by the classical author Kirkpatrick (Kirkpatrick, 1996:55-56), the Phillips (1996:20) and Marcheselli (2019) models on measuring return on investment, the learning organisation criteria by Garvin *et al.* (2008:112-113), extracting business value from compliance training measures (Young, 2017:4), the effectiveness of compliance programmes, including training and awareness factors as identified by the Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27), compliance training success factors as determined by Dixon and Overton (2017:38), the desired characteristics of a holistic compliance communication programme, including training by Rogers (2022:2-11) and factors making training stick by Katz (2014:66).

Kirkpatrick's training evaluation model includes learner reaction, learning, behaviour, and business results (Kirkpatrick, 1996:55-56). As Garvin *et al.* (2008:112-113) described, learning organisations should have a supportive learning environment, concrete learning processes, and leadership that promotes and reinforces learning. The supportive learning environment consists of psychological safety, appreciation of differences, openness to new ideas, and time for reflection. Concrete learning processes and practices involve experimentation, information collection, analysis, education and training, and information transfer. Extracting business value from compliance training measures (Young, 2017:4) includes individually relevant learning; high-impact learner experiences using social, workplace and media-rich digital learning; focus on knowledge, skills, and behaviours that embed lasting behaviour change; and compliance training joined up as strategic learning. Training and awareness factors identified by the Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27) describing the effectiveness of compliance programmes (including training) comprise planning for training measures, implementation of training measures, and evaluation and administration measures.

The conceptual model is shown in Figure 1.1 below. The conceptual model achieves methodological objective 3, to propose a conceptual model that illustrates the relationships between the independent variable in this study, namely corporate entrepreneurship, the mediating variable, entrepreneurial orientation, and the dependent variable, compliance training success factors. The conceptual model has been developed with the theoretical models as the backdrop, namely the theory of innovation, entrepreneurship, and economic development by Schumpeter (1939:84) and the resource-based model of entrepreneurship by Barney (1991:91). Schumpeter (1934) postulates that entrepreneurship drives economic growth by creating a disequilibrium. This disruptive force facilitates economic growth (Malerba & McKelvey, 2020:503-504). In his resourced-based view of entrepreneurship by Barney (1991:99), entrepreneurial orientation is a resource of the organisation and, by inference, corporate entrepreneurship that leads to performance. Therefore, the resource-based view of entrepreneurship (Barney, 1991:91) also applies to corporate entrepreneurship since entrepreneurial orientation is part of corporate entrepreneurship (Kuratko & Morris, 2018:50) and tested in this study. In this study, performance is related to the success of compliance training, and entrepreneurial orientation is viewed as a mediating variable.

Performance in terms of compliance training success is aligned to the following theories as mentioned in Section 1.5 and discussed in Section 3.6.2:

- Reinforcement management theory.
- Social learning theory.
- Experiential learning cycle theory.
- Adult learning theory and,
- Sensory theory.

Figure 1.1: Conceptual model flowing from the theoretical models

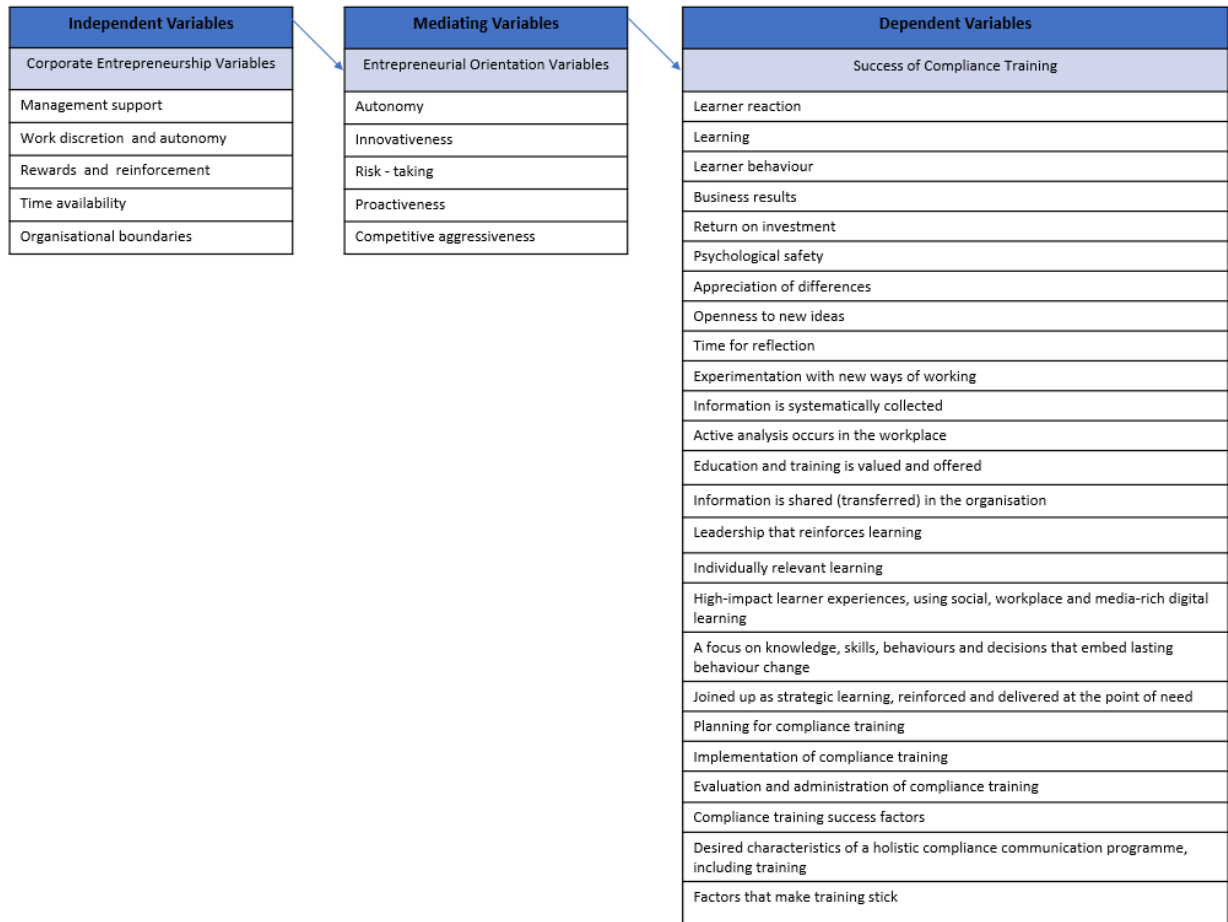
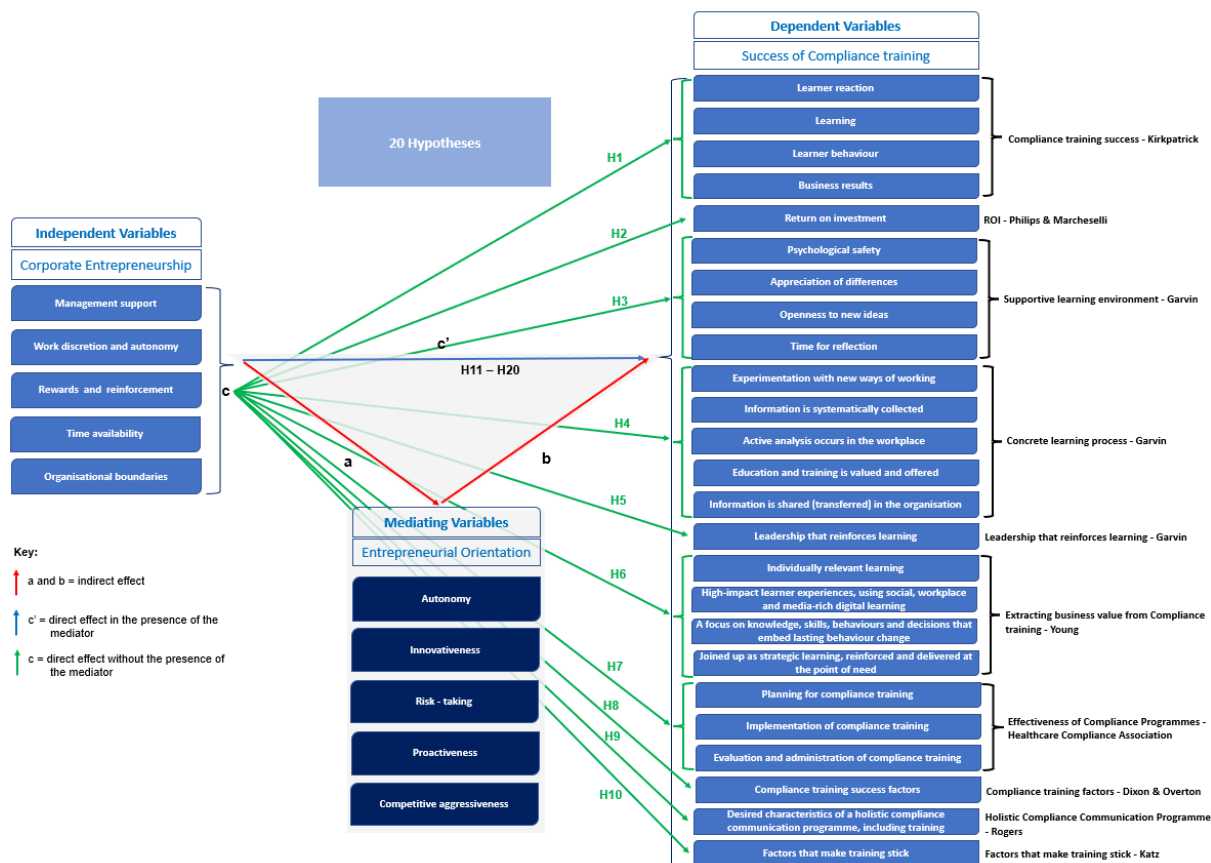


Figure 1.1 specifies the independent, dependent, and mediating variables. Furthermore, the hypotheses flowing from the conceptual model framed are shown in Figure 1.2 below and are discussed in detail in Chapter 4.

Figure 1.2: The hypothesised model formulated from the conceptual model



The hypotheses are unpacked further in Chapter 4, the research design and methodology employed in this study. The hypothesised model achieves methodological objective 3, namely, to propose a hypothesised model that illustrates the relationships between the independent variable in this study, namely corporate entrepreneurship, the mediating variable, namely entrepreneurial orientation, and the dependent variable, compliance training success factors.

1.10 RESEARCH DESIGN AND METHODOLOGY

To enable the researcher to answer the primary and secondary objectives as set out in 1.7.1 and 1.7.2 and the research questions as set out in 1.8 as well as to test the hypothesised relationships as set out in 1.9 of this chapter, secondary research investigations through a literature review and primary research investigations through an empirical investigation were undertaken as explained below. A wide selection of secondary sources was consulted, including global databases, journals, articles, and books that informed this study's literature review section.

1.10.1 Literature review

The literature review is covered in Chapters 2 and 3. Chapter 2 reviews entrepreneurship, intrapreneurship, corporate entrepreneurship, and entrepreneurial orientation. The constructs of corporate entrepreneurship and entrepreneurial orientation, the definitions and how the constructs are measured are covered. Chapter 3 covers a literature review on the compliance environment within financial services organisations, corporate training environments, and how to measure the success of compliance training.

1.10.2 Empirical investigation

The research paradigm, approach, and methodological choice used in this study are described as part of the research design and methodology that preceded the empirical investigation undertaken. The population, sample, sampling technique, and data collection method are also discussed. The research instrument's data analysis method, validity, and reliability tests are described, and the descriptive and inferential statistics used in this study are detailed. Chapter 4 further illustrates the research design and methodology used in this study. The research instrument is developed and presented in Chapter 5. The empirical results are presented in Chapter 6.

1.10.2.1 Research paradigm

Three main research paradigms have been identified in educational research, namely positivism, interpretivism, and critical theory (Rehman & Alharthi, 2016:52). Positivism supports the application of natural sciences to investigate and understand social reality (Bryman *et al.*, 2017:12). Only phenomena that may be distinguished through the senses may be verified as origins of entities and knowledge. Positivism theory aims to create hypotheses to be tested and evaluate the validity of theories. According to positivism, reality exists independently of humans, is not mediated by our senses, and is controlled by immutable laws (Rehman & Alharthi, 2016:53). Positivism takes the philosophical stance of natural scientists, working with an observable social reality producing law-like generalisations (Saunders *et al.*, 2019:812). As in nature, positivists state that events cause occurrences and that once a cause-and-effect relationship has been established, future events can be predicted accurately. Therefore, this research adopts a **positive paradigm** to evaluate the problem statement and study the relationship between corporate entrepreneurship and the success of compliance training with the mediating

role of entrepreneurial orientation. This paradigm is aligned with the researcher's own beliefs.

1.10.2.2 Research approach

The research approach may be deductive or inductive. With deductive research, hypotheses are deduced and put through empirical scrutiny (Bryman *et al.*, 2017:9). A theoretical postulation is tested by implementing a specific research strategy (Saunders *et al.*, 2019:801). As a result, inductive research has developed theory and systemic inferences are extracted from observations (Bryman *et al.*, 2017:11). Saunders *et al.* (2019:805) refer to the deductive approach in which theory is developed due to the observation of empirical data. The research approach selected for this study is deductive. Deductive research involves developing and testing a conceptual or theoretical structure based on empirical observation (Welman *et al.*, 2010:28), which involves moving from the general to the specific. The **deductive approach** is deemed most appropriate because the researcher is testing the theory that corporate entrepreneurship increases performance (success of compliance training) and is mediated by entrepreneurial orientation.

1.10.2.3 Methodological choice

An interpretivist paradigm is generally suited to a qualitative research method (Rehman & Alharthi, 2016:56; Saunders *et al.*, 2019:179). A critical theory paradigm is usually suited to methods that combine interviewing that fosters reflection and conversation with observation (Rehman & Alharthi, 2016:57), thus also a qualitative method. A positivist paradigm is suited to a quantitative research method (Rehman & Alharthi, 2016:57; Saunders *et al.*, 2019:176). Quantitative research is also related to a deductive approach, where data are collected and investigated to test a theoretical model (Saunders *et al.*, 2019:176).

Thus, quantitative research examines the relationships between variables, measured numerically, and analysed using statistical and graphical techniques (Saunders *et al.*, 2019:178). Quantitative research uses numerical values from observations to explain and describe phenomena (Taherdoost, 2022:54).

In quantitative research, the primary objective is to collect numerical data (Harrison & Reilly, 2011:11). Quantitative research involves experimental research, quasi-experimental research, and non-experimental research (Welman *et al.*, 2010:78). Using the relationship between variables as a basis for testing objective theories, Creswell and Creswell (2018:4) define quantitative research as an approach to testing objective theories.

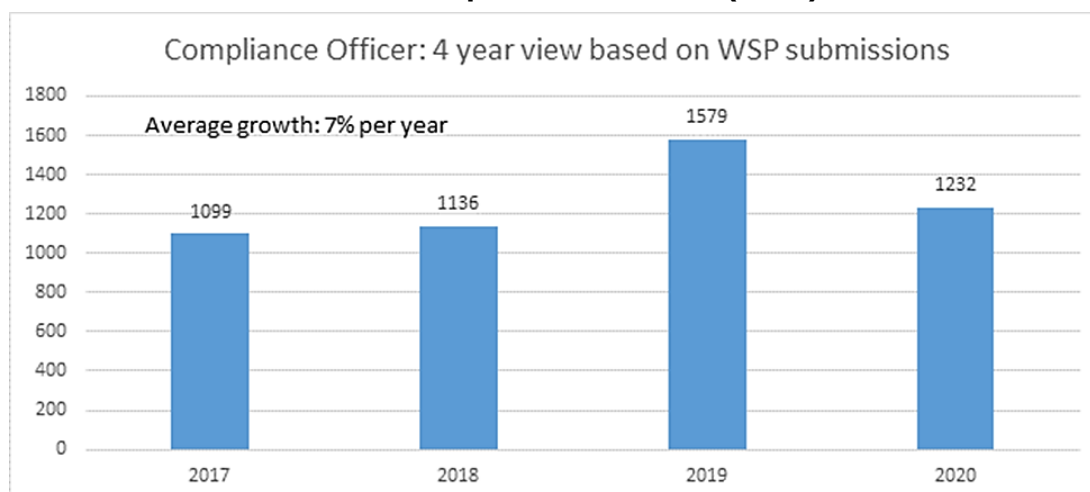
The most appropriate method for this study is **quantitative research** to test the theories that corporate entrepreneurship positively influences compliance training performance. In evaluating the research problem, entrepreneurial orientation is considered a mediating variable.

1.10.2.4 Population, context, and demarcation of the study area

The context of the study revolves around compliance departments within the South African banking sector. The population is the complete set of elements or cases from which a sample is extracted (Saunders *et al.*, 2019:294). The population of this study consists of 1 232 Compliance Officers (BANKSETA, 2020) in the banking sector within the geographical borders of South Africa. Therefore, the Compliance Officers form the unit of analysis.

The reasoning for selecting Compliance Officers for this research is that Compliance Officers' primary responsibilities include providing advice, monitoring adherence to regulations and policies, reporting to various regulatory and other bodies, and providing training (Lunday, 2010). Therefore, delivering training is a crucial responsibility for Compliance Officers. This study population was identified using the organising framework of the code of occupations for Compliance Officers through the Skills Development Facilitators or compliance contacts. According to the BANKSETA research and skills planning area, there are 1 232 Compliance Officers in the banking sector in South Africa as of 2020. Therefore, all Compliance Officers represent the study population. See Figure 1.3 below, illustrates the Compliance Officers per the BANKSETA.

Figure 1.3: Number of Compliance Officers according to the BANKSETA, based on Workplace Skills Plan (WSP) submissions



Source: BANKSETA 2020

1.10.2.5 Sampling method, technique, sample size and privacy considerations

The sampling method is the total population sampling method, and thus, the sample size includes 1 232 Compliance Officers within the banking sector in South Africa. Compliance Officers were chosen as a purposive sampling method using the researcher's judgment due to the homogeneity factor (Saunders *et al.*, 2019:813). Compliance Officers are of the same occupation and perform similar roles. As a purposive sampling method, total population sampling involves examining the entire population (Lund Research Ltd., 2012). In terms of nonprobability sampling, purposeful sampling is the most essential type. Using their ingenuity, previous research findings, and experience, researchers employ purposeful sampling to obtain units of analysis so that the sample in them may be considered a representative sample of the relevant population (Welman *et al.*, 2010:69).

The technique used to obtain the purposive sample was that the BANKSETA made available the various banks' email addresses of the Skills Development Facilitators through standing relationships in industry forums. Current relationships were used to identify a compliance contact in the bank so that the bank's approval process could be followed. The participation of the Compliance Officers was voluntary, and they decided whether they wanted to participate in the study.

Regarding privacy considerations, the researcher ensured compliance with the new POPIA (Protection of Personal Information Act), and no personal information was ever

obtained or stored, such as email addresses. Furthermore, the researcher obtained informed consent from the Skills Development Facilitators who agreed to participate and the Chief Compliance Officers, where applicable, to allow the Compliance Officers to participate in the survey through the banking approval processes. Each bank has its policies and approval processes to consent to employees' completion of the survey questionnaire when banks are approached. Furthermore, each respondent gave their informed consent before completing the survey, which was also placed on LinkedIn and the Compliance Institute of South Africa website for completion by Compliance Officers within the banking sector. Participants could not continue with the survey if they did not agree to the informed consent contained in the online survey questionnaire. As mentioned above, the population and, therefore, the sample size consisted of 1 232 Compliance Officers in the banking sector of South Africa as of 2020, according to the research and skills planning area of the BANKSETA. To perform the statistical analysis, the researcher aimed to have at least 300 (24%) respondents participate in the survey.

1.10.2.6 Empirical research design

The empirical research design selected for this study is quantitative research in the form of a nonexperimental design and, more specifically, a structured survey questionnaire. According to Creswell and Creswell (2018:12), survey research is a quantitative or numerical description of a population's attitudes, opinions, and trends by studying a sample of members. Therefore, data is collected at one point and is cross-sectional (Creswell & Creswell, 2018:149).

1.10.2.7 Research instrument

A shortened version of the corporate entrepreneurship assessment instrument initially designed by Hornsby *et al.* (2002: 264-265), adapted and tested by Strydom (2013:174-177) in the South African context and tested more recently in the South African context by Steyn and de Bruin (2018:1), has been used and adapted to measure corporate entrepreneurship. The questionnaire developed by Lotz and Van der Merwe (2013:31-32) has been used and adapted to measure entrepreneurial orientation.

The success factors of the compliance training were developed from the literature study. No universal set of constructs tested to measure compliance training is available. The structured survey questionnaire used in a previous study by Botha (2012:171-175) has

been used as a foundation that identified constructs for corporate training by classical writers such as Kirkpatrick (1996:55-56), Phillips (1996:20), and the concepts from a learning environment, according to Garvin *et al.* (2008:112-113), and was expanded based on current literature applicable to compliance training success factors.

The following constructs were included in the research questionnaire as obtained from the literature study specifically applicable to compliance training success, which is further discussed in Chapter 3:

- Return on investment of compliance training (Marcheselli, 2019)
- Extracting business value from compliance training measures (Young, 2017:4)
- The effectiveness of compliance programs, including training and awareness factors as identified by the Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27)
- Compliance training success factors as identified by Dixon and Overton (2017:38)
- The desired characteristics of a holistic compliance communication program, including training by Rogers (2022:2-11)
- Factors making training stick by Katz (2014:66).

These were considered in framing the success factors of compliance training. Adaptations were made when necessary to focus on compliance training specifically.

This research proposed a framework to measure the success of compliance training at the end of the research study. The survey questionnaire used a Likert scale, initially developed by Rensis Likert (1931), which contained approximately equal amounts of favourable and unfavourable statements and measured respondents' attitudes toward the statements. There is a recommendation to use an ordinal scale when ordering data. For example, tea water can be described as cold, lukewarm, tepid, warm, very warm, and hot (Tastle & Wierman, 2007:532). It is the categories themselves that define the values. Therefore, it does not make sense to say that the average temperature between warm and very warm is warm and one-half. Thus, the values between the two categories are not relevant. For this study, participants should have selected one of five responses:

totally disagree, disagree, undecided, agree, or strongly agree. 'Totally disagree' indicates a strong disagreement with the statements on corporate entrepreneurship, entrepreneurial orientation, and success factors of compliance training, respectively, and 'disagree' indicates disagreement. 'Agree' indicates agreement with the statements. 'Strongly agree' indicates strong agreement. 'Undecided' indicates that the participant cannot decide whether to agree or disagree with the statement.

1.10.2.8 Data collection

The quantitative survey questionnaire was uploaded in electronic format to the Microsoft Forms survey platform. The link to the survey was sent to the Skills Development Facilitators and compliance contacts of the various banks, and the approval process was followed for each bank. After approval was obtained, the survey was sent to Compliance Officers by either the Skills Development Facilitator, the compliance contact, or another designated individual within the bank for completion.

The link to the survey was also placed on LinkedIn, and individual contacts within the banking compliance industry in South Africa were approached to consider completing the survey. The Compliance Institute of South Africa also placed a link to the survey on its website and encouraged members to participate.

It was decided to use the online survey questionnaire as the data collection method due to its convenience and ease of collection, as well as the costs and time necessary to conduct the study, which has been considered part of the rationale for selecting the data collection procedure (Creswell & Creswell, 2018:149). Completion was anonymous and voluntary, and informed consent was obtained regarding POPIA from the various banks and Compliance Officers. The purpose of the survey and what the information processing entailed were explained to the banks. Consent was also obtained from each participant whose responses were processed through an informed consent accompanying the survey questionnaire and making it the first question on the survey questionnaire. The question was made mandatory. If the participant did not provide this consent, the participant could not continue with the survey questionnaire.

1.10.2.9 Statistical analysis

The frequency distribution statistics were used to report the biographic information of the respondents (age group classification, gender, seniority within the organisation, and highest academic qualification). Confirmatory factor analysis was used to determine the validity of the measuring instrument, followed by the calculation of the Cronbach alpha coefficient to determine the instrument's reliability and the internal consistency of the data. To achieve internal consistency, the items in a test must be interrelated (Quansah, 2017:57). Structural equation modelling was used to determine the relationship between independent, dependent, and mediating variables. Based on structural equation modelling, the relationships in the theoretical model are confirmed to agree with the empirical data (Civelek, 2018:9). The relationship between selected biographic data and the constructs measuring the success of compliance training was also analysed. The analysis was performed using IBM SPSS (IBM Statistical Package for Social Science version 28). Chapter 6 details the statistical analysis procedure and the results in more detail.

1.10.2.10 Ethical consideration

According to Welman *et al.* (2010:201), researchers should consider four ethical considerations. Informed consent, the right to privacy, protection from harm, and the researcher's participation are all essential considerations. Creswell and Creswell (2018:89-90) recommend ethical considerations during all the stages of the research, namely, before conducting the study, beginning the study, collecting the data, analysing the data, and recording, sharing, and storing the data.

There are standing meetings every quarter between the BANKSETA and the Skills Development Facilitators of the constituent banks. During a meeting in December 2022, the research was introduced to the Skills Development Facilitators present at the meeting. The BANKSETA was a connector to introduce the research study with the Skills Development Facilitators present at this meeting. Because the BANKSETA promotes doctoral funding through bursaries and is interested in compliance training success, they have agreed to mention the research study at this meeting. The BANKSETA funded the research. It is not viewed as a conflict of interest, as the broader banking sector and the compliance industry will benefit from the research results. It is also not viewed as a power

play, as individual banks decided whether to participate in the research through their Chief Compliance Officers, and banks are not regarded as having persuasion power at these meetings.

Once informed consent was received from the Skills Development Facilitator and Chief Compliance Officer of a bank or the respective compliance or another representative of the bank, the link to the electronic survey was mailed to the Skills Development Facilitator or the compliance contact of the bank for onwards transmission to the Compliance Officers in their banks for completion. Completion was voluntary, and the Skills Development Facilitators and compliance contacts were used as the contact persons in the respective bank. The Skills Development Facilitators and compliance contacts were used to encourage participants to complete the electronic surveys. According to Creswell and Creswell (2018:150), a single-stage sampling procedure is one in which the researcher can directly access a population's names and sample individuals. As part of the research project, the researcher had access to the Skills Development Facilitators and compliance contacts within the South African banks, who, in turn, had access to the Compliance Officers within their respective banks.

As part of this study, ethical considerations were measured in the following way. Participation in the survey was anonymous. The questionnaire indicated that implicit consent is provided to use the research data when completing it for the purposes specified in the questionnaire. If consent was not provided, the participant could not continue the survey. The completion was voluntary. Informed consent was obtained from the Skills Development Facilitators, the chief compliance officer, or the compliance contacts. Permission was also received from BANKSETA to use the email addresses of Skills Development Facilitators within current forums.

In addition, privacy rights were protected by keeping the identity of respondents and the companies they work for anonymous. The confidentiality of the respondents is guaranteed. No names or email addresses were obtained during the research study.

The researcher anticipated and actively addressed any ethical issues in the research plan as they arose and as recommended by Creswell and Creswell (2018:89-90) before conducting the research at the beginning of the study, while collecting data, while analysing the data, at the reporting stage, data sharing, and storing of the data stages.

1.11 SCOPE OF THE STUDY (DELIMITATION)

1.11.1 Field of the study

This study's field is entrepreneurship, particularly corporate entrepreneurship and entrepreneurial orientation.

1.11.2 Industry of the study

The study occurred in Compliance departments within the banking sector that are part of the BANKSETA in South Africa.

1.11.3 Geographical demarcation

The geographical demarcation of this study focuses on Compliance departments within the banking sector that are part of the BANKSETA within South Africa.

1.12 OUTLINE OF THE STUDY

Chapter 1: Nature and scope of the study

The first chapter of the study introduces and explores the problem statement and explains the broader outline of the research subjects. Research concepts are considered, and previous research undertaken is reflected upon. The research argument is presented, and the primary and secondary study objectives are explained, followed by the research questions and the paradigm. The rationale behind the quantitative research technique and research instrument is substantiated. The research hypotheses are outlined, as well as the contributions and limitations of the research study.

Chapter 2: An overview of entrepreneurship, intrapreneurship, corporate entrepreneurship, and entrepreneurial orientation

Chapter 2 explores an in-depth literature study of the definitions of entrepreneurship, intrapreneurship, corporate entrepreneurship, and entrepreneurial orientation and how the literature has matured over time. A detailed literature study and validation of how concepts can add value to businesses were considered, and how to measure corporate entrepreneurship and entrepreneurial orientation were reviewed.

Chapter 3: Compliance departments within South African banks

Chapter 3 includes an intense literature study on the history of the compliance industry and the success factors and constructs that form part of training success, specifically those applicable to compliance training.

Chapter 4: Research design and methodology

Chapter 4 outlines the research design and methodology used in this study. The chapter deliberates choices regarding the primary philosophy used by the researcher, the approach to theory development, and the methodological selections formed, including the strategy, time horizon, procedures, and techniques discussed in detail. The population, sample, sampling technique, and data collection method are considered. The data analysis techniques used in this study are also observed.

Chapter 5: Measuring instrument development

Chapter 5 mainly covers how the research instrument, namely the survey questionnaire, was curated to measure corporate entrepreneurship and the mediating role that entrepreneurial orientation plays in the relationship between corporate entrepreneurship and the success of compliance training within compliance departments of South African banks. There was a particular focus on the validity and reliability of the research instrument. The data analysis methods, including the structural equation modelling process, were briefly outlined. Finally, ethical considerations were discussed.

Chapter 6: Empirical results

Chapter 6 unpacks the statistical results of the research. Research findings are presented. The statistical techniques used for data interpretation are provided. The data collected are unpacked using confirmatory factor analysis, descriptive statistics, comparison of biographic effects on compliance training success, correlations between constructs, testing the model fit and evaluating the relationships between the variables using structural equation modelling (SEM).

Chapter 7: Summary, conclusions, and recommendations

Chapter 7 focuses mainly on interpreting the research findings and providing valuable recommendations, contributions, and suggestions for future research proposals. The

compliance training success framework is presented and explained in detail, as well as the quality assurance framework for compliance training success.

Chapter 1 partly achieved methodological objective 1, namely, to identify and comprehend the theoretical models available for corporate entrepreneurship and entrepreneurial orientation. Methodological objective 3 was fully achieved namely, to propose conceptual and hypothesised models that illustrates the relationships between corporate entrepreneurship and compliance training success, and the mediating variable entrepreneurial orientation.

CHAPTER 2 AN OVERVIEW OF ENTREPRENEURSHIP, INTRAPRENEURSHIP, CORPORATE ENTREPRENEURSHIP AND ENTREPRENEURIAL ORIENTATION

2.1 INTRODUCTION TO ENTREPRENEURSHIP

COVID-19 has forced organisations to be more innovative and engage in entrepreneurship to develop innovative channels, products, and assets to suit the new market reality. New business possibilities are required to achieve sustainable growth (Gavrila & Ancillo, 2021:12-13).

The field of entrepreneurship has been evolving and emerging (Antoncic & Hisrich, 2003:7). Due to changing economic conditions and the rapid rise of entrepreneurs in the global economy, greater emphasis has been placed on understanding the role of entrepreneurship in emerging economies (Hamdan *et al.*, 2022:1). There is no doubt that entrepreneurial activity contributes to regional development and economic growth (Audretsch *et al.*, 2022:1). Researchers have examined and predicted the reasons and events behind entrepreneurship, including growth, new venture design, and innovation. What makes an entrepreneur and what makes organisations entrepreneurial have also been investigated. A person or organisation can exhibit entrepreneurial behaviour or intentions based on outcomes. Entrepreneurship may be shown as several smaller events or as a few larger ones. More significant events may include the formation of a new venture or breakthrough innovation (Antoncic & Hisrich, 2003:9). A company can be defined as entrepreneurial in absolute terms, such as starting a new company versus not starting a company, or it can be defined as entrepreneurial relative to other companies, such as being more or less entrepreneurial than others.

Extensive evidence shows that entrepreneurial culture drives innovation and economic growth by attracting creative talent, capital, and networks (Pradhan *et al.*, 2020:1107). Technological advancements and new markets develop rapidly, and individuals are differentiated by their ability to innovate and act entrepreneurially (Kuratko, Fisher & Audretsch, 2021:1681). In a dynamic, threatening, and complex environment, organisations that are more innovative and entrepreneurial are better positioned to adapt and change (Kuratko & Hoskinson, 2019:1). Furthermore, the current business climate is

characterised by constant disruptive innovations that are occurring at a rapid pace (Kuratko & Hoskinson, 2019:1).

As a result of its flexibility, expanding capacity, knowledge-transfer capacity, and competitive environment, entrepreneurship develops and spreads innovation. According to Lumpkin and Pidduck (2021:41-42), an entrepreneur is autonomous, proactive, innovative, and a competitive risk-taker. An entrepreneur can only thrive in a market that does not restrict the entry of new businesses, thereby allowing free and efficient resource allocation (Robu, 2019:69).

Entrepreneurship, innovation, and economic growth are strongly correlated, even over short periods. As a result, entrepreneurs play a crucial role in creating jobs and undertaking risks that lead to radical and incremental innovations (Pradhan *et al.*, 2020:1118). Entrepreneurship is influenced by individual, organisational, and environmental factors (Lumpkin & Dess, 1996:135).

Organisations must develop "innovation-friendly" environments to unleash the entrepreneurial mindset of their employees (Kuratko, Hornsby & McKelvie, 2021:135). Internal organisational dimensions are crucial for an innovative work environment to be elevated and supported (Hornsby *et al.*, 2009:238). Five measurements can characterise an environment conducive to entrepreneurial behaviour: top management support, work discretion and autonomy, rewards and reinforcements, time availability, and organisational boundaries (Kuratko, Hornsby & McKelvie, 2021:135; Hornsby *et al.*, 2009:238).

In an organisation, top-management support refers to upper-level management recognising and supporting entrepreneurial actions. A commitment of top management to such activities is crucial to conveying importance and support (Kuratko, Hornsby & McKelvie, 2021:135). The ability of individuals to work with flexibility and autonomy regarding their entrepreneurial behaviour is called work discretion and autonomy (Kuratko, Hornsby & McKelvie, 2021:135). An organisation's commitment to fostering individual entrepreneurial behaviours is demonstrated through rewards and reinforcement. As a result of rewards, individuals may be able to increase their income (bonuses), increase their motivation (awards), relax (paid time off), or even take part in a company's equity (Kuratko, Hornsby & McKelvie, 2021:135). The intensity of competition

within organisations can push individuals to use every moment of their available time to fulfil their responsibilities. Flexible time allows employees to work on more innovative and creative solutions that will help address an organisation's challenges (Kuratko, Hornsby & McKelvie, 2021:135-136). It is common for employees to move across and within traditional organisational boundaries, such as departments and divisions. As borders become fluid, individuals will be more likely to share ideas and find suitable strategies for executing them (Kuratko, Hornsby & McKelvie, 2021:135). Senior managers can access and use this information more quickly because their attention is widely distributed across the organisation and the external environment.

According to Kuratko, Fisher and Audretsch (2021:1682), the entrepreneurial mindset has three distinct aspects. Cognitively, an entrepreneur uses mental models to think. Behaviourally, an entrepreneur acts on opportunities, and emotionally, an entrepreneur feels.

Furthermore, entrepreneurship theory has evolved from an individual to a team-based approach. According to entrepreneurship research conducted at the individual level, entrepreneurs carry the entrepreneurial spirit into an organisation and each department is instilled with this entrepreneurial spirit. In transitioning from individual to team-level entrepreneurship, it is evident that individuals cannot fulfil the needs of the social economy, and the team's strength exceeds the individual's (Mei, 2021:3).

The ability to work alone depends on individual competence; starting a new business alone is not the same as doing so as part of a team. Those who are part of entrepreneurial teams can handle emergencies if their team members have the expertise, coordinate their efforts, and synchronise their actions. Entrepreneurial teams can coordinate their work, collaborate on joint efforts, share knowledge and develop together, transcending the individual responsibilities of their members (Mei, 2021).

For many years, scholars have studied entrepreneurship. There are five broad categories of literature on entrepreneurship. These include defining the word entrepreneur, researching the psychological traits of entrepreneurs, analysing the success strategies of new businesses, studying the success strategies of existing businesses, and examining the effects of environmental factors on entrepreneurial activities (Bull & Willard,

1993:184). Entrepreneurship research has become widely accepted and well-established in business administration (Reuther *et al.*, 2018:2).

2.2 DEFINITION OF ENTREPRENEURSHIP

Entrepreneurship is a French word that dates back to the 18th century. French economist Cantillon introduced the concept of an entrepreneur in his book, "Introduction to the Nature of Business" (Cantillon, 1755). He believed entrepreneurship was influenced by the uncertainty of the environment - taking risks in an uncertain world. The entrepreneur is responsible for organising, financing, and taking on a large portion of the risk associated with a venture. The French word "entreprendre" means "to undertake" (Burch, 1986:13). Additionally, entrepreneurs seem to be the primary agents of social change (Burch, 1986:13). A vital tool for entrepreneurs is innovation (Burch, 1986:14).

The Cambridge Dictionary (2021) defines an entrepreneur as someone who attempts to profit by starting a business or operating alone, mainly where it involves risks. The entrepreneurial mindset emphasises opportunity, holistic thinking, and balanced leadership to create and capture value (Timmons & Spinelli, 2009:101).

Entrepreneurship has been defined as a factor of production linked to risk-taking and innovation, as well as compensation based on uncertainty and profit (Montanye, 2006:547). Economic development occurs when discontinuous new combinations emerge, according to Schumpeter (1936:66). Organisations are entrepreneurial when their decision-making techniques and procedures allow them to identify opportunities, adopt a proactive attitude, and seek creative ways to achieve their objectives (Sánchez-García *et al.*, 2022:1). According to Lumpkin and Pidduck (2021:39), entrepreneurship is a multifaceted process of creating new value that involves (a) launching new enterprises and/or entering new markets; (b) establishing ownership regimes that bestow agency on those who launch businesses and enter markets, and (c) establishing the beliefs and behaviours that are associated with launching businesses and entering markets.

According to Schumpeter, the process of executing new combinations is called enterprise. The individuals who conduct them are called entrepreneurs (Schumpeter, 1936:74). Economic development involves the introduction of new goods and services, the advancement of new production methods, the availability of new markets, the attainment of new raw materials and components, or the reorganisation of industries.

Henrekson and Sanandaji (2020:734-735) agree with Schumpeter that entrepreneurs bring the economy into a new equilibrium through innovation, disrupting the old, and introducing new combinations. Entrepreneurial innovation includes technological change but is not limited to it.

In Schumpeter's view, entrepreneurship is only a life cycle phase, and entrepreneurs cannot be permanently distinguished from managers or capitalists (Schumpeter, 1980:116). Accordingly, he defines entrepreneurship as a recombination of production factors by studying the bundles of activities that make up entrepreneurship (Schumpeter, 1980:214). In Schumpeter's definition, entrepreneurs are defined based on their function rather than their employment status. A business that engages in conventional routine activity is not considered entrepreneurial. The one that performs that function in the organisation may be regarded as entrepreneurial (Schumpeter, 1934:75). According to Lumpkin and Pidduck (2021:39), entrepreneurship involves the launch of new enterprises and the entry into markets for the first time, beliefs and behaviours associated with the launch of new businesses, and the establishment of ownership regimes that provide agency to those entrepreneurs who venture into new markets and venture enterprises.

Maes (2004:7) provides a historical perspective on the definitions of entrepreneurship, adapted in Table 2.1, which contains secondary references.

Table 2.1: Historical perspective of definitions of entrepreneurship

Source	Definition of entrepreneurship
Miller (1983)	An organisation's actions relate to product-market and technological innovation.
Kanter (1985)	The creation of new combinations.
Gartner (1985, 1989)	The process of new venture creation is the process by which new organisations come into existence.
Schuler (1986)	Creating or innovating new products or services within existing or newly formed businesses.
Stevenson and Jarillo (1990)	The process by which individuals, either on their own or inside organisations, pursue opportunities without regard to the resources they currently control.
Jones and Butler (1992)	The process by which organisations identify opportunities and act to organise transactions between factors of production to generate value creatively.
Krueger and Brazeal (1994)	Quest for an opportunity irrespective of existing resources.
Kouriloff (2000)	Process of creating a new venture.
Shane and Venkataraman (2000)	Detection, creation, and utilisation of opportunities to bring future goods and services to the market.
Low (2001)	Creation of a new enterprise.

Source: Adapted from Maes (2004:7)

Table 2.1 illustrates how the definition of entrepreneur has evolved, and references to secondary sources are included in his work.

Entrepreneurs, entrepreneurial activities, and entrepreneurship are defined by the OECD (Organisation for Economic Co-operation and Development) (Ahmad & Hoffman, 2007:4). Entrepreneurs create or expand economic activities to create value through the discovery and exploitation of new products, processes, and markets. Entrepreneurial activity generates value by creating or developing economic activity. A phenomenon associated with entrepreneurial activity is entrepreneurship.

The characteristics of an entrepreneur will be explored in the next section.

2.3 CHARACTERISTICS OF THE ENTREPRENEUR

Over the years, many characteristics of the entrepreneur have been identified. McClelland (1965:391) suggests that a need for achievement drives entrepreneurial occupations. According to Hornaday and Aboud (1971:147), entrepreneurs score significantly higher on scales that reflect the need for achievement, independence, and leadership effectiveness than people in general but score lower on scales that emphasise the need

for support. Hagedoorn (1996:889) describes Schumpeterian entrepreneurs as proactive and not strictly rational economic maximisers. Despite their sensible and irrational motivations, Schumpeter's entrepreneurs never appear satisfied with existing results and go on looking for new opportunities (Hagedoorn, 1996:889). The Schumpeterian concept of entrepreneurship is synonymous with creativity and change (Mehmood *et al.*, 2019:6).

Entrepreneurial individuals possess the following personality traits (Burch, 1986:15):

- The desire to achieve. Entrepreneurs must have the drive to overcome obstacles and launch successful businesses.
- Hard work. To achieve goals, entrepreneurs must be workaholics in many instances.
- Nurturing quality. An entrepreneur oversees and manages a venture until it can stand by itself.
- Acceptance of responsibility. An entrepreneur assumes full responsibility for the venture and is responsible for its success legally, morally, and mentally.
- Reward orientation. In addition to taking responsibility, entrepreneurs also work hard and want to be rewarded generously for their achievements. In addition to monetary rewards, rewards can also include respect and recognition.
- Optimism. Entrepreneurs have the philosophy that now is the best of times and that the possibilities are endless.
- Orientation to excellence. Every entrepreneur's dream is to achieve something remarkable they may be proud of, which ranks first in class.
- Organisation. It is common for entrepreneurs to bring together all the components of a venture to make it successful. Taking charge is what they are known for.
- Profit orientation. The desire to achieve and the nurturing quality take precedence over money, as surprising as it may seem. Profit is essential for entrepreneurs, but it serves primarily as a measure of their performance and achievement.

According to Timmons and Spinelli (2009:47), seven desirable attitudes and behaviours can be acquired for entrepreneurs. These include the following.

- Commitment and determination.
- Courage.
- Leadership.
- Obsession with opportunities.
- Tolerance of ambiguity, uncertainty, and risk.
- Creativity, self-reliance, and adaptability.
- Inspiration to excel.

A recent study found that entrepreneurs make more intuitive decisions than managers but are similarly instinctive as employees. Despite this, entrepreneurs are more responsive and have a more significant need for reasoning than employees (Koudstaal *et al.*, 2019:901). An analytical-rational style of reasoning is necessary (Koudstaal *et al.*, 2019:904).

Research shows that attitudes and perceived behaviour control mediate the relationship between personality characteristics and entrepreneurial intentions. Therefore, a person with a need to achieve, a propensity to take risks and an internal locus of control will start a new business only if they feel confident and find the task worthwhile (Farrukh *et al.*, 2018:408). Being entrepreneurial is an everyday occurrence that can be learned (Lackéus *et al.*, 2020:4).

According to Mukherjee (2016:28-29), an entrepreneur must possess the following characteristics: passion and self-motivation since entrepreneurs start businesses at their own risk and must be able to overcome obstacles and succeed. Being versatile, having extraordinary business skills, taking risks, being driven, having a good vision, being flexible, having an open mind, and being decisive all contribute to success.

The following insights can be drawn from Malerba and McKelvey's (2020:505) analysis of Schumpeter's theoretical traditions regarding entrepreneurs:

The entrepreneur:

- Takes risks and reaps the benefits.
- Develops innovative products and services based on technology and ideas.
- Develops new combinations of elements.

- Is uncertain about the future outcome of current choices.
- Drives and adapts to external changes to create opportunities.

It has been noted that South African and Polish women entrepreneurs share the essential characteristics of responsibility, assertiveness, diligence, creativity, innovation, and purposefulness. South African participants identified critical characteristics of courage, responsibility, honesty, the ability to work well with people and time management. It was found that Polish and South African female entrepreneurs consider responsibility an essential characteristic (Kot *et al.*, 2016:216).

Based on the literature, Chavez (2016:33) found that the most researched traits of an entrepreneur include their internal locus of control, the need to excel, and their propensity for risk-taking. Entrepreneurs' most crucial personality traits are risk-taking, decisiveness, and optimism, according to research done by Kozubíková *et al.* (2017:220). Small and medium businesses in the Czech Republic participated in the investigation. According to Kozubíková *et al.* (2017:205), entrepreneurs minimise financial risks by building up reserves by taking risks and being decisive, while they hold a negative view of optimism.

A recent study on Tunisian entrepreneurs (Morched & Jarboui, 2021:6) emphasises the importance of maintaining a solid need for success, the determination to establish future goals, and the desire for independence and autonomy among future entrepreneurs.

Medacović and Marić (2019:18-19) describe potential entrepreneurs as having the following characteristics:

- Being willing to take the risk. Entrepreneurs are individuals who take risks and create new businesses outside of existing corporations.
- Independence. People who are entrepreneurs prefer to work for themselves rather than for others.
- Internal centre of control. Individuals with an inner centre of control believe they have significant control over their lives (internal locus of control).
- Experience life through excitement. Pursuing calm is a goal for some people, while excitement and action are goals for others. Those who are entrepreneurs are attracted to new and different things, making them fit into the second category.

- Individual initiative. When entrepreneurs start a business, they use creativity and energy to justify decisions.
- Self-confidence. Entrepreneurs have great self-confidence and the conviction that the new approach, service, idea, or product they propose is beneficial. Often, others do not support new ideas, so self-confidence is necessary.
- Adaptability. Adaptability is a trait of entrepreneurs. Businesses must adapt to changing markets and systems.
- Pertinacity. Pertinence is a trait of entrepreneurs. The people who do not give up in the face of obstacles are those who do not quit.
- Ambiguity. When faced with a choice dilemma, entrepreneurs must tolerate it. Some people find it difficult to resolve some situations, which are dangerous and psychologically challenging. Uncertainty does not affect entrepreneurs, so they can take advantage of it.
- Patterns of identification. Entrepreneurs can use identification patterns to resolve disputes. In one glance, they can see how everything fits together.
- The need for assistance is minimal. Often, entrepreneurs feel that they do not need outside help because of their self-confidence.
- "The right thing". There are specific characteristics necessary for someone to become an entrepreneur, and this phrase presumes a psychological perspective on entrepreneurship, as those characteristics are seen in someone who wants to succeed and be an entrepreneur. Entrepreneurship should be the right choice for them.

Various characteristics of entrepreneurs have been identified over the years. While some characteristics are similar, others are distinctively different. The early understanding of entrepreneurship differs from the current one and will acquire new characteristics in the future. Several aspects of the definition coincide, including creativity, innovation, independence, and affinity for risk (Medacović & Marić, 2019:21).

How entrepreneurship is measured, is considered in the next section.

2.4 MEASURING ENTREPRENEURSHIP

Robinson *et al.* (1991:13) considered the Entrepreneurial Attitude Orientation (EAO) scale more helpful in describing entrepreneurs than personal characteristics or demographic data. Personal control, innovation, self-esteem, and achievement were included in this measurement instrument.

A recent study assessed entrepreneurship in school-age adolescents using two instruments (Ortuño-Sierra *et al.*, 2021:4). A BEPE-A (Battery for the Assessment of the Enterprising Personality) was developed to assess eight specific personality dimensions related to entrepreneurial personality, including autonomy, internal locus of control, innovation, optimism, risk-taking, self-efficacy, stress tolerance, and achievement motivation. A measure of enterprising personality called the Entrepreneurial Attitudes Scale for Students (EASS) includes six dimensions: empathy, proactivity, innovation, professional ethics, risk-taking, and autonomy. As the market changes continuously and suddenly, it is essential to identify new opportunities to grow. Therefore, early detection and promotion of entrepreneurship are necessary (Ortuño-Sierra *et al.*, 2021:6).

The influence of entrepreneurship on economic development was assessed using a regional dimension by Robu (2019:72). Based on available statistical data, the challenge is to find the right indicators that show how environments are adapted to the specific needs of entrepreneurs regardless of their origins or nationalities. As a result, removing market barriers and facilitating entrepreneurs' access to resources is made more accessible through regional policies. To assess entrepreneurship, regional entrepreneurial environments were examined based on density (the number of small businesses, the representation of small businesses as a percentage, and new jobs created by small businesses), networks, industry, innovation, culture, regional institutional framework, and regulations (Robu, 2019:74).

Figure 2.1 illustrates the EUROSTAT framework of the OECD. In addition to examining the factors that affect entrepreneurship, it also examines how entrepreneurs perform and the impact of entrepreneurship (Ahmad & Hoffman, 2007:18). Essentially, it is based on the idea that the combination of three factors creates entrepreneurship and entrepreneurs: resources, opportunities, and competent people (Ahmad & Hoffman,

2007:15). These three factors are heavily influenced by culture and regulatory frameworks. Resources include research and development, technology, and capital.

Figure 2.1: The OECD/EUROSTAT framework for entrepreneurship-adding policy areas for entrepreneurial determinants

Determinants						Entrepreneurial Performance	Impact
Regulatory framework	R&D and technology	Entrepreneurial capabilities	Culture	Access to finance	Market conditions	Firms	Job-creation
Admin burdens for entry	R&D Investment	Training and experience of entrepreneurship	Risk attitude in society	Access to debt financing	Anti-trust laws	Employment	Economic Growth
Admin burdens for growth	University Industry Interface	Business & entrepreneurship skills	Attitudes towards entrepreneurship	Business Angels	Competition		
Bankruptcy regulations	Tech co-operation between firms	Entrepreneurship infrastructure	Desire for business ownership	Access to Venture Capital	Access to domestic market	Wealth	Poverty Reduction
Safety, health, and environmental regulations	Technology diffusion	Immigration	Entrepreneurship education (mindset)	Access to other types of equity	Access to foreign markets		
Product regulation	Broadband access			Stock markets	Degree of public involvement		
Labour market regulation	Patent system/standards				Public Procurement		
Court and legal framework							
Social and health security							
Income, Wealth and Bequest taxes							
Business and Capital taxes							

Source: Adapted from Ahmad and Hoffman (2007:18)

Figure 2.1 indicates that the impact of entrepreneurship includes job creation, economic growth and poverty reduction.

The researchers identified the most important determinants of entrepreneurial activity among many indicators in Ukraine, Poland, Lithuania, Romania, and Germany (Kyfyak *et al.*, 2021:42). An entrepreneurship performance indicator and an indicator of entrepreneurial activity were identified. The following indicators were identified under entrepreneurship performance: The volume of output at market prices, the Global Competitiveness Index, and the Gross Domestic Product at real prices per capita.

The following indicators measured entrepreneurial activity (Kyfyak *et al.*, 2021:42):

- Innovation expenditures in the country.
- Per capita share capital.
- Export.
- Import.
- Capital investment.
- Number of employed individuals in the population.
- Number of unemployed people in the population.
- The average income.
- An enterprise's sales volume of goods, services, and products.
- Income of the population.
- Per capita disposable income.
- A measure of the number of economically active individuals.
- The need for workers.
- A measure of the real disposable income of the population.
- Costs associated with personnel.

In a recent study by Henrekson and Sanandaji (2020:733), the following metrics were used to measure entrepreneurship. Four Schumpeterian entrepreneurship measures were collected by hand: venture capital-backed initial public offering, self-made billionaires, unicorn start-ups (privately held start-ups that achieved a billion-dollar market value), and young top worldwide organisations founded by individuals. Six measures were dominated by small business activity, including self-employment, business ownership, employers hiring external employees, expectations about growth at high and low levels of the spectrum, total early-stage entrepreneurial activity (TEA) and new business registrations of limited liability companies, along with institutional and economic variables for 64 countries (Henrekson & Sanandaji, 2020:737). It is rare for quantity-based measures to provide good indicators of Schumpeterian entrepreneurship, except for the World Bank measure of the number of limited liability companies registered.

Chan *et al.* (2012:75) developed an assessment of entrepreneurial, professional and leadership (EPL) career motivations, intentions, and efficacy. Respondents indicate whether they wish to become entrepreneurs, professionals, or leaders based on affective/identity, calculative/non-calculative, or social normative factors.

Furthermore, participants rated how confident they felt about executing items on a list of actions and skills, including whether they recommended statements expressing the intention of pursuing an entrepreneurial, leadership, or professional career after graduating. The EPL career aspiration scale measures these tendencies based on motivation, effectiveness, and intent.

Based on literature studies, entrepreneurship can be calculated in various ways, including attitudes, personality dimensions, the entrepreneurial environment in a region, determinants of entrepreneurship, Schumpeterian concepts, small business activity or intentions to become entrepreneurs.

Intrapreneurship will be discussed in the next section.

2.5 INTRODUCTION TO INTRAPRENEURSHIP

In 1976, Macrae (1982) predicted that business operation methods would change dramatically in the next few decades in the opposite direction to what most businesspeople and politicians expect. He argued that the era of big business corporations where hierarchical management was sitting in sky-scraping offices trying to arrange how brain workers (most workers in the future) could use their imaginations would soon be drawn to an end and considered nonsense. There would be more remarkable employment growth in smaller or larger organisations that could split themselves into smaller profit centres that would become more entrepreneurial. As a result of disruptive innovation, global competition, and shortened product and service lifecycles in the current fast-paced business environment, the study of entrepreneurship might not be the only solution to the continual survival and success of established organisations (Reuther *et al.*, 2018:1). To accelerate their pace of change in the worldwide environment, it is agreed that innovation is the most crucial way (Kuratko *et al.*, 2014:37). As a form of corporate innovation, corporate entrepreneurship is regarded as a process that facilitates an organisation's ability to continuously innovate and cope effectively with the competitive realities it encounters when it competes on the global market (Kuratko *et al.*, 2014:38).

This could have prompted the creation of a new research field aimed at transforming entrepreneurial benefits into existing businesses, such as innovation, agility, and the embrace of novelty and change (Reuther *et al.*, 2018:1). Since Schumpeter's work on entrepreneurship over 50 years ago, a new field of research has emerged called intrapreneurship. Pinchot and Pinchot (1978) first used intrapreneur in their white paper. The term intrapreneur was first used by Pinchot (1985:3) as an abbreviation for intra-corporate entrepreneurship and was conceived as a form of intrapreneurial behaviour within an organisation. Intrapreneurs are employee entrepreneurs who work within the organisation (Pinchot & Pinchot, 1978).

A growing body of research suggests that intrapreneurship has been changing for many years and has gained impetus since the 1990s (Brinkmann, 2011:203). De Villiers-Scheepers (2011:250) further clarifies by defining intrapreneurship as entrepreneurial behaviour within established organisations. De Villiers-Scheepers (2011:249) further states that intrapreneurship has become essential to boost an organisation's competitiveness. Incorporating innovation into every aspect of a business is the core of intrapreneurship, according to Ping *et al.* (2010:458). Performing entrepreneurship activities within a company is described as intrapreneurship. According to Baruah and Ward (2014:812), intrapreneurship is more than just a means to boost productivity and innovation within an organisation. The dream of an intrapreneur goes beyond the usual and into the unknown.

During the past decades, this growing subfield of entrepreneurship and intrapreneurship has grown, with initial research focusing on new business ventures, a process by which new ventures are formed within existing organisations, entrepreneurial individuals within the organisation, and organisation-level entrepreneurial attributes (Antoncic & Hisrich, 2003:7). Intrapreneurship means being entrepreneurial within existing organisations. For instance, the entrepreneurial spirit is still possible in an organisation owned by trust funds or shareholders managed by directors drawing salaries. Other entrepreneurs can use their business practices to identify and exploit new products, processes, and markets (Ahmad & Hoffman, 2007:4-5).

A study of intrapreneurship within non-profit organisations has also been conducted. According to Ambos and Tatarinov (2021:29), intrapreneurial initiatives not for profit can enhance an organisation's capacity for responsible innovation through structural

alignment, mission stretching, and competence development. Additionally, digital solutions and work programmes scaled from headquarters contributed to the further transformation of the organisation. There is an argument to be made that organisations can reinvent themselves in today's digital, fast-paced world to meet future challenges. Non-profit intrapreneurs can transform how they work with institutions, provide help, create new teams, and offer unique value propositions.

Intrapreneurship began as an explanation for innovation in large organisations, but now it is the primary strategic consideration of any organisation (Wan & Liu, 2021). Intrapreneurship research focuses mainly on entrepreneurial orientation and corporate entrepreneurship, with less consideration paid to individual-level intrapreneurship (Blanka, 2019:919). According to a study by Wan and Liu (2021), entrepreneurial behaviour within an organisation can also be affected by aspects at the organisational level.

Adapting to globalisation, changing market dynamics, and technological changes requires innovation. In terms of organisational growth and performance enhancement, corporate entrepreneurship and intrapreneurial behaviour have been deemed substantial resources (Itzkovich *et al.*, 2021). As Baruah and Ward (2014:811) point out, intrapreneurship has evolved substantially over the years, and several companies are now pursuing intrapreneurial initiatives to gain distinct advantages. Innovation cultures cultivated through intrapreneurial initiatives can improve an organisation's innovativeness, performance, competitiveness, and profitability. To structure their management strategies effectively, top management leaders should prioritise intrapreneurship.

Intrapreneurship has made the most significant contributions by increasing the understanding and awareness of the role of entrepreneurship in existing organisations in revitalising and improving performance and understanding successful intrapreneurs and new corporate ventures within their contexts. The study of intrapreneurship also contributes to a better understanding of entrepreneurial organisations (Antoncic & Hisrich, 2003). Organisations range from being less entrepreneurial to being more entrepreneurial in terms of intrapreneurship, according to Antoncic and Hisrich (2003:9).

A recent study used an adapted sensitivity analysis to assess barriers to intrapreneurship (Reuther *et al.*, 2018). As identified in the study, there are several barriers to intrapreneurship, including employees' lack of skills, knowledge, creativity, and motivation, as well as the organisation's culture, management, the environment at work, an absence of agility and tolerance for breaching the rules at the organisational level, and the current market conditions. Intrapreneurship can only succeed if barriers are removed (Reuther *et al.*, 2018). According to Antoncic and Hisrich (2001), older organisations tend to have a culture of risk aversion, which can negatively affect intrapreneurship.

In a recent study (Galvan-Vela *et al.*, 2021:13), the concept of intrapreneurship was analysed. Although no consensus has been reached in the literature, intrapreneurship is nonetheless recognised as an act of entrepreneurship within an established business and, generally, as a behaviour or practice that indicates the pursuit of new businesses and markets, proactivity, innovation, risk-taking, and strategic renewal. According to the investigation of models of intrapreneurship, external conditions, organisational behaviour, a company's strategic vision, and individuals' behaviour are predictors.

Neesen *et al.* (2019:551) define intrapreneurship as six themes: the creation of new products, processes, and services, as well as innovation; self-renewal of the organisation; new business ventures; being proactive; propensity for taking risks and identifying and exploiting opportunities. The definition of intrapreneurship will be considered in the next section.

2.6 DEFINITION OF INTRAPRENEURSHIP

Pinchot (2017) added the following to his previous definition of an intrapreneur in 1978. An intrapreneur can be defined as an organisation employee who acts like an entrepreneur to achieve innovation within the organisation. Intrapreneurs are the yeast in the dough that makes the bread rise and makes things happen. Empowering intrapreneurs would be a solution to increasing innovation. An organisation must know how to select, manage, and create an environment conducive to the growth of intrapreneurs.

Intrapreneurs are dreamers who act (Pinchot, 2017). Rather than just coming up with ideas, intrapreneurs transform those ideas into successful business realities. Intrapreneurs are sometimes not the discoverers of new ideas, but they are always the

implementers. Instead of developing the concept, they dream of turning it into a profitable reality.

Intrapreneurs are self-appointed managers of new ideas (Pinchot, 2017). Creating a team of volunteers, finding cheap ways to test the concept in the marketplace, building rapid prototypes, and making mock-ups and changes where customers want them are all things intrapreneurs will do to take a new idea forward.

Intrapreneurs work within large corporations to turn ideas into profitable products, services or businesses instead of leaving to form their own companies (Cambridge Dictionary, 2022). Intrapreneurs build career paths within existing organisations through entrepreneurial thinking and skills.

Intrapreneurs are described by De Lurdes Calisto and Sarkar (2017:46) as individuals whose significant activities are like those of independent entrepreneurs. These intra-organisational entrepreneurial initiatives, however, fall into the domain of employee behaviour since they occur within an organisational context.

By combining innovation and assertive risk-taking, intrapreneurs turn ideas into profitable products and services (Felicio *et al.*, 2012:1719). An intrapreneur identifies opportunities to implement change, will then evaluate the opportunities, make the most of the opportunities, and trusts that exploring new paths different from previous practices will accomplish the organisation's goals.

Intrapreneurs drive change in businesses to make them more effective (Pinchot, 2017). Social intrapreneurs strive to advance the world, and social intrapreneuring often lead to disruptive innovations and highly profitable new businesses. Millennials are becoming more interested in social intrapreneuring because it helps them to bring deep purpose and self-direction into their careers (Pinchot, 2017). The road to millennial engagement is to support social intrapreneurs if a company struggles to attract, motivate, and retain millennials.

Intrapreneurship can be defined as entrepreneurship inside an existing organisation (Antoncic & Hisrich, 2003:9) and refers to burgeoning behavioural intents and behaviours that are different from the usual way of doing things. No matter how large or small an organisation is, intrapreneurial processes occur. Antoncic and Hisrich (2003:9) define

intrapreneurship as developing new commercial ventures, including innovations, new technologies, services, products, strategies, administration techniques, competitive positioning, and strategies. The characteristics of intrapreneurship comprise new business ventures, innovations within services or products, innovations within processes, self-renewal, taking risks, competitive aggressiveness, and being proactive. Intrapreneurship is an activity-orientated concept that goes beyond existing technologies, orientations, standards, business structures, operations, or services and products into new routes (Antoncic & Hisrich, 2003:20). De Jong *et al.* (2011:5) describe intrapreneurship as a bottom-up process involving individual workers exploring and exploiting business opportunities. Neesen *et al.* (2019:551) describe intrapreneurship as recognising and using opportunities by being proactive and creative, not scared to take risks, to create new services, processes, and products. Self-renewal is initiated, or new businesses are launched to enhance the competitiveness and performance of the organisation.

In a study by Blanka (2019:924), intrapreneurship was differentiated from corporate entrepreneurship and entrepreneurial orientation as organisational-level approaches. According to Gawke *et al.* (2019:806), intrapreneurship among employees is an autonomous and strategic work performance that aims to create and renew new ventures.

Intrapreneurship also requires defining what it is not. Antoncic and Hisrich (2003:11) compared intrapreneurship with other management concepts. A comparison of intrapreneurship and different management concepts is shown in Table 2.2 below.

Table 2.2: Differentiating intrapreneurship from comparable concepts in management

Concept	Key concern	Key similarity	Key difference
Strategy for diversification	Product/market-relatedness of businesses.	Changes in diversification focus, particularly in terms of creating new markets/products/unacquainted businesses.	Product/market-relatedness across businesses is not a principal focus of intrapreneurship, as intrapreneurship also transcends non-market/product market-based, up-and-coming activities and enhancements.
Capabilities	Resources and activities that are coordinated across the value chains of an organisation.	Intrapreneurship as an exhibition of innovative organisational proficiencies.	Intrapreneurs do not place a high priority on organisation-level coherence and synergy.

Concept	Key concern	Key similarity	Key difference
Organisational Learning	Knowledge attainment and retention and improvement in business routines.	Disruptions due to intrapreneurship are part of the learning process.	Taking advantage of the knowledge-based nature of intrapreneurship, organisational memory and customs are not the primary concerns of intrapreneurs.
Organisational Innovation	New combinations of the organisation (administrative, technological and product).	The creation of something new in terms of development and administrative procedures.	Intrapreneurship also focuses on creating new endeavours – which is not the focus of organisational innovation.

Source: Adapted from Antoncic and Hisrich (2003:11)

Table 2.2 discusses four management concepts, namely strategy for diversification, capabilities, organisational learning, and organisational innovation, highlighting their similarities and differences with the concept of intrapreneurship. As part of creating new markets, products, or unexplored businesses, intrapreneurship may follow a diversification strategy, but this is not the primary focus of intrapreneurship and transcends diversification. The intrapreneurship model exhibits innovative skills at the organisational level but does not place a high value on coherency at the organisational level. Intrapreneurship brings disruptions, but customs and organisational memory are not the main concerns of intrapreneurs. Intrapreneurship is a form of organisational innovation that embodies the creation of something new, as well as the creation of new endeavours outside of the organisation.

According to Neesen *et al.* (2019:551), an intrapreneur identifies and exploits opportunities by being proactive, innovative, and taking risks to improve a company's performance and competitiveness. Employees improve the business' competitiveness and results by creating new products, services, and processes, initiating self-renewal, or entering new markets.

Table 2.3 reflects the development of intrapreneurship models over time, which contains secondary references.

Table 2.3: Models of intrapreneurship, reflecting inputs and outputs

Model	Inputs	Outputs
Guth and Ginsberg (1990)	Environment, strategic leaders, organisational behaviour, results.	Corporate entrepreneurial activity (strategic renewal and new business lines) and results.
Zahra (1991)	External environment, corporate strategies, and organisational factors.	Corporate entrepreneurship – financial performance of the business.
Covin and Slevin (1991)	External variables, strategic variables, internal variables.	Entrepreneurial attitude towards proactivity, risk-taking and innovation – and the results.
Antoncic and Hisrich (2001)	Elements of the organisation and the environment.	Intrapreneurship (proactivity, innovation, self-renewal, and the propensity towards taking risks) – and the results.
Kuratko et al. (2005)	The background of the organisation: time availability, autonomy, support from the organisation, structure, and availability of free time.	Entrepreneurial behaviour of middle managers – organisational results and individual results.
Rutherford and Holt (2007)	Processes, context, and individual characteristics.	Corporate entrepreneurship.
Ireland et al. (2007)	Individual entrepreneurial cognitions, external environmental circumstances, and organisation that is in favour of entrepreneurship.	Behavioural and entrepreneurial processes, an entrepreneurial vision – strategic repositioning and competitiveness.
Alpkan et al. (2010)	How the organisation provides support – influenced by the people as capital.	Innovative performance, which in essence is corporate entrepreneurship.
Kearney et al. (2010)	External environmental factors, public sector businesses.	The development of the organisation, in essence, corporate entrepreneurship.
De Villiers-Scheepers (2012)	The background of the organisation and the environment.	Entrepreneurial strength (risk-taking, innovation and proactivity).
Kearny et al. (2013)	External environmental factors within the public and private sector.	Corporate entrepreneurial performance and results.

Source: Adapted from Galvan-Vela *et al.*, 2021:6.

In Table 2.3, the intrapreneurial behaviour within an organisation is considered in the intrapreneurial models. The outputs in the table are of particular interest, ranging from corporate entrepreneurial activity, corporate entrepreneurship, entrepreneurial attitude, intrapreneurship, entrepreneurial behaviour, behavioural and entrepreneurial processes, innovative performance, entrepreneurial strength, and corporate entrepreneurial performance.

2.7 MEASURING INTRAPRENEURSHIP

According to De Jong *et al.* (2011:3), employees' intrapreneurial behaviour can be classified into innovativeness, proactiveness, and risk-taking. Itzkovich *et al.* (2021) adapted this scale to ask respondents how much they initiated intrapreneurial behaviour among co-workers.

Intrapreneurship has a critical role in organisations' performance, according to Felicio *et al.* (2012:1729), contributing to a better understanding of entrepreneurship, including resource-based theories. It has been confirmed that intrapreneurship is multidimensional, and the importance of proactivity and innovation, as well as the willingness of intrapreneurs to take risks, has been emphasised. There are lower priorities in intrapreneurship concerning autonomy granted to entrepreneurs, their competitive vigour, and the likelihood of uncertainty associated with their initiative and ability to innovate.

Antoncic and Hisrich (2001:521) found moderately good discriminant and convergent validity for the reworked intrapreneurship construct consisting of four dimensions (innovativeness, new business venture, proactiveness and self-renewal) during two research samples that were conducted in the United States and Slovenia. There was a moderately good fit when comparing the data to the intrapreneurship model.

An Employee Intrapreneurship Scale (EIS) was developed and validated by Gawke *et al.* (2019:806), measuring employees' venture and strategic renewal behaviour. Measurement of employee intrapreneurship in multiple contexts has proven valid and reliable. Using this scale, researchers can systematically study employee intrapreneurial behaviours and learn more about their antecedents and consequences. In addition, organisations increasingly leverage the intrapreneurial behaviour of employees to expand their competitiveness and adaptability. Analysing employee intrapreneurial behaviours or monitoring intrapreneurial activities in specific organisational units may be helpful. The EIS could benefit practitioners and decision-makers in all these cases. This study assessed various variables, including venture behaviour, strategic renewal behaviour, innovativeness, personal initiative, reward sensitivity, risk-taking, and punishment sensitivity (Gawke *et al.*, 2019:814).

Table 2.4 below by Antoncic and Hisrich (2003:15) summarises scholars' past classification of entrepreneurship at the organisation level, the prevalent concepts, their

characteristic dimensions, and definitions to illustrate the evolution of the construct. Table 2.4 contains secondary references.

Table 2.4: Past classification of entrepreneurship at the organisation level

Scholars	Concept name	Characteristic dimensions	Definitions
Miller and Friesen (1983)	Innovation, which is considered a measurement of strategy-making.	New products	Introduction of new production–service technologies, searching for new solutions to production and marketing challenges.
		Risk-taking Proactiveness	Trying to be the leader in the industry, not the follower.
Coven and Slevin (1986, 1991)	Entrepreneurial posture	Risk-taking	Risk-taking concerns how investment decisions are being made and strategic decisions are being made in times of uncertainty.
		Innovativeness	The comprehensiveness and frequency of which product innovation takes place and an inclination towards leadership in the technological field.
		Proactiveness	The ground-breaking nature of the organisations' tendency to compete proactively and aggressively with rivals in the industry.
Guth and Ginsberg (1990)	Corporate Entrepreneurship	Internal innovation or venturing	The start of new businesses inside existing organisations.
		Strategic renewal	Transforming the organisation by renewing the fundamental concepts on which they are built.
Zahra (1991,1993)	Corporate Entrepreneurship	Innovation and venturing	Forming new business by using developments in the markets or by commissioning process, product, administrative or technological innovations.
		Strategic renewal	Redefining the business idea, introducing changes to the whole system to innovate.
Lumpkin and Dess (1996)	Entrepreneurial Orientation	Autonomy	Actions that a team or individual takes independently to come up with an idea or bring forth a vision or an idea carrying this through to completion.
		Innovativeness	The inclination of organisations to support new ideas and participate and support these ideas, experimentation, novelty, and creative procedures that

Scholars	Concept name	Characteristic dimensions	Definitions
Lumpkin and Dess (1996)		Risk-taking	may lead to new services, products or technological processes. Sensing uncertainty with a probability of adverse outcome or loss. Borrowing with high leverage coupled with a substantial commitment to one's resources.
		Proactiveness	Taking part in emerging markets and taking the initiative. Anticipating and pursuing opportunities and taking part in emerging markets.
		Competitive Aggressiveness	A propensity to powerfully and directly take on and challenge competitors to secure entry or to improve the market position.
Knight (1997)	Entrepreneurial Orientation	Innovation	Creating and chasing the new where challenges are facing the organisation. The development or improvement of services and products, administrative techniques and investment in technologies to improve performance.
		Proactiveness	The reverse of reactivity. Related to aggressive posturing when compared to competitors.

Source: Adapted from Antoncic and Hisrich (2003:15)

Table 2.4 illustrates the development of entrepreneurship at the organisation level. Development occurred from innovation during the early 1980s, then entrepreneurial posture, corporate entrepreneurship in the early 1990s, and entrepreneurial orientation in the late 1990s. The different characteristic dimensions that indicate how the concepts could be measured are interesting. The concepts of corporate entrepreneurship and entrepreneurial orientation will be discussed further in the following sections.

2.8 INTRODUCTION TO CORPORATE ENTREPRENEURSHIP

Research on corporate entrepreneurship has been growing in recent years (Maestracci, 2023:26). In contrast, corporate entrepreneurship refers to entrepreneurial activities undertaken by an organisation, and intrapreneurship refers to entrepreneurial activities undertaken by individuals or employees within an organisation (Bernardus *et al.*, 2022:3). To describe corporate entrepreneurship more comprehensively, three characteristics of

the organisation can be considered: a willingness to innovate, a proactive attitude, and the ability to take calculated risks (Maestracci, 2023:28).

As Kuratko and Morris (2018:44) explain, corporate entrepreneurship is entrepreneurial behaviour within established mid-sized and large organisations. Antoncic and Hisrich (2004:520) define corporate entrepreneurship as innovative activities within organisations and developing new undertakings, irrespective of size. New initiatives or innovations can refer to developing new strategies, services, products, competitive initiatives, and administrative methods within an existing organisation.

Corporate entrepreneurship and entrepreneurial orientation have been extensively researched, and researchers still commonly use different terms to define entrepreneurial activity within existing organisations. These naming conventions include corporate venturing (Macmillan *et al.*, 1986:177), corporate entrepreneurship (Burgelman, 1983:1349), strategic renewal (Guth & Ginsberg, 1990:5), new business ventures (Stopford & Baden-Fuller, 1994:521), and intrapreneurship (Pinchot, 1978). Kuratko & Morris (2018) define corporate entrepreneurship as a combination of strategic entrepreneurship, entrepreneurial orientation, and corporate venturing.

Although the conceptualisations of these scholars may differ, innovation remains a crucial component of corporate entrepreneurship (Lampe *et al.*, 2019:789). This view is shared by Ziyae and Sadeghi (2021:116). Entrepreneurship within existing organisations is fundamental to boosting innovation and creativity to achieve higher market opportunities (Popowska, 2020:61).

Changes in technology and globalisation heightened competition and questioned the notion that competitive advantages may be sustainable, which sparked interest in corporate entrepreneurship. Corporate entrepreneurship aims to rejuvenate established organisations, facilitating their viability and competitiveness (Corbett *et al.*, 2013:812).

The corporate entrepreneurship model facilitates the efforts of organisations to innovate and survive effectively with changes in market conditions in the contemporary world (Kuratko *et al.*, 2015:245). Organisational performance is the most critical consequence of corporate entrepreneurship (Antoncic & Hisrich, 2004:521).

Maes (2004: 21-23) provides a historical overview of corporate entrepreneurship and intrapreneurship. Corporate entrepreneurship and intrapreneurship have a common theme of displaying entrepreneurship within an organisation. Research shows that corporate entrepreneurship has many benefits for an organisation. In highly competitive business environments, corporate entrepreneurship can be a survival strategy (Peltola, 2012:44). Corporate entrepreneurship is also suggested for existing organisations whose performance has declined (Peltola, 2012:44). Intrapreneurial behaviour is a significant resource to increase organisational performance and growth (Itzkovich *et al.*, 2021). Additionally, corporate entrepreneurship can be used to improve performance (Ikebujo *et al.*, 2023:40; Hough & Scheepers, 2008:16). Using empirical evidence from the newspaper industry, Karimi and Walter (2016:342) propose that noticeable corporate entrepreneurship characteristics influence the acceptance and implementation of disruptive commercial model innovations and the success of those innovations, measured by performance. Furthermore, Antoncic and Hisrich (2004:544) demonstrate that corporate entrepreneurship contributes substantially to forming organisational wealth. Some factors of corporate entrepreneurship also influence wealth creation.

According to Castriotta *et al.* (2021:2823), corporate entrepreneurship consists of five dimensions: organisational rejuvenation, sustained regeneration, competitive advantage, external entrepreneurship, and domain redefinition. Even though different labels have been used to describe corporate entrepreneurship, five distinct dimensions appear to be most widely recognised: support by management, propensity for taking risks, time available for innovative tasks, organisational structure and the availability of reward and resources (Hornsby *et al.*, 2002:263).

Corporate entrepreneurship has gained much attention recently, becoming a topic of great interest and most exciting for business researchers. It is because, as an activity of business management, corporate entrepreneurship mirrors the characteristics and trends of the industrial sector, its size, national characteristics, and the circumstances of its time (Shin & Cho, 2020:2). There has been an increase in interest in corporate entrepreneurship in recent decades (Pirhadi & Feyzbakhsh, 2021:196). Several prominent studies about corporate entrepreneurship have been categorised into three main groups: antecedents (individual factors, organisational factors, and external factors), processes, and consequences. There is considerable interest in corporate entrepreneurship among academics and practitioners alike. As a result, corporate

entrepreneurship promises to revitalise organisations, reduce bureaucratic red tape, and even improve global competitiveness (Todorovic *et al.*, 2015:82). Positive leadership has also been shown to influence corporate entrepreneurship favourably (Zbierowski, 2016:73).

Kuratko, Hornsby & McKelvie (2021:140-143) explored obstacles to developing an entrepreneurial mindset in corporate environments. Several factors contribute to these challenges, including the failure of corporate entrepreneurs to gain resources and traction within their organisations by establishing the legitimacy of their ideas and concepts. Other factors include the lack of coordination among management at all levels, the collapse of operating controls to work with performance drivers, and the failure of employees to comprehend entrepreneurial thinking's impact.

The definition of corporate entrepreneurship will be considered in the next section.

2.9 DEFINITION OF CORPORATE ENTREPRENEURSHIP

Against the background of corporate entrepreneurship, innovation is regarded as a determining factor (Castriotta *et al.*, 2021:2842; Ziyae & Sadeghi, 2021:116; Covin & Miles, 1999:47-63). In early writings, including Petersen and Berger (1971:98), corporate entrepreneurship was not explicitly defined nor sufficiently distinguished from other factors frequently related to business innovation. Regarding corporate innovation, corporate entrepreneurship can be seen as a process that can assist organisations in continually innovating and managing the competitive pressures organisations face when participating in international markets (Kuratko *et al.*, 2014:38).

There is sufficient evidence in the literature that failure to innovate can lead to business failure. A bookshop failed because management failed to respond to environmental changes (Snihur, 2018:191). Businesses can fail if they are unwilling to innovate (Cole, 2019). Downey (2017:40) suggests that change and innovation result in survival and enrichment.

Innovation is used by entrepreneurial organisations to reposition themselves within markets and industries or to improve their positions in competitive arenas (Covin & Miles, 1999:47). A lack of entrepreneurial or innovative activities could spell disaster in the modern global economy, according to Kuratko and Morris (2018:42). As Arshad *et al.*

(2018:13) point out, innovators can make more money by continuously advancing. In the 21st century, continuous innovation is essential to compete successfully within global markets. Executives agree that innovation is the key to accelerating organisational change in an international environment (Kuratko *et al.*, 2014:37).

Burgelman (1983:1349) termed corporate entrepreneurship as the internal diversification process of organisations. Diversification requires combining new resources to extend the organisation's current competence and opportunities to unrelated or marginally related areas. Schollhammer (1982:451) used the term intra- or internal corporate entrepreneurship.

Guth and Ginsberg (1990:5) note two types of corporate entrepreneurship: forming new businesses within existing organisations, known as internal innovation, and strategic renewal, which transforms organisations by renewing essential concepts on which they are founded. As defined by Covin and Miles (1999:49), corporate entrepreneurship refers to situations in which entire organisations act in an entrepreneurial manner.

As defined by Sharma and Chrisman (1999:18), corporate entrepreneurship is the process by which an individual or group of individuals, in collaboration with an existing organisation, create a new organisation or initiate renewal or innovation in that organisation. According to Bierwerth *et al.* (2015:255), corporate entrepreneurship may be characterised by organisational-level formal and informal activities, including innovation, strategic renewal, and corporate venturing, centred on discovering and pursuing new business opportunities. Sharma and Chrisman (1999:18) and Guth and Ginsberg (1990:5) concur. Among the characteristics of corporate entrepreneurship outlined by Antoncic and Hisrich (2003:520) are new business ventures, new products and services, self-renewal, new process innovations, risk-taking, competitive aggressiveness and proactiveness.

Covin and Miles (1999:51-54) define corporate entrepreneurship as organisational rejuvenation, domain redefinition, strategic renewal, and sustained regeneration. Entering new markets or presenting new products and services to the market is an example of sustained regeneration for an organisation. In corporate entrepreneurship, organisational rejuvenation is the modification of internal structures, processes, and capabilities to preserve or advance competitive standing. The rejuvenation of an organisation is also

known as the renewal of an organisation. Strategic renewal seeks to reexplore its market relationships or competitors by fundamentally altering how an organisation competes. Strategic renewal is defined by Sharma and Chrisman (1999:8) as the procedure of renovating the strategy of the organisation or structure at the business or corporate level. Domain redefinition creates a new product-market opportunity not yet recognised or exploited by others.

Corporate entrepreneurship can be defined as the establishment of new businesses within established organisations through organisational innovations to gain a competitive edge (Corbett *et al.*, 2013:812). Innovation-based initiatives facilitate the viability and competitiveness of established organisations through corporate entrepreneurship.

According to Tseng and Tseng (2019:110), corporate entrepreneurship has become an essential inspiration for innovation. In their article, Covin and Miles (1999:47) assert that corporate entrepreneurship revolves around innovation. Several studies have demonstrated the importance of innovation in corporate entrepreneurship (Castriotto *et al.*, 2021:2842; Ziyae & Sadeghi, 2021:116; Covin & Miles, 1999:47-63). Furthermore, Kuratko and Morris (2018:50) have identified entrepreneurial orientation as a dimension associated with corporate entrepreneurship, and innovation has also been identified as a dimension related to entrepreneurial orientation (Fan *et al.*, 2021:3, Asemokha *et al.*, 2019:427, Covin & Miller, 2014:15, Covin & Lumpkin, 2011:858).

Kuratko, Hornsby and McKelvie (2021:132) postulate that corporate entrepreneurship is an environment where entrepreneurial mindsets are nurtured and supported to carry out innovative activities. Corporate entrepreneurship aims to revive innovation by empowering employees to behave entrepreneurially within organisations (Kuratko, Hornsby & McKelvie, 2021:133). Corporate entrepreneurship can manifest itself in organisations through strategic entrepreneurship or corporate venturing. Kuratko, Hornsby and McKelvie (2021:137) define corporate venturing as internal or external ventures within an organisation. In strategic entrepreneurship, entrepreneurial and opportunity-seeking behaviours are integrated with strategic perspectives to create wealth (Hitt *et al.*, 2001:481).

Glinyanova *et al.* (2021) conducted a recent bibliometric study of corporate entrepreneurship literature that spans more than five decades. A resource-based

perspective and its additions remain the dominant theoretical perspectives in corporate entrepreneurship, and the findings demonstrate the field's growing maturity and interdisciplinarity. Castriotta *et al.* (2021:2837) performed a bibliometric analysis, including articles from the past 26 years. Subsequently, corporate entrepreneurship is understood as an organisational phenomenon that predicts probable innovations involving individual, organisational and environmental factors. Furthermore, the study confirmed corporate entrepreneurship as a multidimensional concept, allowing for an apparent dimensionality of corporate entrepreneurship, which includes organisational rejuvenation, sustained regeneration, external entrepreneurship, domain redefinition, and competitive advantage. Specific terms are associated with the conceptualisation of corporate entrepreneurship at the individual, organisational, and environmental levels.

Essentially, corporate entrepreneurship is purposefully redefining an organisation, market, or industry to gain competitive advantage (Urbaniek & Zur, 2021:867), a set of discrete and multidimensional organisational phenomena that includes innovation development. Table 2.5 illustrates a conceptual framework including the core attributes of corporate entrepreneurship (Urbaniek & Zur, 2021).

Table 2.5: Conceptual framework explaining the core attributes of corporate entrepreneurship

Attributes	Specifications
Strategic Renewal	• Significant changes in strategy and organisational structure at the corporate and business levels. • Changing the organisation by revitalising its operations and reorganising its core proficiencies. • Developing new structures and processes to use market opportunities that competitors have disregarded by presenting existing products in new markets or fresh products in current markets.
Corporate Venturing	• Commissioning a new corporate initiative. • Internal – remaining within the current organisational framework by integrating into the existing entity or through a subsidiary. • External – developing through self-operating or semi-self-operating entities outside the existing organisation, for example, joint ventures. • Using innovation as a diversifying tool through either new actions or by copying ground-breaking competitors and innovations in the market.
Innovation	• Developing and launching new production processes, products, and organisational systems to the market. • The invention should be commercially viable, new to the market and have the probability to create a competitive environmental advantage for the organisation.

Source: Adapted from Urbaniek and Zur (2021:868)

Table 2.5 depicts the three attributes of corporate entrepreneurship: innovation, corporate venturing, and strategic renewal.

Corporate entrepreneurship strategies are vision-directed approaches to entrepreneurial behaviour throughout the organisation, which aim to revitalise and shape an organisation by identifying and exploiting entrepreneurial opportunities (Ireland *et al.*, 2009:21).

Shin and Cho (2020:2) define corporate entrepreneurship as entrepreneurship at the organisational level. In corporate entrepreneurship, employees are encouraged to take proactive attitudes and behaviours that promote an innovative, forward-looking perspective, including a risk-taking company policy. Furthermore, it can be used to solve problems related to corporate bureaucracy, such as not taking responsibility and inefficiency. It is also possible for large bureaucratic enterprises to innovate at the organisational level through entrepreneurial thinking and actions (Shin & Cho, 2020:3), thus having an entrepreneurial mindset.

An entrepreneurial mindset is outlined by Kuratko, Fisher & Audretsch (2021:1682-1685). First, the cognitive part illustrates how entrepreneurs use mental models to think. Secondly, entrepreneurs have a behavioural aspect that describes how they approach opportunities and a third emotional aspect, which explains their feelings regarding entrepreneurship. Due to the self-reinforcing nature of the entrepreneurial mindset, if an entrepreneur does not have a firm grasp of any of the other aspects of the mindset (Kuratko *et al.*, 2021:1687), he or she will not be able to perform optimally in the other areas. An organisation discouraging entrepreneurial behaviour can prevent individuals from acting based on their entrepreneurial thinking, dissipating their thoughts and actions. Creating an "innovation-friendly" environment internally that enables individuals to release their entrepreneurial mindsets is vital. Successful corporate entrepreneurship can depend on the release of the entrepreneurial thoughts of employees in the post-COVID environment (Kuratko, Hornsby & McKelvie, 2021:136). Increased employees working from home, establishing adequate controls by management, and communicating with employees are all factors that could affect employee entrepreneurial mindsets and corporate entrepreneurial processes (Kuratko, Hornsby & McKelvie, 2021:134).

Essentially, corporate entrepreneurship involves creating and gestating new thoughts, ideas, and strategies to grow profits, uphold leadership in the market, or revitalise a flat-

lined business strategically. As a result of corporate entrepreneurship, new ideas and methodologies are developed to increase profit, maintain market leadership, or rejuvenate flat-lining businesses (Verma & Mehta, 2020:66).

Corporate entrepreneurship has no unique universal definition (Popowska, 2020:61). Researchers face a challenge in describing and understanding corporate entrepreneurship. The link between corporate entrepreneurship and performance will be investigated next.

2.10 CORPORATE ENTREPRENEURSHIP AND PERFORMANCE LINK

Many studies have examined the relationship between performance and entrepreneurship. Chitimiea *et al.* (2021:123) performed bibliometric analyses and systematic reviews of multiple aspects, including corporate entrepreneurship's role in achieving financial performance, its position next to other drivers, and how it is interconnected. There is a strong correlation between corporate entrepreneurship and financial performance among the primary drivers (human resource management, economic environment, and digitalisation). According to research, corporate entrepreneurship is an integrated part of entrepreneurial orientation (Chitimiea *et al.*, 2021:137). Corporate entrepreneurship can arise at the company, divisional, functional, or project levels to improve the company's competitive position, including financial performance (Kuratko *et al.*, 2015:247).

A longitudinal study by Zahra and Covin (1995:43) reported that corporate entrepreneurship positively impacts financial measures. Corporate entrepreneurship gradually improves long-term company performance, but it tends to have a modest effect over the first few years. Additionally, the results indicate that organisations operating in hostile and aggressive environments (as opposed to benevolent ones) are more likely to engage in corporate entrepreneurship successfully.

Multiple researchers say corporate entrepreneurship positively correlates with performance (Sanchez-Gutierrez *et al.*, 2019:618; Tipu & Fantazy, 2018:2046). A recent study by Ziyae and Sadeghi (2021:128) supports the idea that corporate entrepreneurship can enhance organisational performance through strategic entrepreneurship.

Strategic entrepreneurship has been defined as a combination of strategic management and entrepreneurial activity (Ziyae & Sadeghi, 2021:114). A meta-analysis by Bierwerth *et al.* (2015: 270) found that corporate entrepreneurship has substantial and encouraging impacts on performance. As a result of their research, they found that innovation, corporate expansion, and strategic renewal affect the performance of an organisation differently. Furthermore, they found that corporate expansion and innovation have a superior influence over strategic renewal.

The measurement of corporate entrepreneurship will be considered in the next section.

2.11 MEASURING CORPORATE ENTREPRENEURSHIP

Kuratko *et al.* (1990:55) designed the first assessment instrument for assessing the environmental factors that need to be present for organisations that are introducing intrapreneurial concepts. An initial attempt was made to describe the conditions required to stimulate entrepreneurial activity within corporations, thus corporate entrepreneurship, based on the three factors identified (the structure of the organisation, support provided by management for intrapreneurship, and the availability of resources). Several factors should be acknowledged to promote activities that are seen as entrepreneurial within a business, according to Hornsby *et al.* (2002:269). Five internal factors influencing middle managers to encourage entrepreneurial activity (autonomy around work or discretion in work activities, management support, rewards and reinforcement provided, availability of time to perform and existing organisational boundaries) have been identified. According to research on strategic management, international business, and entrepreneurship, entrepreneurial activities in companies are influenced by middle managers. In other words, this influence can affect an organisation's viability and ultimate survival (Hornsby *et al.*, 2002:258).

According to Globocnic and Salomo (2015:516), strategic autonomy empowers non-managerial employees to present and report on their ideas "in the underground," providing them with resources for developing and promoting those ideas outside official communication channels. A company that rewards employees for innovative accomplishments is also more likely to participate in bootlegging behaviour. Bootlegging refers to employees temporarily disregarding formal procedures, monitoring systems, and rules to present and report on their ideas early (Globocnic & Salomo, 2015:505).

Based on a well-established scale development and refinement framework, Hornsby *et al.* (2013:937) analysed three studies to assess the corporate entrepreneurship assessment instrument's construct, content, and convergent validity. Although the structure of the emerging factors differed slightly from the original instrument, the corporate entrepreneurship assessment instrument was relatively stable. Based on their analyses, an instrument with 18 items was produced based on the initial 48-item, more parsimonious and psychometrically sound measurement.

As corporate entrepreneurship evolved in the 2000s, metrics and assessments became increasingly important (Kuratko *et al.*, 2015:248). Methodologically rigorous research has demonstrated a link between corporate entrepreneurship and the organisation's performance (Covin & Miles, 1999:60). According to a recent study of Korean banks (Lee, 2020:5281), corporate entrepreneurship was found to play a critical role in enhancing business performance. Careful integration of entrepreneurial activity into the organisation's overall strategy is essential. It is, therefore, necessary to ensure that an organisation's internal environment, which managers can influence, is conducive to initiating and sustaining innovation-inducing strategies (Kuratko *et al.*, 2014:38). It is therefore essential to measure corporate entrepreneurship.

In their research, Kuratko *et al.* (2014:39) identified five dimensions to determine an environment favourable to entrepreneurial behaviour: work discretion and autonomy, the support provided by top management, availability of reinforcement and rewards, availability of time, and the setting of boundaries in the organisation. Innovation-friendly environments require underlying organisational dimensions.

Top management support includes backing and advocating for innovative ideas, ensuring that resources are available for entrepreneurial actions, and encouraging, facilitating, and endorsing the display of entrepreneurial behaviour. Support provided by top management has been shown to positively impact the innovation outcomes of an organisation (Kuratko *et al.*, 2014:39). Corporate entrepreneurship is facilitated by each level of management, according to research.

Work discretion refers to how one perceives the organisation's tolerance for failure, how it provides latitude for making decisions, not being bogged down with extreme oversight, and how authority is delegated to its employees. Researchers have found that those with

discretion about performing their work and those encouraged to experiment are more likely to identify entrepreneurial opportunities (Kuratko *et al.*, 2014:39).

Using practices and routines to reward and reinforce entrepreneurial activity and achievements determines how one perceives the organisation. Systems of reward that support innovative behaviour and taking risks have strongly influenced entrepreneurial behaviour. Several studies have recognised the availability of resources and rewards as the main determinants of entrepreneurial behaviour among first-line and middle managers (Kuratko *et al.*, 2014:39).

Time availability indicates that work schedules should provide enough time for groups and individuals to explore innovations and support innovative efforts to achieve short- and long-term goals. According to research, managers with time available are more likely to generate entrepreneurial initiatives (Kuratko *et al.*, 2014:39). Corporate innovators may be more likely to consider opportunities for innovation when they have unstructured or free time available.

It is helpful to recognise how flexible the organisation's boundaries are in encouraging entrepreneurial activity, as the movement of information between divisions, the external environment, and within the organisation is improved. Organisational boundaries denote the degree of perception of supple organisational boundaries. Innovation appears most predictably when considered an organised, purposeful process with structure (not a chaotic one). Theoreticians have long recognised that organisations achieve their best results when they manage uncertainty, which can be achieved by establishing boundaries that encourage coordination and innovation. The effective use of innovation-enabling resources can be ensured by organisational boundaries (Kuratko *et al.*, 2014:39).

Hornsby *et al.* (2002:261) designed the Corporate Entrepreneurship Assessment Instrument (CEAI), which has as its aim to evaluate managers' perception of the five critical dimensions that contribute to the creation of an entrepreneurial/innovative environment (Kuratko *et al.*, 2014:40). An organisation's internal work environment must be assessed, evaluated, and managed to support entrepreneurial behaviour to implement corporate innovation strategies successfully. This study aims to measure corporate entrepreneurship within South African bank compliance departments using a shortened version of the Corporate Entrepreneurship Assessment Instrument, adapted and tested

by Strydom (2013:174-177). The shortened version consists of 20 items, compared to 48 items used in the original instrument. This instrument, known as the Brief Corporate Entrepreneurship Assessment Instrument, was developed and tested again, more recently in South Africa (Steyn & de Bruin, 2018:1).

The CEAI (Hornsby *et al.*, 2002:261) may be used to diagnose the level of corporate entrepreneurial activities in an organisation and identify activities critical to improving corporate entrepreneurship (Van Wyk & Adonisi, 2011:3029). The tool has been used in the South African context. This tool may identify discrepancies between management's and employees' perceptions of an organisation's intrapreneurial climate.

Using the CEAI, employees assess the overall organisational and entrepreneurial environment. Elevated scores on CEAI factors may generally be associated with more significant entrepreneurial activity. Employee scores should be aggregated between departments. It is valuable for the entire organisation to assess readiness to apply a corporate entrepreneurship strategy and remediate challenging areas (Kuratko *et al.*, 2014: 43).

The following main tools for measuring corporate entrepreneurship, including the topic being assessed and its elements, have been identified in the literature by Popowska (2020:75) and developed over time. A summary is presented in Table 2.6, which contains secondary references.

Table 2.6: A conceptual framework with core attributes of corporate entrepreneurship

Tool	Topic	Elements of tool
ENTRESCALE (Miller & Friesen, 1992; Knight, 1997; Covin & Slevin, 1999)	Assessing organisational entrepreneurship	Hostility in the environment, organisational structure, financial performance, and strategic posture.
Innovation-venturing-renewal scale (Zahra, 1996)	Entrepreneurial activities of the organisation	Innovation and venturing renewal.
Entrepreneurial orientation scale (Lumpkin & Dess, 1996)	How tangible resources are combined and transformed by the organisation	Innovativeness/innovation, proactiveness, risk-taking, autonomy and competitive aggressiveness.
Entrepreneurial Performance Index (EPI) (Morris & Sexton, 1996)	Level of intensity of entrepreneurship in organisations	Innovativeness, risk-taking and proactiveness.
Corporate Entrepreneurship Assessment Instrument	Organisational factors to help managers (leaders) focus their	Management support, work discretion, rewards and

Tool	Topic	Elements of tool
(CEAI) (Hornsby <i>et al.</i>, 1993; Morris & Kuratko, 2002)	efforts to encourage corporate entrepreneurship	reinforcement, time availability, organisational boundaries.
Entrepreneurial Management (Stevenson & Jarillo, 1990 ; Brown <i>et al.</i>, 2001)	Entrepreneurship as the focus of inquiry of strategic management	Opportunity, strategy orientation, availability and control of resources, the structure of management, philosophy of reward, orientation towards growth and culture of entrepreneurship.

Source: Adapted from Popowska, 2020:75

According to Table 2.6, since the 1990s, six different tools have been used to measure corporate entrepreneurship, covering various topics and including multiple elements.

Since individual entrepreneurship cannot satisfy the fast-changing commercial landscape and the many demands of several marketplaces by itself (Shin & Cho, 2020:3), corporate entrepreneurship research has shifted from entrepreneurial orientation at the individual level to the entrepreneurial activity of the entire organisation. The entrepreneurial orientation of a company is considered an essential element of corporate entrepreneurship (Kuratko & Morris, 2018:50).

Entrepreneurial orientation is a significant category of corporate entrepreneurship research, according to Covin and Slevin (1989) and Lumpkin and Dess (1996). An entrepreneurial orientation often enhances corporate venture activities. The Virgin Group has spawned nearly 200 new businesses under Richard Branson's leadership throughout its history (Backus & Cabral, 2004:1). Entrepreneurial orientation is the topic that will be discussed next.

The Corporate Entrepreneurship Assessment Instrument, adapted and tested by Strydom (2013:174-177) and verified in the South African environment by Steyn and De Bruin (2018:3), was used in this research study to assess corporate entrepreneurship within South African banks' compliance departments and is used to set the hypotheses.

2.12 INTRODUCTION TO ENTREPRENEURIAL ORIENTATION

Research in management and entrepreneurship has identified entrepreneurial orientation as an essential construct. A flourishing research agenda is exploring entrepreneurial orientation knowledge in multiple contexts and with diverse implications (Clarke *et al.*, 2023:1). Several articles in Entrepreneurship Theory and Practice and other prominent

journals indicate the importance of entrepreneurial orientation as a research topic (Covin & Wales, 2019:3). The Academy of Management now includes entrepreneurial orientation among a small quantity of content-orientated keywords when considering entrepreneurship scripts for presentation (Covin & Wales, 2019:3). The literature on strategic management and entrepreneurialism have embraced entrepreneurial orientation (Clark *et al.*, 2023:2).

During the 1970s, Khandwalla (1972:297) postulated an entrepreneurial approach and proposed several testable propositions related to the environment's properties and the organisation's response. These characteristics relate to various organisational phenomena, including decision-making styles, decentralisation, norms and values, controls, technology, and communication. In uncertain circumstances, an organisation tends to differentiate itself based on structural, personnel, or technocratic characteristics (Khandwalla, 1972:301), indicating that innovation is required. An organisation must differentiate itself to adapt to a differentiated environment (Khandwalla, 1972:306). According to Khandwalla (1977b:399-400), risk-taking is one of the determinants of top management. Some organisations demonstrate a cautiously adaptive conservative orientation, while others display a risk-taking, entrepreneurial, and innovation-focused orientation. Khandwalla (1977a:160) concluded that the entrepreneurial approach is best suited to young, small-to-medium-sized companies or companies that operate in dynamic or hostile environments as long as they are not overly technologically sophisticated or restricted. The entrepreneurial mode also requires creativity.

In an entrepreneurial manner, Mintzberg (1973:45) points out that strategy involves leaping forward dramatically in the face of uncertainty and seeking out new opportunities. Khandwalla's (1977b:637-699) study of 103 large Canadian companies examined the relationship between senior management style and the context of the environment. Khandwalla (1977b:637-699) developed scales that measured managers' aggressiveness in pursuing rivals. Entrepreneurial orientation must be associated with the inherent flexibility of organic organisations, according to Khandwalla.

In 1983, Miller (1983:771) introduced the concept of entrepreneurial orientation, which states that an organisation is entrepreneurial if it innovates products and markets, undertakes risky ventures, and initiates proactive innovations first, beating competitors. Entrepreneurial orientation at an individual level has also been identified. It is

characterised by proactive, autonomous, competitive, innovative and risk-taking dispositions and behaviours (Clark *et al.*, 2023) that individuals exhibit in pursuit of value-creating opportunities. Four individuals have been identified, namely the top manager, the independent individual, the strategic initiative leader, and the structural participant, and how they can add value independently and to other entrepreneurially orientated members (Clarke *et al.*, 2023:3). According to recent findings, innovativeness and proactiveness are deliberate strategies within companies, rather than traits that entrepreneurs have or do not possess, consistent with the original conceptualisation of entrepreneurial orientation as an organisation-level attribute (Putniņš & Sauka, 2020:729). It has been shown that entrepreneurial orientation is an essential strategic orientation and positively impacts supply chain resilience through its dimensions of innovation, risk-taking, and proactiveness (Al-Hakimi & Borade, 2020:13).

The original consideration led scholars to identify three characteristics of entrepreneurial orientation: proactiveness, risk-taking, and innovativeness (Covin & Slevin, 1989:77). The entrepreneurial concept was operationalised by developing nine items that demonstrated good psychometric properties. Many studies have employed this conceptualisation, and simultaneous measurement within different industries ranging from management to marketing to health care ensured that this theory has become grounded in the network of entrepreneurship research (George & Marino, 2011:990).

Lumpkin and Dess (1996:136) postulated two additional dimensions: autonomous behaviour and competitive aggressiveness. In recent years, entrepreneurial orientation has received more attention in research than corporate entrepreneurship has; however, numerous researchers consider entrepreneurial orientation to be a part of corporate entrepreneurship (Kuratko and Morris, 2018:50). Covin and Lumpkin (2011:857) define entrepreneurial orientation as a wide-ranging inclination, interest, or path of thought toward entrepreneurship. Innovation, proactiveness, autonomy, competitive aggression, and risk-taking are characteristics of entrepreneurial orientation, according to Kozubikova *et al.* (2015:333). Several authors have investigated the relationship between characteristic personality traits and entrepreneurial orientation.

It is worthwhile to investigate the difference between entrepreneurial orientation and corporate entrepreneurship. Diversified organisations can exhibit different levels of entrepreneurial orientation across their business units, with entrepreneurial orientation

considered an attribute of organisations. As a result, it is essential to discuss how corporate entrepreneurship relates to entrepreneurial orientation (Covin & Wales, 2019:5). Covin and Wales (2019:5) suggest that entrepreneurial orientation is one of many other attributes of an organisation, defined as the degree to which the organisation promotes and displays a sustained pattern of entrepreneurial behaviour that reflects instances of proactive new entry. A new entry refers to a new service, product, market, business model, or technological innovation. It is necessary to analyse the time it takes for the innovation to come into being regarding the state of existing conditions at the time of the innovation to understand the proactive component of the innovation. Traditionally, corporate entrepreneurship has been conceptualised as discrete entrepreneurial activities within an organisation. Thus, corporate entrepreneurship describes how an organisation can pursue proactive new entry, which, when manifested regularly, defines entrepreneurial orientation as a characteristic and attribute of the organisation. In the field of study of corporate entrepreneurship, entrepreneurial orientation has been identified as a significant category (Kuratko, Hornsby & McKelvie, 2021:137).

As Covin and Wales (2019:7) point out, conceptualising entrepreneurial orientation as a form of corporate entrepreneurship has no inherent flaw, provided it is understood as the attribute-of-organisation form of corporate entrepreneurship instead of activities-within-the-organisation form. Furthermore, when entrepreneurial events occur regularly, the difference between entrepreneurship as an attribute of organisations (entrepreneurial orientation) and entrepreneurship as an activity within organisations (i.e., corporate entrepreneurship) becomes blurred and arguably meaningless.

As defined by Covin *et al.* (2020:2), individual entrepreneurial orientation denotes the tendency of employees to adopt proactive, risk-taking, and innovative behaviours at work. A person's innovation is determined by their willingness to solve work-related problems innovatively, their proactiveness is determined by their tendency to take discretionary action to anticipate and respond to potential opportunities for value creation, and their risk-taking is determined by their willingness to engage in unauthorised and unrequested job-related activities. These three dimensions are essential to creating and implementing incremental and radical changes (in the broadest sense) at work. According to the authors, employees can autonomously go beyond their roles and participate in entrepreneurial behaviour to improve performance in the workplace (Covin *et al.*, 2020:3).

Generally, studies on entrepreneurial orientation within entrepreneurship and strategic management focus on the relationship between entrepreneurial orientation and an organisation's performance. Among scholars, entrepreneurial orientation is the most used term to describe levels of entrepreneurship in organisations (Okeyo *et al.*, 2016:192).

Multinational corporations need an entrepreneurial orientation to succeed in the global market due to rapidly changing global market demands and heterogeneous regulatory environments (Chen *et al.*, 2020:123). Furthermore, the COVID crisis that weakened the world economy increased the need for established companies for innovation and adjustment (Kuratko, Hornsby & McKelvie, 2021:132).

According to Alexandrova (2004), entrepreneurial orientation denotes the characteristics of decision-making that match the capacities and activities of the organisation with the external environment in which it functions (Alexandrova, 2004:142). External and internal environments are essential to determine the entrepreneurial orientation (Horchani & Zouaoui, 2019:313). Entrepreneurial orientation involves specific mechanisms and practices that facilitate business decision-making through entrepreneurial processes and subsequent activities (Wach *et al.*, 2023:161). Entrepreneurial orientation refers to the operational aspects of running an organisation and making entrepreneurial decisions. In addition, entrepreneurial orientation identifies specific methods and means of developing strategic initiatives that help decision-makers achieve the overall goal of an organisation, shaping its business model to maintain a competitive advantage.

A significant reason for entrepreneurial orientation's prominence in management research stems from its assumption that all organisations can be positioned or plotted based on their entrepreneurial orientation. According to this assumption, all organisations fall somewhere between conservative (the "low" end) and entrepreneurial (the "high" end). Covin and Slevin (1988:230) suggested that top managers, to a certain degree, might feel obliged to implement an entrepreneurial style if they believe that courageous entrepreneurial actions are required to progress their organisation's performance. In poorly performing organisations, some senior managers believe that their organisations should refrain from taking risky, entrepreneurial actions. Similarly, some top managers in high-performing organisations may believe an entrepreneurial style is too risky and should be circumvented. However, other top managers in high-performing organisations may think that the success of their organisation depends on their entrepreneurial style.

According to Linton (2016:69-70), entrepreneurial orientation is not necessarily a continuum consisting of conservative lines. Entrepreneurial orientation is likely to be more complex, and one way to explore this is to look at different configurations, where it may be helpful to distinguish between types of organisations that allow non-linear and reciprocal relationships among attributes. According to Covin and Lumpkin (2011:862), the continuous nature of entrepreneurial orientation will enable researchers to theorise about the levels of entrepreneurial behaviour an organisation exhibits. In practice, various forms of entrepreneurship are observed (for example, internal corporate ventures and acquisition of external start-ups), so it is difficult to draw meaningful comparisons between organisations. Scholars can, therefore, assess overall entrepreneurial levels using the entrepreneurial construct as a standard or set of metrics.

The definition of entrepreneurial orientation will be considered next.

2.13 DEFINITION OF ENTREPRENEURIAL ORIENTATION

The concept of entrepreneurial orientation has been developed over the past five decades. Early research on an entrepreneurial mode may be traced back to Mintzberg (1973:44). According to Mintzberg (1973:49), the following characteristics can be identified with an entrepreneurial mode: there is a proactive motive for decision making, the goal for the organisation is growth, proposals are evaluated judgementslly, the entrepreneur makes choices, there is a long-term time horizon, the preferred environment is one of uncertainty, decision linkages are loosely coupled, there is a mode of flexibility, decision-making is bold, and the vision of direction is general.

According to a study by Miller and Friesen (1983:221), several variables influence the relationship between strategy-making and the environment. These variables include product-market innovation, proactive decision-making, and a propensity for risk-taking. Miller (1983:771) proposed an entrepreneurial approach to strategy-making from the initial work, hypothesising that an entrepreneurial organisation comes up with proactive innovations first, innovates markets and products, gets involved in risky undertakings, and beats its competitors to market. According to Drucker (1985:19), innovation represents how entrepreneurs exploit change to create a new business or service.

Miller (1983:780) suggested a unidimensional construct of risk-taking, proactiveness, and innovation for entrepreneurial organisations to exhibit simultaneously. An organisation

would not be considered entrepreneurial if it adapted or innovated a product line or technology, for example, by simply copying its competitors without the willingness to take appropriate risks. Proactivity is also crucial in the 21st century for business survival. Organisations with high financial leverage are not always considered entrepreneurial, as they also need to participate in technology or product-market innovation. According to Lumpkin & Pidduck (2021:17), entrepreneurial orientation has evolved beyond its original role as an organisation-level unidimensional strategy construct. It must be redefined in a multidimensional manner to reflect the diversity of expressions and venues of entrepreneurial activity now evident worldwide, called global entrepreneurial orientation. As Lumpkin & Pidduck (2021:18) indicate, the multidimensional approach comprises the five dimensions (autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness) that contribute to the formation of entrepreneurial orientations that may vary depending on the environment and organisational context. According to the global perspective on entrepreneurship, there are many instances when only a low level of a particular dimension is evident, and none of the dimensions need to be presented strongly to assert entrepreneurial orientation (Lumpkin & Pidduck, 2021).

Based on Miller (1983), Covin and Slevin (1989:77) define entrepreneurial organisations as those with entrepreneurial top management styles reflected in their operating management practices and strategic decisions taken. Strategic positioning of an entrepreneurial organisation is also characterised by recurrent and widespread technical and product innovation, having a competitive vantage point with senior management having a propensity for risk-taking, according to Covin and Slevin (1989:79). An organisation's strategic behavioural tendencies can be plotted on a continuum (Covin & Slevin, 1989:79). There are conservative and entrepreneurial ends of the spectrum on the continuum. The entrepreneurial side of the range is characterised by innovation, proactiveness, and taking risks. An organisation's entrepreneurial behaviour is characterised by its risk-taking propensity, acting aggressively and proactively in a competitive environment, and relying heavily on product innovation as a domain of strategic posture, as defined by Covin and Slevin (1991:7). According to Covin and Slevin (1991:8), the entrepreneurial process is characterised more by behaviours than attributes. A person's psychological profile does not determine entrepreneurship. Our knowledge of entrepreneurs is primarily based on what they do. Organisational attributes at the structure or culture level (the non-behavioural level) do not constitute

entrepreneurial behaviour; it is the actions of an organisation that determine entrepreneurial behaviour. As a result, behaviour is central to the process of being entrepreneurial.

According to Covin and Slevin (1991:20), entrepreneurial posture is a strategic dimension to plot all organisations. Covin and Slevin (1991:7) state that entrepreneurship requires sustained entrepreneurial behaviour. In other words, organisations with entrepreneurial postures are those with recurring behavioural patterns.

Researchers have offered an alternative perspective on the conceptual domain of an organisational-level strategic orientation towards entrepreneurship, following Covin and Slevin's (1991) conceptualisation. According to Lumpkin and Dess (1996:136), entrepreneurship is a new entry, and entrepreneurial orientation is the method of undertaking the new entry. Five dimensions can be used to characterise and differentiate entrepreneurial actions: innovation, autonomy, proactiveness, competitive aggressiveness, and risk-taking.

Entrepreneurial orientation differs from intrapreneurial orientation because it can predict and indicate organisation-level entrepreneurship within different-sized organisations. As a descendant of entrepreneurial orientation, intrapreneurial orientation describes the tendency of an employee to act entrepreneurially (Schachtebeck *et al.*, 2018:264).

Opinions in the literature vary on the precise definition of entrepreneurial orientation (Okeyo *et al.*, 2016:192). In Lumpkin and Dess' version (1996:136), entrepreneurial orientation is described as the practices, methods, and styles for making decisions that leaders use to display entrepreneurship and open new markets. Several other definitions are also inconclusive. For example, Moreno and Casillas (2008:508) mention an entrepreneurial management style. According to Yusof *et al.* (2007:14), entrepreneurial inclination refers to values, attributes, psychological traits, and orientations related to the motivation to participate in entrepreneurial undertakings. A higher tendency to risk, an elevated need to achieve, a higher tendency to take risks, a high locus of control, an eagerness to innovate, and an acceptance of ambiguity are all strongly associated with entrepreneurial orientation. Entrepreneurial orientation is defined by Zahra *et al.* (2006:947) as the rules and norms for making decisions.

Lumpkin and Dess (1996:138) examined entrepreneurial orientation at the organisational level, which has been affirmed in research (Putniņš & Sauka, 2020:729). A study clarified the multi-dimensional character of the entrepreneurial concept (Lumpkin & Dess, 1996:165). The principle of multi-dimensionality states that entrepreneurial organisations do not need all dimensions to co-exist. It is possible to observe the effect of every entrepreneurial orientation measurement on the organisation's performance independently.

In addition, sub-dimensions of entrepreneurial orientation may contribute to an organisation's overall performance uniquely (Kreiser & Davis, 2010:42). In contrast, Miller (1983:780) and Covin and Slevin (1989:79) believed that the presence of all dimensions was necessary for an organisation to be entrepreneurial.

Rauch *et al.* (2009:779) reported that when examining antecedents and their results of individual dimensions, the study's objective was to investigate how each dimension influences the other independently (unidimensionality). Therefore, it is more appropriate to use the formative model. Researchers, however, can gain valuable insight into the discrete consequences of each measurement by using a multi-dimensional approach. In a multi-dimensional approach, entrepreneurial dimensions are thought to have different effects on an organisation's performance depending on its industry context, business environment or stage of development (Kusumawardhani *et al.*, 2009:5). Miller/Covin and Slevin conceptualise what is mutual to entrepreneurial organisations. Lumpkin and Dess conceptualise what makes them unique. There is merit to both conceptualisations, and there is no conflict or mutual exclusivity between these two dominant conceptualisations of entrepreneurial orientation. The two phenomena are different, and both are appropriate for study (Covin & Wales, 2019:4). Based on two meta-analyses (Rauch *et al.*, 2009:778; Rosenbusch *et al.*, 2013:642), Miller's (1983:780) and Covin and Slevin's (1989:79) concepts dominate the literature on entrepreneurial orientation. As such, this research builds upon the Lumpkin and Dess (1996:165) conceptualisation to further develop entrepreneurial orientation as a multi-dimensional construct, characterised by distinct outcomes for each dimension.

It is claimed that entrepreneurial orientation is formed by individual dimensions independent of their interrelationship. In this sense, entrepreneurial orientation is a manifestation of its dimensions rather than the dimensions themselves being

manifestations of entrepreneurial orientation. The dimensions of entrepreneurial orientation are used to define or "form" entrepreneurial orientation where meaning is derived from (George & Marino, 2011:1000). In addition, a multi-dimensional analysis should be able to determine the role each construct (competitive aggressiveness, proactiveness, innovation, autonomy and risk-taking) plays in the success of the cooperative organisation. In this research, entrepreneurial orientation is viewed as a multi-dimensional construct.

An analysis of previous studies (Okeyo *et al.*, 2016:188) found that entrepreneurial orientation was conceptualised as single-dimensional three-factor and multi-dimensional five-factor models. A three-factor model reported different results than a five-factor approach, resulting in inconsistent empirical results concerning entrepreneurial orientation. Furthermore, in a recent study, it was found that focusing solely on the Miller unidimensional index was deceptive since it conveyed the risk of missing some crucial points regarding how components of entrepreneurial orientation interact with each other (Chabaud & Sattin, 2019:6). Thus, this study will examine entrepreneurial orientation using a multi-dimensional approach.

The entrepreneurial orientation of a company denotes its decision-making actions, practices, and processes in pursuing new ventures (Byrne & Fayolle, 2009:164). Furthermore, Byrne and Fayolle (2009:164) agree with Lumpkin and Dess (1996:136) that the most crucial decision-making actions, practices, and processes relate to five dimensions, namely the preparedness to be innovative, the inclination towards acting autonomously, the predisposition to exhibit competitive aggressiveness, the propensity to take risks, and the tendency to act proactively regarding market opportunities. These five dimensions influence an organisation's members' decision-making styles, practices, and behaviours (Dess & Lumpkin, 2005:147). According to Lumpkin and Pidduck (2021:41), being entrepreneurial consists of being autonomous, proactive, innovative and competitive in taking risks. From micro businesses to multinational corporations, this view is universal and can be applied to individuals, family businesses, social enterprises, franchises, and many other entities.

It is essential to define the central construct clearly to ensure the validity of the construct. It is impossible to build knowledge without a clear, agreed-upon definition (George & Marino, 2011:989), which is the eventual goal of scientific analysis. George and Marino

(2011:989) have asked whether entrepreneurial orientation is used consistently across studies.

As part of the reconceptualisation of entrepreneurial orientation, Anderson *et al.* (2015:1579) examined whether entrepreneurial orientation is a construct of attitude, behaviour, or a combination of both. An entrepreneurial orientation construct is formed by exhibiting entrepreneurial actions through behaviours and a supervisory frame of mind regarding risk - a mutually required measurement. Consequently, an entrepreneurial orientation would be considered a behaviour displayed by employees in this study.

An organisation's performance is greatly enhanced by entrepreneurial activity. According to research and history, innovation creates a competitive advantage and helps organisations stay competitive (Kim & Kim, 2016:9). The performance link of entrepreneurial orientation is the next topic to be discussed.

2.14 ENTREPRENEURIAL ORIENTATION AND PERFORMANCE LINK

The late 1990s focused on connecting entrepreneurial orientation to performance and objectively measuring its dimensions. Lumpkin and Dess (1996:135) and Rauch *et al.* (2009:761) examined the relationship between entrepreneurial orientation and organisational performance, while Lumpkin and Dess (2001:429) examined the aspects that are part of entrepreneurial orientation. The correlation between entrepreneurial orientation and performance was moderately significant, according to Rauch *et al.* (2009:761). Based on previously studied themes (Martens *et al.*, 2016:577), it is widely accepted and empirically supported that entrepreneurial orientation increases financial performance and growth rate. Historically, innovation has been crucial to creating a competitive advantage and helping organisations remain competitive (Kim & Kim, 2016:9). As Andersen (2010:309) states, there is some question regarding the relationship between entrepreneurial orientation and performance, such as survival biases, common-method biases, and the use of perceptual performance data, may have been overlooked in previous studies.

According to Wiklund and Shepherd (2005:71), the configurational approach provides richer results by testing the interaction between entrepreneurial orientation, performance, and another variable (such as the environment). In addition, they suggested using more than three variables for the configuration analysis.

In a meta-analysis, Dess and Lumpkin (2005:148) found moderately significant correlations between the constructs of entrepreneurial orientation and performance. Several factors moderated the relationship between entrepreneurial orientation and performance, including proactiveness, risk-taking, performance criteria, and the type of business and industry. The relationship is most substantial in high-tech industries because high-tech settings require risk-taking, innovative behaviour, and proactive strategies and tactics to cope with unpredictable change and uncertainty.

The results of a recent research study (Leksono *et al.*, 2019) indicated that traditional market traders' business performance could be affected by entrepreneurial behaviour and innovation. Through innovation, traditional market traders were able to develop a sense of entrepreneurship, thus improving their business performance independently and collectively. It was found in a recent study that constructive risk-taking, a component of entrepreneurial orientation, is rewarded with better-than-average performance (Putniņš & Sauka, 2020:729). Taking risks tends to be more rewarding when there is a higher level of innovation. Entrepreneurial proactive approaches involve risk-taking, which indirectly leads to higher performance in proportion to the risk involved. Therefore, the three dimensions of entrepreneurial orientation (risk-taking, proactiveness, and innovativeness) contribute to performance for different reasons. It was proven that innovativeness positively influences the type of risk entrepreneurs take, while proactiveness is believed to control the level of risks entrepreneurs take (Putniņš & Sauka, 2020:729). Furthermore, innovation is believed to be one of the factors associated with taking constructive risks.

In several studies, entrepreneurial orientation has been found to positively impact business performance (Wiklund & Shepherd, 2005:88). An organisation's success depends significantly on its entrepreneurial orientation, according to Wang (2008:635). However, past studies suggest that only examining the direct effect of entrepreneurial orientation provides an incomplete picture. It would be helpful to investigate the mediating role of learning orientation within an organisation (Wang, 2008:635). To further understand the relationship between entrepreneurial orientation and performance, Lumpkin and Dess (1996:155) advocate the following models: moderating, mediating, independent, and interaction effects. This study investigates the mediating role of entrepreneurial orientation in the relationship between corporate entrepreneurship and performance. Recent studies have demonstrated a strong connection between entrepreneurial orientation and organisational performance (Soares & Perin, 2020:155).

Dess and Lumpkin (2005:153) encourage researchers to examine entrepreneurial orientation and performance beyond economic outcomes (accounting or market measures). In addition, Zahra (1993:21) suggested considering non-financial outcomes of entrepreneurial activity. Chapter 3 examines the effectiveness of compliance training within financial services organisations in South Africa as a performance indicator that includes non-financial measures, namely compliance training success.

As evidence emerges that innovativeness and proactiveness have shared effects on an organisation's performance, examining entrepreneurial orientation dimensions in combination is imperative. Furthermore, innovative behaviour can be associated with risk-taking since innovation requires resources and the success of innovation cannot be guaranteed (Huang *et al.*, 2023:377). A combination of innovativeness, risk-taking, and proactiveness may also contribute to or hinder an organisation's performance (Huang *et al.*, 2023:380).

2.15 MEASURING ENTREPRENEURIAL ORIENTATION

Assessing the entrepreneurial nature of their organisation and understanding how that relates to internal organisational factors is highly relevant for managers. This understanding can assist managers in making their organisations more entrepreneurial (Rezaei & Ortt, 2018: 878). Recent research (Schachtebeck *et al.*, 2018:264) has shown that entrepreneurial orientation studies typically concentrate on three constructs: innovativeness, risk-taking, and proactiveness, while less emphasis is placed on autonomy and competitive aggressiveness. The most used instruments to assess entrepreneurial orientation were those developed by Miller (1983) and Covin and Slevin (1989). A wide range of literary publications has accepted Miller's (1983) conceptualisation, embodied within Covin and Slevin's (1989) scale, as the "dominant design" of entrepreneurial orientation. Alternate measurement practises, however, have been discussed in the literature. Three categories of organisational-level behaviours are viewed as indicative of an entrepreneurial stance by Covin and Slevin (1991:10): top management's risk-taking propensity regarding investment decisions and strategic actions under uncertainty, extensive and frequent product innovation coupled with an inclination towards technological leadership, and a ground-breaking culture, that is apparent in the company's aggressive and proactive competition with competitors in the

industry. Entrepreneurial endeavours cannot be separated from the employees that comprise the organisation's broader employee base (Covin *et al.*, 2020:1).

Entrepreneurial orientation is classically measured at the organisational level (Bernoster *et al.*, 2020:238). According to Zahra (1993:5), multiple levels of analysis should be considered, namely corporate, business strategic unit, and functional levels. An entrepreneurial attitude is vital at non-managerial levels, showing that innovation, proactiveness, and risk-taking are crucial elements in achieving high performance by demonstrating their importance at the team level through trust and commitment (their presence or absence) within a team environment (Covin *et al.*, 2020:7).

In selecting a measurement model, it is essential to consider whether a formative or reflective model is appropriate. The latent construct is formed by its measures in a formative measurement model, thus the unidimensional model. Reflective measurement models, on the other hand, assume that underlying factors contribute to the observed phenomenon (Covin & Wales, 2011:6). According to Lumpkin and Dess (1996:137), the dimensions of entrepreneurial orientation may vary independently within a given context, so it is considered a reasonable measurement method (Covin & Wales, 2011:20) to evaluate entrepreneurial orientation's subdimensions using individual reflective-type scales. According to Covin and Lumpkin (2011:864), entrepreneurial orientation is a natural phenomenon apart from its measurement. It is best assessed using a reflective measurement model, thus a multi-dimensional model.

Lumpkin and Dess (1996:136) defined entrepreneurial orientation as having five components: innovativeness, autonomy, risk-taking, competitive aggressiveness, and proactiveness. An initial point of reference was provided by Miller (1983:771) by proposing that entrepreneurial organisations innovate product markets, take on risky ventures, and develop proactive innovations before competitors do. Proactiveness, innovativeness, and risk-taking were used to characterise and assess entrepreneurship (Lumpkin & Dess, 1996:139). The concept of competitive aggressiveness is also captured by Miller (1983:771) as the idea of outsmarting your competitors. New entrants must often exhibit competitive aggressiveness to compete with existing competitors (Lumpkin & Dess, 1996:139). Lastly, entrepreneurial orientation emphasises independence and autonomy. It is critical to have strong leaders who allow autonomy, with unconstrained inventive individuals or teams of employees removed from the constrictions of

organisations. Based on Burgelman's (1983: 1349) findings, internal corporate venturing results from the autonomy of individual strategic initiatives at the operative level.

Each of the five dimensions of entrepreneurial orientation will be looked at further.

Autonomy:

The independent spirit required for new ventures provides a significant impetus for a new entry. As a result, autonomy is one of the most critical aspects of entrepreneurial orientation. As a concept, autonomy refers to a person or team's ability to develop ideas or visions and pursue them to completion independently (Rauch *et al.*, 2009:764; Lumpkin & Dess, 1996:140). It is generally defined as having the ability and willingness to pursue opportunities on one's own without being restricted by the limitations of an organisation. Despite factors such as competitive actions by rivals, resource availability, and factors within the organisation, they will not deter autonomous entrepreneurial processes from creating new ventures. The organisational player retains independence throughout the process, making critical decisions and action-taking (Lumpkin & Dess, 1996:140). In Lumpkin and Pidduck's (2021:26) view, autonomy is a facilitator of a wide range of action and movement, which would not be possible without entrepreneurial behaviour. An essential entrepreneurship component is autonomy, which is crucial for new entrants. It is the ability to act independently outside of established routines and norms, and the willingness to assume responsibility and champion new ideas which define autonomy (Lumpkin & Pidduck, 2021:27). Jankelova (2022:265) posits that autonomy should be considered as a separate factor of entrepreneurial orientation. Autonomy refers to the independent action taken by entrepreneurial leaders and teams.

Innovativeness:

In addition to being a construct of entrepreneurial orientation, innovation refers to introducing new products, services, operational techniques, marketing strategies, or organisational or managerial methodologies or systems. Innovation may occur within corporate practices, the workplace, or external affairs (Kaur & Kaur, 2020:1; OECD, 2005; Tessa *et al.*, 2003:8). To sustain a competitive advantage, innovation is essential (Ali, 2020:3). A company's innovativeness is primarily determined by the creativity and assertiveness of its members (Jankelova, 2022:266). To be innovative, one must employ novel thinking and fresh insights and be experimental and inventive. In innovativeness,

new knowledge is used to create or improve services, processes, or products (Lumpkin & Pidduck, 2021:27).

To be innovative, an organisation needs to test novel ideas, promote uniqueness, and develop processes that result in new services, products, and high-tech advancements (Lumpkin & Dess, 1996:142). Innovation often involves both product-market and technological innovation, such as technology-enhanced new products designed to meet the needs of specific markets (Lumpkin & Dess, 1996:143). There are a variety of ways in which new entry can occur, including, for instance, market entry (or creation) and developing new business models (Covin & Wales, 2019:10). Innovation involves more than introducing new products or services and assessing other indicators of innovation; researchers can better understand what being entrepreneurial means. To pursue new opportunities, an entrepreneurial orientation must incorporate innovation. Innovativeness is characterised by the inclination to engage in inventiveness and experimentation by introducing new services or products and leadership in the technology field in new processes through research and development (Rauch *et al.*, 2009:763).

In contrast, Wales *et al.* (2019:98) see innovation as the “heart” of entrepreneurial orientation, while Covin and Miles (1999:48) view it as “the essence of an organisation's entrepreneurial posture”. The ability to endorse new ideas, experiments, novelties, and creative processes that lead to new services, products or technological processes indicates innovation (Kozubíková *et al.*, 2015:337). The concept of innovativeness and proactiveness is viewed as one behavioural dimension by Anderson *et al.* (2015:1583). Covin *et al.* (2020:1) concur. Research in the services sector shows that proactiveness and innovativeness are substitutes and should be combined with a commitment to the company's goals to achieve high performance (Covin *et al.*, 2020:1).

Risk-taking:

It is common for entrepreneurial organisations to engage in risky actions, such as increasing debt considerably or spending many resources to achieve high returns in the market (Lumpkin & Dess, 1996:144). The business environment is characterised by constant and rapid change, so companies must demonstrate uniqueness, courage, risk-taking, and a continual search for new opportunities to thrive (Jankelova, 2022:265). Lumpkin and Pidduck (2021:27) describe risk-taking as involving judgment calls and

decisions made under uncertain conditions. Taking on a risk may also require significant resources to venture forward.

There are three elements of risk-taking: exploring the unknown, using elevated debt levels, and allocating substantial resources to support undertakings in uncertain environments (Rauch *et al.*, 2009:763). As Anderson *et al.* (2015:1583) observe, risk-taking is an attitudinal aspect, and managerial attitudes and tendencies towards risk are inherent. As a result of designing and implementing organisational-level strategies with uncertain outcomes, risk-taking occurs at the level of the senior manager.

Proactiveness:

Despite the close relationship between competitive aggressiveness and proactiveness, Lumpkin and Dess (1996:147) felt these measurements should be distinguished. Proactiveness refers to how an organisation responds to opportunities in the market during the new entry process. The company does this by taking advantage of opportunities and behaving opportunistically to "shape the environment," influencing trends and possibly stimulating demand in some cases. On the other hand, competitive aggressiveness refers to how organisations respond to existing demands and trends in the market. Proactiveness is being alert, anticipating the future, and scanning for opportunities and possibilities before future demands (Lumpkin & Pidduck, 2021:27). Being proactive is synonymous with being a trailblazer. A proactive approach is characterised by looking for opportunities, introducing new services and products ahead of competitors, and anticipating future needs (Rauch *et al.*, 2009:763). As the term suggests, proactivity refers to reaching out to emerging markets and taking advantage of new opportunities while anticipating future problems, changes and needs (Kozubíková *et al.*, 2015:337). Essentially, this process involves identifying opportunities that may or may not be related to current processes to forecast future requirements.

Competitive aggressiveness:

Lumpkin and Dess (1996:148) define competitive aggressiveness as the tendency to directly and forcefully challenge competitors to enter a market, improve their position, or outperform competitors. A key characteristic of competitive aggressiveness is responsiveness, expressed through either competitive head-to-head competition, as

when an organisation enters a market discovered by a competitor, or more responsive by responding to competitive challenges by lowering prices (Lumpkin & Dess, 1996:149).

Competitive aggression also implies a willingness to experiment rather than rely on conventional methods of competition. The concept of competitive aggressiveness is defined by Rauch *et al.* (2009:764) as the force with which a company seeks to outperform its competitors by taking an offensive stance or responding aggressively to threats made by competitors. A competitive advantage is created by entrepreneurial orientation, not competitive aggression, according to Lumpkin and Pidduck (2021:23). To be competitive; one must be prepared to confront rivals head-on and assertively when threatened or conditions change. Competitive behaviour is synonymous with high standards and continuous improvement (Lumpkin & Pidduck, 2021:27).

Table 2.7 summarises the five-dimensional entrepreneurial orientation scales developed (Zhang *et al.*, 2014:108). Table 2.7 contains secondary references.

Table 2.7: Summary of five-dimensional entrepreneurial orientation scales

The year of publication and the respective author/s. Placed in chronological order	Number of items	Type of scale	Study samples used
Voss <i>et al.</i> (2005)	15	Seven-point Likert scale	111 American non-profit professionals in the theatre industry.
Walter <i>et al.</i> (2006)	6	Seven-point Likert scale	149 university spin-offs.
Chang <i>et al.</i> (2007)	25	Seven-point Likert scale	115 motherboard manufacturers in Taiwan.
Hughes and Morgan (2007)	18	Seven-point Likert scale	211 young high-tech UK organisations.
Li <i>et al.</i> (2009)	13	Five-point Likert scale	165 Taiwan organisations.
Lumpkin <i>et al.</i> (2009)	22	Seven-point Likert scale	125 USA MBA students.
Pearce <i>et al.</i> (2010)	15	Seven-point Likert scale	250 American religious congregations.
Short <i>et al.</i> (2010)	Content analysis	Seven-point Likert scale	Letter and data from S&P 500 and Russel 2000.
Casillas <i>et al.</i> (2010)	15	Seven-point Likert scale	449 Spanish SMEs.
Boso <i>et al.</i> (2012)	16	Seven-point Likert scale	212 British exporting companies.

Source: Adapted from Zhang *et al.* (2014:108).

Table 2.7 shows the different measuring scales used, the number of items employed, and details of the samples used between 2005 and 2012. A Likert scale was used in all studies.

Knight (1997:218) used the Entrescale to assess entrepreneurial orientation in an organisation. The eight dimensions identified were product changes, product lines, research and development leadership, environmental boldness, new techniques, decision-making style, propensity for risk-taking, and competitive posture.

Lumpkin and Dess' (1996) measurement constructs of entrepreneurial orientation were used to measure entrepreneurial orientation at a university in the United States (Bolton & Lane, 2011:219). Three distinct factors measured reliable and valid based on the scale development process for individual entrepreneurial orientation: proactiveness, risk-taking and innovativeness. In a recent study (Corrêa *et al.*, 2022:974), entrepreneurs' survival drives innovation, proactiveness, and risk-taking.

A recent study by Ali *et al.* (2021:150) expanded Lumpkin and Dess' (1996:136) dimensions of entrepreneurial orientation to include strategic flexibility. The Comprehensive Entrepreneurial Orientation Scale was developed to measure entrepreneurial orientation in developing economies (Ali *et al.*, 2021:156).

This study uses the Lotz and Van der Merwe (2013:31-32) questionnaire to measure entrepreneurial orientation within South African banks' Compliance departments. As constructs of entrepreneurial orientation, the instrument includes competitive aggressiveness, autonomy, risk-taking, innovation and proactiveness. Lotz and Van der Merwe (2013:21) compiled the dimensions originated from the following measuring instruments: The Organisation Structure and Strategic Posture Scale (Covin & Slevin, 1989:85-86), the Entrescale instrument (Knight, 1997:213), Intrapreneurship items (Antoncic & Hisrich, 2001:489), Entrepreneurial Orientation items (Lumpkin & Dess, 2001:439), Corporate Entrepreneurship Assessment Instrument (Hornsby *et al.*, 2002:264-265), Measuring Intrapreneurship (Hill, 2003:58), Entrepreneurial Climate Survey (Oosthuizen, 2006:205) and The Corporate Entrepreneurship Climate Instrument (Morris *et al.*, 2008:331-335).

2.16 SUMMARY

This chapter provided a comprehensive review of the literature on entrepreneurial concepts, such as entrepreneurship, the characteristics of the entrepreneur, intrapreneurship, corporate entrepreneurship, and entrepreneurial orientation. Concepts were introduced, defined, and consideration was given to how concepts are measured. The link between corporate entrepreneurship and entrepreneurial orientation and performance was also examined.

Entrepreneurship has been established to be an important research field. Business administration and transdisciplinary studies are increasingly accepting the concept of entrepreneurship as a scientific research programme (Reuther *et al.*, 2018:2).

In addition, COVID-19 has forced organisations to engage in entrepreneurial and innovation activities to create innovative products or channels and adapt existing assets and business models to the realities of the current market, providing new opportunities for business within a maintainable growth pattern (Gavrila & Ancillo, 2021:12-13).

There have been many definitions of entrepreneurship dating back to the 1830s. Several characteristics of entrepreneurs have been identified, some of which are similar and others distinctively different. Entrepreneurship has also evolved. A consensus exists regarding some aspects of entrepreneurship's definition, including creativity, innovation, independence, and an affinity for risk (Medacović & Marić, 2019:21). Many different measurement instruments have also been used to assess entrepreneurial concepts.

Intrapreneurship is entrepreneurship within established organisations that enhances competitiveness (De Villiers-Scheepers, 2011:249-250). Initially defined by Pinchot in 1978, intrapreneurs are dreamers who act (Pinchot, 2017). Various concepts of organisational entrepreneurship can be classified, including innovation, entrepreneurial posture, corporate entrepreneurship, and entrepreneurial orientation (Antoncic & Hisrich, 2003:15).

Corporate entrepreneurship is an environment in which entrepreneurial mindsets are nurtured and supported continuously to carry out innovative activities (Kuratko, Hornsby & McKelvie, 2021:132). As a result of corporate entrepreneurship, employees are empowered to act entrepreneurially within their organisations, thus restoring innovation

to the workplace (Kuratko, Hornsby & McKelvie, 2021:133). However, it is important to stress that corporate entrepreneurship cannot be defined singularly (Popowska, 2020:61). Corporate entrepreneurship (Burgelman, 1983:1349), intrapreneurship (Pinchot, 1978), corporate venturing (Macmillan *et al.*, 1986:177), new business ventures (Stopford & Baden-Fuller, 1994:521), and strategic renewal (Guth & Ginsberg, 1990:5) are all terms used to describe entrepreneurial activity within established organisations. A critical element of corporate entrepreneurship is innovation, according to Lampe *et al.* (2019:789). Furthermore, entrepreneurial orientation is an essential area of research on corporate entrepreneurship (Kuratko *et al.*, 2021:6). Business performance and disruptive model innovation adoption are positively impacted by corporate entrepreneurship (Karimi & Walter, 2016:342). Kuratko, Hornsby & McKelvie (2021:140-143) identified several impediments to corporate entrepreneurship.

Five dimensions can be used to measure corporate entrepreneurship: work discretion and autonomy, senior management support, time availability, organisational boundaries, and rewards and reinforcement. To assess managers' perceptions of the five major measurement dimensions that are essential for forming an innovative and entrepreneurial environment (Kuratko *et al.*, 2014:40), Hornsby *et al.* (2002:261) designed the Corporate Entrepreneurship Assessment Instrument (CEAI). Over the years, other measurement tools have measured the core characteristics of corporate entrepreneurship. The Corporate Entrepreneurship Instrument, adapted and tested by Strydom (2013:174-177), was used to assess corporate entrepreneurship in this study.

The Academy of Management now lists entrepreneurial orientation as one of a few content-focused "keywords" when reviewing entrepreneurship articles in the literature for presentation consideration (Covin & Wales, 2019:3).

A managerial approach called the entrepreneurial mode was referred to early on by Khandwalla (1997a:160). Miller (1983:771) introduced the term entrepreneurial orientation to describe an organisation undertaking risky ventures, product market innovation, and developing innovative products ahead of its competitors. Covin and Slevin (1989:77) state that entrepreneurial orientation involves risk-taking, innovativeness, and proactiveness. Lumpkin and Dess (1996:136) propose a multidimensional entrepreneurial orientation by developing two additional dimensions: competitive aggressiveness and autonomy. In this way, entrepreneurship does not

require the coexistence of all dimensions in an organisation. Every dimension of entrepreneurial orientation can be observed independently of one another in terms of its effect on an organisation's performance.

Recent studies have shown that corporate entrepreneurship positively correlates with performance (Elgharbawy & Abdel-Kadar, 2016:778; Ziyae & Sadeghi, 2021:113). Andersén (2010) conducted a critical examination of the entrepreneurial orientation-performance relationship. Researchers have found positive correlations between entrepreneurial orientation and performance over a long period and across various industries (Andersén, 2010:309). According to a literature review, most studies indicate that entrepreneurial orientation positively correlates with performance (Lee & Chu, 2017:213). Typically, research identifies transitional steps that link entrepreneurial orientation with performance (Gupta *et al.*, 2020:1142).

According to Andersén (2010:323), researchers should exercise caution when examining the relationship between entrepreneurial orientation and performance or review other studies considering the weaknesses identified in primary research.

Research shows that entrepreneurial orientation correlates with performance (Rauch *et al.*, 2009:761). Examining the mediating role of factors, such as an organisation's learning orientation, could yield valuable results (Wang, 2008:635). A recommendation has also been made to consider non-financial outcomes as part of the performance (Zahra, 1993:21).

Thus, the theories mentioned above show that corporate entrepreneurship and entrepreneurial orientation positively influence performance, which this research is based on and tested in this study, focusing on the mediating role of entrepreneurial orientation. As defined by Creswell and Creswell (2018:52), a theory in quantitative analysis is an interconnected set of constructs that describe the relationship between variables.

As mentioned above, researchers have used different scales to measure entrepreneurial orientation, involving three or five constructs. This study used Lotz and Van der Merwe's (2013) questionnaire to measure five dimensions: innovation, autonomy, proactiveness, risk-taking, and competitive aggressiveness.

Chapter 2 achieves research question 2, identifying the constructs that measure corporate entrepreneurship and entrepreneurial orientation. Secondary objective 1 was also partly achieved in Chapter 2, as to continue with the investigation and establishment of the relationship between corporate entrepreneurship and the success of compliance training within South African banks, the constructs measuring corporate entrepreneurship had to be reviewed. Secondary objective 2 was also partly achieved in this chapter; namely, to investigate the mediating effect of entrepreneurial orientation in the relationship between corporate entrepreneurship and compliance training success, the constructs measuring corporate entrepreneurship and entrepreneurial orientation had to be reviewed first to draw up the measurement instrument. Furthermore, methodological objective 1 was also achieved in this chapter, which also included identifying and understanding the constructs that measure corporate entrepreneurship and entrepreneurial orientation. Thus, research question 1 was also partly achieved, which enquired about the constructs that measure corporate entrepreneurship and entrepreneurial orientation.

In Chapter 3, compliance departments within South African banks are explored, with a particular interest in the success of compliance training.

Chapter 3 partly achieves secondary objectives 1 and 2 in reviewing and identifying the constructs measuring compliance training success to investigate and establish the relationship between corporate entrepreneurship and the success of compliance training and the mediating role of entrepreneurial orientation in the relationship. Secondary objective 3 is also partly achieved in Chapter 3, to investigate the relationship between selected biographic variables and the success of compliance training; the constructs measuring compliance training success are reviewed and identified in Chapter 3. Methodological objective 1 is also partly achieved in Chapter 3 to identify and comprehend the theoretical models and constructs measuring and relating to compliance training success. Methodological objective 2 is achieved in Chapter 3, namely, to obtain information on the current state of the compliance industry and compliance training environments through a literature review and propose compliance training success measures. Lastly, research question 1 is partly achieved in Chapter 3 to answer the question which constructs measure success of compliance training, and research question 2 is addressed in Chapter 3, namely, to answer the question on the current state of the compliance industry and compliance training environments.

CHAPTER 3 COMPLIANCE DEPARTMENTS WITHIN SOUTH AFRICAN BANKS

3.1 INTRODUCTION

Regulatory compliance has never been more important in South Africa than it is today (Powell, 2019). There have been several shocking public scandals that have rocked the country. As a result of the Zondo Commission of Enquiry and other inquiries, the extent of state capture and rampant corruption has been revealed. As a result of their involvement in Eskom, SARS (The South African Revenue Service), and other scandals, KPMG, McKinsey Bain, and others have suffered extensive brand damage (Powell, 2019). Several companies, such as Bosasa, have been exposed for systematically bribing government officials. KPMG sustained a substantial blow when it was revealed that these companies had also engaged in unethical conduct related to the collapse of VBS Bank. The auditing profession has been scrutinised after several corporate collapses involving accounting scandals, including Steinhoff and Tongaat (Powell, 2019).

In 2019, the SARB fined five banks for anti-money laundering control failures (Kubheka, 2019). The SARB sanctioned several banks, including Grobank, Standard Bank, Bank of China, HBZ Bank Limited, and Ubank Limited. Due to its failure to comply with the requirements regarding reporting suspicious and unusual transactions, South African banks were fined and ordered to take remedial action. As a result of today's fast-paced and evolving business environment, such as regulatory changes, organisations must adapt their approach to compliance so that ethical practices and compliance are integrated into everyday work (Seth, 2021).

Table 3.1 below reflects the administrative sanctions imposed by the South African Reserve Bank (SARB) in terms of the Financial Intelligence Centre (FIC) Act 38 of 2001, as amended in 2014, over the last five years (South African Reserve Bank, 2023).

Table 3.1: Administrative sanctions as imposed by the South African Reserve Bank (SARB) in terms of the Financial Intelligence Centre (FIC) Act 38 of 2001, as amended since 2014, over the last five years

Bank	Date of SARB media release	Administrative Sanction	Details pertaining to non-compliance with the provisions of the FIC Act
China Construction Bank – Johannesburg Branch (CCB)	2018-02-02	A financial penalty of R75 million and a directive to take remedial action. R20 million of the financial penalty is suspended for three years from 28 November 2017, subject to CCB adhering to certain conditions imposed by the SARB.	• Section 21: Know-your-customer. • Section 22: Recordkeeping. • Section 28: Cash threshold reporting. • Section 29: Suspicious and unusual transaction reporting. • Section 42: Internal rules (inadequate processes and working methods to detect and report property associated with terrorist and related activities in terms of Section 28A).
HSBC Bank Plc Johannesburg Branch (HSBC)	2018-11-09	A financial penalty of R15 million and a directive to take remedial action. R7.5 million of the financial penalty is suspended for three years from 6 November 2018, subject to HSBC adhering to certain conditions imposed by the SARB.	• Section 42: Internal rules (inadequate processes and working methods to detect and report suspicious and unusual transactions in terms of Section 29).
Bidvest Bank Limited	2019-03-15	A financial penalty of R5.25 million.	• Section 28: Cash threshold reporting. • Section 43(a): Training on the Financial Intelligence Centre Act and the accountable institution's internal rules.
Sasfin Bank Limited	2019-07-30	A financial penalty of R500 000.	• Section 43(a): Training on the Financial Intelligence Centre Act and the accountable institution's internal rules.
Bank of Baroda, South Africa	2019-08-06	A financial penalty of R400 000.	• Section 28: Cash threshold reporting.

Bank	Date of SARB media release	Administrative Sanction	Details pertaining to non-compliance with the provisions of the FIC Act
The Standard Bank of South Africa Limited	2019-12-20	A financial penalty of R30 million and a directive to take remedial action. R7.5 million of the R30 million financial penalty is, however, suspended, in terms of Section 45C(4)(c), for three (3) years from 25 September 2019, subject to The Standard Bank of South Africa Limited adhering to certain conditions imposed by the SARB.	Regulation 24(3) read with Regulation 29(7): Suspicious and unusual transaction.
Bank of China	2019-12-20	A financial penalty of R2 million and a directive to take remedial action. The financial penalty of R2 million is, however, suspended, in terms of Section 45C(4)(c) of the FIC Act, for three (3) years from 21 August 2019, subject to the Bank of China - Johannesburg Branch adhering to certain conditions imposed by the SARB.	Section 28: Cash threshold reporting.
GroBank Limited (formerly known as South African Bank of Athens Limited)	2019-12-20	A financial penalty of R 5 million and caution not to repeat. However, the financial penalty of R5 million was suspended for three (3) years from 13 August 2019, subject to GroBank Limited adhering to certain conditions imposed by the SARB.	- Section 28: Cash threshold reporting. - Section 29: Suspicious and unusual transaction reporting. - Section 43(a): Training on the Financial Intelligence Centre Act and the accountable institution's internal rules (referred to as the risk management and compliance programme in Financial Intelligence Centre Amendment Act 1 of 2017).
Ubank Limited	2019-12-20	A financial penalty of R500 000 and a directive to take remedial action. A caution not to repeat the conduct which led to non-compliance and a reprimand is the administrative sanctions	- Section 28: Cash threshold reporting. - Section 43(a): Training on the Financial Intelligence Centre Act and the accountable institution's internal rules (referred to as the

Bank	Date of SARB media release	Administrative Sanction	Details pertaining to non-compliance with the provisions of the FIC Act
		imposed for deficiencies relating to Sections 43(a) and 43(b), respectively.	risk management and compliance programme in Financial Intelligence Centre Amendment Act 1 of 2017). Section 43 (b): Appointment of a Compliance Officer.
HBZ Bank Limited	2019-12-20	A caution not to repeat the conduct which led to non-compliance.	- Regulation 24(3) read with regulation 29(7): Suspicious and unusual transaction reporting. - Section 43(a): Training on the Financial Intelligence Centre Act and the accountable institution's internal rules (referred to as the risk management and compliance programme in Financial Intelligence Centre Amendment Act 1 of 2017).
Deutsche Bank AG - Johannesburg Branch	2021-04-01	A financial penalty of R38 million and a caution not to repeat the conduct which led to the non-compliance. R10 million of the R38 million financial penalty is, however, suspended, in terms of Section 45C(4)(c) of the FIC Act, for three (3) years from 26 February 2021, subject to Deutsche Bank AG adhering to certain conditions imposed by the SARB.	- Sections 21: Identification of clients and other persons. - Sections 22 to 24: Duty to keep record. - Section 42: Risk management and compliance programme.

Source: South African Reserve Bank, 2023

Table 3.1 is evidence of the severity of administrative sanctions due to non-compliance.

With the global financial crisis beginning in 2008, challenges related to selling Consumer Credit Insurance, coupled with contemporary sanctions imposed by the South African Reserve Bank (SARB) for central South African banks' non-compliance with money laundering regulations, the financial services industry has seen several weaknesses in

regulation, governance, culture, and standards, which have created critical risks for the boards of directors (Deloitte Global, 2016:6). King IV and its emphasis on substantive compliance efforts rather than formulaic tick boxes have bolstered the need for having a compliance function that ensures adherence to compliance objectives. As a result, the role of Compliance Officers has become increasingly important.

Banking and financial institutions were forced to adapt to numerous regulatory improvements following the global financial crisis. It has been demonstrated that even tier-1 international banks face challenges establishing relationships with regulators and complying with new regulatory frameworks due to recent multi-million-dollar fines imposed by regulators on banks for defective surveillance systems and failures in controls (Prorokowski & Prorokowski, 2014:65-66). These challenges are happening against the backdrop of a rapidly fluctuating regulatory landscape. Financial institutions are now subject to more detailed and intrusive supervision, and regulators can impose strict sanctions for impaired compliance functions that are exposed. Compliance functions are expected to become an integral and strategic component of financial institutions' businesses today.

The financial industry is undergoing a necessary transformation. As a result of technological advancements and compliance regulations, many of modern finance's essential functions have been dramatically altered (Lin, 2016:159). Today, many financial operations are handled by artificial intelligence, algorithms, and supercomputers instead of humans. The role of Compliance Officers in financial institutions has become just as important as that of traders, bankers, and analysts. In the past few decades, finance has undergone several changes and continues to do so. Parallel to new financial technology and compliance, there are potential risks associated with the rise in technology and the importance of compliance (Lin, 2016:182). The changing financial landscape shows a growing role in new technology and compliance. Some challenges include financial cybersecurity, technology integration and compliance, and human participation in future finance.

At least five events have occurred in the history of the modern corporation in the United States, spurring the rapid growth of the compliance field today (Chaffee, 2017:429). During the first half of the nineteenth century, state legislatures approved general incorporation statutes across the country, transforming corporations from quasi-

governmental entities governed into private entities by specific legislative acts requiring further regulation. Furthermore, the concentration of power and wealth within these organisations in the late nineteenth and early twentieth centuries necessitated additional legal checks on their behaviour. Early in the twentieth century, the rise of the administrative state created numerous other levels of legal regulation for the economy, society, and government. Due to these new layers of regulation, more people were needed to help companies comply with the law. The Delaware Chancery Court ruled in *Caremark International Inc. Derivative Litigation* that the company's management must maintain adequate internal controls and compliance programmes as part of the duty of care principle within the organisation. The Delaware Supreme Court ruled in *Stone v. Ritter*, under the duty of good faith, which is a subsidiary duty of loyalty, that even if corporate managers and the board of directors decide not to follow the Delaware General Corporate Law 102(b)(7), they must ensure that sufficient compliance programmes and internal controls are maintained. Compliance is now more critical than ever.

The development of the compliance industry over the years will be discussed in this chapter. The compliance field has evolved from tasks in the early 1990s to a full-fledged specialisation, encompassing professional associations, specific training programmes, academic research, conferences, lobbying, and codes of conduct (Harvard Law School Centre on the Legal Profession, 2016). Companies, organisations, and institutions are now considered ineffective without compliance.

3.2 AN OVERVIEW OF THE HISTORY OF THE COMPLIANCE INDUSTRY IN SOUTH AFRICA

Compliance functions in global markets are more mature than in South Africa (Maritz, 2013). Initially, within South Africa, only those organisations that were required by exchange rules had Compliance Officers with any appearance of a compliance function. Since the late 1990s, the concept has spread much further, although primarily in the financial sector.

The South African Futures Exchange (SAFEX) introduced the requirement for a compliance function in 1989 (Deloitte Global, 2016:6). The Banks Act of 1995 and the requirements for listed organisations (in 1990) subsequently required banks and listed organisations to have an independently functioning compliance function in place.

To cope with the global financial crisis, the National Treasury published two policy documents, namely a safer financial sector for South Africa (National Treasury, February 2011) and a twin peak model of regulating financial institutions (Financial Regulatory Reform Steering Committee, February 2013) (Deloitte Global, 2016:6).

A twin peak model of regulation blends an approach that is rules-based with an approach that is principles-based (Deloitte Global, 2016:6). Taking a principles-based approach involves looking beyond the regulatory framework (which is still critical) because even if a course of conduct is not prohibited by regulation, it is essential to determine whether it is still the right thing to do. With the growing importance of principles-based approaches, there are risks associated with supervisory predictability, consistency, and hindsight. Compliance Officers face a variety of challenges in each of these areas.

A dedicated Prudential Authority was located in the South African Reserve Bank, and a Financial Sector Conduct Authority replaced the Financial Services Board (Deloitte Global, 2016:6). Although banks operate differently, they all have a compliance department. The compliance department ensures financial institutions comply with applicable laws, regulations, and rules and acts as a bank's internal police force. As a result, it helps to maintain the bank's integrity and reputation (Dayton, 2021).

Compliance Officers eliminate or manage organisational regulatory risks (Maritz, 2013). Organisational regulatory risk is also called compliance risk, and compliance risk management involves facilitating and enabling compliance with the rules applicable to the organisation. The term regulatory risk should be interpreted broadly in South Africa. It is particularly relevant to take a broad view of regulatory risk when industry rulebooks are not yet available to facilitate the application of legislation and form a regulatory framework. From a compliance perspective, the risk arises when any rules applicable to the organisation are violated. All statutory and management requirements are included in the "rules" of the organisation, including codes of conduct and Corporate Governance principles, which are adopted and written into policy.

Additionally, as part of the second line of defence, the compliance function facilitates and empowers business areas to comply with the rules. Management is responsible for ensuring compliance as part of the first line of defence. The following is observed according to the three lines of the defence model. In the daily operation of a business,

the first line of defence is responsible for identifying emerging risks, while the second line function is responsible for enabling compliance. Policies, frameworks, techniques, and tools all support compliance and risk management (Deloitte Development LLC, 2020:3). Finally, internal audit provides independent and impartial assurance as part of the third line of defence. As part of its responsibilities, the third line assesses whether the first- and second-line functions operate effectively. Additionally, the third line of defence reports to management, the board, and the audit committee and assures external auditors and regulators that the control culture within the organisation is designed and operates correctly.

Several statutes require the formal appointment of a Compliance Officer and formalised compliance functions, including the Financial Advisory and Intermediary Services (FAIS) Act 2002 (Maritz, 2013). Regulation 49 (1) of the Bank's Act (South African Reserve Bank, 2012:995) requires a bank to have an independent compliance function and governance structure as part of its risk management structure. Compliance functions ensure the bank continuously manages its supervisory and regulatory risks, thus, risks of non-compliance with applicable laws and regulations. Financial Intelligence Centre Amendments (FICA) Act (2017:42) Section 42A (2) also stipulates that an institution that is a legal person must maintain a compliance function to support its senior management and board of directors in performing its duties. A person with adequate seniority and competence must be assigned to ensure the efficiency and effectiveness of the compliance function.

It follows from the new regime in the United Kingdom (UK) that South Africa has changed its approach and introduced twin peaks. A new senior manager regime, enacted on 7 March 2016, and a new senior insurance manager regime, in force on 1 January 2016, explain the lines of responsibility of the senior positions within affected organisations. The supervisor's ability to hold senior personnel accountable has been enhanced (Deloitte Global, 2016:10). Additionally, there is increased emphasis on organisations continually satisfying themselves so that their senior leaders remain fit and adequately equipped to carry out their responsibilities.

3.3 AN OVERVIEW OF THE HISTORY OF THE COMPLIANCE INDUSTRY WITHIN THE UNITED KINGDOM (UK)

As the European Union is exerting unprecedented global power through its legal institutions and standards, and that influence is exported to the rest of the world through its legal institutions and standards, it is imperative to understand the history of the compliance industry within the United Kingdom (Bradford, 2012:1).

As a result of the 1979 Banking Act, strict regulatory compliance officially began in the UK (International Governance & Compliance Association, 2022). There was a "secret gentleman's club" style of understanding between financial institutions before then.

The secondary banking crisis of 1973-1975 caused the nation's financial sector to implode before the Act was passed. Due to unsuccessful investments in the UK's commercial real estate sector, several small banks went bankrupt (International Governance & Compliance Association, 2022).

Following other financial sector failures, the UK government was granted authority to investigate banks and other financial institutions under the Banking Act in 1987. The UK Financial Services and Markets Act 2000 established the Securities and Investments Board two years earlier, in 1985. This regulatory body was renamed the Financial Services Authority (FSA) in 1997. Its purpose was to officially eliminate self-regulation and administer a regulatory framework to afford better transparency throughout the UK financial sector (International Governance & Compliance Association, 2022). Founded as an independent agency of government and financial entities, it served as the UK's significant regulatory authority. It regulated financial advisors, banks, insurance companies, intermediaries, and mortgage business entities.

The Financial Services and Markets Act 2000 codified five primary goals for the FSA (International Governance & Compliance Association, 2022). These were:

1. Encouraging trust in the markets within the UK financial sector.
2. Encouraging public understanding and awareness of the financial sector of the UK.
3. Securing protection for the consumer.
4. Limiting the impact and incidence of financial crime.

5. Strengthening stability in the financial market system.

Oversight was provided by the UK Parliament and Treasury, which examined the agency's performance concerning the objectives set. After being disbanded in 2013 by the Financial Services and Markets Act (FSMA) 2012, compliance advice was provided to financial organisations, and, as a rule, the enforcer was considered aggressive (International Governance & Compliance Association, 2022).

In 2013, the FSA was divided into the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA) (International Governance & Compliance Association, 2022). Government officials then attempted to overhaul the UK financial markets' regulatory structure to be more brutal and hard-line.

Other regulators in the UK financial services industry, the Financial Conduct Authority, and the Prudential Authority include the European Securities and Markets Authority (ESMA) and the Financial Action Task Force. Globally, the Financial Action Task Force (FATF) is responsible for preventing anti-money laundering (AML) and combating financial terrorism (CFT). The ESMA ensures standardisation across all European Union (EU) financial markets. This authority works with the UK's risk management and regulatory agencies when UK consumers and financial institutions invest in EU assets (International Governance & Compliance Association, 2022).

3.4 AN OVERVIEW OF THE HISTORY OF THE COMPLIANCE INDUSTRY WITHIN THE UNITED STATES OF AMERICA (USA)

Since the globalisation of regulation involves the spread of some regulatory norms (Drahos & Braithwaite, 2001:103), it is pertinent to examine the history of the compliance industry in the United States of America (USA).

It is necessary to go back to the 1970s to understand the history of compliance in the United States of America. In response to corruption, the Foreign Corrupt Practices Act of 1977 (FCPA) has significantly increased enforcement in recent years (Deloitte Touche Tohmatsu, 2017:3). The United Kingdom followed with the UK Bribery Act of 2010. Following further scandals concerning defence contractors, the Packard Commission, established by President Reagan, attempted to mitigate procurement fraud by recommending that these organisations implement ethics programmes and advocate

self-regulation within the industry (Weber & Wasieleski, 2013:609). The loan and savings scandals of the mid-to-late 1980s triggered another wave of government regulation. An organisation convicted of illegal actions would face a civil penalty based on a formula, including a culpability score, outlined in the 1991 Federal Sentencing Guidelines. Depending on whether the organisation followed the sentencing guidelines, the fine levied was increased or decreased. The Sarbanes-Oxley Act of 2002 was passed in reaction to the executive corporate scandals of the 1990s, which included notorious names like WorldCom, Tyco, Enron, Adelphia, and Parmalat (Weber & Wasieleski, 2013:609). In 2002, the Sarbanes-Oxley Act required top executives and boards to be more accountable (Deloitte Touche Tohmatsu, 2017:3). With the passage of this law, the expression "tone at the top" was popularised, clearly lacking in the scandals above.

Several other countries have passed anti-corruption laws, and many prosecutions have occurred. Global equity markets reached stunning heights in the 1990s, with unprecedented wealth creation (Deloitte Touche Tohmatsu, 2017:3). Additionally, gatekeepers in the public and private sectors neglected their fiduciary responsibilities in managing risk. Corporate scandals revealed headline-grabbing issues of malfeasance when several high-profile cases broke. As a result of the loss of trust within the equity markets, considerable deterioration occurred. US equity markets alone lost \$7 trillion. In these scandals, widespread arrogance, fraud, preferential treatment of high-ranking people, and conflicts of interest were evident.

The 2004 amendments to the Federal Sentencing Guidelines also incentivised corporations to cultivate an organisational culture that accentuates ethical behaviour and compliance with the law. This legislation also required that a high-ranking official supervise the organisation's ethics and compliance programmes (Deloitte Touche Tohmatsu, 2017:3).

Due to the financial crisis in the late 1990s, legislation influenced by ethics and tone at the top was primarily orientated toward the United States (Deloitte Touche Tohmatsu, 2017:3). An economic tsunami in 2008 caused many bankruptcies and failures in the financial services sector. Over 20 million jobs were lost worldwide, and global equities declined by 37% as the world stood powerless. As a result of the collapse, fraud, bribery and corruption, conflicts of interest, insider trading, price fixing, Ponzi schemes, and

money laundering were revealed unprecedentedly. As President-elect Obama put it, it was an era of "reckless greed and irresponsibility".

As a result, the United States Congress passed the Consumer Protection Act and the Dodd-Frank Wall Street Reform. This reorganisation coincided with unprecedented cross-border cooperation between prosecutors and regulators around the world (Deloitte Touche Tohmatsu, 2017:3). An effective internal control system should have a "tone at the top, ethical standards, and a culture of integrity," as the Organisation for Economic Cooperation and Development (OECD) stated in its Good Practice Guidance released in March 2010. OECD is a signatory organisation signed by 45 nations. The Committee of Sponsoring Organisations of the Treadway Commission (COSO) promulgated amendments to its initial guidance in December 2014 that promoted culture, tone at the top, and ethics standards as vital to managing reputation risk.

In today's world, risks are increasing, and enforcement expectations are rising, making it imperative for organisations everywhere to develop a comprehensive ethics and compliance programme (Deloitte Touche Tohmatsu, 2017:3). Compliance Officers perform three broad functions. Advisory functions are provided to the business, as well as training and monitoring (Maritz, 2013). According to the Federal Deposit Insurance Corporation (FDIC), Compliance Officers are responsible for several general responsibilities, no matter how small or complex the bank's operation is (Beaumier,2003:44-45). These include:

- Design of compliance procedures and policies.
- Providing compliance training to employees and management.
- Examine business/support unit procedures and policies to comply with regulations and laws.
- Evaluating emergent complications or possible liabilities.
- Directing feedback to customer complaints.
- Providing reports on compliance activities and audit/review.

3.5 ENTREPRENEURSHIP WITHIN THE BANKING SECTOR AND COMPLIANCE INDUSTRY

In 2008, the worldwide economic downturn changed the strategic direction of most organisations, including the banking sector. As a result of severe resource constraints and unpredictable market conditions, organisations struggled to survive, much less growth, through innovation and venture capital activities (Kuratko *et al.*, 2015:246). Any company, region, or nation must innovate to succeed economically. With the advancement of technology, old products are being phased out, and old industries are disappearing. A nation's future is built on innovation and invention (Mehmood *et al.*, 2019:5).

As regulations change, compliance has become an increasingly critical function within financial institutions. Powerful regulators, complex regulations, and data monitoring and reporting stipulations have been felt across various jurisdictions. The compliance agenda will be shaped by new forces (Herbert Smith Freehills, 2020:16) as strategic (and resilient) compliance teams adapt to these changes. Therefore, compliance functions within organisations must be more innovative and adaptable to changing environments. It may be deduced that the compliance functions need to be more intrapreneurial.

According to the literature review, there is a high prevalence of FinTech disruptions in the banking sector and RegTech disruptions in the compliance sector. They imply that the banking and compliance industries must adapt to the changing landscape, be innovative, and demonstrate corporate entrepreneurship and entrepreneurial orientation to remain competitive. Financial technology (FinTech) is encroaching on financial services, utilising fast-developing technology in retail and small businesses (Anagnostopoulos, 2018:8).

There have been many technological disruptions in the banking sector, such as digital loan origination, payment transfers, demonetisation, and digital reporting. Technological disruptions have resulted in new banking products, channels, and market segments. In the fintech industry, innovation and technology are leveraged to deliver niche services through electronic channels (online), disintermediating incumbents and circumventing them (Anagnostopoulos, 2018:8). Scholars have argued that innovation plays a crucial role in corporate entrepreneurship (Castriotta *et al.*, 2021:2842; Ziyae & Sadeghi, 2021:116) and in entrepreneurial orientation (Fan *et al.*, 2021:3, Asemokha *et al.*,

2019:427). Thus, the financial services industry requires corporate entrepreneurship and entrepreneurial orientation to be successful.

According to Curry, the Comptroller of the Currency, a sovereign agency of the United States Department of Treasury, banks should keep up with non-bank competitors and out-innovate them (Davis & McKendry, 2016:1). Technology and business practices are changing rapidly. Regulators must be able to assess both the opportunities and risks of innovation.

As FinTech disrupts the typical value chain of financial institutions (Anagnostopoulos, 2018:8-9), it is reconceiving the competitive environment and reforming traditional competitor lines. Conventional financial services methods have been proven outdated and challenged by new, novel, technology-enhanced channels. The impact of FinTech on customer expectations poses the greatest threat to the industry.

In addition, regulation can also cause disruption. Part of the current economic climate and the disruptive technological increase can be attributed to current banking regulations. For example, it has become apparent that deposits (accounts) are a less critical funding source due to the new requirements of liquidity regulation within the banking sector. Anagnostopoulos (2018:11) indicates that they carry a 'penalty' or an increased reliance on sources that are considered less stable to ensure the financial system's stability. Regulations may, therefore, be considered disruptive. It is well known that the financial services sector is firmly rooted in its traditional methods and hesitant to change.

As a business sector, banking has historically been resistant and distrustful of technological disruption (Anagnostopoulos, 2018:11). Because of stable market positions and complex government regulations, today's banks often lack innovation. Banks have mounted a fierce response, some calling for similar regulatory obstacles as start-ups, stating that 4.7 trillion dollars are in jeopardy for existing institutions (Anon., 2015). Anagnostopoulos (2018:13) describes RegTech as a subsection of FinTech that uses technology to meet regulatory requirements efficiently and effectively. Despite its gradual development, RegTech follows FinTech in parallel (Anagnostopoulos, 2018:14).

In addition to helping financial companies comply with regulations, agile financial technology can assist regulators in enforcing prudential regulations more effectively and monitoring financial institutions more effectively (Arner, Barberis, & Buckley, 2015:38).

The World Economic Forum (2015:13) predicted that this interference would not be unique. Instead, the financial services sector will be influenced by a continuous force of innovation that affects customer behaviour, business models, and long-term business structures. Innovation can breathe new life into old business models in a highly competitive industry facing limited growth. There is a greater degree of openness in today's financial ecosystem and architecture than ever. No single vendor can provide solutions, and collaboration among differentiated participants is essential (Anagnostopoulos, 2018:19).

The World Economic Forum (2015:13) presented high-level insights on financial services innovation. There is a deliberate and predictable approach to innovation in financial services. There is a high probability that incumbent players will be attacked where the biggest profit pools meet the most significant sources of customer friction. Business models that are data-intensive, platform-based, and capital-light have the most significant impact on innovation. In the banking sector, disruption will be most evident. However, the insurance industry is likely to be the most affected by the disruption. The incumbent institutions will use parallel strategies to aggressively compete with new entrants while at the same time leveraging legacy assets to provide infrastructure and services to new entrants. New entrants, regulators, and incumbents will need to work together to understand how they influence the environment, either negatively or positively, through innovations. There will be no one-time disruption in the financial services industry but a constant drive to innovate, affecting business models, customer behaviour, and continuing organisational structures.

Corporations, governments, and regulators support the recent RegTech revolution. Innovation, however, is not without its risks. There will be concerns about upfront costs, barriers to entry, and what happens if technology does not perform as well as expected (Walshe & Cropper, 2018:167). Going digital means going RegTech, too, as many banks work to become more digitally focused (McCormick, 2018:38). Regulators also require innovation in the use of technology. Financial services regulators must promote solid foundations of innovation in today's fast-paced age of data and technology (Shah, 2018:140).

Compliance Officers face increasing challenges due to increasing demands from regulators and internal stakeholders. Several innovative approaches to technology,

people, and processes can assist Compliance Officers and functions in steering through these challenges (Deloitte Global, 2016:7).

According to a Gartner Corporate Executive Board survey published in November 2018, 66% of the chief executive officers surveyed expected business models to continue to change intensely in the short term, and leaders are vehemently looking for prospects in which to innovate within a fast-changing and growing risk outlook. Organisations must classify and retort to developing risk events quickly and efficiently as the risk environment changes and becomes more multifaceted (Deloitte Development LLC, 2020:2).

Although 2020 disrupted the finance industry, banks now have a platform to lead a rudimentary shift toward change and innovation (Herbert Smith Freehills, 2020:5). In banking and financial services, where Covid-19 has given a rocket boost to the adoption of technology, the wave of innovation was indeed extended during Covid-19. In early May 2020, Gartner surveyed 161 finance executives and found that 20% plan to invest more in cloud-based enterprise resource planning technologies, 19% in advanced analytics, and 24% in robotic process automation (Hawser, 2020:16).

Due to a shift in regulation in banks (for example, Consumer Data Rights in Australia, Open Banking in the United Kingdom, and digital-only bank licences in numerous jurisdictions), innovation, competition, and digital transformation are being actively encouraged. To remain competitive, banks must adapt quickly to meet changing expectations and regulations while maintaining a tight grip on security. Deploying new and innovative data-driven technologies is not the only way a bank can succeed. To meet compliance obligations, deliver outstanding customer expectations, and attain strategic objectives, leading organisations adopt customer-centric data strategies that deliver value, foster customer trust, and promote data's ethical and practical use (Herbert Smith Freehills, 2020:32).

The closest study of entrepreneurship in the compliance industry has been done broadly concerning compliance and innovation (Doyle *et al.*, 2014:1156). Instead of focusing only on legal compliance, compliance was viewed in the broader sense of conformance with all requirements. Qualitative research was conducted to analyse the hypothesis of a valuable gap in the theoretical literature. The research involved 22 semi-structured

interviews with compliance professionals in different geographies, organisations, and industries, including the United States and Europe (Doyle *et al.*, 2014:1157).

Knowledge, information production and consumption are crucial to innovation and compliance. Organisational absorptive capacity provides a conceptual bridge between innovation and compliance in identifying, perceiving, and applying information and knowledge. Businesses demonstrate their absorption capacity by acquiring, assimilating, transforming, and exploiting information knowledge for commercial purposes (Doyle *et al.*, 2014:1157-1158).

Compliance imperatives (whether driven by external regulations, internal objectives, or both) provide separate and supplementary sources of information related to innovation other than those already extensively covered in the research. When companies integrate various contextual requirements within a single information technology platform, compliance knowledge management systems can provide fertile ground for innovation (Doyle *et al.*, 2014:1159).

As a result of integrating the knowledge bases of compliance activities and quality into a central source, compliance innovation is introduced as a transformative process that facilitates commercial use and sustainability of the business through knowledge-enabled decision-making processes (Doyle *et al.*, 2014:1167-1168). This knowledgebase may be used commercially throughout the organisation with the dynamism and vigour of Six Sigma to ensure continual conformity with requirements. It is possible to increase the time spent on value-adding processes across the organisation using appropriate information technology platforms while decreasing the dependency on administrative activities. There is a significant increase in the time and cost associated with administrative tasks, such as searching for compliance and quality information, without providing any equivalent value to the customer.

Compliance innovation proposes a quality-based positioning to improve compliance by addressing commercial requirements such as business sustainability, knowledge commercialisation, and risk management. Through the inclusion of compliance professionals in various innovation processes, an organisation can improve its decision-making procedures throughout the innovation value chain, including the generation of ideas (external, internal, cross-pollination), adaptation (choosing, designing), and

dissemination (spread). A compliance knowledge management system enables continuous recording, updating, storing and retrieving of information, facilitating the constant production of knowledge while holding all innovation strategies, ideas and appropriate requirements in one central repository (Doyle *et al.*, 2014:1167-1168).

Banks must be innovative, and compliance departments must play a vital role in this process. Although Silicon Valley's "move fast and break things" attitude does not work inside the highly regulated industry, banks should still work quickly to bring innovations to market (Meinert, 2019:37). Compliance departments should assist banks in bringing innovations to market. During the recent American Banking Association Financial Crimes Enforcement Conference, the Treasury undersecretary for terrorism and financial intelligence, Sigal Mandelker, publicised a joint statement by the banking agencies and the Financial Crimes Enforcement Network that encourages banks to contemplate, study and, where appropriate, apply innovative methods to anti-money laundering and bank secrecy Act compliance (Anonymous, 2019:9).

In addition to assisting banks bring innovations to market, compliance departments within financial services industries should also be innovative. In 2017, Arner *et al.* (2017:378) analysed RegTech to facilitate understanding by regulators, industry, and entrepreneurial communities. Increased regulatory burdens have resulted in high compliance costs, making innovative technologies an attractive solution to compliance requirements (Arner *et al.*, 2017:390). Therefore, RegTech tools are required to be innovative within compliance departments. Innovation is a construct of corporate entrepreneurship (Castriotta *et al.*, 2021:2842; Ziyae & Sadeghi, 2021:116) and entrepreneurial orientation (Fan *et al.*, 2021:3; Asemokha *et al.*, 2019:427).

Furthermore, RegTech can assist regulators in understanding innovative products, multifaceted transactions, internal fraud, market manipulation, and risks closer to real-time (Arner *et al.*, 2017:391). Cybersecurity, financial regulation, digital identity, competition, and data protection must be carefully considered as financial systems become digital. RegTech will play a defining role in driving financial and economic development and innovation in the 21st century, depending on the methods taken in various jurisdictions (Arner *et al.*, 2020:283). Therefore, it can be deduced that there is a requirement to be entrepreneurial and to display corporate entrepreneurship and entrepreneurial orientation within compliance departments. Thus, it would be valuable to

assess corporate entrepreneurship and the mediating role that entrepreneurial orientation has on the success of compliance training within South African banks' Compliance departments, aligned with the primary objective of this study.

3.6 CORPORATE TRAINING AND CORPORATE TRAINING SUCCESS

3.6.1 Introduction to corporate training and corporate training success

Although andragogy varies by country and context, it is generally used in the field of educating and guiding adults (Note *et al.*, 2021:3). The corporate training industry will reach \$487.3 billion worldwide by 2031, growing by 8.0% annually, according to Allied Market Research (2022). There is no denying the importance of the corporate training market.

The modern view of training is that it is a continuous, lifetime process of obtaining experience, skill, and knowledge (Mamatelashvili, 2021:701). Individuals learn by acquiring and developing new knowledge, skills, capabilities, attitudes, and behaviours (Armstrong, 2009:664). In addition to enhancing existing capabilities, learning develops knowledge, skills, and attitudes that prepare people for expanded or higher-level upcoming accounts. The learning process can also be described as an individual effort where humans understand their existence in context (Thoms & Burton, 2016:85).

In a recent survey conducted by Hanover Research (Degreed, 2021:2) with 2 472 workers in a 10-minute survey to understand the differences between positive and negative learning cultures, the following four conditions were identified for learning to occur. Components include guidance on what and how to learn, diverse and active learning experiences, feedback and insights on progress, and opportunities for practising, applying, and stretching skills. Since compliance training is prescriptive and mandatory, the learning design process includes guidance on what and how to learn. Diverse and active learning experiences involve including specific experiences in the learning design process. Kirkpatrick's learning evaluation model measures feedback and insights on the learning process and includes learning taking place in terms of completion of assessments (Kirkpatrick, 1996:55-56). Feedback on why questions are answered incorrectly is essential to allow learners to understand why they potentially responded to a question incorrectly. Kirkpatrick's behavioural level of evaluation measures opportunities to practice, apply, and stretch skills (Kirkpatrick, 1996:55-56).

People acquire the knowledge and skills necessary to perform their jobs satisfactorily through formal training (Armstrong, 2009:665). As part of the encouragement of the learning process, learning resources are provided for people to use while they facilitate their learning activities. On the other hand, a training programme involves using a content model, which consists of determining ahead of time the skills and knowledge necessary to be improved, designing the programme, choosing the approaches to training, and organising the content logically. In contrast to the holistic approach to managing people, the conventional training model emphasises expert-led instruction. Rather than building core learning capabilities, training emphasises subject-specific knowledge. Training employees when vital information needs to be conveyed is justified to ensure they fulfil their responsibilities (Armstrong, 2009:676). One such example would be when compliance training is required as a mandatory requirement.

"Training" refers to the process by which people learn a specific skill and then apply the knowledge practically (Barnes, 2014). Providing the knowledge, skills, and job requirements for doing something specific requires one-dimensional training with enhanced hands-on experience. For example, the placement of tyres on a vehicle may be taught to learners in manufacturing. Training focuses on a specific task (Whitney, 2017). Learning takes place anywhere and anytime (Thoms & Burton, 2016:93). Learning is not necessarily related to a job but is broad-based (Whitney, 2017). Training and learning are inextricably linked in the educational process, but their outcomes differ (Ismael, 2020). Training focuses on the learner's short-term, immediate needs and refers to teaching someone a specific behaviour or skill. Learning is focused on the long-term, and the long-term needs of the learner have to do with acquiring skills or knowledge through experience, study or being instructed and can be outside the workplace requirements. Training is focused on the multitudes and learning on the individual. The aim of the training is on a specific job or role related, and learning is more focused on conceptual or general knowledge. Thus, in this study, reference is made to compliance training.

Training in the corporate world is the process of educating employees through various means of learning (Khan, 2021). Ultimately, it leads to business and organisational success through employee success. Training is an essential part of the existence of an employee's work. A LinkedIn survey (Spar & Dye, 2018:8) found that 94% of employees would stay at a company longer if they invested in their careers.

The global corporate training market was valued at \$394.20 billion in 2020. Recent years have seen a rapid increase in corporate training demand, causing the market for corporate training to grow. In addition to training new hires, salespeople, and leaders, corporate trainers and learning and development professionals are now the strategic associates essential for organisational success (Research and Markets, 2021). The market is expected to grow from 2021 through 2026 due to increased technology investment and digitalisation to provide virtual or online access to learners, along with a growing need generated by the business and professional services sectors, as well as numerous industries which require skilled and efficient employees (Research and Markets, 2021).

Evaluation models for training or learning journeys are systematic frameworks for investigating and analysing their effectiveness (Deller, 2020). Concerning this research, these constructs that examine the effectiveness of training, in general, would be considered training success factors.

For learning organisations to be successful at measuring training success, the following five critical components must be addressed, according to Barnett and Mattox (2010:30):

- Establish a business-aligned measurement strategy.
- Implement a measurement framework that is aligned with the strategy.
- Align the resources.
- Decide which measures are appropriate for the organisation.
- Culture must be prepared for the change in the organisation.

3.6.1.1 Corporate training success measures

Training success model by Kirkpatrick (1996:55-56)

Learning professionals have used the four levels of training evaluation to assess the effectiveness of corporate training for many years. Learning and development professionals use Kirkpatrick's four-level evaluation as the gold nugget to prove the strategic value of training. The training profession has been influenced by Kirkpatrick in a way few others have (Bingham, 2011:13). Training is still today evaluated using the four levels (Kirkpatrick, 2007:35). Kirkpatrick's model emphasises alignment of the training measurement and evaluation strategy with the organisation's strategies and goals

(Kirkpatrick & Kirkpatrick, 2009:22). Compliance training's success was measured by, among others, learner reactions, learning, behaviour, and business results (Kirkpatrick, 1996:55-56).

Kirkpatrick and Kirkpatrick (2009:21) describe each of the four levels. The first level is the reaction, which evaluates how participants react to the learning event. The reaction includes comments about the topics, speaker, and schedule (Kirkpatrick, 1996:55). In the second level of learning, participants are evaluated based on their participation in the learning event to obtain the intended skills, attitude and knowledge. In the third level, behaviour, participants must demonstrate that they apply what they have learned in the workplace. Kirkpatrick (1996:56) refers to behaviour as the transfer of training. At level four, the results evaluate to what extent the learning event and subsequent reinforcement resulted in the targeted outcomes. In Kirkpatrick's view, results may include higher productivity or sales, greater profits, decreased costs, lower employee turnover, and enhanced quality (Kirkpatrick, 1996:56). In Bersin's view (2006:18), the positive impact on job performance is one of the most crucial metrics. Job performance is the same as learner behaviour, according to Kirkpatrick.

Kirkpatrick's evaluation model was thought to be incomplete by Kaufman and Keller (1994:372), which led many to focus too narrowly on evaluating training alone. Kaufman and Keller (1994:376) modified the Kirkpatrick model slightly and published a five-level evaluation model. Kirkpatrick's level 1 (reaction) was divided into process acceptability, efficiency, resource availability, and quality. The fifth level evaluates the impact of the training on society and the organisation's customers.

In 2003, Brinkerhoff introduced the Success Case Method to measure training effectiveness, which may be broader than just training (Deller, 2020). This model studies extreme cases, the most successful and the least successful participants.

Return on investment model by Phillips (1996:20)

By converting the training results into a financial value and comparing them to the learning cost, Phillips (1996:20) elaborated on the four levels above. Phillips, therefore, recommended calculating the return on investment of learning programs. A monetary value has been assigned to the training output by comparing the training results with the

training program's cost. The following is a simple method of calculating return on investment in training (Phillips, 1996:20):

- Data is collected at Kirkpatrick level 4 to determine whether on-the-job applications produce measurable results.
- Determine whether training contributed to the results by isolating it from other factors.
- Calculate the financial benefit of the results.
- Determine the total cost of training.
- Make a comparison between the monetary benefits and the costs.
- Non-monetary benefits can provide additional, intangible evidence of the success of a program.

Despite learning professionals' awareness of the worth of evaluating return on investment, very few use these measures to assess their learning programmes, according to a study done in India (Srimannarayana, 2011:125). Even though learner feedback (learner reaction) is routinely measured (Srimannarayana, 2011:121-122), performance improvements (Kirkpatrick's level three) are considered the most effective measure of training success. The return on investment construct will also be included as a measure of success within compliance functions.

According to Alvarez *et al.* (2004:387), training evaluation differs from training effectiveness. Training evaluation was seen as a procedural approach to measuring the effectiveness of learning outcomes, while training effectiveness was seen as an academic approach to understanding those results. Based on previous research and evaluation models, an integrated training effectiveness and evaluation model was developed (Alvarez *et al.*, 2004:385). An evaluation measure, post-training attitudes, was examined to determine the relationship between evaluation and effectiveness. Cognitive learning, training performance, and transfer performance were the assessment measures related to post-training attitudes. Variables of training effectiveness associated with post-training attitudes were pre-training, experience, self-efficacy, learning principles, and post-training mastery orientation.

Learning Organisation model (Garvin *et al.*, 2008:112-113)

A learning organisation must meet three conditions: continuous learning, developing people, and listening to customers (Small & Irvine, 2006:286). Three components are essential to a learning organisation, according to Garvin *et al.* (2008:110): **concrete learning processes, a supportive learning environment, and learning-enhancing leadership.**

A supportive learning environment

Four key characteristics of environments provide learning support: **the appreciation of difference, psychological safety, reflection time, and openness to new ideas** (Garvin *et al.*, 2008:111).

People who appreciate differences consider learning to happen when they are aware of contrasting viewpoints. When the importance of disparate functional and different perspectives is recognised, motivation and energy are increased, fresh ideas are sparked, and drift and weariness are prevented (Garvin *et al.*, 2008:111).

Psychological safety emphasises that employees cannot fear being ostracised if they disagree with senior leaders or peers, admit mistakes, ask naive questions, or present a minority viewpoint. To achieve this, they must feel contented articulating their thoughts at work (Garvin *et al.*, 2008:111).

Time for reflection debates the fact that too many leaders are evaluated based on the hours completed in addition to their accomplishments. Due to deadlines and schedule pressures, people's capacity to think creatively and analytically is compromised when they are too busy or overstressed. Learning from your experience and diagnosing problems becomes more difficult. A supportive learning environment allows for pauses in action and prompts a pensive assessment of the organisation's processes (Garvin *et al.*, 2008:111).

By being **open to new ideas**, learning is not only about fixing errors and solving complications. Furthermore, it also involves the development of novel approaches. Risk-taking and exploring the unknown should be encouraged among employees (Garvin *et al.*, 2008:111).

Concrete learning processes

Concrete learning processes as part of a learning organisation by Garvin *et al.* (2008:112-113) include **experimentation with new ways of working, collecting information systematically, active analysis that occurs in the workplace, education and training are valued and offered, and information is shared in the organisation** with those that need it.

Knowledge must be distributed methodically to maximise the impact of concrete learning practices and processes (Garvin *et al.*, 2008:111-112). The learning process includes **developing, gathering, interpreting, and distributing information** among individuals, groups, and organisations. The movement of knowledge within an organisation can be horizontal or vertical. It is possible, for example, to use knowledge sharing to take corrective action internally. Post-project reviews or audits are often conducted with other participants in similar projects. It is also possible to share knowledge externally. A regular forum with clients or specialists might be held to gain their insights into the company's challenges or activities. As a result, crucial information travels rapidly and efficiently to those who need it, enabling them to identify problems and use their experiences to learn more efficiently. In supportive learning environments, the organisation's processes are reviewed thoughtfully after a pause in the action.

Leadership that reinforces learning

Learning-enhancing leadership or leadership that reinforces learning acknowledges that leaders' behaviour directly influences organisational learning (Garvin *et al.*, 2008:112). When leaders actively engage employees in debate and dialogue, people feel motivated to learn. Leaders should emphasise the criticality of identifying a problem, transferring knowledge, and thoughtful post-audits if they want these actions to prosper. Employees can offer novel ideas and choices when leaders allow different perspectives. These constructs will be used similarly to measure success within compliance training functions. Garvin *et al.* (2008:112-113) developed a survey, including benchmark scores, to assess a learning organisation. These questions were considered, adapted, and included in the survey investigating the success of compliance training.

Other corporate training measures

The General Training Effectiveness Scale (GTES) was developed by Fardaniah and Aziz (2013:290). Four dimensions were identified to measure the effectiveness of training: learning performance, satisfaction, and organisational and individual performance. Evaluating satisfaction involves total happiness and satisfaction with the design of the training, the training material, the general quality, and personal satisfaction (Fardaniah & Aziz, 2013:283). There is an alignment to the reaction level of Kirkpatrick (1996:55). An evaluation of learning performance focuses on the enhancement of self-assessed (declarative) knowledge, practical (procedural) knowledge, and metacognition (Fardaniah & Aziz, 2013:283). In addition to facts and theories, self-assessed knowledge includes methods of utilising training outcomes. The ability to practically apply the training outcomes is part of procedural knowledge. Meta-cognition refers to beliefs, certainty, and confidence in mastering skills and knowledge. There is an alignment to Kirkpatrick's level two learning (Kirkpatrick, 1996:55). An individual's performance evaluation measures how training has improved skills, efficiencies, and effectiveness at work. Competencies include solving work-related problems, producing high-quality work and making fewer mistakes (Fardaniah & Aziz, 2013:283). Efficiencies involve being able to work faster. To measure effectiveness, the number of outputs must increase. There is an alignment to Kirkpatrick's level three behaviour (Kirkpatrick, 1996:56). In organisational performance evaluation, training outcomes improve teamwork, customer satisfaction, and the organisation's goals and reputation (Fardaniah & Aziz, 2013:283). There is an alignment to Kirkpatrick level four, business results (Kirkpatrick, 1996:56).

To define, design, deliver, and assess corporate learning, organisations have used the six principles of breakthrough learning (Pollock *et al.*, 2015:2). The six principles comprise the definition of business outcomes, planning and developing the entire experience, ensuring that the learning product is ready for application, ensuring that learning transfer takes place, implementing support in the flow of work, thus performance support, and recording the results (Pollock *et al.*, 2015:39-223). Defining business outcomes aligns well with Kirkpatrick's fourth level of training evaluation (Kirkpatrick, 1996:55-56), referring to the change that training brings to business results. The design of the complete experience aligns with the learning design process. Driving learning transfer aligns well with Kirkpatrick's second level of training evaluation, namely learning (Kirkpatrick, 1996:55-56). Deploying performance support aligns well with Young's (2017:4) extracting

value from compliance training measures, particularly high-impact learner experiences using social, workplace, and media-rich digital learning. Documenting results has an alignment with Kirkpatrick's third evaluation measure, namely business results (Kirkpatrick, 1996:55-56) and the return on investment model by Philips (1996:20) and Marcheselli (2019).

The theories related to the success of compliance training during this study in developing the training-related theoretical frameworks leading to the conceptual model and hypotheses are now discussed.

3.6.2 Training theories considered during this study

3.6.2.1 Reinforcement management theory by Skinner

According to Skinner, behaviour is perpetuated and shaped by its consequences (Abiola *et al.*, 2023:37). There may be positive or adverse consequences for behaviours. These consequences reinforce the correct behaviour. Negative reinforcement, on the other hand, increases the likelihood of a response by removing or reducing something. Reinforcement strengthens behaviour or increases the likelihood of recurrence in the future (Younas *et al.*, 2019:154). The likelihood of repeated negative behaviour is reduced when negative behaviour is penalised (Abiola *et al.*, 2023:37). Numerous studies have demonstrated that positive reinforcement is often more effective than severe reprimand in adapting and maintaining desired behaviour. The manager can use a variety of sanctions to improve subordinate performance once an incentive value has been established for these consequences. The manager identifies the reinforcers with the most significant impact to maintain performance-directed behaviour. Reinforcement management theory can be applied by providing positive reinforcement to actions that reduce bad variations, as well as to behaviours that create favourable variances (Abiola *et al.*, 2023:37). Positive reinforcement is a method to increase the likelihood of a response by adding something to the situation. Peer feedback can be given and encouraged participation by trainers, peers, and leaders (Younas *et al.*, 2019:154).

Reinforcement management theory applies to compliance training success related to leadership that reinforces learning, as per Garvin *et al.* (2008:112-113) and Dixon and Overton (2017:38).

3.6.2.2 Social learning theory by Vygotsky

According to Vygotsky, a social learning researcher, children learn and develop cognitively through social relationships with their classmates, teachers, and families (Khushk *et al.*, 2022:41-42). Students are more likely to learn when grouped for problem-solving exercises supervised by their teachers. The importance of collaboration in social learning cannot be overstated. While instructors encourage students to discuss subject matter, students should be allowed to choose what they wish to learn to gain a more comprehensive understanding. According to connectivism, contemporary learning occurs digitally by exchanging information, skills, experiences, and viewpoints through network connections. It is imperative to note that knowledge is ever-changing, and connectivism emphasises two critical abilities that enhance learning—the ability to quickly search for existing knowledge and to eliminate irrelevant or excessive information. The learning process is continuous, and learners will access the network to exchange and discover new knowledge, change their views in light of new understanding, reconnect and communicate experiences, and acquire additional knowledge. Social learning occurs through interactions with instructors, peers, and other experts (Neff, 1999). Human development would not be possible without the transmission of culture between people. In the workplace, learning occurs through interactions in historically developed social settings, such as those that take place daily in a variety of settings (Brunelli *et al.*, 2022:2). Social platforms may be suited to get hold of experts in the field, such as Yammer groups within an organisation that can assist with answering questions learners are battling with.

When reflecting on the requirement of Young (2017:4) that learning should provide high-impact learner experiences using social, workplace, and media-rich digital learning, an alignment can be seen with social learning theory.

3.6.2.3 Experiential learning cycle theory by Kolb

According to experiential learning theory, knowledge is created by transforming experience (Kolb, 1984:38). Kolb's experiential learning cycle has four stages: concrete experience, reflective observation, abstract conceptualisation, and active experimentation. Generally speaking, concrete experience occurs when students engage in the experience to learn. In reflective observation, students analyse their experiences based on their observations. Abstract conceptualisation is the process by which students

apply the knowledge they have already acquired to explain and justify their experiences. Students engage in active experimentation when they are trying to apply what they have learned from their experiences to future situations (Kolb, 1984:30). The experiential learning cycle is thus a continuous process of concrete experiencing, reflecting, thinking, and acting (Kolb & Kolb, 2018:8). As part of the experiential learning cycle, participants organise reflections on their own or in groups on the learning content. As part of the concrete experience phase, the students learn about the purpose of the training experience, which is often accompanied by lectures or readings on related topics. Learning is applied in the lives and workplaces of learners after learning.

Young specifically refers to Kolb's experiential learning cycle when describing that learning should focus on knowledge, skills, behaviours, and decisions that embed lasting behaviour change (Young, 2017:10-11). Furthermore, as part of creating a supportive learning environment, time for reflection has been identified, according to Garvin *et al.* (2008:112-113), which aligns with the experiential learning cycle.

3.6.2.4 Adult learning theory by Knowles

Developed by Malcolm Knowles in 1968, adult learning theory or andragogy focuses on how adults learn differently from children (O'Neill, 2023). Because of the characteristics of adult learning, andragogy focuses on the learner's familiarity with the topic being taught (Livingston & Cummings-Clay 2023:34). The approach to adult learning is more learning-orientated than instructor-centred. Instead of relying on ideas and examples an author or instructor provides, lessons focus more on the student's experiences and connection to the subject matter. It is also important to note that adult learners relate new knowledge to various personal experiences, which serve as valuable learning resources. Adults learn uniquely, and four central principles explain how they learn best (O'Neill, 2023). It is crucial for adults to participate in their learning and to have control over what, when, and how they learn. The learning process is more effective for adults when they can draw on past experiences. Adults can draw on their knowledge to add a deeper context to their learning. Adults should not gain knowledge by memorising facts and information. The best way for adults to absorb information is to solve problems and use reasoning. Adults strongly desire to put the information they have learned into practice immediately in the workplace; therefore, the content must be relevant.

Young (2017:4) proposed that compliance training should be embedded in role-based pathways that are individually relevant. Case studies should be provided to allow learners to connect with relevant and meaningful workplace content. Making training suitable and aligning the content to workplace experiences aligns well with the adult learning theory.

3.6.2.5 Sensory theory by Laird

Based on his research, Laird has formulated the theory that 75% of knowledge is obtained by seeing, 13% by hearing, and 12% by odour, taste, and touch. Thus, according to Laird, most knowledge is gained through seeing, hearing, and then through touch, smell, and taste (Bachhav, 2022:12). The senses must be stimulated for learning to be effective. The process of learning through the senses is more rapid and responsive. Information and communication technologies can enhance communication skills by stimulating the senses.

Learning through visualisation is thus a top priority (Prabakaran & Sarvanakumar, 2020:986). Young (2017:4) postulated that multiple senses should be engaged with compliance training, which is aligned with the sensory theory.

3.7 COMPLIANCE TRAINING AS PART OF CORPORATE TRAINING

The importance of compliance training can be seen in a survey with a focus group conducted in 2017, where 42% of all online training content used within organisations is compliance-related (Dixon & Overton, 2017:5).

What makes compliance training different from corporate training is the fact that compliance training is mandatory and, in many instances, a regulatory requirement, as is the case in financial services organisations. Many organisations view compliance training as a burden because it is an obligation and approach the training with a "check the box" attitude, reinforcing the discernment of compliance training as a laborious process held by many executives within financial services (Marcheselli, 2019).

Most companies focus their compliance training on employees' knowledge, skills, application, and attitudes towards the content (McLeod, 1994:216). A recent study by Weston and Hoopes (2020:291) suggested that compliance training is most effective when matched with an organisation's employees' goals, culture and needs.

In some cases, employees and third parties who work with a company should receive compliance training as part of an effective corporate compliance plan. Training should be provided to directors and executives related to their responsibilities and employees about their specific compliance requirements and duties (Pierson & Joseph, 2011:286-287). Compliance understanding is critical, as well as how to recognise non-compliance events and what to do if such events are observed. People learn in different ways, so practical compliance training should be presented in various ways: orally, through written materials, interactively, visually, through role-plays, by demonstrations, and by asking questions. Senior-level employees should be involved in training, even if it is only to show support on a video. When necessary, compliance training should be presented in multiple languages. Employees, executives, and directors should be required to attend and complete compliance training. Training should include tests for all participants, and compensation should be based on attendance and successful completion. Training should be updated regularly with changes in risk areas, laws, regulations, and market conditions.

Many human resource professionals and finance and risk executives will admit that their regulatory training programmes are, at best, educational and, at worst, little more than a box-ticking exercise (Young, 2017:2). Compliance training also has a lot at stake. From the beginning of the financial crisis in 2007-2008 to the end of 2016, fines amounted to more than \$321 billion globally (Grasshoff *et al.*, 2017:16). Employee wages are also costly. With thousands of employees undergoing, on average, five hours of compliance training each year, a large employer sustains millions in remuneration costs on top of the cost of the actual training or materials (Young, 2017:2). The effectiveness and quality of this critical training would be more important given the financial impact. Progress has been made in engaging people and embedding training and behaviour change. There is a tendency for compliance training to be delivered as standalone courses, independent of the detailed training needed for the role employees fulfil and the nature of the workplace.

Each part of the risk and compliance function has different training requirements that 'tick a box'. Training has little influence on behaviour and, in isolation, will probably not embed a culture of risk management and compliance that will last (Young, 2017:3).

In the literature, compliance training has been proven to be valuable. Training management affected compliance with International Financial Reporting Standards to a great extent in a study conducted in Kenya, with 69.3% of the variation in compliance being attributed to training management (Maina *et al.*, 2015:90).

Navex Global conducted a survey in partnership with an independent research firm to assess the design, priorities, and performance of risk and compliance programmes across multiple industries (Navex Global, 2021:2). There were detailed responses from those responsible for policy and procedure management, incident management, compliance and ethics training, integrated risk management, environmental, social and governance (ESG) management, and third-party risk management. Over 1 000 people who manage or influence risk and compliance programmes in their organisations participated in the survey. This survey revealed that training plans to lay out the topics, audiences, formats, time, responsible parties, launch dates, and effectiveness measures for all compliance training courses and communications are essential to any risk and compliance programme. The use of these plans has been steadily increasing, and the 2021 survey data indicates that 80% of risk and compliance programmes now use an ethics and compliance training plan. Furthermore, 30% said they used purpose-built software to administer these plans, making it one of the most automated elements surveyed.

In rating the performance of their risk and compliance training programmes, organisations struggle most with measuring training effectiveness and the impact of training on employee behaviour (Navex Global, 2021:50). Three out of four risk and compliance professionals rate these areas as average to poor. Another concern is how programmes deal with employees who fail assessments, and the survey revealed that two-thirds of programmes rate this area as moderate to poor. Many risk and compliance programmes must focus more on these areas, which apply to organisations of all industries, sizes, and geographies. Anecdotal information suggests that government surveyors and investigators follow the latest Department of Justice guidance. Other than re-training, evidence is being asked for further remediation for employees who fail assessments, especially multiple times.

The literature on the success of compliance training will now be analysed in the next section.

3.8 SUCCESS OF COMPLIANCE TRAINING

Every role in an organisation is impacted differently by regulatory requirements. Thus, financial services organisations are moving to a decentralised model where responsibility is not only on the heads of compliance areas to ensure compliance training gets completed, but employees are proficient to "own" compliance and comprehend its significance in everyday operations (Marcheselli, 2019). Financial services leaders should consider the return on investment of their compliance training programmes in creating a culture of responsibility.

To gather information and learn about employees' experiences with compliance training and communication, Joel Katz (Katz, 2014:42), Senior Vice President and Chief Ethics and Compliance Officer at CA Technologies, conducted focus groups, employee opinion surveys and one-on-one interviews with employees at all levels of the organisation. It was found that compliance training was too long, esoteric, not engaging enough and not relevant to their jobs. There was also a need for live training in the local language. The employees felt they had no visibility into the categories of compliance issues the company encountered. The employees thought the messages were sometimes condescending or written in a way that made it appear that the company did not trust them. This feedback caused the organisation to stop using third-party vendors for compliance training and creating courses in-house, as it was felt that external offerings, while informative, were often too dense and too long (Katz, 2014:42).

Compliance training is often measured by the number of employees who have completed it or the hours spent on it, and those are the wrong metrics to use. The completion rate may be relevant to an organisation for other reasons. The effectiveness of a measure should be directly related to the achievement of a particular outcome, such as a change in the employee's understanding of policies and procedures or the development of valuable skills for dealing with typical situations (Chen & Soltes, 2018:123).

In compliance training, rules and regulations are internalised by employees to prevent misconduct. The effectiveness of training cannot be determined by simply evaluating how well employees understand their responsibilities after training. Employees' instruction may positively influence or reflect their basic knowledge. As a result, organisations should assess what employees know before and after training (pre- and post-tests). Training may

be unnecessary if there is little change, and it may be necessary to improve to get people to participate and use their time more efficiently (Chen & Soltes, 2018:123).

In addition, training should instil and perpetuate appropriate behaviour in employees and improve their understanding of the rules. Using a regression model, an organisation can determine the relationship between the training undertaken and changes in employee behaviour. By controlling for other factors that contribute to the violation of policies, one can test whether individuals who undergo training are inclined to break the rules (Chen & Soltes, 2018:125).

Return on investment model by Marcheselli (2019)

Philips (1996:20) mentioned that determining a training's return on investment is one way to assess its success. Financial service leaders need a clear understanding of investment goals to measure the return on investment. Leaders should consider their compliance training goals and the benefits of achieving them (Marcheselli, 2019).

One of Marcheselli's (2019) significant concerns is the training completion time. Due to the long training courses, leaders have begun to focus their training strategies on speed. As a result, the organisation risks receiving insufficient training. The last thing any organisation wants is to assign too little training, be non-compliant, generate customer complaints, risk making mistakes, receive regulator fines, generate adverse publicity, or fail a compliance audit.

Marcheselli (2019) recommends the following three focus areas for financial services leaders when determining the steps necessary to improve compliance training:

- Determine how to reduce training time, customer complaints, and employee errors as part of an organisation's compliance goals. Instead of focusing on a specific regulation change, goals should be centred around any regulatory change.
- Look at the already available data. Calculate how much time employees spend taking compliance courses—also analyse auditors' comments and feedback regarding the organisation's compliance standing. Organisations with tremendous success calculate the value of data findings to determine the monetary value of reducing problems.

- Introduce new training methods, such as role-based courses. It is possible to reduce training time, increase productivity, and minimise risk by developing courses that target the sections of the regulations that employees in a particular role encounter each day during their work.

These success factors empower employees to make the right decisions, provide top-quality client service, and positively impact the organisation's bottom line with more efficient, practical compliance training (Marcheselli, 2019). The most influential financial services leaders consider the cost of non-compliance when evaluating if an organisation can invest in more cost-effective and efficient courseware.

With the right training programme, financial services leaders can create a culture of compliance focused on taking responsibility rather than being afraid. In this study, the specific requirements of the return on investment model suggested by Marcheselli (2019) were used as a success factor for compliance training.

Extracting business value from compliance training model (Young, 2017:4)

Young (2017:4) states that compliance training must comply with four crucial characteristics to drive real business value.

- Training embedded in role-based pathways that are **individually relevant**.
- **Using workplace, media-rich digital and social learning to create high-impact training experiences.**
- **Embedding lasting behaviour changes through knowledge, skills, behaviours, and decisions.**
- **Integrated as strategic learning, reinforced, and delivered on-demand.**

Each of these components will be discussed in detail.

Individually, relevant learning:

Role-specific learning should confirm that it is built on everyday situations that inspire the precise application of skills, knowledge, behaviour, and judgment. The approach aligns well with the opportunities to practice, apply, and stretch skills as specified by the education technology company (Degreed, 2021:2). To master the learning content;

employees must be able to see the consequences of their decisions through continuous participation, engagement, and note the consequences of their actions. Users can better connect with the learning through storytelling, follow-up exercises in the workplace, real-life case studies, and coaching. Employees and leaders need the knowledge, skills, behaviours, and judgments to do their jobs effectively and compliantly. They demonstrate compliant behaviour not only to conduct themselves according to rules and policies but also to create great customer experiences and business results (Young, 2017:5). To accommodate different contexts and roles, higher levels of customisation of training must be coupled with cost flexibility (Young, 2017:6). It is crucial to integrate compliance learning with role-specific learning using a blended approach. Illustrations and examples that employees can relate to and have probably experienced first-hand make compliance training more real (Knight, 2000:46-47).

High-impact learner experiences using social media, workplace learning, and media-rich digital learning:

Many people now consume news and other content via video. Multisensory participation improves learning and knowledge retention (Young, 2017:7). With 76% of graduates expecting digital technologies to impact their work experience positively, the graduate market is now a fully digital generation. Gamification is intrinsically motivating because it incorporates a competitive element that makes involvement enjoyable. Additionally, it generates an audit trail of the learners' actions, pointing out what actions need to be taken to influence them. Because participants typically play games four or five times, gamified learning embeds behaviour. When participants learn through e-learning, they rarely complete the module twice. Based on a study conducted to evaluate the impact of gamification on compliance training within anti-corruption training programmes, it has been found that employees prefer gamified training and perceive it to be more pleasant, engaging, and educational than non-gamified training (Baxter *et al.*, 2017:A28). A statistically significant difference was observed between employees who received gamified training and those who did not, based on the results of the knowledge assessment scores of the participants.

Simulators benefit financial services organisations that implement complex role-based compliance training (Young, 2017:8). Creating a more realistic learning environment is possible by combining customer dialogue with procedures, processes, systems, and rules

to allow users to learn while making appropriate decisions and behaviours in a risk-free environment. Augmented and virtual reality are now seeing extensive usage within learning, and it is possible to apply critical training in a non-critical environment, which will benefit compliance and risk management. Media that were once used primarily to develop manual and technical skills are now being used to recreate more complex and nuanced behavioural scenarios that incorporate objects and avatars as well as audio, visual, movement, and even virtual touch.

There is an increase in collaboration platforms such as Yammer (part of Office 365), Jive, and SAP Jam for learning (Young, 2017:8). User-generated content, such as posts, videos, and blogs, can be hosted and shared on these sites. Connecting individuals to a group's experts and letting communities answer one another's questions is beneficial. Experts in many communities curate their learning content inside and outside the organisation (Young, 2017:8). Collaboration tools such as tips, discussion forums, frequently asked questions, and Wiki pages facilitate employee learning by creating a positive, non-threatening environment for them to ask questions. Therefore, organisations must create safe environments where employees can fail, encouraging them to demonstrate new compliance behaviours confidently. Selection of the right tool and moving "real work" onto the platform are essential to maximising uptake and the value of these tools.

Young (2017) argues that traditional learning experiences can influence behaviour change, action, or decision-making (Young, 2017:9). However, repetition is usually needed to form and embed a new habit. Programmes such as a 30-day challenge can help change day-to-day behaviours. Thirty-day challenges drive macro-behaviour change through micro-actions. Over 30 days, micro-actions take less than 10 minutes each. They can be delivered and monitored digitally, ensuring new behaviours are habitual and adequately embedded.

Through social collaboration platforms, employees can receive peer support and interact with each other throughout the change process.

A focus on knowledge, skills, behaviours, and decisions that embed lasting behaviour change:

Assume that compliance training intends to interpret the organisation's business values and interpret regulation into real-world behaviour. In this case, a straightforward, pragmatic approach is necessary. Training must be tailored to the language and learners' expectations to be practical (Young, 2017:10). Understanding how company strategy, regulations, policies, and company values translate into practice, depending on the role and context, is essential. Alignment to regulators' expectations is attained as more regulation becomes rules- and principle-based. Rules alone do not shape behaviours more than superficially.

The following principles will profoundly affect the effectiveness of learning and its application equipped with insights into neuroscience (Young, 2017:10-11):

- By applying the complete experiential learning cycle, learners should take time to reflect, create, test, and reflect more deeply on the underlying assumptions. During this reflective practice and experiential learning procedure, people can personally connect with the content. According to Kolb and Kolb (2018:8), experiential learning involves experiencing, reflecting, thinking, and acting. The learning content is experienced directly through role play, where participants organise reflections on their own or in groups as part of the experiential learning cycle. In the conceptualisation phase, students learn about the meaning of the training experience, often accompanied by lectures or readings on related topics. After learning, learners are asked to apply what they have learned in their own lives and workplaces.
- Providing bite-sized learning via various channels. Applying techniques like storytelling to improve understanding and retention for short attention spans.
- Providing opportunities for social interaction and engagement. The effect of collaboration on learning can carry over to the workplace, as people are social beings.
- Establishing a safe learning environment. It is true that burning platforms that generate fear and urgency may attract short-term attention, but optimism, certainty, positivity, and safety result in better learning outcomes and have a significant impact on the performance of the broader workforce in the long run.

- An experience that involves thoughts, feelings, and as many senses as possible. In the past, compliance learning has been based on a rational "tell" message. It will not be possible to change a person's behaviour solely by appealing to reason. For new behaviours to stick, they need to be motivated by both rational and emotional hooks.

Although many organisations are beginning to incorporate these principles into their learning curricula, compliance training rarely includes them. When compliance behaviour or decision is triggered, habit or complacency must be overridden, and the challenge is exacerbated by the relative infrequency of such occurrences (Young, 2017:11).

Joined up as strategic learning, reinforced and delivered at the point of need:

Compliance training strategies must remain closely aligned through more role-based, rounded learning. Organisational learning goals must simultaneously address different compliance needs (Young, 2017:11), so there needs to be a close alignment between compliance training and the overall learning goals of the organisation. Close collaboration with professional bodies, including regulators, is essential in building trust and gaining consumer confidence. Efforts should be made to lead compliance training, and the leadership team should set a clear direction and demonstrate the desired behaviour. Teams should be coached, and the right tone should be set.

Compliance learning metrics usually focus on completion rates and primary evidence that all employees have been trained (Young, 2017:12). Individuals rarely demonstrate their understanding or application of training in the workplace. A renewed focus on measuring compliance learning's impact on individual performance is needed to make compliance learning effective. Practical compliance training extends beyond attendance and course pass rates to assess behaviour, capability, and culture as more meaningful metrics. Disposition accuracy percentages, issue-to-resolution timelines, process quality metrics, surveillance, adoption analytics, and screening tests are among the capabilities. Many cultural assessment tools can be used at the level of an organisation or subculture to measure and report culture effectively.

Based on these insights, specific areas can be identified that need more attention (Young, 2017:13). To close these gaps, tailored solutions can be developed efficiently and effectively. Certification tracking has become a crucial factor of compliance learning, which includes following regulatory licenses, qualifications, and mandatory training

completion. The success factors mentioned by Young (2017:4) were used in this study as part of the success factors of compliance training.

Effectiveness of compliance programmes (Healthcare Compliance Association, 2017:24-27)

During a meeting in Washington, DC, on 17 December 2017, compliance professionals and employees from the Office of Inspector General of the Department of Health and Human Services discussed ways to evaluate compliance programmes, including compliance training and awareness (Health Care Compliance Association, 2017). This exercise aimed to provide several ideas to measure the various aspects of a compliance programme.

The following list includes measurement options for organisations of various sizes, operational complexity, industry sectors, and resources. Four groups of 10 attendees discussed two aspects of a compliance programme simultaneously. The participants had the opportunity to suggest ideas regarding "what to measure" and "how to measure" in four sessions. The Health Care Compliance Association Candidate Handbook was used as a starting point. Table 3.2 shows the results of the combination of communication, education, and training. (Own highlighting inserted).

Table 3.2: Measurement of compliance communication, education and training

Element 4: Communication, education, and training on compliance issues		
	What to measure	How to measure
Training:		
4.1	Risk-specific training is provided to employees in high-risk positions .	• Audit to ensure high-risk positions are identified, and training requirements are established. • Check training materials for specific risks posed by these positions. • Training completion rate audits.
4.2	Compliance training has been established. A training plan is maintained and periodically updated by the organisation.	• Perform a document review to ensure the training plan includes required training, the expected audience, topics covered, and deployment method. • Audit sign-on sheets or other tracking tools to ensure training is occurring. • Review the training plan to ensure it is up to date.

Element 4: Communication, education, and training on compliance issues		
	What to measure	How to measure
Training:		
4.3	Training is tailored to the appropriate audience (general, issue-specific, and high-risk).	• Audit job codes to ensure that the appropriate training has been provided. • Ensure job-specific training is conducted according to the established training plan for job codes.
4.4	The organisation offers continuing education units for compliance education and training.	• Perform a document review to establish the degree to which continuing education units for compliance training are provided. • Assess the impact of offering continuing education units on training completion rates.
4.5	The organisation has established a procedure, policy and process to train and communicate new regulations, procedures, laws, and policies to employees.	• Conduct a document review to ensure employees are informed of new laws, regulations, policies, and procedures and are trained according to that process.
4.6	The organisation has established a compliance training and education policy regularly updated with training requirements.	• Conduct a document review to ensure a policy is in place and periodically updated. • Confirm by audit that employees are completing requirements according to the policy.
4.7	All the organisation's education programs include a compliance education/information component.	• Ensure every educational presentation, program, or module throughout the organisation includes at least one compliance-related topic/slide.
4.8	Individuals in high-risk positions receive training based on a formal process for assessing risk and evaluating control vulnerabilities . Based on the risk assessment results, the organisation develops issue-specific training and identifies weaknesses in internal control mechanisms.	• Evaluate the risk assessment and control weaknesses of the organisation. • Ensure that the training plan and training materials address those issues which pose a significant risk to the organisation and pose a vulnerability to it.
4.9	The organisation has developed a compliance training programme based on job families to address specific risks. Senior leaders, board members, vendors and third parties are included in the training. An alignment exists between the guidance on what and how to learn (Degreed, 2021:2).	• Audit the compliance training programme to determine whether it has been tailored appropriately to the identified risks associated with specific job categories. • Job-family-based training audit.
4.10	The organisation's policy and compliance failures are evaluated, and applicable employees are provided with re-education.	• Ensure that re-training is part of a corrective action plan for known policy or compliance violations. • Re-training audit to ensure completion. • Assess whether the re-training and employee understanding were adequate by tracking reoccurrences of failures.

Element 4: Communication, education, and training on compliance issues		
	What to measure	How to measure
Training:		
4.11	To measure the extent to which employee training and education were practical in raising awareness of specific areas of vulnerability, the organisation tracks disclosure reports (hotline calls, direct contact with the compliance department) following employee training.	- To evaluate the impact of education on disclosures, monitor, audit, and review disclosure tracking logs. - Identify how employees become aware of issues and analyse the impact of training on awareness and reporting.
4.12	Documentation is maintained on all training provided.	- To ensure that all compliance-related education is documented, including the materials covered, attendees, and the method of deployment, conduct a document review and audit. - The audit will ensure that documentation of post-training tests is maintained to evaluate the employees' level of understanding.
4.13	The training plan is frequently updated to address new regulations and laws.	Ensure the training plan is updated to reflect new laws and regulations obtained from legal counsel.
4.14	The most effective method for the deployment of compliance training has been contemplated.	- Assess the most effective method for distributing training to employees, leadership, contractors, board members, and other parties (written, online, in-person, large or small group) in the training plan. - Verify that training has been implemented according to plan by auditing training records.
4.15	The organisation has established the orientation of newly hired employees to the compliance programme and their responsibilities and obligations.	- Verify that employees have received a compliance orientation following the orientation policy. - Review the names, dates, and materials used to introduce new employees to the compliance programme over the past two years.
4.16	To accommodate individuals with disabilities or language barriers , the organisation provides compliance education in various formats.	Assess the accessibility and understandability of the training for employees with communication issues or disabilities.
4.17	Employees of the organisation perceive compliance training as valued and adequate to address compliance requirements on the job.	Examine employees to understand their observations regarding compliance training value and adequacy.
4.18	The organisation has established a method(s) to evaluate the effectiveness of compliance training. (Referring to the success factors of compliance training).	- Review documents to determine whether the organisation has established a method for evaluating compliance training effectiveness. - Examine incident logs and hotline reports to assess the impact of training.
4.19	The organisation measures training effectiveness by using training tests of evaluations after the training (post-training tests or evaluations). Pre-tests and the difference between pre-	- Review the documents to determine if any post-training tests or evaluations have been conducted. - Evaluation and tracking of post-training tests or evaluations.

Element 4: Communication, education, and training on compliance issues		
	What to measure	How to measure
Training:		
	and post-tests are valuable, as described by (Chen & Soltes, 2018:123), as feedback and insights on progress (Degreed, 2021:2).	The training materials will be reviewed to confirm modifications were made and feedback considered from evaluations or tests conducted following training.
4.20	Specific risks identified through the risk assessment process are integrated into compliance training.	Ensure that the high-risk issues identified in the risk assessment are included in the training plan.
4.21	The organisation obtains employee feedback on compliance training needs, and employee recommendations are included in the training.	- Employees should be surveyed regarding their training needs. - Assess the effectiveness of the training plan by interviewing employees. - Ensure that employee feedback is considered during the training.
4.22	A policy regarding the regularity of required compliance training has been established.	Ensure compliance-related training is disseminated and completed according to policy by auditing training logs.
4.23	The organisation maintains compliance training based on new procedures, policies, processes, regulations, and laws.	- Examine the process for updating training. - In updating training programmes, ensure that issues identified through risk assessments, issue tracking systems, and other internal and external tracking mechanisms are considered and evaluated.
4.24	Training effectiveness is evaluated.	Six months after the training is implemented, implement a knowledge survey.

Source: Adapted from Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27)

Table 3.2. highlights the training components of a compliance programme, the factors that need to be measured, and how to measure training. The following items were used in this study and summarised in the following categories:

- **Before the training, as part of the needs analysis and planning:**
 - Specific training is planned for high-risk employees; there is also a formal assessment procedure to determine risk and evaluate control weaknesses.
 - An updated compliance training plan is established, which outlines the target audience (selected based on job families), topics, deployment methods, and training frequency. The most effective deployment method is specified. This plan includes new laws and regulations and continuing education units where relevant.

- There is a process, policy, or procedure to ensure that relevant employees are trained in new regulations, laws, procedures, and policies.
- A policy is in place for compliance training and education.
- Compliance training is included in all other learning happening in the organisation – at a minimum, a compliance theme is included in all further learning.
- New employees are orientated to their obligations and responsibilities regarding training.
- Special needs learners are accommodated (for example, disabilities and language barriers).
- The organisation has developed and implemented methods to assess the effectiveness of compliance training.
- Ensures that compliance training incorporates risks identified through risk assessment.
- Employees provide feedback on their compliance training needs, and the feedback is incorporated into the training.
- Compliance training incorporates new policies, procedures, processes, laws, and regulations.
- **During the training, implementation of compliance training:**
 - Conduct the best method of deployment.
 - Reaction to the training – employees find the training valuable and adequate to handle the compliance necessities of their job.
- **After the training, evaluation and administration after compliance training:**
 - Conduct post-training tests or evaluations.
 - Ensure that all training is recorded, including post-training tests.

- All documentation is maintained for record purposes, including training material and tests.
- Policy and compliance failures are evaluated, and employee re-training is provided where needed.
- Disclosure reports are tracked to determine whether the training raised employee awareness of specific vulnerabilities.
- Training effectiveness is measured.

These items were integrated into the relevant training success measures to provide a new framework for measuring compliance training success that was empirically tested in this study.

Compliance training success (Dixon and Overton, 2017:38)

A survey of more than 250 ethics, compliance, and learning professionals was conducted online in March and April 2017. The survey invited respondents to reflect on current compliance training and the factors that promote or restrict learner engagement and organisational risk management (Dixon & Overton, 2017:2).

The following measures of training success were noted in the survey conducted (Dixon & Overton, 2017:38):

- Key performance indicators for business performance (business indicators such as profit, growth, and transformation). There is a correlation to Kirkpatrick level four, measuring business results (Kirkpatrick, 1996:56).
- Indicators for compliance with the training include training take-up, enrolment level, completion rate, and pass rate. Because most compliance training is mandatory, only the completion and pass rates would be used as success indicators for this study.
- Learning performance indicators (assessment scores, feedback and satisfaction scores). This metric correlates with Kirkpatrick's level two learning and level one reaction to training (Kirkpatrick, 1996:55-56).

- Efficiency indicators include study time, delivery time, and cost, and will also be used as part of this study to assess compliance training success.

However, most companies struggle to find adequate measures to express the shift in compliant behaviour, attitudes, and cultural improvement. Respondents say 96% want to generate more meaningful data to measure and improve programme effectiveness. However, only 16% mainly achieve this goal (Dixon & Overton, 2017:38). Three themes emerge when considering more successful factors in generating meaningful data to improve training effectiveness.

They are at least three times as likely as those not achieving this benefit to focus on changing behaviour through:

- Designing relevant and practical learning focused on behaviour change. Measuring actual behaviour change correlates to Kirkpatrick's transfer of training, level three (Kirkpatrick, 1996:56).
- Working with line managers and local champions to support and encourage learners. This metric will also be included in this study.
- Having a clear communication strategy with stakeholders. This metric will also be included in this study.

Technology tools such as adaptive learning, which take the learner's knowledge inputs into account when reflecting on the content and asking relevant questions to the learner based on their knowledge, can also enhance the learning experience (Dixon & Overton, 2017:20). An adaptive learning strategy involves feeding the learner more content based on the specific questions that were incorrectly answered as part of an assessment. Based on knowledge and performance, 19% of the respondents use adaptive learning to modify the learning experience (Dixon & Overton, 2017:6).

Compliance training should also be extended beyond the organisation's employees (Dixon & Overton, 2017:23). Respondents in the survey indicated that 19% give contractors and suppliers of outsourced services access to their compliance training.

As one of the strategies that significantly correlated with results, compliance training is shaped by models such as the 70:20:10 principle, where most learning occurs through

experience and exposure to others in social networks rather than formal courses - thus learning at work (Dixon & Overton, 2017). Following the 70:20:10 principle, 70 % of what learners remember is based on hands-on experience, job-related skills, and decisions made in the workplace (Nunaley, 2021); 20% is retained by peer co-worker learning, coaching, mentoring and social learning. The smallest percentage, 10%, covers traditional instruction, with only 10% retention of information.

Here, performance support tools can be helpful. According to the research, 19% of the respondents use models that support learning directly in the flow of work to shape their training approach (Dixon & Overton, 2017). The survey results reveal that there has been an increase in the use of performance support tools, with the usage increasing from 27% in 2015 to 47% in 2017 (Dixon & Overton, 2017:11).

Taking into account the success factors of compliance training mentioned in the survey results (Dixon & Overton, 2017:38), the following factors were added to the survey to measure compliance training success in this study:

- Specific business indicators that show a change in employees' behaviour, namely breaches or non-compliance reduced, compliance risks managed, and non-compliance reported through whistleblowing
- Training completion rate.
- Training pass rate.
- Training assessment scores.
- Study or delivery time.
- Cost of training.
- Reaction of the learner to training.
- Relevant training.
- Practical training focusing on behaviour change.
- Working with line managers and local champions to support and encourage learners.

- Having a clear communication strategy with various stakeholders.
- Personalisation of compliance training through adaptive learning, considering the learner's knowledge inputs when reflecting on the content and posing assessment questions.
- Compliance training should also be extended beyond the organisation's employees to third parties and contractors.
- Compliance training in the flow of work.
- Using performance support tools, such as technology and easy aids, to support the training in the workplace.

Desired characteristics of a holistic compliance communication programme, including training (Rogers, 2022:2-11)

Five significant behaviour change approaches have been identified as being predominantly useful in the compliance setting (Rogers, 2022:4). These include the following.

- Interrupting patterns, also referred to as pattern interrupting.
- Consistency and commitment.
- Social stigma.
- Repetition.
- Gaining pleasure and avoiding pain.

Pattern interrupting involves interruptions in behaviour patterns, such as questions or unexpected events (Rogers, 2022:5). There is an expectation that compliance training will be boring, dry, and authoritarian. If the compliance training is exciting and engaging, this can be seen as a pattern interrupt.

It becomes almost automatic for people to make more extensive commitments once they make smaller ones (Rogers, 2022:6). Since people dislike change, once they voice an opinion or an action in a particular way, they will do almost anything to circumvent to oppose themselves. As a result of the Code of Conduct certification, employees are expected to sign a statement each year that they have understood, read, and will abide

by the Code of Conduct (Rogers, 2022:7). These commitments may also be used in training.

A social stigma is a negative social consequence of a particular behaviour or belief. This context concerns behaviours that depart from norms that result in others viewing the individual negatively (Rogers, 2022:8). The best leverage for compliance can often be found when training is designed to stir up anxieties related to social stigma. A person's desire to maintain his/her reputation and be perceived by others as an honest and trustworthy professional may be a more powerful motivator than punishment. Hence, finding ways to leverage this desire is essential.

The importance of repetition of compliance training cannot be overstated. In general, marketers and advertisers know that consumers should be exposed to product messaging between nine and 21 times before making a purchase decision (Rogers, 2022:9). To create new patterns of thought and behaviour, compliance training occurring once a year will not be sufficient (Rogers, 2022:10). To rectify prior conditioning, employees need consistent and regular reinforcement. Microlearning can help with reinforcement.

Humans generally do everything to avoid pain or gain pleasure (Rogers, 2022:10). Many compliance training programmes demonstrate the painful consequences of non-compliance in various ways (Rogers, 2022:11). This factor will also be included in the success factors of compliance training.

A holistic compliance communication programme should include the following characteristics, according to key opinion leaders interviewed in the compliance community (Rogers, 2022:2):

- Contains ongoing communications, not only training but also reinforcing critical messages regularly.
- Ensures non-intrusive connections with low bandwidth and (interactions lasting no longer than 30 seconds to three to four minutes, easy to integrate into the workplace).
- Multimedia content that is interesting and engaging.
- Adapts to the learning styles of multiple audiences (visual, auditory, and kinaesthetic).

- Participation and commitment are tracked.
- Provides real-time messaging, preferably within minutes of identifying a risk.
- The essence of reducing training fatigue, changing behaviour, and increasing retention is fresh delivery of core content, repeating it often.

These items were included in this study when assessing compliance training success.

Factors that make training stick (Katz, 2014:66)

Stories can translate abstract concepts into easily understandable and memorable narratives (Katz, 2014:35). Using humour in compliance training can keep employees engaged in mundane topics. However, care should be taken as compliance is not humorous in itself. Current events in the news can also be used to teach and retain essential compliance lessons (Katz, 2014:66). These recommendations will also be considered when measuring the success of compliance training.

3.9 SUMMARY

The consequences of non-compliance with laws and regulations can be steep for organisations. It is possible to incur fines, sanctions, debarment, and public relations nightmares due to compliance failures, in addition to reputational damage and loss of business (Haig, 2020:31). It may also result in missed business opportunities and a lack of strategic alignment if laws and regulations are not identified and considered. Neglecting to address and manage regulatory change can significantly negatively affect an organisation. It is crucial to provide employees and third parties with practical training to understand the importance of compliance and regulatory changes (Haig, 2020:34).

Financial services leaders use compliance training to foster a culture of accountability and responsibility around compliance with financial regulations (Marcheselli, 2019). Non-compliance costs much more than compliance training if it is not managed correctly. The costs of compliance can be calculated in a variety of ways. The financial services industry is estimated to spend around \$270 billion on employees, policies, process changes, technology, and training. Therefore, there is no reason to underestimate the importance of compliance training.

Based on the literature study completed, the following success factors were incorporated into this study to measure compliance training success and frame the compliance training success models:

- The four levels of training evaluation by Kirkpatrick (1996:55-56).
- The return on investment model, as specified by Phillips (1996:20) and made specific to compliance training by Marcheselli (2019).
- Elements of a learning organisation, as stated by Garvin *et al.* (2008:109).
- Extracting business value from compliance identified by Young *et al.* (2017:4).
- Effectiveness of compliance programmes, including training adapted from the Office of Inspector General of the Department of Health and Human Services (Health Care Compliance Association, 2017:24-27).
- Compliance training success as specified by Dixon and Overton (2017:38).
- Desired characteristics of a holistic compliance and training programme (Rogers, 2022:2), as well as showing the painful consequences of non-compliance (Rogers, 2022:11).
- Factors that make training stick (Katz, 2014:66).

In the next chapter, Chapter 4, this study's research design and methodology is presented.

CHAPTER 4 RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

Methodological objective 1 (MO₁) was to identify and comprehend the theoretical models around and constructs that measure corporate entrepreneurship, entrepreneurial orientation, and compliance training success by conducting a literature review. Theoretical models were reviewed in Chapters 1, 2 and 3. Chapter 1 covered an introduction, the scope of the study, the problem statement, and the theoretical models leading to the conceptual model. Chapter 2 constituted the literature review of corporate entrepreneurship, entrepreneurial orientation, and how these constructs are measured.

Chapter 3 covered a review of the literature on compliance departments within banks, including the theoretical models applicable to compliance training used in this study and the success of compliance training, which also addressed methodological objective 2 to gain insight into the current state of the compliance industry and compliance training environments through a review of the literature and propose success factors for compliance training. Methodological objective 3 was to propose a conceptual model and a hypothesised model that illustrates the relationships between the independent variable in this study, namely corporate entrepreneurship, the mediating variable, entrepreneurial orientation, and the dependent variables, compliance training success factors. The conceptual and hypothesised models were proposed in Chapter 1.

The purpose of Chapter 4 is to address methodological objective 4 (MO⁴), namely, to describe the research design and methodology employed to achieve the objectives and manage the research questions in this study.

Methodological objective 5 (MO⁵) is dealt with in Chapter 5, namely the design of a measuring instrument to source data to empirically assess the hypothesised relationships. Methodological objective 6 (MO⁶) is covered in Chapter 6, which includes the data collection, statistical analysis and illustration, and discussion of the primary data generated from this study. Methodological objective seven (MO⁷) is covered in Chapter 7, where the result of the empirical study is used to draw conclusions and make recommendations.

Secondary objectives 1, 2 and 3 are also partially addressed in Chapter 3, in so far as the research methodology is planned for the empirical study to investigate and establish the relationship between corporate entrepreneurship and the success of compliance training within South African banks (SO¹), investigate and establish the relationship between entrepreneurial orientation as a mediating variable in the relationship between corporate entrepreneurship and the success of compliance training within South African banks (SO²) and investigate the relationship between selected biographic variables and the success of compliance training within South African banks (SO³).

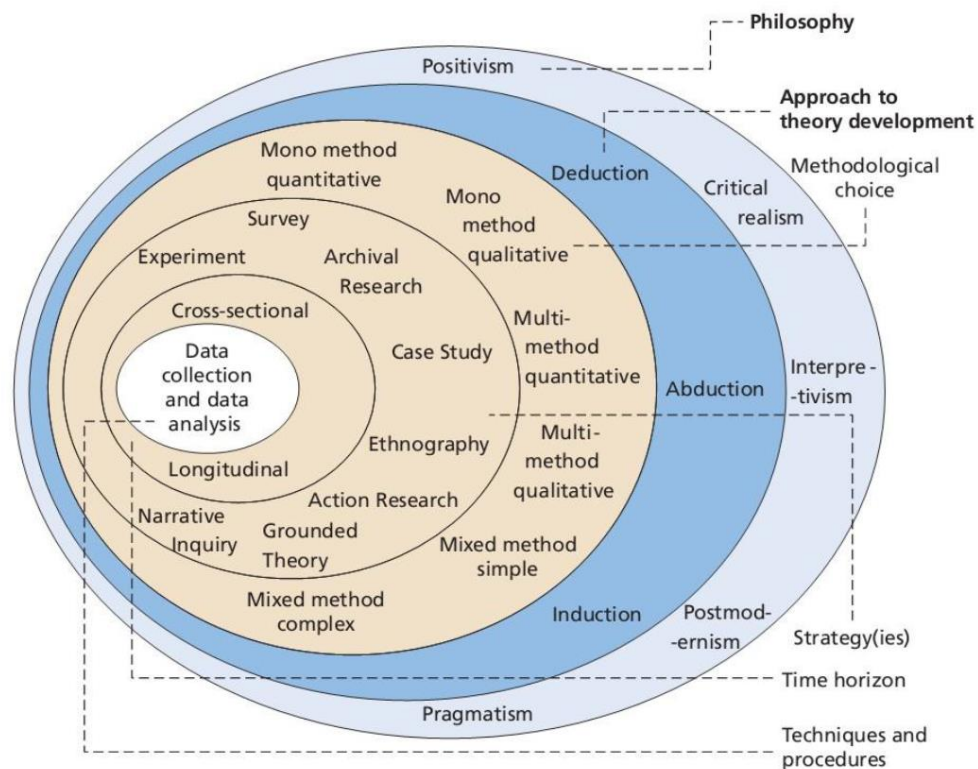
Specifically, Chapter 4 considers choices concerning the primary philosophy used by the researcher, the method of theory development, and the methodological selections formed, including the strategy, time horizon, procedures, and methods discussed in detail. The population, sample, sampling technique, and data collection method are deliberated. The data analysis techniques used in this study are noted.

4.2 RESEARCH DESIGN AND METHODOLOGY FRAMEWORK

A research design provides a framework for collecting and analysing data to answer a research question to achieve research objectives by delivering acceptable reasoning for selecting data sources, collecting data, and conducting analysis (Saunders *et al.*, 2019:815). Furthermore, Bryman *et al.* (2017:23) recommended aligning the research design and approach directly with the research question.

The research design and methodology framework of Saunders *et al.* (2019:130) were applied to achieve the research objectives of this research study and motivate the methodological choices followed. This research design and methodology framework is known as the research onion and is depicted in Figure 4.1.

Figure 4.1: The Research Onion



Source: Saunders *et al.* (2019:130)

As Saunders *et al.* (2019:130) suggested, the research onion has been used to reference the research philosophy, approach to theory development, research method, research strategy, time horizon, techniques and procedures. To illustrate how the research onion is applied in this study, Table 4.1 has been prepared.

Table 4.1: Application of the research onion

Consideration of layer:	Selection and explanation for this study:
Research Philosophy	A positivist research philosophy has been selected for this study. It is assumed that reality exists independently of humans in positivism. In addition, it is controlled by immutable laws that are not mediated by our senses. Positivism holds the ontological position of realism (Rehman & Alharthi, 2016:53). This philosophy is best suited for this study, as hypotheses about the causal relationship between corporate entrepreneurship and the success of compliance training were stated, with entrepreneurial orientation being a mediating variable. An empirical evidence-based theory was formulated to explain how independent variables affect dependent variables (Rehman & Alharthi, 2016:54) as affected by the mediating variables.
A research approach to theory development	The research approach to developing the theory selected for this study is deductive. Deductive research involves developing and testing a conceptual or theoretical structure based on empirical observation (Welman <i>et al.</i> , 2010:28), which consists of moving from the general to the specific. The deductive approach is deemed most

Consideration of layer:	Selection and explanation for this study:
	appropriate because the researcher tested the theory that corporate entrepreneurship increases performance (success of compliance training) and is mediated by entrepreneurial orientation, flowing from Schumpeter's theory of innovation, entrepreneurship, and economic development (1934), theorising that employees may be entrepreneurial and the resource-based view of entrepreneurial orientation (Barney, 1991:99), viewing entrepreneurial orientation as a resource that increases performance, and similarly corporate entrepreneurship improves performance.
Methodological choice	Under the methodological choice, a mono method (single method) is selected, namely quantitative research. According to the Collins online dictionary, mono- is used at the beginning of nouns and adjectives with 'one' or 'single' as part of their meanings (Harper Collins, 2021). Creswell and Creswell (2018:4) define quantitative research as examining the relationship among variables to test objective theories.
Research strategy	The research strategy selected for this study is a structured survey. A population sample is examined in survey research to determine attitudes, opinions, or trends (Cresswell & Cresswell, 2018:12).
The time horizon of research	A cross-sectional survey was used as part of this study. Data were collected at one time (Cresswell & Cresswell, 2018:149).
Techniques and procedures for data collection and data analysis	Data collection for this study was achieved by electronically uploading a research survey to a survey platform (Microsoft Forms). Quantitative data analysis will be further discussed under the methodological choice of the research. The sampling method was total population sampling, which is part of purposive sampling, and was selected based on homogeneity in terms of the occupation and duties of Compliance Officers.

Source: Researcher's application

The research paradigm is defined by Saunders *et al.* (2019:811) as a set of assumptions that underlie the researcher's frame of reference, theorising model, and modus operandi. As a result, it is inferred that the research paradigm is the starting point for any research design and methodology and will be discussed in the following Section. A detailed discussion of the onion layers by Saunders *et al.* (2019:130) is also provided.

4.3 RESEARCH PARADIGM AND PHILOSOPHIES

As mentioned above, the research paradigm is regarded as the beginning of any research design and methodology and will be considered next.

4.3.1 Research Paradigms

Creswell and Creswell (2018:5) posit that philosophical worldviews and ideas influence the research method. It is recommended that researchers make the philosophical ideas held during the planning and proposal stages of the research known. Philosophical

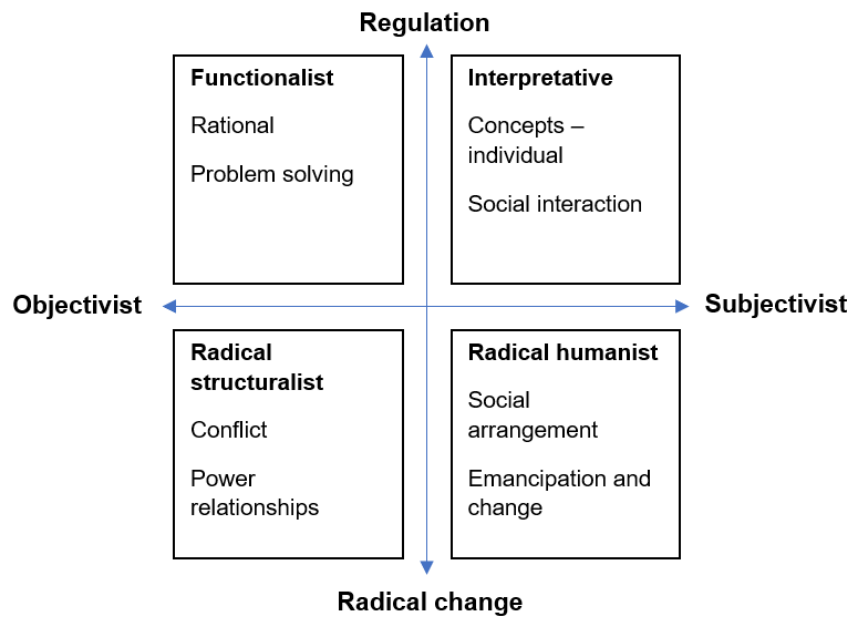
worldviews are also called research paradigms. A paradigm, as defined by Bryman *et al.* (2017:19), is a set of beliefs that determines which questions should be studied, how those studies should be conducted, and how the results should be interpreted.

Two opposing poles differentiate between the different paradigms researchers may select (Saunders *et al.*, 2019:138-139). The two poles include the sociology of regulation and the sociology of radical change. The regulatory role is focused on the need for regulation of organisations, believes in the existing situation, looks for stability, consensus, integration, and cohesion, looks for solidarity, views need satisfaction, and looks at the actual, fundamental viewpoint (Saunders *et al.*, 2019:139). Regulatory narrates what happens inside organisations to suggest improvements but suspends judgement (Bryman *et al.*, 2017:19). The radical change perspective believes in radical changes, seeks out conflict, queries domination, identifies contradiction, looks for emancipation, deprivation, and potential (Saunders *et al.*, 2019:139). The radical change perspective makes opinions about how organisations should be and will recommend how they should get there (Bryman *et al.*, 2017:20).

Two other opposing poles describe the ontological positions of objectivism and subjectivism. Objectivism includes the convention of natural science and contends that social actuality is independent of and external to the social actors related to their existence (Saunders *et al.*, 2019:810). Objectivism includes actual processes and structures that may be seen externally (Bryman *et al.* 2017:19). The subjectivist view sees social reality as the perceptions and activities of individuals (Saunders *et al.*, 2019:818). Regarding subjectivism, an organisation is assembled by people to make sense of social experiences and understood by people directly concerned and involved in its activities (Bryman *et al.* 2017:19).

When the two poles are inserted simultaneously on a graph, the paradigms emerge used to study organisations (Saunders *et al.*, 2019:140; Bryman *et al.*, 2017:20). These paradigms within the four quadrants include functionalist, interpretative, radical structuralist, and radical humanist, and are shown in Figure .4.2 below:

Figure 4.2: Paradigms for the study of organisations



Source: Adapted from Bryman *et al.* (2017:20)

The four paradigms, which characterise four ways to view the organisational and social world (Saunders *et al.*, 2019:140), are briefly discussed below:

The functionalist paradigm is rooted in problem-solving positioning, which supports rational explanation and is the leading framework for studying organisations (Bryman, 2017:20). This paradigm is on the objectivist and regulation dimensions, and most research and business research functions in this paradigm (Saunders *et al.*, 2019:140). A crucial assumption made with the functionalist paradigm is that organisations are rational, and rational explanations express rational challenges (Saunders *et al.*, 2019:140-141). The functionalist paradigm is, in all probability, supported by the positivist research philosophy.

The interpretative paradigm interrogates whether organisations exist beyond the conceptions of social role players, and understanding is based on the experience of those working within the organisations (Bryman *et al.*, 2017:20). This paradigm is on the subjectivist and regulation dimensions. A significant focus of interpretive paradigm research is how humans make sense of their environment (Saunders *et al.*, 2019:141). Multiple subjectivities may be observed within this paradigm. The focus would be understanding what is happening rather than changing the status quo.

According to a radical humanist viewpoint, organisations are social arrangements, and individuals must be freed from them (Bryman *et al.*, 2017:20). The need for change drives research. This paradigm is on the subjectivist and radical change dimensions (Saunders *et al.*, 2019:142). The political life and the influence one's deeds and words have on others give an essential viewpoint on organisational life. The existing situation needs to be changed. Research under the radical humanist paradigm focuses on the challenges of politics and power, oppression, and domination. The following are regarded as necessary under the radical humanist paradigm: processes, language, social construction, meanings of organisational realities and the instability of structures.

The radical structuralist paradigm regards organisations because of structural power relationships that result in conflict situations (Bryman, 2017:20). This paradigm is on the objectivist and radical change dimensions. Fundamental change must be achieved in this paradigm founded on structural phenomena, including power plays and a pattern of differences of opinion (Saunders *et al.*, 2019:142). The researcher would be interested in understanding organisational patterns, such as reporting relationships and hierarchies that may cause oppression or domination. A critical realist research philosophy, different from extreme objectivists, frequently supports this paradigm.

According to Burrell and Morgan (2016), the main controversy surrounding this model is the assertion that the four paradigms cannot be merged and are mutually exclusive.

4.3.1.1 Research paradigm adopted in this current study

According to the functionalist paradigm, which emphasises problem-solving, this study examines the rational explanation of the relationship between the independent variables, namely corporate entrepreneurship and entrepreneurial orientation, as mediating variables, and the dependent variables, which are compliance training success factors. Observable phenomena such as responses from compliance departments of South African banks were used to prove and disprove theories based on natural science, and generalisations can be drawn free of the influence of values as a result. In this manner, realism can be measured.

4.3.2 Assumptions made by the researcher

No matter how consciously or unconsciously researchers make assumptions, they will make various assumptions throughout the research process (Saunders *et al.*, 2019:130). Among these assumptions are reality (ontological assumptions), human knowledge (epistemological assumptions) and the researcher's values that influence research processes (axiological assumptions). According to Bryman *et al.* (2017:21), business research is also influenced by politics and practical considerations. The size and rate of change within the organisation under research, past approaches used in business, and the expectation of practical recommendations may also impact the researcher's choices. Next, three research assumptions will be considered: ontology, epistemology, and axiology.

The concept of **ontology** is concerned with the assumptions about the nature of reality that are made (Saunders *et al.*, 2019:133). A researcher's ontology influences how the world of management and business is viewed and the choice of research topics. According to Levers (2013:2), ontology studies human nature and being. Whether reality exists independently of human perception or only through experience is an ongoing debate.

From an ontological perspective, the researcher in this study views reality as observable. The observable components of this study were compliance departments within South African banks outside of the researcher, and the compliance departments were considered social actors. They exist independently, and the researcher and the departments have a reality outside the individuals who are part of them (Bryman *et al.*, 2017:17).

Epistemology refers to the assumptions researchers make regarding knowledge, the definition of valid, legitimate, and acceptable knowledge, and the methods used to communicate that knowledge to others (Saunders *et al.*, 2019:133). Epistemology is regarded as more concrete than abstract ontology, as the multidisciplinary perspective of management and business includes numerous knowledge components, such as numerical data, text, visual data, facts, stories, and narratives, which all may be considered legitimate.

From an epistemology perspective, the researcher assumed for this study that legitimate, valid and acceptable knowledge was obtained through answers by compliance employees' perspectives by using scientific research questions.

Axiology includes the role of ethics and values in research (Saunders *et al.*, 2019:134). The researcher must consider the influence of their beliefs and values, as well as those who are the subject of the research, on the research being undertaken. Belief and value systems must be recognised and reflected upon when writing the research. Researchers must coherently express their values when judging what is researched and the research process. It is suggested that the researcher write their value statements before starting research so that they may consider judgment calls in concluding the data.

Objectivism and subjectivism build upon the researcher's assumptions and lead to the two extreme concepts that may be viewed as a continuum of objectivism and subjectivism, which will be discussed in the next section.

4.3.3 Objectivism and subjectivism

According to Saunders *et al.* (2019:135), **objectivism** incorporates the assumptions of natural science, arguing that social reality is outside the control of the researcher and others (called social actors). From an ontological perspective, objectivism is characterised by realism, and as an extreme view, objectivism holds that all social actors experience the same reality (universalism). Bryman *et al.* (2017:17) view objectivism as an ontological position, suggesting societal experiences are external facts outside the researcher's reach or influence.

Objectivism requires the awareness of ethical principles that are rational for oneself and aligned with the researcher's personal beliefs. Objective reality must be acknowledged and acted upon based on that acknowledgement (Harviainen *et al.*, 2020:763). The ontological perspective is a philosophical study of being (Simonds, 1998). Although reality can be directly experienced or understood by humans, critical realism maintains that reality is independent of human intellect (Levers, 2013:2). There has been an endless debate between objectivism and interpretivism in ontology. Objectivism refers to reality existing independent of human consciousness and experience. **Interpretivism** refers to reality existing only through experience (Levers, 2013:2). Epistemology, grounded in reality, must demonstrate the valid theory that requires solving the problem of universals

(qualities or relations), which is what the objectivist theory of concepts provides (Kirkpatrick, 2008:353). According to Stroll and Martinich (2023), epistemology studies human knowledge's origin, nature, and limits.

In addition, ethical realists contend that modern meta-ethics have moral facts and objective moral values. According to cognitivism, moral judgments express beliefs that may be true or false, and therefore moral knowledge exists. In addition to being an ethical realist, Plato was also a cognitivist (Bonazzi *et al.*, 2020).

From an epistemology perspective, objectivists want to discover "the truth" by using measurable facts where generalisations can be drawn about a universal social reality (Saunders *et al.* 2019:136). Good data constitute numbers, and phenomena are observable. In terms of knowledge, the contributions that may be made are law-like generalisations.

From an axiology perspective, objectivists endeavour to keep research free from values that may bias research findings, seeing that social actors exist independently (Saunders *et al.*, 2019:136). Objectivists try to stay disconnected and detached from their beliefs and values by following a rigorous scientific research process.

Saunders *et al.* (2019:137) suggest that **subjectivism** includes assumptions regarding the humanities and the arts. Bryman *et al.* (2017:19) view subjectivism as where organisations are socially crafted by people who want to make sense of the experience. Thus, those directly involved in the activities may only understand the reality. Subjectivism views social reality as social actors' observations and actions (Saunders *et al.*, 2019:137). There are two extreme poles for subjectivism. The nominalist view of social reality is based on the contribution of social actors, including researchers, to the social world. Saunders *et al.* (2019:137) propose a less extreme version of social constructionism, which views reality as being created through social interactions between individuals. Thus, reality is created in an intersubjective manner. Bryman *et al.* (2017:17) view constructionism as the existence of multiple realities that co-exist, that are subjective and being altered continuously by social actors, collectively and individually.

From an ontological perspective, subjectivism is decided by convention and is created socially. From an epistemology perspective, sufficient knowledge is regarded as opinions and good data consists of the spoken and written word and visual accounts. From an

axiology perspective, the context is values bound by the researcher's and social actors' values and beliefs (Saunders *et al.*, 2019:135).

Based on the discussion, the researcher in the present study adopted an **objectivist** outlook underpinned by **realism** and measured by a scientific process.

Returning to the research onion by Saunders *et al.* (2019:130), the research philosophies will be discussed next, which is the first layer of the onion.

4.3.4 Research philosophies

According to Saunders *et al.* (2019:144-151), five management philosophies exist. These include positivism, critical realism, interpretivism, postmodernism, and pragmatism. Depending on the model, there may be differences regarding the nature of reality (ontology), what constitutes adequate knowledge (epistemology), and what role values play (axiology).

As part of **positivism**, one is required to deal with an observable social reality to be able to provide law-like generalisations, including accurate, unambiguous knowledge that is uninfluenced by bias or human clarification and seeks causal value-free relationships (Saunders *et al.*, 2019:144). According to Bryman *et al.* (2017:381), positivism is an epistemological position that advocates using natural sciences to understand social reality. In positivism, reality exists independently of humans. It is governed by immutable laws (Rehman & Alharthi, 2016:53). Similarly, as happens in nature, positivists state that events cause occurrences and that once a cause-and-effect relationship has been established, future events can be predicted accurately.

As a result of **critical realism**, observable events are explained, considering the underlying compositions of reality that shape them (Saunders *et al.*, 2019:147). According to critical realists, reality is independent and external but not observable and directly accessible using knowledge and observation. Critical realists view that sensations are being experienced, representing real-world phenomena rather than actual phenomena, emphasising how often senses are deceiving. Critical theory postulates that there is a subjective reality influenced by cultural, political, religious, gender, and ethnic factors that interact with each other to create a social structure (Rehman & Alharthi, 2016:55). Bryman

et al. (2017:376) opine that critical realism is imperative since researchers aim to recognise structures that may be changed to counteract injustices and inequalities.

Interpretivism accentuates that humans differ from physical phenomena since people establish the meaning being studied (Saunders *et al.*, 2019:148). As a result of interpretivism, social worlds and humans cannot be studied in the same manner as physical phenomena, and therefore, social sciences research must differ from natural science research rather than trying to shadow the latter (Saunders *et al.*, 2019:148-149). In interpretivism, multiple realities are believed to be socially constructed, and this paradigm is more subjective, thinking that reality and truth are not discovered but created (Rehman & Alharthi, 2016:55). Bryman *et al.* (2017:378) posit that interpretivism requires social scientists to understand the subjective meaning of social action.

According to Saunders *et al.* (2019:149), **postmodernism** accentuates power relations and language, interrogating established ways of thinking and expressing alternative marginalised viewpoints. According to Bryman *et al.* (2017:381), postmodernism involves an aversion to master narratives and a realist position. In terms of research methodology, postmodernists prefer qualitative approaches and are interested in the presentation style of results.

Pragmatism asserts that concepts are only relevant when they support action (Saunders *et al.*, 2019:151). By integrating subjectivism and objectivism, values, facts, different context-specific experiences, and precise knowledge, pragmatism strives to resolve subjectivism and objectivism. As part of pragmatism, ideas, theories, concepts, hypotheses, and research findings are considered concerning ideas and their practical application under specific conditions. Pragmatists seek practical solutions to problems (Saunders *et al.*, 2019:812). Pragmatism stems from situations, actions, and outcomes instead of antecedent conditions (such as post-positivism) (Creswell & Creswell, 2018:249).

4.3.4.1 Research Philosophy adopted in this current study

In this research, the **positivist philosophy** was used to evaluate the problem statement and study the relationship between the independent and dependent variables and the mediating variable. This paradigm is aligned with the researcher's own beliefs. In a positivist view of reality, reality exists independently of humans, is unmediated by our

senses, and is immutable in its laws. Positivism is an ontological position that is based on **realism** (Rehman & Alharthi, 2016:53). Creswell and Creswell (2018:6) agree with Philips and Burbules (2000) that post-positivist assumptions represent thinking after positivism. Knowledge is challenged in terms of its traditional notion of absolute truth. Rehman and Alharthi (2016:54) explain that positivists attempt to understand the natural world similarly to the social world. As long as a cause-and-effect relationship between phenomena is recognised, the future can be predicted confidently. Social worlds are viewed similarly by positivists.

Referring to the literature, the researcher has chosen to perform statistical analysis on secondary data to establish how corporate entrepreneurship (independent variables) affects the success of compliance training (dependent variables), considering the entrepreneurial orientation constructs as a mediating variable. This method is consistent with the positivist tradition of research. Criticisms against positivism in its ability to represent real-world perceptions are appreciated. This study demonstrates the reliability and validity of the measuring instruments used. The reliability of a measure is determined by its consistency, whereas the validity of a measure is determined by its accuracy. Research reliability refers to the ability of the results to be reproduced under the same conditions when the study is repeated. The Cronbach Alpha was used to determine the reliability of the measuring instrument. The degree to which the results are measured following their intended purpose is considered a measure of validity. A confirmatory factor analysis was conducted to assess the validity of the measurement instrument. Therefore, the relationship between corporate entrepreneurship and entrepreneurial orientation was studied as a mediating variable on compliance training success factors. Thus, the **positivist paradigm** is best suited to achieve the result.

The selection criteria for the research philosophy applied in this research study are summarised in Table 4.2. The typical methods used are expanded upon in the next section.

Table 4.2: Selection criteria used for the research philosophy in this research study

Criteria used for Positivism Research Philosophy			
Ontology considerations (nature of being or reality)	Epistemology (what constitutes appropriate knowledge)	Axiology (the role of values)	Typical methods used
There is one actual reality that is real, independent, and external. Reality is granular (things) and ordered.	Knowledge comprises measurable facts and is observable. The scientific method is used to obtain sufficient knowledge. Numbers are often used.	Research is value-free. The researcher is removed, independent and neutral of the research matter. The researcher upholds an objective perspective.	Typically deductive, highly structured, using large samples, measurement, and generally quantitative analysis methods; however, various data types may be analysed.
In this research, the reality of corporate entrepreneurship, entrepreneurial orientation and the success of compliance training was investigated within the compliance departments of South African banks. The reality is considered independent and external to the researcher.	Contribution consists of causal explanations and predictions. A scientific method of analysing the relationship between the independent, mediating and dependent variables was investigated. Structural equation modeling was used.	The researcher holds an objective viewpoint in a value-free research environment.	The typical methods used in this study are discussed in the next section.

Source: Adapted and applied from Saunders *et al.* (2019:144)

4.4 APPROACHES TO THEORY DEVELOPMENT

Saunders *et al.* (2019:152-153) and Mitchell (2018:103) suggest that a research approach may be inductive, deductive, or abductive. These three approaches to theory development will now be considered.

Generally, if research starts with a theory, frequently obtained from a literature study, and a research strategy is designed to test the theory, this is called a deductive approach (Saunders *et al.*, 2019:153). The authors of Bryman *et al.* (2017:9) claim that deductive theory is the most widely understood model of the relationship between the theory derived from research and the literature. Bryman *et al.* (2017:11) state that deduction involves a process by which theory leads to observation and findings.

Where research starts with data collection and the observation of empirical data (Saunders *et al.*, 2019:805) to discover a phenomenon, and a theory is constructed (frequently in the form of a conceptual model), an inductive research approach is then used (Saunders *et al.*, 2019:153). Bryman *et al.* (2017:11) posit that an inductive approach refers to the research outcome where the induction procedure has the drawing of generalisable inferences emanating from observations. Bryman *et al.* (2017:11) state that induction involves a process by which observation and findings lead to research theory.

Where data is collected to investigate a phenomenon, themes are identified, and patterns are described to develop a new or revised theory, subsequently tested by collecting supplementary data, an abductive approach is used (Saunders *et al.*, 2019:153). Mitchell (2018:105) believes that the abductive approach is set to rectify weaknesses connected to the inductive and deductive approaches. Therefore, the abductive approach follows a pragmatist approach, employing imperfect observations from experience and reality to develop a new theory that can be considered the most accurate prediction of reality. Additionally, abductive reasoning functions similarly to inductive and deductive approaches in that rational inferences and theories are constructed using abductive reasoning. The abductive research approach starts with surprising evidence and then searches for explanations. Existing theories may not explain an empirical phenomenon, and the researcher then seeks the best outcome from numerous alternatives to present the surprising evidence. Cognitive and numerical reasoning may be combined. (Mitchell, 2018:105).

Table 4.3 expands on the application of the approach of theory development to this research. This research study follows a deductive approach to theory development. Hypotheses are made about the causal relationship between phenomena, namely the relationship between independent variables, corporate entrepreneurship and entrepreneurial orientation as a mediating variable, and dependent variables, the success factors of compliance training. Since reality operates without regard to time and place, different researchers working at other times and locations will arrive at the same conclusions and results regarding a given phenomenon, and the result of the research is generalisable. After gathering empirical evidence, it is analysed. The evidence validates the theory established up front, which formed the hypotheses, explains the effect of the independent variables on the dependent variable and describes the mediating effect. As

a result of the statistical analysis, the hypotheses are either supported or disproved (Rehman & Alharthi, 2016:54).

Table 4.3: Deduction, induction, and abduction: from reason to research – application to this research

	Deduction- used in this research study	Induction	Abduction
Logic	When the premises of a deductive extrapolation are true, the conclusion should also be true, referring to this study's validation and rejection of hypotheses.	An inductive extrapolation involves using known premises to arrive at untested conclusions.	Abductive extrapolation is the process of drawing testable conclusions from known premises.
Generalisability	The generalisation of a general concept to a specific concept. This research moves from the general theories and hypotheses to the specific empirical results.	Generalising from the specific to the general.	Generalising from the interactions between the specific and the general.
Use of data	Data collection evaluates hypotheses or propositions related to an existing theory. This study makes use of hypotheses that are tested.	Establishing a conceptual framework for understanding a phenomenon. Data collection is used to identify themes and patterns.	Data collection aims to investigate a phenomenon, identify themes and patterns, locate these within a conceptual framework, and test the framework through subsequent data collection.
Theory	A theory is disproven or verified. The hypotheses in this study have been tested; some are accepted, and some are rejected.	Theory building and generation happen.	Theory modification or generation, incorporating existing theory whenever possible to construct a new theory or to modify an existing one.

Source: Adapted and applied from Saunders *et al.* (2019:153)

The following section focuses on the third layer of the research opinion, the research methodological choice.

4.5 RESEARCH METHODOLOGICAL CHOICE

In tackling a research problem, it is critical that the methodological research choice corresponds to the researcher's worldview and is suitable for the aim of the study (Burns *et al.*, 2022:8). The worldview consists of the research philosophy chosen, namely positivism, critical realism, interpretivism, postmodernism, or pragmatism (Saunders *et al.*, 2019:130). According to Saunders *et al.* (2019:176), the methodological research choice involves selecting a quantitative, qualitative or mixed-method research design and single or multiple research methods.

4.5.1 Quantitative research design

There appears to be a restricted link between positivism, deduction, and quantitative research (Saunders *et al.*, 2019:176). Welman *et al.* (2010:6) agree that the quantitative approach is also a positivist research approach. However, some quantitative research designs may fit partly into interpretivist theory and even within realist and pragmatist philosophies.

Quantitative research often follows a deductive approach to theory development, whereby data are collected to test a theory (Saunders *et al.*, 2019:176). In the view of Bryman *et al.* (2017:31), quantitative research involves collecting quantitative data, views theory and research as deductive and adopts an objective view of reality based on nature science (positivism). An inductive approach can also be integrated, where theory is developed (Saunders *et al.*, 2019:176).

According to Saunders *et al.* (2019:178), quantitative research examines relationships between numerically measured and statistically analysed variables. Bryman *et al.* (2017:39-40) continue further on acceptable knowledge in that with quantitative research, four primary considerations include consistent, stable, and valid measuring instruments, thinking in terms of cause and effect, samples need to be representative in terms of the population to provide generalisable findings, and the methods used are made explicit in generalising the findings. Additionally, a mono-method quantitative study may be conducted using a single data collection method, such as a questionnaire, in conjunction with a conforming quantitative analytical procedure. A multi-method quantitative study is one in which more than one quantitative method of data collection and analysis is employed in conjunction with a quantitative research design. For example, structured

observations and questionnaires are used to collect and analyse data statistically, but quantitative and qualitative methods are not mixed (Saunders *et al.*, 2019:178).

Furthermore, the characteristics prevalent with quantitative research designs, according to Saunders *et al.* (2019:178), include:

- researchers are viewed as independent from the subject matter of their studies
- those taking part in the research are called respondents
- the research aims to identify relationships between variables
- it is expected to use probability sampling techniques to ensure generalisability
- the data collection instruments are substantially structured and rigorously defined
- the results of the data collection are typically standardised data and numerical data
- the analysis of the data is conducted using diagrams and statistics
- meaning is derived from the numbers.

4.5.2 Qualitative research design

Qualitative research design is frequently used with an interpretative research philosophy (Saunders *et al.*, 2019:179) since researchers need to make sense of the socially constructed meaning and subjective nature of the phenomena under study. Qualitative research may, however, be carried out within pragmatist and realist philosophies.

Maxwell (2018:16) claims that qualitative research aims to understand better natural phenomena, such as the physical and mental. Qualitative research practices conducted naturally help the researcher collect qualitative data.

In terms of the approach to theory development, qualitative research designs typically start with an inductive approach to theory development, where emergent research design is used to build theory (Saunders *et al.*, 2019:170). However, some qualitative studies start with a deductive approach to test a theory using qualitative measures. The qualitative research process can also use abduction to develop inductive extrapolations and test deductive extrapolations iteratively throughout the investigation. A variety of data collection techniques and analytical procedures are used to investigate the meanings of participants and their relationships between the meanings to construct a conceptual framework and make a theoretical contribution. Those who consent to participate in

qualitative research are seen as participants, not merely respondents, and rapport should be built with the participants and sensitivity shown to gain cognitive access to the data. Images and words are used in unstructured or semi-structured methods, and non-probability sampling techniques are used.

Again, a single method (mono-method qualitative study) or more than one data collection technique and conforming analytical procedure may be used, representing a multi-method qualitative study (Saunders *et al.*, 2019:179).

The characteristics prevalent with qualitative research designs, according to Saunders *et al.* (2019:180), include:

- Research is usually not independent of the researcher.
- Those involved in the research are called informants or participants.
- Participants' qualified meanings and related relationships are studied.
- Usually, it uses non-probability sampling techniques.
- Images, spoken or textual words relay meaning.
- Semi-structured or unstructured methods are used to collect data.
- Collection of data results in non-standardised data typically requiring classification into categories.
- Conceptualisation is used to analyse data.

The most common research strategies related to qualitative research include narrative inquiry, ethnography, action research, grounded theory, and case study research (Saunders *et al.*, 2019:178).

Bryman *et al.* (2017:51) distinguish between quantitative and qualitative research in Table 4.4.

Table 4.4: Prevalent contrasts between quantitative and qualitative research

Quantitative Research	Qualitative Research
Focused on numbers and measurement.	Focused on words, story, and description.
From the researcher's viewpoint.	From the participant's perspective.
The researcher is disconnected from the respondents.	The researcher is immersed in the participants.
Testing concepts and theory.	Concepts and theories emanate from the data.
Social reality image is static.	Between actors, an interconnected process exists.
Data collection is structured.	The investigation is flexible.
A generalisation of the population occurs.	There is an understanding of the context.
Data is complex and dependable.	Data is deep, thick, and rich.
Large-scale patterns are the focus of macro analysis.	Providing explanations at a micro level.
Focus on perceptions and behaviour of people.	Focus on the meaning of action.
Artificial environment.	A natural environment.

Source: Adapted from Bryman *et al.* (2017:51)

Table 4.4 explains the differences between the quantitative and qualitative research methods.

4.5.3 Mixed methods research design

In mixed methods research, quantitative and qualitative data collection and analysis procedures are employed in the same study (Saunders *et al.*, 2019:181; Bryman *et al.*, 2017:379). Research methods utilising mixed methods are pluralist because researchers believe that method selection and use should be flexible. Researchers should also accept other preferred methods, so selecting and using this method is legitimate. A mixed research design method is often associated with pragmatism and critical realism. Pragmatics believe there are different ways of interpreting the world, whereas critical realists believe such approaches have implications for research design that may support mixed-method research designs.

Research often results in both quantitative and qualitative data, and it may also be used in conjunction with other methods, such as semi-structured interviews or participant observation. Mixing narrow and broad data methods is called mixed methods (Kirner & Mills, 2021:2).

Depending on the mixed research design, the development of the theory can be inductive, deductive, or abductive (Saunders *et al.*, 2019:181). A mixed methods study is a study in which quantitative and qualitative data are combined using various mixed methods designs, particularly social science theory and participatory social justice theory, according to Creswell and Creswell (2018:65-66). In an otherwise standardised questionnaire, open questions with free-text answers are used as an example of a mixed research design (Flick, 2019:4).

Mixed method research ranges from simple concurrent forms to more complex and sequential forms (Saunders *et al.* 2019:182). A single-phase research design uses qualitative and quantitative research design within a single phase, thus concurrently. If this research is conducted to compare how these data sets support each other, this is known as a concurrent triangulation design. In sequential mixed-method research, data collection and analysis occur over multiple phases. A double-phase research design refers to two alternative mixed-method research strategies: a sequential exploratory research design (qualitative followed by quantitative) or a sequential explanatory research design (quantitative followed by qualitative). Multiphase designs involve multiple phases of data collection and analysis, for example, qualitative research followed by quantitative research and quantitative research followed by qualitative research.

In a fully integrated mixed methods research design, quantitative and qualitative methods are combined in every investigation stage, such as in the design, data collection and analysis, interpretation, and presentation of the findings. When quantitative and qualitative research is only used at one stage or specific stages, it is called partially integrated mixed-methods research (Saunders *et al.*, 2019:183). As quantitative and qualitative methods are combined, and qualitative data are quantified for statistical analysis, events in the data are counted as frequencies and numerically coded. In the case of quantitative data that has been qualited, frequencies are converted into text, but in practice, this rarely occurs.

As Saunders *et al.* (2019:184) defined, embedded mixed methods research is research where one methodology supports another, for example, quantitative questions included in an interview schedule or questions in a questionnaire requiring a qualitative response by the respondents. This process is known as a concurrent embedded design.

4.5.4 The methodological approach adopted in the present study

The **present study selected a quantitative research method** associated with **positivism** and **deduction** to test the hypotheses between the independent variables (corporate entrepreneurship), entrepreneurial orientation as a mediating variable, and the dependent variables (compliance training success factors).

In the next section, the fourth layer of the research onion will be looked at, namely the research strategy.

4.6 RESEARCH STRATEGY

Saunders *et al.* (2019:815) posit that a research strategy entails the general plan of how the researcher will answer the research questions. According to the research onion, the research strategies comprise the following: case study, ethnography, experiment, grounded theory, action research, archival research, narrative inquiry, and survey (Saunders *et al.*, 2019:130). According to Bryman *et al.* (2017:382), research instruments are specific research study methods, such as structured interview schedules, self-complete questionnaires, and structured interview or observation schedules.

According to Saunders *et al.* (2019:803), an experiment is a research strategy to examine the likelihood of a change in the independent variable causing a change in another dependent variable. There is a definition of a null and alternative hypothesis and a random allocation of participants to one of the control and experimental groups. The independent variable is then manipulated, and changes in the dependent variable are observed and controlled by other variables. A research design that excludes alternative explanations of findings (internal validity) is defined as an experiment by Bryman *et al.* (2017:377) by having at least a control group that is not exposed to specific circumstances, an experimental group that is exposed to particular circumstances, and a sample that may be randomly assigned to the two groups.

Archival research is a research strategy that analyses administrative documents and records as the primary data sources since they result from day-to-day operations (Saunders *et al.*, 2019:797). According to Ventresca and Mohr (2002:805), archival research examines documents and texts produced by and regarding organisations. Although archival research is primarily concerned with studying historical documents, it

also includes non-historical investigations of texts and documents about and by modern-day organisations, complementing other research strategies (such as fieldwork and surveys). Archival research consists of the analysis of electronic databases, web pages, emails, and digital texts.

In case studies, empirical evidence is collected from numerous sources of evidence to examine a phenomenon within the context of its real-life setting (Saunders *et al.*, 2019:797). According to Bryman *et al.* (2017:374), case studies involve an in-depth and comprehensive examination of one case, and comparative purposes may be served by using two or three cases.

Ethnography is a research strategy focusing on narrating and explaining the social world using hands-on field study (Saunders *et al.*, 2019:803). Bryman *et al.* (2017:377) view ethnography as a research design in which researchers are immersed in and detect social settings for prolonged periods.

Action research as a research strategy is related to change management and includes close partnerships between researchers and practitioners. The action research results also inform other contexts (Saunders *et al.*, 2019:796). According to Bryman *et al.* (2017:374), action research refers to a research strategy in which a client and the action researcher collaborate to diagnose the problem and design a solution based on the diagnosis. Avison *et al.* (1999:94) view action research as a combination of theory and practice by using change and reflection in a problem situation within a reciprocally agreed ethical framework. Action research is an iterative procedure in which practitioners and researchers collaborate on a series of activities, including diagnosis of the problem, acting, and reflective learning. In action research, the researcher aims to test a theory with practitioners in actual situations, learn from the experience, amend the theory based on the outcome, and test the new theory again Avison *et al.* (1999:95).

In the sense of research strategy, grounded theory is created from data obtained from interviews or observation using an inductive approach (Saunders *et al.*, 2019:804). Grounded theory is viewed by Bryman *et al.* (2017:378) as an approach to analyse qualitative data that has the outcome of developing a theory out of research data by attaining a close fit between the data and the theory. Gilgun (2020:17) claims that a

grounded theory characteristically manifests itself in theory coupled with the data on which the theory is founded. Data are descriptive.

Narrative inquiry is a research strategy that collects participants' experiences as narratives or whole accounts or tries to rebuild such experiences into narratives (Saunders *et al.*, 2019:809). According to Clandinin (2006:46-47), a metaphor has been developed to describe narrative inquiry in three dimensions, namely personal and social (interaction), past, present, and future (continuity), and place (environment).

A survey is a research strategy consisting of structured data collection from a large enough population. It may include the use of questionnaires but also other methods, including structured interviews and structured observation (Saunders *et al.*, 2019:818). Bryman *et al.* (2017:384) concur that a survey is a cross-sectional research design where structured interviews or questionnaires collect data.

4.6.1 Research strategy adopted in the present study

Generally, experiments and surveys are used with natural science, deductive type research approaches (Saunders *et al.*, 2019:190,193) falling within positivist research paradigms (Ye *et al.*, 2016:120; Johannesson & Perjons, 2014:172; Oates, 2004:4). Most experiments and surveys are used with quantitative research design (Saunders *et al.*, 2019:190). The survey is also generally related to a deductive approach to research. Exploratory and descriptive research questionnaires being used as part of survey research strategies are prevalent because surveys allow for an accessible collection of standardised data economically from a large number of respondents and make it easy to compare (Saunders *et al.*, 2019:193). Surveys are intended to determine how a group of people behaves or thinks about a particular issue. Descriptive and inferential statistics may be used to analyse data collected via a survey. The collected data could also be used to explain the relationship between variables and propose models to explain these relationships (Saunders *et al.*, 2019:194). The survey findings statistically represent the population where probability sampling is used, which costs less than sampling the whole population. Once the data are collected, the researcher is independent. This study uses a **survey research strategy** to collect data from a large population structurally. The purpose of the research is **explanatory**, including studies that demonstrate causal

relationships between variables (Saunders *et al.*, 2019:188). The research focuses on explaining the relationship between the variables based on the research problem.

The hypotheses set and tested with the survey will now be discussed.

4.7 THE HYPOTHESES

Based on the theories leading to the conceptual model, as discussed in Chapter 1, Section 1.5, this study tests the theory that corporate entrepreneurship increases performance (Fis & Cetindamar, 2020:1; Zahra & Covin, 1995:55) whilst testing the mediating effect that entrepreneurial orientation has in the relationship between corporate entrepreneurship and performance. There is sufficient evidence in the literature that entrepreneurial orientation also increases performance (Lee & Chu, 2017:13; Wang: 2008:650). Furthermore, entrepreneurial orientation has been proven to be a construct of corporate entrepreneurship (Kuratko and Morris, 2018:50), which is also tested in this research, and entrepreneurial orientation has been tested as a mediating variable.

The theories that this study is based on and aligned to include the resource-based view of Barney (1991:99), viewing entrepreneurial orientation as a resource of the organisation that impacts performance, as well as Schumpeter's theory of innovation, entrepreneurship, and economic development (1934), that views employees as entrepreneurs within the organisation that finds new ways to conduct and organise business, and contributes to economic development. Performance is framed as the success of compliance training, and this study proposes a framework for compliance training success and is aligned to the following theories as discussed in Section 3.6.2:

- Reinforcement management theory.
- Social learning theory.
- Experiential learning cycle theory.
- Adult learning theory and,
- Sensory theory.

The research **argument** stems from the proven positive relationship between corporate entrepreneurship (Ziyae & Sadeghi, 2020:113) and entrepreneurial orientation (Fan *et al.*, 2021:17; Khalid *et al.*, 2020:282) and performance. The researcher, therefore, argues

that there should be a positive relationship between corporate entrepreneurship and the various compliance training success models, and entrepreneurial orientation should positively mediate this relationship due to entrepreneurial orientation being a subset of corporate entrepreneurship (Kuratko & Morris, 2018:50) and taking into account the resource-based view of Barney (1991:99), where corporate entrepreneurship and entrepreneurial orientation is seen as resources of the organisation, increasing performance, and Schumpeter's theory of innovation, entrepreneurship, and economic development (1939:84) that views employees of the organisation also as entrepreneurs. This research argument leads to the hypotheses below.

For the sake of simplicity, the hypotheses do not include the in-text citations for the various authors of the compliance training success factors. A thorough reference has been made to the literature throughout this study.

The following hypotheses have therefore been set:

H¹. There is a positive relationship between corporate entrepreneurship and compliance training success, according to Kirkpatrick.

H². There is a positive relationship between corporate entrepreneurship and return on investment, according to Phillips and Marcheselli.

H³. There is a positive relationship between corporate entrepreneurship and a supportive learning environment, according to Garvin *et al.*

H⁴. There is a positive relationship between corporate entrepreneurship and concrete learning processes, according to Garvin *et al.*

H⁵. There is a positive relationship between corporate entrepreneurship and leadership that reinforces learning, according to Garvin *et al.*

H⁶. There is a positive relationship between corporate entrepreneurship and extracting business value from compliance training, according to Young.

H⁷. There is a positive relationship between corporate entrepreneurship and the effectiveness of compliance programmes, according to the Health Care Compliance Association.

H⁸. There is a positive relationship between corporate entrepreneurship and compliance training success factors, according to Dixon and Overton.

H⁹. There is a positive relationship between corporate entrepreneurship and a holistic compliance communication programme, according to Rogers.

H¹⁰. There is a positive relationship between corporate entrepreneurship and factors that make training stick, according to Katz.

H¹¹. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and compliance training success, according to Kirkpatrick.

H¹². Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and return on investment, according to Phillips and Marcheselli.

H¹³. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and a supportive learning environment, according to Garvin.

H¹⁴. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and concrete learning processes, according to Garvin.

H¹⁵. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and leadership that reinforces learning, according to Garvin.

H¹⁶. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and extracting business value from compliance training, according to Young.

H¹⁷. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and the effectiveness of compliance programmes, according to the Health Care Compliance Association.

H¹⁸. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and compliance training success factors, according to Dixon and Overton.

H¹⁹. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and a holistic compliance communication programme, according to Rogers.

H²⁰. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and factors that make training stick, according to Katz.

The following section will discuss the time horizon used, which is the fifth layer of the research onion.

4.8 TIME HORIZON OF THE RESEARCH

It is essential to decide whether the research will be a picture at one point in time and whether it will span across time periods. Time is the time horizon in research and is the fifth layer of the research onion discussed next.

4.8.1 Cross-Sectional studies

Cross-sectional studies examine phenomena at a given point in time (Cresswell & Cresswell, 2018:149) and often employ survey methods (Saunders *et al.*, 2019:212). Thus, the research is conducted at a point in time and can be regarded as the snapshot method. Bryman *et al.* (2017:376) suggested that a cross-sectional design involves collecting data on more than one case and, at one point, collecting quantitative or quantifiable data regarding two or more variables, which are then analysed to determine any correlation patterns.

Welman *et al.* (2010:95) posit that with a cross-sectional design, cohorts are examined at approximately the same time. Cross-sectional studies can seek to describe a specific phenomenon, such as the information technology skills possessed by managers in a particular organisation (Saunders *et al.*, 2019:212). Although the survey strategy is often used in cross-sectional studies, mixed methods or qualitative research strategies can also be implemented.

4.8.2 Longitudinal studies

One of the significant benefits of longitudinal studies is that they can study the development and change over time (Saunders *et al.*, 2019:212). The study of the phenomenon is thus over a period of time (Creswell & Creswell, 2018:149) or over an

extended period (Saunders *et al.*, 2019:807). Bryman *et al.* (2017:379) suggest that data should be collected at least twice. Welman *et al.* (2010:95) posit that a longitudinal design involves examining the same group at different intervals. Saunders *et al.* (2019:212) believe that despite time constraints, a longitudinal element could still be introduced into research, such as using published data collected over time. Cosco *et al.* (2016:98) view longitudinal studies where at least three waves of data are captured. Data are provided that illuminate trends that occur over time. Numerous variables interact dynamically, are not static, and change over time. Thus, longitudinal research methods are used to make sense of the relationships that present themselves over time.

4.8.3 Time horizon adopted in the current study

The time horizon implemented in the current study was **cross-sectional**, as the research involved a survey design to collect quantitative data on the dependent, independent, and mediating variables at a specific time. Data were thus not collected at several points in time, and this snapshot approach is also known as cross-sectional.

This section concludes the layers of the research onion of Saunders *et al.* (2019:130). The remaining sections of this chapter will explore the core of the onion, namely the data collection and data analysis techniques and procedures implemented in this research study.

4.9 DATA COLLECTION

This section considers the secondary and primary data sources used in this study.

4.9.1 Literature review (Secondary data collection)

Secondary data refers to data collected originally to fulfil another purpose (Saunders *et al.*, 2019:816). Welman *et al.* (2010:149) view secondary data as being collected by a researcher other than the current researcher. This data can be further analysed to provide different or supplementary explanations, conclusions, or knowledge. Therefore, secondary analysis refers to data analysis by researchers not initially involved in collecting the data (Bryman *et al.*, 2017:383).

This research study obtained secondary data by reviewing the literature on corporate entrepreneurship, entrepreneurial orientation, compliance departments within South

African banks, and compliance training success factors. The secondary data collected in this study are discussed in Chapters 2 and 3 of this thesis. Various sources were consulted, such as books, websites, conference papers, and journal articles relevant to the study that were procured and sourced using EBSCOhost, Google Scholar, Emerald and Sage databases. The secondary data collected assisted with formulating the conceptual model and the hypothesised models found in Chapter 1 (see Figures 1.1 and 1.2, respectively).

4.9.2 Empirical investigation (Primary data collection)

Typically, primary data are data collected specifically for a study (Saunders *et al.*, 2019:813) and original data collected by researchers for their study (Welman *et al.*, 2010:149). Primary data may consist, among other sources, of interviews, surveys, and experiments that were explicitly designed to solve the research problem (Wagh, 2023). Primary data was collected in this research study after defining the population, calculating the sample, and producing the appropriate research instrument to solve the research questions of the current study. The following section details the present study population, sample, and research instrument.

4.9.3 Population and sampling

This section covers the population and sampling considered in this research study.

4.9.3.1 Population, context, and the demarcation of the study area

Welman *et al.* (2010:52) define the population as the study's object comprising individuals, organisations, groups, events, human products, or the environments they are exposed to. Research problems concern a specific population comprising all units of analysis from which the researcher aims to draw a particular conclusion. According to Bryman *et al.* (2017:381), the research population is the universe of units from which a sample is selected. Saunders *et al.* (2019:294) agree and add that in sampling, the term population is not used in the usual sense since the complete set of cases from which a sample is drawn need not necessarily be individuals.

In the context of this research study, the research population includes compliance departments within the South African banking sector. Compliance departments are made up of Compliance Officers. They are responsible for advising the businesses they service,

monitoring the business areas for compliance against regulatory and other requirements, providing various governance reporting, and ensuring employees are trained (Lunday, 2010). The Compliance Officers are, therefore, the unit of analysis within this research study. Corporate entrepreneurship and entrepreneurial orientation were measured within compliance departments in South African Banks, and the impact on performance in compliance training success, whilst measuring entrepreneurial orientation as a mediating variable in the relationship. The outcome is to propose a compliance training success framework for South African banks to enhance an entrepreneurial environment. Organisations' compliance departments must be more innovative and adaptive to changing environments. Thus, it is inferred that there is a need for compliance departments to display corporate entrepreneurship (Herbert Smith Freehills, 2020:16) to not only increase performance but also thrive. It is critical to embed an entrepreneurial culture into every aspect of operations to develop radical innovations to enable corporate entities to thrive (Hughes *et al.*, 2021:1). This applies equally to compliance departments.

4.9.3.2 The sampling process

A census collects data from every possible group member or case in the population (Saunders *et al.*, 2019:798). Furthermore, researchers must know that a census may yield fewer valuable results than when collecting sampling data (Saunders *et al.*, 2019:294). When budget and time constraints make a complete survey unrealistic, sampling provides an alternative. Generally, a sample refers to a subsection of the population selected for research (Bryman *et al.*, 2017:383). A sample is a subset of a population, and its selection can be based on non-probability sampling or probability sampling, which will be discussed in the following Section. Therefore, in the next Section, the sample selection for this cross-sectional study (at a time) will be further explored.

The sample selection

For this specific study, the research and skills planning area of BANKSETA indicated that there are 1 232 compliance officers in the banking sector in South Africa as of 2020 (BANKSETA, 2020). Therefore, the sampling frame includes compliance departments within South African banks, and Compliance Officers represent the unit of analysis.

Slovin designed a formula that provides researchers with the sample size requirements to ensure reasonable accuracy of the results (Ellen, 2020). Slovin's formula is used when

more information is needed to predict the distribution of a population. Furthermore, Slovin's formula is used if nothing is known about the population's behaviour yet, and the minimum sample size needs to be calculated (Monk & Munro, 2021:607). The formula is as follows:

$n = N / [1 + N (e^2)]$ where n = sample size, N = total population, e = tolerable error (0.05 or 95% confidence level)

When applying this to the Compliance Officer population, the following sample size emerges:

$$n = 1\,232 / [1 + 1\,232 (0.05^2)]$$

Thus, $n = 302$ sample size

According to Slovin's formula, a sample of 302 respondents would be considered for a population of 1,232 members.

When using the sample size calculator from Raosoft Inc. (Raosoft, 2023), which allows for a margin of error of 5%, a confidence level of 95% and a response distribution which is unsure, and 50% is used, a minimum sample size of 295 respondents is recommended.

Based on the characteristics of the measurement model and the complexity of the model, Hair *et al.* (2019:633) recommend the following minimum sample sizes:

- It is recommended that a minimum sample size of 100 respondents be used for models containing five or fewer constructs, each with more than three observed variables and high commonality between items (0.6 or higher).
- A minimum sample of 150 respondents should be used for models with seven constructs or fewer, modest commonalities (0.5), and no under-identified constructs.
- Models with seven or fewer constructs with lower commonalities (below 0.45) and/or under-identified constructs (less than three) require a minimum sample size of 300 respondents.

- There should be a minimum sample size of 500 for models that include many constructs, including some with lower commonalities and/or having fewer than three measured items.

Taking into account the recommendations made by Monk and Munro (2021:607), the sample calculator by Raosoft (2023), and even the broader guidelines of Hair (2019:633), a sample size of 300 is considered adequate for this research study even though more than seven constructs are evident in the models.

4.9.3.3 The sampling procedure

The two sampling techniques are probability or representative and non-probability (Saunders *et al.*, 2019:296). The two sampling techniques are discussed next.

4.9.3.3.1 Probability sampling

The probability sampling technique refers to a sampling method in which each unit in a population has an equivalent probability of being included in the sample (Taherdoost, 2016a:20). The probability of each case being selected from a population is known in probability sampling and is not zero (Saunders *et al.*, 2019:813). According to Bryman *et al.* (2017:381), a probability sample is a sample selected using random sampling in which each unit in the population has a known probability of being selected.

The probability sampling techniques are discussed in Table 4.5 below.

Table 4.5: Probability sampling techniques

Technique	Description of technique
Simple random sampling	The sample is selected using a spreadsheet's random number generator function or random number tables.
Systematic random sampling	This method is also known as systematic sampling, in which a sample is selected from the sampling frame at regular intervals. A random number is used to select the first case, and a sampling fraction is calculated to select the remaining cases.
Stratified random sampling	Strata and subsets are identified in the population and sampling frame. Each subset or stratum is then randomly selected.
Cluster random sampling	Before sampling, the target population is divided into discrete groups. Any naturally occurring assemblage can be classified into these groups (clusters). Instead of merely listing all cases in the population, the sampling frame consists of a complete list of all clusters. A few clusters are then selected by random sampling.

Source: Adapted from Saunders *et al.* (2019:297-313)

4.9.3.3.2 Non-probability sampling

Non-probability sampling involves selecting cases without knowing their probability of selection (Saunders *et al.*, 2019:810). According to Bryman *et al.* (2017:380), a non-probability sample is not randomly selected. The result is that some units in the population may be more likely to be chosen than others. Those units that are likely to be selected have a probability that exceeds zero, whereas those that are unlikely to be selected have a probability of zero (Welman *et al.*, 2010:56).

Table 4.6 discusses the non-probability sampling techniques.

Table 4.6: Non-probability sampling techniques

Technique	Description of technique
Quota sampling	The sample must contain specific population characteristics as determined by the researcher.
Purposive sampling	Using judgment, the researcher selects cases that best enable him or her to answer the research question. The following bases may be chosen; extremes, homogeneity (maximum similarity, such as a particular occupation), heterogeneity (maximum variation), and criticality.

Technique	Description of technique
Volunteer sampling	Participants are being volunteered, or they self-select to be part of the research.
Haphazard sampling	Cases are chosen without any apparent principles of organisation.

Source: Adapted from Saunders *et al.* (2019:297; 315-323)

4.9.3.3.3 Multi-stage sampling

Several types of sampling are considered multi-stage sampling, including those that occur in more than one stage and utilise either non-probability sampling techniques, probability sampling techniques, or both types (Saunders *et al.*, 2019:325).

4.9.3.3.4 Sampling technique employed for the current study

The current study employed a purposive sampling technique as part of non-probability sampling. It is possible to select a sample based on knowledge of the population, its elements, and the purpose of the study by employing a purposive sampling approach (Babbie, 2014:200). Total population sampling is a type of purposive sampling technique that involves examining the entire population with a particular set of characteristics (e.g., exposure to an event, knowledge, specific experience, or skills). When a small population has a particular set of characteristics of interest, the entire population is often selected (Mujere, 2016: 118).

There may be a sense of incompleteness in leaving out certain instances from sampling as if one were missing prominent pieces from a puzzle. In this case, total population sampling is the most appropriate sampling method (Etikan *et al.*, 2016:3). In this study, the 1,232 Compliance Officers are selected as subjects for research, as they are responsible, among other factors, for the training of employees on compliance-related legislation and regulations (Lunday, 2010). The base of homogeneity has been used to select the Compliance Officers, who all fulfil a similar occupation within the Compliance departments of South African banks. They would be best suited to provide feedback on compliance training in their organisation. Total population sampling also eliminates the risk of biased selection of prospective random study samples (Glen,2022).

4.10 SUMMARY

This chapter describes the research design and methodology framework utilised in the study, particularly emphasising the research philosophy, approach to theory development, methodological choice, research strategy, and hypotheses posed for the study. It was discussed how the data was collected in this study. Also determined were the population, sample, and sampling technique.

The research instrument development is covered in the next chapter, Chapter 5.

Chapter 5 partially achieves secondary objectives 1, 2 and 3 and deals with the research instrument development process, which incorporates the constructs measuring the variables enabling the investigation of the relationship between corporate entrepreneurship as an independent variable, compliance training success as a dependent variable, and entrepreneurial orientation as a mediating variable. Similarly, methodological objective 1 was partially achieved, which deals with identifying the constructs that measure corporate entrepreneurship, entrepreneurial orientation, and compliance training success, and the variables were operationalised and the measurement instrument developed in Chapter 5. Methodological objective 5 is fully dealt with in Chapter 5, which is to design a measuring instrument to source data for empirically assessing the hypothesised relationships. Research question 1 is also partially achieved in Chapter 5, asking which constructs measure corporate entrepreneurship, entrepreneurial orientation, and compliance training success by operationalising the variables and developing the research instrument.

CHAPTER 5 MEASURING INSTRUMENT DEVELOPMENT

5.1 INTRODUCTION

Section 4.6.1 in Chapter 4 outlines that this study has selected a survey research strategy to answer the research questions. The measuring instrument used for this study is a structured questionnaire consisting of scales that measured the dependent and independent variables of this study, as well as the effect of the mediating variables.

According to Saunders *et al.* (2019:814), a questionnaire refers to a set of questions presented to each respondent in a predetermined order. Respondents usually participate in self-complete questionnaires called surveys (Saunders *et al.*, 2019:506). When developing a questionnaire, the first step is to identify and conceptualise the variables of interest (Taherdoost, 2019:2). After conceptually identifying and defining the variables of interest, the type of scale must be determined. There are two main types of scaling methods: open and closed questions (Taherdoost, 2016b:1). A questionnaire is scaled by creating a continuous sequence of values upon which it is placed.

This survey questionnaire in this research uses closed questions and a Likert scale, initially developed by Rensis Likert (1931), which contains five responses: totally disagree, disagree, undecided, agree or strongly agree. 'Totally disagree' indicates strong disagreement with the statements on corporate entrepreneurship, entrepreneurial orientation, and success factors of compliance training, respectively and 'disagree' indicates disagreement. 'Agree' indicates agreement with the statements. 'Strongly agree' indicates strong agreement. 'Undecided' is an indication that the respondent cannot decide to agree or disagree with the statement.

Part of questionnaire development includes a cover letter or introductory statement, instructions on completing the questionnaire, and a closing statement (Pershing, 2006:763-765).

5.2 COVER LETTER, INSTRUCTIONS AND A CLOSING STATEMENT

An introductory statement often includes explaining the general purpose, requesting cooperation in the research, and informing about anonymity or confidentiality procedures. It is possible to retain this information at the beginning of the questionnaire or in a cover

letter (Pershing, 2006:763). The closing statement of a questionnaire should also thank participants for their participation, and it is also important to consider logistics when writing a closing statement. It is possible to include in questionnaires information on what should be done with completed responses in need (Pershing, 2006:765).

In this study, the introductory statements are incorporated at the beginning of the Micro Soft Forms survey. Details are provided on the total number of questions that comprise the questionnaire. The participants are thanked for their feedback. Furthermore, context around the study is provided, as well as what the intended outcome of the study is. The fact that the study is voluntary and the estimated time to complete the questionnaire is also mentioned. The questionnaire contains contact information for the researcher and the supervisor and instructions on completing it.

Lastly, the informed consent of the participant is provided, with confidentiality assurance given to the respondents, including the ethical clearance number from North-West University.

The questionnaire is included in Appendix A, the informed consent of the Skills Development Facilitators is included in Appendix B, the informed consent of the Chief Compliance Officers is included in Appendix C, and the informed consent of the participants is included in Appendix D.

5.3 INTRODUCTORY STATEMENTS TO THE QUESTIONNAIRE IN THIS RESEARCH STUDY

The following introductory statements have been included for this research study:

Dear respondent,

Thank you for your time and participation in this survey. There is a total of 169 questions. We truly value your feedback.

The need for an innovative, agile, and forward-thinking compliance function may be more urgent than ever. It is, therefore, inferred that the requirement for an entrepreneurial Compliance department may be more critical than ever. Furthermore, robust compliance can make a business more competitive. Therefore, there is an intensifying dilemma for Compliance departments within South African banks to curtail fines, realise a competitive

advantage, and display corporate entrepreneurship to pursue a sustainable competitive advantage and increase performance.

This survey aims to propose a compliance training success framework for South African banks by measuring the corporate entrepreneurship and entrepreneurial orientation in Compliance departments within the SA banking sector and the compliance training success factors currently prevalent within South African banks. The relationship between the constructs and the mediating role of entrepreneurial orientation on the success of compliance training will also be measured. Your honest opinion regarding the various statements is valued.

Please note that your participation in this survey is voluntary and should take approximately 45 minutes to complete. By participating in this survey, you provide implicit and informed consent that the data may be used for the purposes of this research study. No person's identity will be used or exposed during this study, and anonymity will be maintained.

CONTACT DETAILS:

Student: Mrs Deseré Botha [Cell: 083 260 4462, Email: Desere.Botha@standardbank.co.za]

Supervisor: Prof SP van der Merwe [Cell: 082 335 0578, Email: Stephan.vandermerwe@nwu.ac.za]

The following question is mandatory, and a “no” answer will prevent the further completion of the questionnaire.

You hereby consent to continue with the survey questionnaire:

YES	NO

Please complete every statement/question to ensure the validity of this study.

GENERAL INSTRUCTIONS:

Please answer the questions by clicking on the most appropriate option which best describes your opinion about a specific question or statement.

Figure 5.1 below depicts a screenshot from MS Forms.

Figure 5.1: Microsoft Forms screenshot of extract of the questionnaire

Use the following key to indicate your preference:

Grade	Terms used	Meaning of the scale
1	Totally disagree	Strongly disagree with the statement
2	Disagree	Disagree with the statement
3	Undecided	Unable to decide between disagreement or agreement with the statement
4	Agree	Agree with the statement
5	Strongly agree	Strongly agree with the statement

3

EXAMPLE *

1 Totally disagree 2 Disagree 3 Undecided 4 Agree 5 Strongly agree

I have enough autonomy in my job without continual supervision to do my work.

☐ ☐ ☐ ☒ ☐

Source: Researcher's screenshot of MS Forms

The format of the questionnaire will be discussed next.

5.4 FORMAT OF THE QUESTIONNAIRE

The questionnaire consists of 4 sections, as shown in the summary in Table 5.1 below.

Table 5.1: Sections and subsections of the survey on proposing a compliance training success framework for South African banks to enhance an entrepreneurial business environment

Section	Focus area being measured	Subsections
A	Corporate entrepreneurship (Hornsby <i>et al.</i> , 2002:264-265) adapted and tested by Strydom (2013:174-177)	• Management support. • Work discretion and autonomy. • Rewards and reinforcement. • Time availability. • Organisational boundaries.
B	Entrepreneurial Orientation (Lotz & van der Merwe, 2013:31-32)	• Autonomy. • Innovativeness. • Risk-taking. • Proactiveness. • Competitive aggressiveness.
C	Compliance Training Success Factors (Various authors)	• `Kirkpatrick's levels of evaluation (Kirkpatrick1996:55-56). <ul style="list-style-type: none"> <li>• Learner reaction.</li> <li>• Learning.</li> <li>• Behaviour changer.</li> <li>• Business results.</li> </ul> </li> <li>• `Return on investment (Philips (1996:20) and Marcheselli (2019)). - Learning organisation (Garvin et al., 2008:112-113).

Section	Focus area being measured	Subsections
C		• Supportive learning environment. • Psychological safety. • Appreciation of differences. • Openness to new ideas. • Time for reflection. • Concrete learning processes. • Experimentation. • Information collection. • Analysis. • Education and training. • Information transfer. • Leadership that reinforces learning. • Extracting business value from compliance training (Young et al., 2017:4). • Individually relevant learning. • High-impact learner experiences using social, workplace and media-rich digital learning. • A focus on knowledge, skills, behaviours, and decisions that embed lasting behaviour change. • Joined up as strategic learning, reinforced and delivered at the point of need. • Effectiveness of compliance programmes, including compliance training and awareness by the Health Care Compliance Association, Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27). • Planning for compliance training. • Implementation of compliance training. • Evaluation and administration after compliance training. • Compliance training success factors (Dixon & Overton, 2017:38). • Desired characteristics of a holistic Compliance communication programme, including training (Rogers, 2022:2-11). • Factors that make training stick (Katz, 2014:66).
D	Biographical information	• Age group. • Gender. • Seniority within the organisation. • Highest academic qualification.

Source: Researcher's construction

5.5 DEVELOPMENT AND OPERATIONALISATION OF VARIABLES

Operationalisation is the stage during quantitative research when concepts are translated into measures to reach reliable and valid measurements (Bryman *et al.* (2017:380). What follows is a discussion of each concept of corporate entrepreneurship as independent variables, entrepreneurial orientation as mediating variables, and compliance training success factors as dependent variables.

5.5.1 Corporate entrepreneurship

The first concept, corporate entrepreneurship, was measured as the independent variable using a shortened version of the corporate entrepreneurship instrument, initially designed by Hornsby *et al.* (2002:264-265) and adapted and tested by Strydom (2013:174-177). Constructs include management support, work discretion and autonomy, rewards and reinforcement, time availability and organisational boundaries, discussed in Table 5.2.

Table 5.2: Operationalisation of Corporate entrepreneurship

MANAGEMENT SUPPORT		
<i>Management support (MS)</i> refers to management providing support and backing, advocating for innovative ideas, having experience with the innovation process, and encouraging, facilitating and endorsing the display of entrepreneurial behaviour.		
Item codes	Measurement items	Source
MS1	In our organisation, individual risk-takers are often recognised for their willingness to champion new projects, whether eventually successful or not.	Hornsby <i>et al.</i> (2002:264-265), Strydom (2013:174-177).
MS2	People are often encouraged to take calculated risks with new ideas around here.	
MS3	Many top managers have been known for their experience with the innovation process.	
MS4	This organisation supports many small and experimental projects, realising that some will undoubtedly fail.	
WORK DISCRETION AND AUTONOMY		
<i>Work discretion and autonomy (WD)</i> refers to how authority is delegated to employees with discretion about performing their work, not being bogged down with extreme oversight.		
Item codes	Measurement items	Source
WD1	It is basically my own responsibility to decide how my job gets done.	Hornsby <i>et al.</i> (2002:264-265), Strydom (2013:174-177).
WD2	I almost always get to decide what I do in my job.	
WD3	I have the freedom to decide what I do in my job.	
WD4	I have a great deal of autonomy in my job, and I am left on my own to do my own work.	

REWARDS AND REINFORCEMENT		
<i>Rewards and reinforcement (RE)</i> refer to the use by managers of practices and routines to reward and reinforce exceptional performance that may support innovative behaviour.		
Item codes	Measurement items	Source
RE1	My manager would inform their boss if my work was outstanding.	Hornsby et al. (2002:264-265), Strydom (2013:174-177).
RE2	My supervisor will increase my job responsibilities if I am performing well in my job.	
RE3	My supervisor will give me special recognition if my work performance is especially good.	
RE4	The rewards I receive are dependent upon my work on the job.	
TIME AVAILABILITY		
<i>Time availability (TA)</i> provides groups and individuals sufficient free or unstructured time to explore innovations and support innovative efforts to achieve short- and long-term goals.		
Item codes	Measurement items	Source
TA1	I have just the right amount of time and workload to do everything well.	Hornsby et al. (2002:264-265), Strydom (2013:174-177).
TA2	I feel that I am always working with time constraints in my job.	
TA3	I always seem to have plenty of time to get everything done.	
TA4	During the past three months, my workload was too heavy to spend time on developing new ideas.	
ORGANISATIONAL BOUNDARIES		
<i>Organisational boundaries (OB)</i> refer to the perception of supple organisational boundaries in encouraging entrepreneurial activity within an organised, purposeful process with structure managing uncertainty.		
Item codes	Measurement items	Source
OB1	I clearly know what level of work performance is expected from me in terms of amount, quality and timelines of output.	Hornsby et al. (2002:264-265), Strydom (2013:174-177)
OB2	In my job, I have no doubt regarding what is expected of me.	
OB3	There is little uncertainty in my job.	
OB4	In the past three months, I have always followed standard operating procedures or practices to execute my major tasks.	

Source: Researcher's construction based on secondary sources

5.5.2 Entrepreneurial orientation

The second concept, entrepreneurial orientation, was measured as a mediating variable using the questionnaire developed and tested by Lotz and Van der Merwe (2013:31-32). Five constructs can be observed: autonomy, innovativeness, risk-taking, proactiveness and competitive aggressiveness, discussed in Table 5.3.

Table 5.3: Operationalisation of Entrepreneurial Orientation

Autonomy		
<i>Autonomy (A)</i> refers to having the ability and willingness to pursue opportunities on one's own without being restricted by the organisation's limitations. There is independence throughout the process, making critical decisions and taking action.		
Item codes	Measurement items	Source
A1	I have enough autonomy in my job without continual supervision to do my work.	Lotz and Van der Merwe (2013:31-32)
A2	Our department allows me to be creative and try different methods to do my job.	
A3	Employees in our department are allowed to make decisions without going through elaborate justification and approval procedures.	
A4	Employees in our department are encouraged to manage their own work and have the flexibility to resolve problems.	
A5	I seldom have to follow the same work methods or steps while performing my major tasks from day to day.	
Innovativeness		
<i>Innovativeness (I)</i> refers to introducing new products, services, operational techniques, marketing strategies, or organisational or managerial methodologies or systems and continually pursuing new opportunities.		
Item codes	Measurement items	Source
I1	Our department regularly introduces new services/products/processes.	Lotz and Van der Merwe (2013:31-32)
I2	Our department places a strong emphasis on new and innovative products/services/processes.	
I3	Our department has increased the number of services/products offered during the past two years.	
I4	Our department is continually pursuing new opportunities.	
I5	Over the past few years, changes in our department's processes, services and product lines have been quite dramatic.	
I6	In our department, there is a strong relationship between the number of new ideas generated and the number of new ideas successfully implemented.	Lotz and Van der Merwe (2013:31-32)

Innovativeness		
<i>Innovativeness (I)</i> refers to introducing new products, services, operational techniques, marketing strategies, or organisational or managerial methodologies or systems and continually pursuing new opportunities.		
Item codes	Measurement items	Source
I7	Our department places a strong emphasis on continuous improvement of products/service delivery/processes.	Lotz and Van der Merwe (2013:31-32)
I8	We have a widely held belief that innovation is an absolute necessity for our department's future.	
I9	Our leaders seek to maximise value from opportunities without constraint to existing models, structures or resources.	
Risk-taking		
<i>Risk-taking (R)</i> refers to exploring the unknown, using elevated debt levels, and allocating substantial resources to support undertakings in uncertain environments.		
Item codes	Measurement items	Source
R1	When confronted with undecided decisions, our department typically adopts a bold posture to maximise the probability of exploiting opportunities.	Lotz and Van der Merwe (2013:31-32)
R2	In general, our department has a strong inclination towards high-risk projects.	
R3	Owing to the environment, our department believes that bold, wide-ranging acts are necessary to achieve our objectives.	
R4	Employees in our department are often encouraged to take calculated risks concerning new ideas.	
R5	The term 'risk-taker' is considered a positive attribute of employees in our department.	
Proactiveness		
<i>Proactiveness (P)</i> refers to how an organisation responds to opportunities in the market during the new entry process. The company does this by taking advantage of opportunities and behaving opportunistically to "shape the environment," influencing trends and possibly stimulating demand.		
Item codes	Measurement items	Source
P1	Our department is very often the first to introduce new products/services/processes.	Lotz and Van der Merwe (2013:31-32)
P2	Our department typically initiates actions that competitors respond to.	
P3	Our department continuously seeks out new products/processes/services.	
P4	Our department continuously monitors market trends and identifies the future needs of our stakeholders.	

Competitive Aggressiveness		
<i>Competitive Aggressiveness (C)</i> refers to the tendency to directly and forcefully challenge competitors to enter a market, improve their position, or outperform competitors. Being responsive is expressed through either competitive head-to-head competition, as when an organisation enters a market discovered by a competitor, or more responsive by responding to competitive challenges by lowering prices.		
Item codes	Measurement items	Source
C1	In dealing with competitors, our department typically adopts a very competitive 'undo-the-competitor' posture.	Lotz and Van der Merwe (2013:31-32)
C2	Our department is aggressively and intensely competitive.	
C3	Our department effectively assumes an aggressive posture to combat industry trends that may threaten our survival or competitive position.	
C4	Our department knows when it is in danger of acting overly aggressively (as this could lead to the erosion of our reputation or to retaliation by competitors).	

Source: Researcher's construction based on secondary sources

5.5.3 Success factors of compliance training

The third concept, success factors of compliance training as the dependent variable, was measured by items sourced from secondary sources. This section of the questionnaire consisted of 122 questions and was developed from eight constructs as follows. Kirkpatrick (1996:55-56) constructed the learning evaluation model: learner reaction, learning, behaviour and business results. The following constructs were also added: return on investment by Phillips (1996:20) and Marcheselli (2019), the items constituting a learning organisation by Garvin *et al.* (2008:112-113), consisting of a learning organisation, concrete learning processes and leadership that reinforces learning, constructs from extracting business value from compliance training (Young *et al.*, 2017:4), consisting of individually relevant learning, high-impact learner experiences using social, workplace and media-rich digital learning, a focus on knowledge, skills, behaviours and decisions that embed lasting behaviour change and joined up as strategic learning, reinforced and delivered at the point of need, constructs from the effectiveness of compliance programmes from the Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27), including planning for compliance training, implementation of compliance training and evaluation and administration after compliance training, constructs from compliance training success

factors by Dixon and Overton (2017:38), constructs from desired characteristics of a holistic compliance communication programme, including training (Rogers, 2022:2-11) and constructs emanating from factors making training stick by Katz (2014:66).

These constructs are depicted in Table 5.4 below.

Table 5.4: Operationalisation of compliance training success factors

Training evaluation measures Learner Reaction		
<i>Learner reaction (SR)</i> measures the feelings of learners who attended the training programme. Reactions to the subject, the techniques used in training and the trainer's performance (where appropriate) are determined as part of this level.		
Item codes	Measurement items	Source
SR1	The learner reaction to all our compliance training is assessed by measuring the feelings of learners toward the learning event.	Botha (2012:171-175); Kirkpatrick (1996:55-56)
SR2	The learner reaction to compliance training is completed anonymously.	
SR3	The learner reaction to compliance training provides space for additional comments for learners to express feelings regarding the learning event.	
SR4	The learner reaction sheet for compliance training is used to make improvements, such as to the course material.	
Training evaluation measures Learning		
<i>Learning (SL)</i> is defined as the principles, facts and techniques that were understood and absorbed by the learners during the training.		
Item codes	Measurement items	Source
SL1	The learning knowledge, skill and/or attitude achieved during each compliance training course is measured.	Botha (2012:171-175); Kirkpatrick (196:55-56)
SL2	Pre- and post-test assessments are used to measure the learning achieved during compliance training.	
SL3	Feedback from scores on knowledge, skill and/or attitude level, for compliance training achieved, is used to take appropriate action.	
SL4	Feedback and insights are provided during the learning process, such as reasons why questions have been answered incorrectly in the assessments as part of compliance training.	

Training evaluation measures Behaviour		
<i>Behaviour (SB)</i> refers to the on-the-job behaviours and application of what was learned in the workplace.		
Item codes	Measurement items	Source
SB1	A systematic appraisal of on-the-job performance before and after a compliance training course is undertaken.	Botha (2012:171-175); Kirkpatrick (1996:55-56)
SB2	On-the-job performance assessment is done by one or more of the following groups: • The person receiving training • The supervisor, subordinates, peers; and/or • Others thoroughly familiar with the compliance performance of the learner.	
SB3	Post-training appraisal of on-the-job performance, three months or more after the compliance training, is undertaken so that the learner has the opportunity to put into practice what he/she has learned.	
SB4	A control group is used to assess on-the-job performance against employees who did not receive compliance training.	
Training evaluation measures Business results		
<i>Business Results (SRes)</i> refers to the evaluation of targeted outcomes to the extent that the learning event and subsequent reinforcement resulted in the business results intended, such as higher productivity or sales, greater profits, decreased costs, lower employee turnover, and enhanced quality. In compliance, for example, it may refer to a decrease in breaches.		
Item codes	Measurement items	Source
SRes1	Compliance risk metrics are measured as part of compliance training success (such as a reduction in the number of breaches or misconduct).	Botha (2012:171-175); Kirkpatrick (1996:55-56)
SRes2	When determining the compliance risk results of compliance training programmes, those variables that may have an impact on the compliance risk results (other than training-related) are highlighted.	
SRes3	As part of assessing the compliance risk results of compliance training, the results are measured before and after the occurrence of compliance training for comparative purposes.	
SRes4	Enough time is allowed for on-the-job performance to translate into compliance risk results before compliance risk results are measured after compliance training.	

Return on investment		
<i>Return on investment (SROI) refers to converting the training results into a financial value and comparing them to the learning cost to determine the return on monies spent on training.</i>		
Item codes	Measurement items	Source
SROI1	Our department calculates the ROI on compliance training.	Botha (2012:171-175); Kirkpatrick (1996:55-56)
SROI2	The effects of training are isolated from other factors that may have contributed when determining the ROI results of compliance training.	
SROI3	Existing data is used in the ROI calculation, such as the average time employees spend taking compliance courses and comments and feedback auditors have provided regarding the organisation’s compliance standing.	
SROI4	Role-specific compliance training is measured in terms of reducing training time, increasing productivity and minimising risk.	
SROI5	Our department also includes non-monetary benefits as additional evidence of the ROI on compliance training.	
Learning Organisation Supportive Learning Environment		
<i>Psychological safety (SSLEP) is having no fear of speaking up.</i>		
Item codes	Measurement items	Source
SSLEP1	In our organisation, it is easy to speak up about what is on your mind.	Botha (2012:171-175); Garvin et al. (2008:112-113)
SSLEP2	Employees in our organisation feel safe to ask naive questions.	
SSLEP3	Employees in our organisation feel comfortable owning up to their mistakes.	
SSLEP4	In our organisation, employees are eager to share information about what does and does not work.	
Learning Organisation Supportive Learning Environment		
<i>Appreciation of differences (SSLEA) considers that learning occurs when people become aware of opposing ideas and respect and recognise the value of these ideas.</i>		
Item codes	Measurement items	Source
SSLEA1	Employees in our organisation feel comfortable disagreeing with peers or authority figures.	Botha (2012:171-175); Garvin et al. (2008:112-113)
SSLEA2	Employees in our organisation feel safe to present minority viewpoints.	
SSLEA3	In our organisation, differences of opinion are appreciated and welcomed.	
SSLEA4	In our organisation, people are open to alternative ways of getting work done.	

Learning Organisation Supportive Learning Environment		
Openness to new ideas (SSLEO) contemplates that learning is not simply about correcting mistakes and solving problems but also about crafting novel approaches.		
Item codes	Measurement items	Source
SSLEO1	In our organisation, novel, new ideas are encouraged and valued.	Botha (2012:171-175); Garvin et al. (2008:112-113)
SSLEO2	Employees in our organisation are encouraged to take risks and explore the untested and unknown.	
Learning Organisation Supportive Learning Environment		
Learners need time for reflection (SSLET). When learners are too busy or overstressed by deadlines and scheduling pressures, their ability to think analytically and creatively is compromised.		
Item codes	Measurement items	Source
SSLET1	Despite the workload, people in our organisation find time to review how the work is going.	Botha (2012:171-175); Garvin et al. (2008:112-113)
SSLET2	In our organisation, we have time to reflect.	
Learning Organisation Concrete learning processes		
Experimentation with new ways of working (SCLPE) refers to allowing employees to prototype and simulate new ways of working and having a formal process to experiment.		
Item codes	Measurement items	Source
SCLPE1	Our organisation has a formal process for conducting and evaluating experiments or new ideas.	Botha (2012:171-175); Garvin et al. (2008:112-113)
SCLPE2	Our organisation frequently employs prototypes or simulations when trying out new ideas.	
Learning Organisation Concrete learning processes		
Information is systematically collected (SCLPI) refers to processes in place to generate, collect, interpret and disseminate information.		
Item codes	Measurement items	Source
SCLPI1	Our organisation has formal processes for generating, collecting, interpreting and disseminating information.	Botha (2012:171-175); Garvin et al. (2008:112-113)
SCLPI2	Our organisation frequently compares its performance with that of competitors and best-in-class organisations in the industry.	

Learning Organisation Concrete learning processes		
Active analysis (SCLPA) occurs in the workplace and refers to healthy conflict and debate whilst identifying assumptions that may affect key decisions.		
Item codes	Measurement items	Source
SCLPA1	Our organisation engages in productive conflict and debate during discussions.	Botha (2012:171-175); Garvin <i>et al.</i> (2008:112-113)
SCLPA2	Our organisation frequently identifies and discusses underlying assumptions that might affect key decisions.	
Learning Organisation Concrete learning processes		
Education and training (SCLPET) are valued and offered, which refers to adequate time spent on education and training activities.		
Item codes	Measurement items	Source
SCLPET1	Employees in our organisation receive adequate training.	Botha (2012:171-175); Garvin <i>et al.</i> (2008:112-113)
SCLPET2	In our organisation, time is made available for education and training activities.	
Learning Organisation Concrete learning processes		
Information is shared (transferred) (SCLPIT) in the organisation refers to knowledge and information being shared with key decision-makers and experts.		
Item codes	Measurement items	Source
SCLPIT1	Our organisation quickly and accurately communicates new knowledge to key decision-makers.	Botha (2012:171-175); Garvin <i>et al.</i> (2008:112-113)
SCLPIT2	Our organisation regularly shares information with networks of experts within the organisation.	
Learning Organisation		
Leadership that reinforces learning (SLRL) acknowledges that leaders' behaviour directly influences organisational learning. When leaders actively engage employees in debate and dialogue, people feel motivated to learn.		
Item codes	Measurement items	Source
SLRL1	Our organisation's leaders encourage multiple points of view.	Botha (2012:171-175); Garvin <i>et al.</i> (2008:112-113)
SLRL2	Our organisation's leaders provide time and resources to identify problems and challenges.	
SLRL3	Our organisation's leaders acknowledge their own limitations with respect to knowledge, information or expertise.	
SLRL4	Our organisation's leaders listen attentively.	
SLRL5	Our organisation's leaders ask probing questions.	

Extracting business value from compliance training		
<i>Individually relevant learning (SEIRL)</i> refers to role-specific learning built on everyday situations that inspire the appropriate application of skills, knowledge, behaviour, and judgment.		
Item codes	Measurement items	Source
SEIRL1	Our organisation’s compliance training is embedded into role-specific training to ensure that it is based on everyday scenarios.	Young (2017:4)
SEIRL2	Our organisation’s compliance training encourages the contextual application of knowledge, skills, behaviour and judgement.	
SEIRL3	There is continual participation and engagement in the learning content of our compliance training.	
SEIRL4	In our compliance training, learners have the ability to see the consequences of their decisions (judgement).	
SEIRL5	Real-life case studies and storytelling are used in our compliance training.	
SEIRL6	Coaching and follow-up exercises in the workplace are used as part of our compliance training to enable learners to better connect with the training.	
SEIRL7	Our compliance training ensures that employees not only understand the letter of the law but also the spirit of the law.	
SEIRL8	After the compliance training is completed, employees are not only able to demonstrate compliant behaviours but do so in a way that creates great customer experiences and business outcomes.	
SEIRL9	Our organisation focuses on a blended compliance training journey for learners (using a variety of learning methods and experiences).	
Extracting business value from compliance training		
<i>High-impact learner experiences (SEHIL)</i> using social, workplace, and media-rich digital learning refers to multisensory engagement for learning that enhances learning and knowledge retention in social, workplace and media-rich digital learning.		
Item codes	Measurement items	Source
SEHIL1	In our organisation’s compliance training, multiple senses are engaged.	Young (2017:4)
SEHIL2	Our organisation uses digital technologies in our compliance training.	
SEHIL3	In our organisation, we use gamification as part of compliance training.	

Extracting business value from compliance training		
<i>High-impact learner experiences (SEHIL) using social, workplace, and media-rich digital learning refers to multisensory engagement for learning that enhances learning and knowledge retention in social, workplace and media-rich digital learning.</i>		
Item codes	Measurement items	Source
SEHIL4	In our organisation, we use simulations in our compliance training to implement complex role-based compliance training.	Young (2017:4)
SEHIL5	In our organisation, we use immersive technologies such as augmented and virtual reality in our compliance training.	
SEHIL6	We use collaboration platforms, such as Yammer (part of Office 365), Jive and SAP Jam, as part of our compliance training for learners to share content and experiences, ask questions from their peers and connect with experts.	
SEHIL7	In our organisation, we use collaborative learning tools such as discussion forums with scenarios, tips, wiki pages and frequently asked questions as part of our compliance training.	
SEHIL8	We use repetition as part of our compliance training, such as a 30-day challenge after compliance training, to use micro-actions of at most 10 minutes a day over 30 days to form a new habit and drive macro-behaviour change.	
Extracting business value from compliance training		
<i>A focus on knowledge, skills, behaviours and decisions that embed lasting behaviour change (SEKSB) refers to the need for compliance training to be tailored to the expectations of the learners to be practical and the need for the learners to understand how company strategy, regulations, policies, and values translate into practice depending on the role and context.</i>		
Item codes	Measurement items	Source
SEKSB1	In our organisation's compliance training, we ensure learners create a connection with the training (emotional feeling), such as outlining the consequences of the wrong or right behaviour of what they have learned.	Young (2017:4)
SEKSB2	In our organisation's compliance training, there is time for reflective observation around the content and the correct behaviours to be displayed.	
SEKSB3	In our organisation's compliance training, time is built in for active experimenting by posing scenarios where learners need to decide what action to take based on the content and the context.	

Extracting business value from compliance training		
A focus on <i>knowledge, skills, behaviours and decisions that embed lasting behaviour change (SEKSB)</i> refers to the need for compliance training to be tailored to the expectations of the learners to be practical and the need for the learners to understand how company strategy, regulations, policies, and values translate into practice depending on the role and context.		
Item codes	Measurement items	Source
SEKSB4	In our organisation, compliance training is also done using bite-sized learning (micro-learning).	Young (2017:4)
SEKSB5	During our compliance training, a safe learning environment is created where positivity, optimism, safety and certainty are displayed.	
Extracting business value from compliance training		
<i>Joined up as strategic learning, reinforced and delivered at the point of need (SELRDN)</i> refers to the need for compliance training strategies to remain closely aligned through more role-based, rounded learning. The organisation's overall learning goals must simultaneously address different compliance needs.		
Item codes	Measurement items	Source
SELRDN1	In our organisation, compliance training is seen as part of strategic learning, and there is alignment with the overall learning goals of the organisation.	Young et al. (2017:4)
SELRDN2	In our organisation, different compliance training needs are addressed simultaneously by also implementing role-based training.	
SELRDN3	The leadership team in our organisation acts as role models by setting the tone, setting a clear direction for the organisation and exhibiting the new desired behaviours.	
SELRDN4	The leadership in our organisation acts as coaches to instil the required behaviours to be displayed with regard to compliance.	
SELRDN5	In our organisation, we assess employees' compliance capability using, for example, surveillance measures, compliance behaviours and compliance culture.	
Effectiveness of compliance programmes, including compliance training and awareness		
<i>Planning for compliance training (SEFFB)</i> refers to activities performed before the training as part of the needs analysis process.		
Item codes	Measurement items	Source
SEFFB1	Our organisation has a compliance training plan that includes the training to be completed by the audience, topics covered, frequency of training to be completed and the deployment method.	Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27)
SEFFB2	Our organisation's compliance training plan is periodically updated when new legislation and regulations come into effect.	

Effectiveness of compliance programmes, including compliance training and awareness		
<i>Planning for compliance training (SEFFB) refers to activities performed before the training as part of the needs analysis process.</i>		
Item codes	Measurement items	Source
SEFFB3	Our organisation defines the appropriate audience for each type of compliance training (general, issue-specific, and high-risk).	Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27)
SEFFB4	Our organisation bases compliance training for high-risk employees using a formal process for assessing risk and the evaluation of control vulnerabilities.	
SEFFB5	Our organisation has established a policy requiring compliance training and education, which stipulates the frequency of completion.	
SEFFB6	In our organisation, there is a formal method for orientating new employees to the compliance programme, highlighting their obligations and responsibilities.	
SEFFB7	Our organisation considers special needs learners (for example, learners with disabilities or language barriers) in our compliance training.	
SEFFB8	Our organisation integrates specific risks identified through the risk assessment process into compliance training.	
Effectiveness of compliance programmes, including compliance training and awareness		
<i>Implementation of compliance training (SEFFD) refers to the implementation approach surrounding compliance training.</i>		
Item codes	Measurement items	Source
SEFFD1	Where appropriate, our organisation offers continuing education units for compliance education and training (for example, FAIS).	Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27)
SEFFD2	In our organisation, employees are trained on new laws, regulations, policies and procedures.	
SEFFD3	In our organisation, compliance training is integrated into all other training the organisation offers.	
SEFFD4	In our organisation, the compliance training programme centres around job families to address specific risks.	
SEFFD5	In our organisation, we train board members on compliance.	
SEFFD6	In our organisation, we train senior leaders on their compliance obligations.	
SEFFD7	In our organisation, we train third parties on their compliance obligations.	

Effectiveness of compliance programmes, including compliance training and awareness		
Evaluation and administration of compliance training (SEFFA) refers to the generic evaluation measures performed during the compliance training as well as the administrative functions.		
Item codes	Measurement items	Source
SEFFA1	In our organisation, policy and compliance failures are evaluated, and re-training is provided where needed.	Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27)
SEFFA2	Disclosure reports, including whistleblowing lines and the details of the interaction with the compliance department, are tracked to determine the extent to which the compliance training was successful.	
SEFFA3	In our organisation, the compliance training records are retained, as per requirements (including training material, attendee records, deployment method and post-training results).	
SEFFA4	In our organisation, we assess whether employees find compliance training valuable and sufficient to address the compliance requirements of their jobs.	
SEFFA5	Compliance training is updated periodically based on new policies, procedures, laws and regulations.	
Compliance training success factors (STSFD0) refers to generic compliance training evaluation measures of success.		
Item codes	Measurement items	Source
STSFD01	In our organisation, we measure the compliance training completion rate (if no assessment is available).	Dixon and Overton (2017:38)
STSFD02	In our organisation, we measure the compliance training pass rate (if an assessment is done).	
STSFD03	In our organisation, we measure compliance training assessment scores (by the percentage obtained for assessments).	
STSFD04	In our organisation, we measure compliance training study time (by the time spent on the training).	
STSFD05	In our organisation, we measure compliance training delivery time for face-to-face sessions.	
STSFD06	In our organisation, we measure the costs associated with compliance training.	
STSFD07	In our organisation, the compliance function works with leaders and local champions to support and encourage learners.	
STSFD08	In our organisation, as part of the compliance training plan, there is a clear communication strategy with stakeholders.	
STSFD09	In our organisation, we measure specific business indicators that show a change in the behaviour of employees (such as breaches or non-compliance, reduced compliance, risks managed, and non-compliance being reported through whistleblowing channels).	

Compliance training success factors (STSFD0) refers to generic compliance training evaluation measures of success.

Item codes	Measurement items	Source
STSFD010	In our organisation, compliance training is relevant to the employees.	Dixon and Overton (2017:38)
STSFD011	Our compliance training is practical and focuses on behaviour change.	
STSFD012	In our compliance training, we use adaptive learning tools and a variety of content and questions, allowing learners to focus on what they do not know.	
STSFD013	We train contractors and third parties on compliance.	
STSFD014	We make use of performance support tools where learning takes place in the flow of work as part of the compliance programme.	

The desired characteristics of a holistic compliance communication programme (SHCP), including training, refer to evaluation measures of compliance communication, including compliance training.

Item codes	Measurement items	Source
SHCP1	In our organisation, compliance communication is ongoing, reinforcing critical messages with regularity.	Rogers (2022:2-11)
SHCP2	In our organisation, compliance communication provides for low bandwidth and non-intrusive interactions (experiences that last no more than 30 seconds to four minutes, which can easily be incorporated into the workday).	
SHCP3	In our organisation, compliance communication incorporates interesting multi-media content.	
SHCP4	In our organisation, compliance communication anticipates an audience comprising multiple learning styles.	
SHCP5	In our organisation, compliance communication tracks participation and commitment.	
SHCP6	In our organisation, compliance communication offers real-time messaging, sometimes within minutes of having identified a specific risk.	
SHCP7	In our organisation, we repeat and positively reinforce compliance training.	
SHCP8	Compliance training in our organisation is exciting and engaging.	
SHCP9	In our organisation, we use compliance declarations and commitments in training, such as declarations that policies have been read and commitments to policies.	
SHCP10	In our compliance training, we include a focus on the negative social stigma that may occur due to wrong behaviour.	
SHCP11	Our compliance training shows the painful consequences of non-compliance.	

Factors making training stick (SMTS) refers to success factors that will make compliance training be remembered.		
Item codes	Measurement items	Source
SMTS1	Our organisation uses humour in compliance training to keep employees engaged.	Katz (2014:66)
SMTS2	In our organisation, we use current events in the news to engage employees and aid with the retention of essential compliance content.	

Source: Researcher's construction based on secondary sources

5.6 PILOT STUDY

A pilot study is a short, introductory study to establish how well research methods work (Bryman *et al.*, 2017:381). After a research instrument is developed, it is valuable to test it before administering the instrument to the actual sample (Welman *et al.*, 2010:148). A pilot study involves testing the research instrument with a few of the sample audience before sending the research instrument out to the target audience. The purpose of a pilot study is to pick up possible weaknesses in the research instrument, such as the framing of ambiguous or vague questions, unclear instructions, and inadequate time estimations to complete the questionnaire. A pilot study may be beneficial where the researcher has drawn up the instrument from the literature study performed. Saunders *et al.* (2019:812) elaborate on the purpose of a pilot study to minimise the probability of problems with data collection and recording.

In this research study, a pilot study was completed by selected experts in the field of education and training development, with the specific purpose of testing the questions from a content perspective on compliance training success factors compiled from the literature to ensure that the questions are not ambiguous or vague and would be understood by the sample population. The suggested time allocation was also tested. After the pilot study, the measuring instrument was finalised.

5.7 ADMINISTRATION OF THE RESEARCH INSTRUMENT

As mentioned before, the primary data for this research study was collected using a self-administered structured questionnaire that was loaded onto MS Forms. Compliance employees within South African Banks were targeted through Skills Development Facilitators and compliance contacts within the banks as part of a purposive sampling method. The Skills Development Facilitators and compliance contacts asked respondents

to participate in the survey. Informed consent was also obtained from the various banks through compliance contacts. Participation in the questionnaire was voluntary.

Furthermore, the link to the survey was placed on the researcher's LinkedIn feed, and contacts within the Compliance departments of South African banks were contacted to participate in the survey. Furthermore, the Compliance Institute of South Africa placed the link to the survey on its website and encouraged South African banking Compliance Officers to participate.

5.8 DATA ANALYSIS METHODS

The SPSS 28 software program was used to analyse the data in the present study. Data analysis for the present study included running validity and reliability tests for the research instrument and determining descriptive and inferential statistics.

5.8.1 Data capture and preparation

Research has shown that the use of electronic devices can increase response rates and provide more complete data in questionnaires (Spark *et al.*, 2015:94). Since the questionnaire was placed on Microsoft Forms and was developed in such a way that all questions had to be answered before it could be submitted, this ensured that only complete survey questionnaires were received. Additionally, respondents had to agree to the participant's informed consent before being able to continue with the questionnaire. Respondents were also asked to confirm that they had read the informed consent. Furthermore, it was ensured that the respondents had given their informed consent before they could proceed with the questionnaire. As a result, approaches to dealing with missing data were not needed to be considered.

For the data collected to be internally reliable and valid and achieve a high response rate, the questions must be correctly designed, the research questionnaire must be structured correctly, and the pilot study must be thoroughly carried out. The questionnaire's reliability and validity will be examined in the next section.

5.8.2 Reliability of the research instrument

Reliability has to do with the robustness of the questionnaire and, specifically, whether consistent outcomes will be produced if the research is done under different

circumstances and conditions (Saunders *et al.* 2019:518). Therefore, comparative measures should be obtained when the research is conducted again, irrespective of when the questionnaire is administered or who administers it (Welman *et al.*, 2010:145). Therefore, the measure of the concept should be stable (Bryman *et al.* 2017 382).

Reliability can be achieved through internal consistency, alternative form, and test-retest. The concept of internal consistency refers to the correlation of responses across the questions in the questionnaire. However, it is almost always applied to measure the consistency of responses across subgroups of questions (Saunders *et al.*, 2019:518). Cronbach Alpha is the most common method for calculating internal consistency. Cronbach's alpha measures the correlation between two random sample items selected from a universe of items (Cronbach, 1951:297). Depending on the type of correlation, the alpha correlation coefficient can range from 0 (no correlation, therefore, no internal consistency) to 1 (perfect correlation, therefore, entirely internal consistent) (Bryman *et al.*, 2017:38). It can be concluded that the questions combined on the scale have internal consistency in measurement if their values range from 0.7 to 1. Another approach to test for reliability is to use check questions within a questionnaire where alternative questions are compared. Respondents may be tired and refer to previous responses, rendering this process ineffective. Finally, a test re-test involves respondents completing the questionnaire twice, which may cause a problem as respondents may not be lenient in completing the same questionnaire twice (Saunders *et al.*, 2019:518). The data are thus correlated with those of the same questionnaire. There should also be no long time lag between the completion of the questionnaires, as the possibility exists that respondents may not respond in the same way.

In this research study, Cronbach's Alpha was calculated to determine the reliability of the questionnaire. Composite reliability values for each factor were also determined, indicating composite reliability for the construct (Civelek, 2018:42). The composite reliability was compared against a threshold of 0.7 (Shaufeli *et al.*, 2020:9).

5.8.3 Validity of the research instrument

Validity in quantitative analysis suggests that meaningful inferences may be drawn from the scores of research instruments (Creswell & Creswell, 2018:251). The internal validity or measurement of the questionnaire refers to the validity of the questionnaire in

measuring what it was designed to measure (Saunders *et al.*, 2019:517). A questionnaire is considered valid if it is content-valid, criterion-related valid, and construct-valid (Saunders *et al.*, 2019:517).

The validity of the content assesses whether the questions provide sufficient coverage of the inspective questions. Using a thorough literature review to develop the questions and assessment by others before administering the questionnaire could help with content validity (Saunders *et al.*, 2019:517).

Predictive or criterion-related validity measures whether the sets of questions make accurate predictions and are assessed by statistical analysis, such as data correlation (Saunders *et al.*, 2019:517).

The validity of a scale item's construct can be evaluated by determining whether it reflects the presence of the measured construct (Saunders *et al.*, 2019:517). Convergent validity occurs when different scales are applied to measure the same constructs, and discriminant validity occurs when different scales measure different constructs. An assessment of construct validity refers to how well it measures the proposed construct rather than assessing inappropriate constructs or providing measurement errors (Welman *et al.*, 2010:142).

Multivariate factor analysis is a technique used to identify whether correlations between variables are a function of their relationship to latent variables (Field, 2018:1016). Field (2018:1022) describes latent variables as variables that cannot be directly measured but are associated with several variables that can be measured. A structural equation modelling approach differs from other multivariate statistical methods because it is confirmatory (Civelek, 2018:8).

There are two main types of factor analysis: Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) (Taherdoost *et al.*, 2022:376). This research study evaluated the validity of the construct in a survey using confirmatory factor analysis to validate the variables originating from the literature study (Taherdoost *et al.*, 2022:376) as part of the structural equation modelling process.

Confirmatory factor analysis (CFA) aims to verify theory using empirical data and is a component of the broader multivariate structural equation modelling method (Alavi *et al.*,

2021:2209). Chapter 6 discusses using CFA to evaluate the construct's validity and the model's fit in this study. It is necessary to determine the average variance extracted (AVE) to assess the discriminant validity of the construct, which is the amount of variance the construct accounts for compared to the amount of variance due to measurement error (Shaufeli *et al.*, 2020:9).

The elements of the questionnaire in this study were evaluated by applying a structural equation modelling process and using convergent validity by calculating the confirmatory factor analysis (Civelek, 2018:32) to determine the convergent validity of the scales used to measure the dimensions that make up the conceptual model. Furthermore, the average variance extracted was calculated for the model (Baharum *et al.*, 2023:1). During convergent validity, whether the scores are related and whether a correlation exists among the constructs is tested. Therefore, correlations with related constructs are expected to be greater than those with unrelated constructs (Abma *et al.*, 2016:1-2).

In the next section, the process regarding descriptive statistics and the structural equation modelling process will be discussed.

5.8.4 Descriptive statistics

Descriptive statistics refer to the summary or description of the data obtained (Welman *et al.*, 2010:231). Where more than two variables are involved, it is called a multivariate analysis. With descriptive statistics, data values can be described and compared numerically for a variable (Saunders *et al.*, 2019:597). There are three types of central tendency: the mean, the trimmed mean, and the median. A dispersion measure is defined as the range, the interquartile range, the variance, the percentiles, and the index numbers, which are used to measure the extent of differences between data values and the coefficient of variation (data should be normally distributed) (Saunders *et al.*, 2019: 598). The current study ran frequency, percentage, and cumulative percentage distributions.

5.8.5 Structural Equation Modelling

There has been an increase in structural equation modelling (SEM) in scientific investigations to test and evaluate multivariate causal relationships (Fan *et al.*, 2016:1). SEM examines both direct and indirect effects on presumptive causal relationships, in

contrast to other modelling approaches. In SEM, confirmation factor analysis and path analysis are combined (Fan *et al.*, 2016:2). It is central to SEM to test causal relationships. Specifying the causal relationships between the variables and their correlations is the first step in the SEM process. Hypotheses based on causal relationships and correlations that lack proper justification or theoretical basis are undermined (Fan *et al.*, 2016:6). Using SEM, researchers can examine several regression equations at the same time, which is an extension of general linear modelling (Alavifar *et al.*, 2012:328-329). In general, structural equation modelling is an approach to examining observed and latent variables. It is also known as causal modelling, structural covariance analysis, or SEM.

Some assumptions must be made when using any statistical technique. Collier (2020:8-9) identified the following assumptions using SEM:

- That the data set is complete.
- The data possesses a normal distribution. The normality of data, however, is a condition that rarely occurs. Researchers use various estimation techniques to estimate the skewness and kurtosis of the data (Kumar, 2015:25).
- The dependent variables are continuous. Thus, an infinite number exists between two numbers in the data set.
- There are linear relationships between the variables. By examining direct and indirect relationships, SEM examines the cause-and-effect relationship between exogenous and endogenous factors. A researcher must have strong empirical logic and reasons to support an existing unexpected causal relationship if the empirical study does not reflect a relationship supported by theory (Kumar, 2015:26).
- The default method used is the maximum likelihood estimation method.
- There is a large enough sample size. To perform SEM, a large sample size is required.
- The unidimensionality of a construct is assumed, where each construct is used to measure only one dimension.
- Multicollinearity is not present as the high correlation between variables causes difficulty in determining relationships.

5.8.5.1 Steps in Structural Equation Modelling

Weston (2006:729) claims that SEM experts have identified the six steps necessary for model testing. Steps include data collection, model specification, model identification, model estimation, evaluation, and modification of the model. According to Kline (2023:32), the following are the basic steps to be followed when conducting structural equation modelling:

- Specify the measurement model.
- Assess whether the model is identified.
- Operationalising the variables and collecting, preparing, and screening the data.
- Evaluate the model for fit, interpret parameter estimates, and decide whether it is equivalent or near equivalent.
- Evaluation and rectification of the model in need.
- Report the results.

These steps, in combination, will now be unpacked further.

5.8.5.1.1 Measurement model specification

The specification of the measurement model occurs when the relationships are hypothesised between the variables (Hair *et al.*, 2020:108; Weston, 2006:729). It is also essential to specify the associations that do not exist between the observed and latent variables. The conceptual model is reflected in Chapter 1, Figure 1.1; this study's twenty hypotheses were set in Section 4.7 of Chapter 4.

5.8.5.1.2 Measurement model identification

Under measurement model identification, it needs to be determined whether the measurement model is over, under, or just identified (Weston, 2006:732). The number of degrees of freedom (df) is determined by subtracting the number of parameters estimated from the number of elements or correlations known in the correlation matrix. The greater the degree of freedom, the more parsimonious the model and researchers may be able to demonstrate that associations between observed and latent variables are most relevant. The topic of model identification is discussed in more detail in Chapter 6.

5.8.5.1.3 Operationalise the variables and collect, prepare, and screen the data

The operationalisation of the constructs and variables has been discussed in Section 5.5. Based on the current study, the independent variables included corporate entrepreneurial variables: management support, work discretion and autonomy, rewards and reinforcement, time availability, and organisational boundaries. Among the mediating variables operationalised are variables related to entrepreneurial orientation, including autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness.

The success factors of compliance training have been identified as dependent variables, with the constructs of learner reaction, learning, behaviour, business results, return on investment, supportive learning environment, concrete learning processes, leadership that reinforces learning, individually relevant learning, high-impact learner experiences, knowledge, skill, behaviour and decisions that embed lasting behaviour change, strategic learning, the effectiveness of compliance programmes - planning for training, the effectiveness of compliance programmes - implementation of training, the effectiveness of compliance programmes - evaluation and administration of training, compliance training success factors, characteristics of a holistic communication programme and factors that make training stick.

Data were collected and prepared online. Minimal screening was necessary as the data was complete, with no missing data, as the online survey questionnaire did not allow the respondents to continue without answering all the questions.

5.8.5.1.4 Examine the model to evaluate the fit, interpret parameter estimates, and deliberate equivalent or near-equivalent models

Having specified a measurement model, identified and operationalised the constructs, prepared the data, screened the data from a sufficiently large sample of respondents, and addressed any difficulties encountered, researchers can then estimate the model. An estimation procedure entails determining the unknown parameters' values and the associated error (Weston, 2006:737).

The current study used IBM AMOS Statistics 28 to clean the data, confirm that the data is normally distributed and ensure no missing data. The present research study used the following test as part of the model fit: test statistic χ^2 , degrees of freedom, goodness of fit

being χ^2 divided by degrees of freedom, the Comparative Fit index (CFI), the Tucker - Lewis index (TLI), the Root Mean Square Error of Approximation (RMSEA) and the p-value as measure of significance.

5.8.5.1.5 Evaluation and rectification of the model – measurement model validity and structural model validity assessment

This test aims to determine whether the researcher's estimation of the model adequately reflects the associations between measured and latent variables (Weston, 2006:741).

The validity of a structural model is established by determining the validity of the construction and the goodness of fit. As described in Section 5.8.3 and in Chapter 6, the validity of the construct was determined by performing a confirmatory factor analysis. The average variance extracted was also calculated. The estimates for each construct were compared to a threshold of 0.5 or higher for the standardised loadings of items and the average variance extracted per factor as part of the convergent validity.

This research study used SEM analysis to examine the hypothesised relationships between the independent, dependent, and mediating variables. The relationships included between corporate entrepreneurship and the success factors of compliance training, measuring the mediating effect of entrepreneurial orientation, and the relationship between biographic factors and the success factors of compliance training.

5.8.5.1.6 Report the results

The results report is the last step in the SEM process, and the complete report is contained in Chapter 6.

5.9 ETHICAL CONSIDERATIONS

Researchers must adhere to ethical standards regarding the rights of subjects and participants in their studies (Saunders *et al.*, 2019:815). According to Welman *et al.* (2010:201), researchers should consider four ethical considerations. An informed consent process, the right to privacy, protection from harm, and the researcher's involvement are all essential considerations.

In this research study, ethical deliberations were considered in the following ways.

No personally identifiable information was saved when the respondents completed the questionnaires on MS Forms to protect the anonymity of the respondents by clicking the online link. As stated in informed consent at the beginning of the questionnaire, respondents were also assured of their right to privacy. Additionally, access to the data was restricted to the researcher, supervisors and statistician. The confidentiality of all information was always maintained.

Responses were received from South African banks' compliance officers and learning and development employees responsible for compliance training. First contact was established through Skills Development Facilitators obtained from standing forums the BANKSETA has with its member banks. The Skills Development Facilitators' email addresses and the compliance contacts within the member banks were obtained. Skills Development Facilitators and compliance contacts (including the Chief Compliance Officers) at the various banks were requested to provide informed consent. The respondents provided their informed consent by confirming that they read the consent and consented to participate voluntarily in the survey. Furthermore, the link to the survey was placed on LinkedIn, and compliance employee contacts within South African Banks were asked to participate. The Compliance Institute also placed the link on its website and encouraged South African Banking Compliance Officers to participate in the survey.

There are no power relationships between BANKSETA and its member banks, and participation in the survey questionnaire was voluntary.

Full ethical clearance was received from North-West University before collecting the data (clearance number NWU-01902-22-A4).

5.10 SUMMARY

Chapter 5 discussed the operationalisation of the variables and detailed the measuring instrument development process. The method of research instrument development was discussed with a particular focus on the reliability and validity of the instrument. The data analysis methods used were briefly outlined, which included the structural equation modelling process. Finally, the ethical considerations were discussed.

The empirical result of this study is presented in Chapter 6. A description of the sample is provided, along with the results of the reliability and validity assessments of the measuring instrument. The SEM results are then summarised.

Chapter 6 achieves all secondary objectives, namely secondary objective 1 to investigate and establish the relationship between corporate entrepreneurship and the success of compliance training within South African banks, secondary objective 2 to investigate the relationship between entrepreneurial orientation as a mediating variable in the relationship between corporate entrepreneurship and the success of compliance training within South African banks, and secondary objective 3 to investigate the relationship between selected biographic variables and the success of compliance training within South African banks. Research question 1 is also partially addressed in Chapter 6, where the question whether hypothesised measurement instruments to measure the relationship between organisational antecedents, corporate entrepreneurship and entrepreneurial orientation as a mediating variable and success factors of compliance training have acceptable attributes such as reliability, validity and unidimensional capacity was answered affirmatively. Research question 3 is also addressed in Chapter 6, namely, to answer the question of the relationship between corporate entrepreneurship constructs, the entrepreneurial orientation constructs as a mediating variable, and the success of compliance training constructs in the compliance departments of South African banks. Furthermore, Chapter 6 addressed methodological objective 6, namely collecting primary data from respondents, statistically analysing the data, and presenting, illustrating, and discussing the primary data generated from this study.

CHAPTER 6 EMPIRICAL RESULTS

6.1 INTRODUCTION

The operationalisation of the variables and the measurement instrument development process used and applied in the current study were discussed in Chapter 5. The key objective of this study is to propose a compliance training success framework for South African banks to enhance an entrepreneurial business environment. The objective is obtained by investigating the relationship between the independent and dependent variables and the effect of the mediating variable in the relationship, as specified in secondary objectives 1 and 2 and reflected in this chapter. The 3rd secondary objective is also achieved in this chapter, where the relationship between biographic variables and the success of compliance training within South African banks is investigated. Chapter 5 detailed the method used in developing the research instrument, focusing on the validity and reliability of the research instrument. Furthermore, the data analysis methods were outlined, including the structural equation modelling (SEM) process and ethical considerations.

In Chapter 6, the sample size is described, and the biographic characteristics of the respondents are summarised in frequency tables, reflecting the descriptive statistics. After that, the results of the six steps of the SEM analysis, the primary statistical technique used in this study to assess the hypothesised relationships, are discussed.

6.2 SAMPLE SIZE

The research and skills planning area of the BANKSETA indicated that there are 1 232 compliance officers in the banking sector in South Africa as of 2020 (BANKSETA, 2020). According to Slovin's formula, a sample of 302 respondents would be considered adequate for a population of 1,232 members (Ellen, 2020). Slovin's formula is applied if nothing is known about the population's behaviour yet, and the minimum sample size needs to be calculated (Monk & Munro, 2021:607). Regarding the Raosoft (2023) sample calculator, which allows for a margin of error of 5%, a confidence level of 95% and a response distribution that is unsure (thus 50% is used), a minimum sample size of 295 respondents is recommended. Although the guidelines of Hair *et al.* (2019:633) recommend a minimum sample size of 500 for models with multiple numbers of constructs, it is further upheld that although the sample size is essential to evaluate the

statistical model applied, the primary consideration should remain that the sample size appropriately represents the population under investigation. Therefore, a total of 341 usable questionnaires were obtained for the data analysis, which is considered adequate and representative of the population in this study if evaluated against the sample size requirements of Slovin (Ellen, 2020), Monk and Munro (2021:607), the Raosoft sample calculator, and the guidelines provided by Hair *et al.* (2019:633). The 341 completed questionnaires represent a 27.7% response rate in the total population of 1 232 compliance employees.

6.3 BIOGRAPHIC PROFILE OF RESPONDENTS

The data collection instrument included the following biographic variables, namely age group, gender, seniority within the organisation, and highest academic qualification, to determine the types of respondents who participated in the survey. In this section, the analysis of the biographic characteristics of the respondents is performed.

A secondary objective of this study was to investigate the relationship between selected biographic variables and the success of compliance training within South African banks. In each SEM model, these relationships can be observed at the end and as part of the analysis. The descriptive statistics of the biographic variables will be considered next.

6.3.1 Age group

Most of the respondents (145 respondents out of 341, representing 42.5%) fell within the age group 40-49 years, and the next highest category was the age group 30-39 years, where 106 respondents were represented, which signifies 31.1%, followed by the age group 50-59 years where 53 respondents were represented, which indicates 15.5%. Only 20 respondents were 29 years and younger, representing 5.9% of the respondents, and 17 were 60 years and older, representing 5% of the respondents. This descriptive statistic compares to the age distribution of the banking sector according to the BANKSETA (2022:13) Sector Skills Plan as follows: 41% are younger than 35 years, 45% are between 35 and 55 years old, and 14% are older than 55 years. Different age categories complicate a suitable comparison. The summary of the respondents' age distribution results is presented in Table 6.1 below.

Table 6.1: Age distribution of respondents

Age Distribution	Frequency	Percentage %	Cumulative percentage %
29 years and below	20	5.9%	5.9%
30-39 years	106	31.1%	37.0%
40-49 years	145	42.5%	79.5%
50-59 years	53	15.5%	95.0%
60 years and over	17	5.0%	100.0%
Total	341	100.0%	

6.3.2 Gender

The respondents of compliance employees within the South African banking sector comprised 187 women, 151 men, and three identified as other. Females represented 54.8%, males 44.3%, and the other classification represented 0.9% of respondents. The statistic is somewhat aligned with the distribution reflected by the BANKSETA (2022:13) Sector Skills Plan of 60% women and 40% men within the banking sector. The summary of the gender distribution of the respondents is detailed in Table 6.2 below.

Table 6.2: Gender characteristics of respondents

Gender classification	Frequency	Percentage %	Cumulative percentage %
Female	187	54.8%	54.8%
Male	151	44.3%	99.1%
Other	3	0.9%	100.0%
Total	341	100.0%	

6.3.3 Seniority within the organisation

The compliance employees' respondents comprised most of the employees at the middle management level (32%), 25.5% at the senior management level, 19.1% at the junior management level, 12% at the general staff level, and 11.4% at the executive level. The summary of the level of seniority within the organisation is reflected in Table 6.3 below.

Table 6.3: Seniority within the organisation of respondents

Seniority within organisation	Frequency	Percentage %	Cumulative percentage %
General staff	41	12.0%	12.0%
Junior management	65	19.1%	31.1%
Middle management	109	32.0%	63.0%
Senior management	87	25.5%	88.6%
Executive	39	11.4%	100.0%
Total	341	100.0%	

6.3.4 Highest academic qualification

Most respondents (44.9%) have a post-graduate degree, 26.4% a degree, 14.1% a diploma, 10.9% a certificate, and 3.8% matric. No respondents have a qualification lower than matric. This statistic compares to the banking sector according to the BANKSETA (2022:16) Sector Skills Plan of 50.4% possessing a certificate, 21.1% having a postgraduate degree, 14.2% possessing a diploma, 12.8% possessing a degree, 1% possessing only matric and 0.5% lower than a matric. Therefore, respondents have higher academic qualifications than the banking sector averages. The summary of the academic profile of the respondents is reflected in Table 6.4 below.

Table 6.4: Academic qualification of respondents

Academic Qualification	Frequency	Percentage %	Cumulative Percentage %
Lower than matric	0	0%	0%
Matric	13	3.8%	3.8%
Certificate	37	10.9%	14.7%
Diploma	48	14.1%	28.7%
Degree	90	26.4%	55.1%
Postgraduate degree	153	44.9%	100.0%
Total	341	100.0%	

6.4 STRUCTURAL EQUATION MODELLING

In-text citations are not included when referring to the author's compliance training success model to reduce unnecessary duplication. The relevant literature on compliance training success has been extensively referenced throughout this study.

SEM is a powerful multivariate technique with a wide range of applications. To describe complex and dynamic relationships among observed and unobserved variables, SEM uses a conceptual model, a path diagram, and a system of linked regression equations (Gunzler *et al.*, 2013:390). SEM enables researchers to simultaneously model and estimate complex relationships among multiple dependent and independent variables (Hair *et al.*, 2021:4). Despite its apparent similarity to regression, SEM is fundamentally different. A regression model has a clear distinction between dependent and independent variables. Furthermore, SEM is a beneficial method for analysing exceedingly complex multiple variable models and revealing direct and indirect relationships between variables (Civelek, 2018:5). However, such concepts are only applicable in relative terms in SEM since a dependent variable in one model equation can become an independent variable in another component of the model in SEM. Since variables play a reciprocal role (Gunzler *et al.*, 2013:390), causal relationships can be inferred precisely through SEM, making examining how entrepreneurial orientation mediates the relationship between corporate entrepreneurship and compliance training success appropriate. Mediation involves the investigation of an intermediate variable, known as the mediator, which helps explain how or why an independent variable influences an outcome (Gunzler *et al.*, 2013:390) and thus, the relationship in perfect mediation can be entirely defined by the relationship with the mediating variable (Field, 2018:1025).

6.4.1 Reliability

Before commencing with the SEM process steps, the reliability of the independent, dependent, and mediating variables that are part of the empirical research should be tested by calculating the Cronbach alpha coefficients.

Cronbach's alpha measures the internal consistency or reliability of several items, measurements, or ratings. In other words, Cronbach's alpha is a rating of the stability of a measurement or instrument or the responses to a questionnaire (or a domain of a questionnaire) based on the responses from subjects to a questionnaire (Bujang *et al.*, 2018:85). In general, a Cronbach's alpha value greater than 0.7 is considered acceptable (Shrestha, 2021:5). Cronbach alpha is an estimation of the correlation between two random samples of items from a universe of items (Cronbach, 1951:297). It is recommended that questionnaires that can be divided into different subtests be divided before using the formula. The Cronbach alpha is found to be an appropriate index of

equivalence, except for very short questionnaires. Cronbach's alpha reliability (Cronbach, 1951) is one of the most widely used reliability measures in the social and organisational sciences. Cronbach's alpha measures internal consistency reliability (Middleton, 2023).

Some researchers debate whether the sample value of Cronbach's alpha for a response or predictor variable in a statistical analysis might be unacceptably small. Instances are known where research was rejected because the Cronbach Alpha was below 0.7 (Bonett & Wright, 2015:4). However, there is no universal minimally acceptable reliability value. An acceptable reliability value depends on the type of application, and the focus should be on the population reliability value and not on the sample reliability value (Bonett & Wright, 2015:4).

Cronbach's alpha is commonly described for developing scales that measure affective constructs and respondents' attitudes. Several reports have also been published in the literature on developing learner knowledge and understanding tests that use Cronbach's alpha to indicate instrument quality (Taber, 2018:1275). Cortina (1993:101) noted over 30 years ago that it was common for authors to assume that demonstrating that alpha was greater than 0.70 was sufficient to consider that no further scale development was needed, leading to the statistic being presented in studies without further interpretation or comparing it to the number of items in the scale. However, heed should be taken to use this practice arbitrarily, seeing that the larger the number of items on the scale, the larger the Cronbach alpha may be, and the number of items is an inadequate measure of test or scale quality (Taber, 2018:1287). Despite many authors following a rule-of-thumb that alpha should reach 0.70 for an instrument to have an acceptable level of self-consistency, there are limited grounds for adopting such a heuristic.

Moreover, in some cases, a very high value can indicate an inefficient level of item redundancy (Taber, 2018:1288). It is suggested that researchers do more than present the statistic without further comment and look at the context within which the scale is used. Despite known limitations of alpha, it is still common practice in science education to regard alpha reaching the somewhat arbitrary value of 0.70 as sufficient to measure an instrument's reliability and internal consistency (Taber, 2018:1293). Cronbach's Alpha coefficient of more than 0.6 is still considered an acceptable threshold (Ling *et al.*, 2021:4).

Table 6.5 reflects the Cronbach Alpha (CA) values of the various factors used in the measurement instrument.

Table 6.5: Cronbach Alpha Values

Variable	Number of items	Cronbach's alpha values
Corporate entrepreneurship		
Management support	4	0.79
Work discretion and autonomy	4	0.87
Rewards and reinforcement	4	0.69
Time availability	4	0.77
Organisational boundaries	4	0.76
Entrepreneurial orientation		
Autonomy	5	0.78
Innovativeness	9	0.90
Risk-taking	5	0.87
Proactiveness	4	0.85
Competitive aggressiveness	4	0.77
Compliance training success – Kirkpatrick		
Learner reaction	4	0.77
Learning	4	0.81
Behaviour	4	0.91
Business results	4	0.87
Return on investment – Phillips and Marcheselli		
Return on investment	5	0.87
Supportive learning environment – Garvin <i>et al.</i>		
Psychological safety	4	0.91
Appreciation of differences	4	0.92
Openness to new ideas	2	0.82
Time for reflection	2	0.90
Concrete learning processes – Garvin <i>et al.</i>		
Experimentation	2	0.78
Information collection	2	0.72
Analysis	2	0.89
Education and training	2	0.85
Information transfer	2	0.88
Leadership that reinforces Learning – Garvin <i>et al.</i>		
Leadership that reinforces learning	1	0.93
Extracting business value from compliance training – Young		
Individually relevant learning	9	0.94

Variable	Number of items	Cronbach's alpha values
High-impact learner experiences using social, workplace and media-rich digital learning	8	0.89
Knowledge, skills, behaviours and decisions that embed lasting behaviour change	5	0.89
Strategic learning	5	0.90
Effectiveness of compliance programme – Health Care Compliance Association		
Planning for compliance training	8	0.90
Implementation of compliance training	7	0.85
Evaluation and administration of compliance training	5	0.84
Compliance training success factors – Dixon and Overton		
Compliance training success factors	14	0.91
Holistic compliance communication programme – Rogers		
Holistic compliance programme	11	0.91
Factors that make training stick - Katz		
Factors that make training stick	2	0.66

Table 6.5 reflects that all but two factors reflected Cronbach alfa (CA) coefficients greater than 0.7. Rewards and reinforcement and factors that make training stick were measured near the 0.7 threshold, at 0.69 and 0.66, respectively, and were considered adequate. The following items reflected a marginally higher Cronbach alpha than the overall factor if the items were removed. These items included RE2 (rewards and reinforcement), which measured a CA of 0.72 if the item was removed against a factor CA of 0.69. OB3 (organisational boundaries) and OB4 both measured a CA of 0.78 against the factor CA of 0.76, A5 (autonomy) measured a CA of 0.80 against a factor CA of 0.78, I5 (innovativeness) measured a CA of 0.91 against a factor CA of 0.90, C4 (competitive aggressiveness) measured a CA of 0.81 against a factor CA of 0.77, SR2 (learner reaction) measured a CA of 0.82 against a factor CA of 0.77, SEHIL2 (high impact learner experiences, using social, workplace and media-rich digital learning) measured a CA of 0.90 against a factor CA of 0.89, SEKSB4 (knowledge, skills, behaviours and decisions that embed lasting behaviour change) measured a CA of 0.90 against a factor CA of 0.89 and SEFFB7 (planning for compliance training) measured a CA of 0.91 against a factor CA of 0.90. Due to the marginality of the exceeding measures, it was decided to keep the items in the SEM modelling process.

In Section 5.8.5.1, the steps to the SEM were discussed and formulated according to Kline (2023:32). The application of these steps will now be discussed in this section.

6.4.2 Specify the measurement model

The conceptual model is reflected in Chapter 1, Figure 1.1, and this study's twenty hypotheses were set in Section 4.7 of Chapter 4. Subsequently, ten SEM models were run.

1. SEM model assessing the constructs and factors relating to corporate entrepreneurship, entrepreneurial orientation as a mediating variable, and compliance training success, according to Kirkpatrick (1996:55-56).
2. SEM model assessing the constructs and factors relating to corporate entrepreneurship, entrepreneurial orientation as a mediating variable, and return on investment, according to Phillips (1996:20) and Marcheselli (2019).
3. SEM model assessing the constructs and factors relating to corporate entrepreneurship, entrepreneurial orientation as a mediating variable, and a supportive learning environment, according to Garvin *et al.* (2008:112-113).
4. SEM model assessing the constructs and factors relating to corporate entrepreneurship, entrepreneurial orientation as a mediating variable, and concrete learning processes, according to Garvin *et al.* (2008:112-113).
5. SEM model assessing the constructs and factors relating to corporate entrepreneurship, entrepreneurial orientation as a mediating variable, and leadership that reinforces learning, according to Garvin *et al.* (2008:112-113).
6. SEM model assessing the constructs and factors relating to corporate entrepreneurship, entrepreneurial orientation as a mediating variable, and extracting business value from compliance training, according to Young (2017:4).
7. SEM model assessing the constructs and factors relating to corporate entrepreneurship, entrepreneurial orientation as a mediating variable, and effectiveness of compliance programmes, according to the Health Care Compliance Association (2017:24-27).

8. SEM model assessing the constructs and factors relating to corporate entrepreneurship, entrepreneurial orientation as a mediating variable, and compliance training success factors, according to Dixon and Overton (2017:38).
9. SEM model assessing the constructs and factors relating to corporate entrepreneurship, entrepreneurial orientation as a mediating variable, and a holistic compliance communication programme, according to Rogers (2022:2-11).
10. SEM model assessing the constructs and factors relating to corporate entrepreneurship, entrepreneurial orientation as a mediating variable, and Factors that make training stick, according to Katz (2014:66).

At the beginning of Chapter 6, it was noted that the citation of the authors of the compliance training success models will not be repeated during the discussion of the empirical results, and the authors' surnames are included in the model's name.

6.4.3 Measurement model identification

Section 5.8.5.1.2 discusses determining whether the measurement model is over-, under- or just identified (Weston, 2006:732). Degrees of freedom have been calculated, and the greater the degree of freedom, the more parsimonious the model is likely to be, and researchers can demonstrate that associations between observed and latent variables are the most significant. Degrees of freedom are calculated according to the number of observations in the model and the number of parameters that need to be estimated (Civelek, 2018:17-18). A model can be defined if the degrees of freedom are not negative. The ten SEM models have been presented with degrees of freedom incorporated into each model's fit statistics. Degrees of freedom are not negative, and measurement models have been identified.

6.4.4 Operationalise the constructs and collect, prepare, and screen the data

The development and operationalisation of the variables occurred in Section 5.5. Empirical data from the 341 respondents were collected electronically on MS Forms and prepared and screened for the SEM process.

6.4.5 Evaluate the model for fit, interpret parameter estimates, and decide whether it is equivalent or near-equivalent (thus significant), incorporating the evaluation and rectification of the model, in need, and reporting of the results

Rather than specifying these three steps separately, as in Chapter 5, the steps are discussed in one section as part of interpreting the SEM results **per compliance training success model**. **First, the model fit statistics** were determined, parameter estimates were analysed, and model significance was established. The 10 SEM models were all evaluated and found to be adequate, and no rectification was needed. Then, the results of the models were reported by **reporting on the confirmatory factor analysis, average variance extracted, and composite reliability, reporting on the mediation effect of entrepreneurial orientation and the relationships, and reporting on the SEM modelling path**. As part of the SEM path, the relationship between selected biographic variables and the success of the various compliance training success models was investigated by running a regression model with the various success factors of compliance training and biographic variables.

The following section will discuss the model fit statistics for the compliance training success model by Kirkpatrick (1996: -56).

6.4.5.1 SEM model fit statistics: compliance training success model - Kirkpatrick

Table 6.6 indicates the model fit statistics, including the factors measuring corporate entrepreneurship, entrepreneurial orientation, and compliance training success model according to Kirkpatrick (1996:55-56).

Table 6.6: Model fit statistics: compliance training success model – Kirkpatrick

Fit Indices	Test Statistic χ^2	Degrees of Freedom df	p-value	Goodness of fit χ^2/df	CFI	TLI	RMSEA	90 % Confidence Interval Lower	90 % Confidence Interval Upper
Model Values	3765.067	1873	<0.001	2.010	0.846	0.839	0.054	0.052	0.057
Recommended Values			<0.05	<5	>0.9	>0.9	<0.10		

Note: χ^2 = Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation

If the measurement model fit indices are low, testing the structural model will not be justified (Civelek, 2018:9).

Conformity indices were used in the model conformity testing, such as the Comparative Fix Index (CFI), Tucker-Lewis-Index (TLI), Goodness of Fit Index (GFI) and the Root Mean Square Error Approximation (RMSEA) (Halim *et al.*, 2018:163). These measures provide the most fundamental indication of how well the proposed theory fits the data.

Absolute fit indices reveal how well an a priori model (based on the literature study) fits the sampling data and demonstrates which proposed model has the best fit (Hooper *et al.*, 2008:53). The Chi-Square value - Test Statistic (χ^2) is the traditional measure for evaluating overall model fit and, assesses the magnitude of discrepancy between the sample and fitted covariances matrices (Hooper *et al.*, 2008:53). The RMSEA indicates how well the model, with unknown but optimally chosen parameter estimates, would fit the population's covariance matrix (Hooper *et al.*, 2008:54). The Chi-square (χ^2) and Root Mean Square Error of Approximation (RMSEA) are examples of absolute fit indices used in SEM.

Table 6.6 indicates an acceptable goodness-of-fit index value (also an absolute fit index), calculated as χ^2 divided by the degrees of freedom of 2.010 against a recommended value of below 5 (Maqableh *et al.*, 2021:250). Similarly, RMSEA was calculated at an acceptable value of 0.054 against a recommended value smaller than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3). The p-value indicates significance.

Incremental fit indices are a group of indices that do not use the chi-square in its raw form but compare the chi-square value to a baseline model where the null hypothesis is that all variables are uncorrelated (Hooper *et al.*, 2008:55). As part of the incremental fit indices, the Comparative Fit Index (CFI) assumes that all latent variables are uncorrelated and compares the sample covariance matrix with this null model (Hooper *et al.*, 2008:55). The CFI as well as the Tucker-Lewis Index (TLI), which are both incremental indices, calculated both slightly under the suggested cutoff value of 0.9, namely 0.846 for the CFI and 0.839 for the TLI. Van Laar and Braeken (2021:16) postulate that CFI should not be viewed as an absolute but pointless criterion that needs to be satisfied to attain an adequate model as a starting point for further analysis but recommend a dual reporting standard where both the model of interest and the baseline model are evaluated to provide proper context for interpretation of the CFI value.

Kline (2016:276) posits that a result of CFI of 0.8, for example, indicates that the fit of the researcher's model is about 80% better than that of the baseline model. According to Ferdinand (2014) (cited by Anggriani *et al.*, 2020:66-67), a CFI is regarded as a marginal but acceptable fit when the CFI value is greater than or equal to 0.8 but smaller than 0.9. A TLI value equal to or greater than 0.8 but smaller than 0.9 is a marginal but seemingly acceptable fit. A CFI slightly below 0.9 has been regarded as a relatively good fit. The TLI has an acceptable fit slightly below 0.9 and has been used in previous research (Kim *et al.*, 2016:4). Thus, also considering that in this research, the CFI and TLI are only two factors considered in the overall model fit, where all the other measurements fell within the parameters, these indices are deemed acceptable.

As part of the SEM process, a confirmatory factor analysis was performed. Confirmatory factor analysis is discussed in the next section.

6.4.5.2 Confirmatory factor analysis and convergent validity: compliance training success model - Kirkpatrick

In the case of convergent validity, there are high correlations between the questions that make up the construct. In SEM, it is necessary to examine the results of the confirmatory factor analysis to determine the convergent validity of the scales used to measure the dimensions that make up the conceptual model (Civelek, 2018:32). Confirmatory factor analysis is a version of factor analysis in which specific hypotheses about the structure

and relations between the latent variables that underlie the data are tested (Field, 2018:1011). Measurement models determine how observed variables represent well-hidden variables and are achieved primarily through confirmatory factor analysis (CFA) and indicate the construct validity of the scales (Civelek, 2018:9). In SEM, confirmatory factor analysis (CFA) provides a much more rigorous assessment of model power concerning construct and content validity (Karuppiyah *et al.*, 2013:1). In a CFA the researcher can confirm or disprove the underlying factor structures, or dimensions, that were identified in prior research (Tavakol & Wetzel, 2020:246).

Table 6.7 indicates the standardised factor loadings as part of CFA of the items measuring the independent variable corporate entrepreneurship, the mediating variable entrepreneurial orientation, and the dependent variable compliance training success according to Kirkpatrick (1996:55-56). Standard errors and p-values are also reflected, indicating significance.

Table 6.7: Confirmatory factor analysis - standardised factor loadings: compliance training success model - Kirkpatrick

Variables	Items	Standardised factor loadings	Standard Error	p-value
Management Support (Corporate Entrepreneurship)	MS1	0.788		
	MS2	0.770	0.071	0.001*
	MS3	0.643	0.072	0.001*
	MS4	0.609	0.076	0.001*
Work Discretion and Autonomy (Corporate Entrepreneurship)	WD1	0.744		
	WD2	0.848	0.075	0.001*
	WD3	0.872	0.077	0.001*
	WD4	0.677	0.068	0.001*
Rewards and Reinforcement (Corporate Entrepreneurship)	RE1	0.527		
	RE2	0.357	0.091	0.001*
	RE3	0.872	0.168	0.001*
	RE4	0.691	0.125	0.001*
Time Availability (Corporate Entrepreneurship)	TA1	0.855		
	TA2	0.504	0.066	0.001*
	TA3	0.753	0.068	0.001*
	TA4	0.532	0.071	0.001*
Organisational Boundaries	OB1	0.892		
	OB2	0.930	0.054	0.001*
	OB3	0.499	0.083	0.001*

Variables	Items	Standardised factor loadings	Standard Error	p-value
(Corporate Entrepreneurship)	OB4	0.442	0.060	0.001*
Autonomy (Entrepreneurial Orientation)	A1	0.627		
	A2	0.823	0.129	0.001*
	A3	0.631	0.133	0.001*
	A4	0.742	0.116	0.001*
	A5	0.434	0.118	0.001*
Innovativeness (Entrepreneurial Orientation)	I1	0.672		
	I2	0.831	0.083	0.001*
	I3	0.666	0.082	0.001*
	I4	0.832	0.075	0.001*
	I5	0.444	0.087	0.001*
	I6	0.767	0.080	0.001*
	I7	0.788	0.073	0.001*
	I8	0.744	0.068	0.001*
	I9	0.713	0.079	0.001*
Risk-Taking (Entrepreneurial Orientation)	R1	0.709		
	R2	0.659	0.092	0.001*
	R3	0.803	0.091	0.001*
	R4	0.792	0.087	0.001*
	R5	0.827	0.090	0.001*
Proactiveness (Entrepreneurial Orientation)	P1	0.741		
	P2	0.755	0.075	0.001*
	P3	0.812	0.075	0.001*
	P4	0.742	0.069	0.001*
Competitive Aggressiveness (Entrepreneurial Orientation)	C1	0.709		
	C2	0.827	0.104	0.001*
	C3	0.754	0.098	0.001*
	C4	0.451	0.081	0.001*
Learner Reaction (Compliance Training Success according to Kirkpatrick)	SR1	0.660		
	SR2	0.389	0.083	0.001*
	SR3	0.811	0.089	0.001*
	SR4	0.894	0.091	0.001*
Learning (Compliance Training Success according to Kirkpatrick)	SL1	0.683		
	SL2	0.667	0.106	0.001*
	SL3	0.822	0.103	0.001*
	SL4	0.702	0.107	0.001*

Variables	Items	Standardised factor loadings	Standard Error	p-value
Learner Behaviour (Compliance Training Success according to Kirkpatrick)	SB1	0.860		
	SB2	0.805	0.052	0.001*
	SB3	0.876	0.050	0.001*
	SB4	0.834	0.049	0.001*
Business Results (Compliance Training Success according to Kirkpatrick)	SRes1	0.704		
	SRes2	0.783	0.078	0.001*
	SRes3	0.841	0.085	0.001*
	SRes4	0.832	0.086	0.001*

* P<0.001

Table 6.7 reflects that some items, namely RE2, OB3, OB4, A5, I5, C4 and SR2, had factor loadings slightly below the threshold of 0.5 (Baharum *et al.*, 2023:4). The fact that most factor loadings are above 0,5 is evidence of convergent validity (Civelek, 2018:33). OB3 was measured at the borderline at 0.499 and was accepted. Upon closer inspection, most of the borderline items indicate a work environment that does not reflect a compliance department within the banking sector. Question RE2 - increasing job responsibilities when performing well seems not to have been consistently answered, and not everyone may have recognised the connection between performing well and receiving additional responsibilities. Working within regulations and policies and making judgement calls within these parameters may bring uncertainty into the work environment, where standard operating procedures may not always be followed (OB4). There is a possibility that well-documented compliance procedures incorporating regulations and policies may have affected the outcome of question A5, which stated that Compliance Officers rarely follow the same procedures when performing major tasks. Item I5 reads that changes in department processes, services, and product lines have been quite dramatic over the past few years. There appears to have been a different opinion on the answer to this question. Some respondents may have interpreted the word 'dramatic' differently, although changes are evident in the banking sector overall.

Furthermore, considering the strict regulatory environment, the display of competitive aggressiveness (C4) may not be encouraged. Compliance training is primarily mandatory, so the learner reaction may only be obtained in some instances and not consistently or anonymously (SR2). However, standardised factor loadings of the items were still considered acceptable according to Stevens (cited by Field, 2013:681), where

standardised factor loadings of greater than 0.298 can be accepted in samples larger than 300 and items with factor loadings of smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Standard errors and p-values are reflected, and the p-values indicate significance.

Next, the convergent validity was further assessed and achieved when the average variance extracted (AVE) exceeded a threshold value of greater than 0.5 for the model (Baharum *et al.*, 2023:1).

The composite reliability (CR) value was also determined by examining that all CR values exceeded the threshold value of 0.7, which measures the internal consistency of indicator variables loading on the latent variable (Civelek, 2018:42).

Table 6.8 reflects the average variance extracted (AVE) and composite reliability (CR) values.

Table 6.8: Average variance extracted (AVE) and composite reliability (CR) of the compliance training success model – Kirkpatrick

Variable	AVE	CR
Management Support (Corporate Entrepreneurship)	0.495	0.799
Work Discretion and Autonomy (Corporate Entrepreneurship)	0.632	0.869
Rewards and Reinforcement (Corporate Entrepreneurship)	0.432	0.733
Time Availability (Corporate Entrepreneurship)	0.457	0.741
Organisational Boundaries (Corporate Entrepreneurship)	0.479	0.773
Autonomy (Entrepreneurial Orientation)	0.433	0.787
Innovativeness (Entrepreneurial Orientation)	0.510	0.896
Risk-Taking (Entrepreneurial Orientation)	0.579	0.873
Proactiveness (Entrepreneurial Orientation)	0.584	0.846
Competitive Aggressiveness (Entrepreneurial Orientation)	0.513	0.804
Learner Reaction (Compliance Training Success according to Kirkpatrick)	0.501	0.785

Variable	AVE	CR
Learning (Compliance Training Success according to Kirkpatrick)	0.518	0.806
Learner Behaviour (Compliance Training Success according to Kirkpatrick)	0.714	0.901
Business Results (Compliance Training Success according to Kirkpatrick)	0.629	0.868

Average variance extracted (AVE) measures convergent validity, which is the extent to which the construct converges to explain the variance of its items (Hair *et al.*, 2019:9). To calculate the AVE, one must square the loading of each indicator on a construct and compute the mean value. An acceptable AVE is 0.50 or higher, indicating that the construct explains at least 50% of the variance of its items. The items highlighted in yellow were borderline but still acceptable AVE. Composite reliability (CR) values are also shown within a minimum acceptable level of 0.7. The factors highlighted in yellow are considered borderline AVE but still acceptable, and all factors measured acceptable CR.

The following section will consider the mediation effect of entrepreneurial orientation and relationships with the compliance training success model – Kirkpatrick.

6.4.5.3 Mediation effect of entrepreneurial orientation and relationships: compliance training success model- Kirkpatrick

The mediation effect and relationships are considered in Table 6.9.

Table 6.9: Mediation effect and relationships: compliance training success model – Kirkpatrick

Type of relationship	Standard regression weight β - weight	Standard error	p-value
Direct	0.245	0.117	0.082
Indirect	0.341	0.098	0.004
Total affect	0.587	0.073	P<0.001

The p-value of the direct effect at 0.082 is borderline against the threshold of 0.05, and the model is still considered significant. When a statistical significance cut-off is based on an arbitrary value, such as 0.05, it may be misleading to conclude that a statistically significant result is accurate in some sense (Whitley & Ball, 2002:224). Researchers may draw more informed conclusions by combining the exact p-values with other available

evidence to determine whether the observed effect is likely due to chance. Consequently, the researcher believes this mediation effect model has a much lower p-value than the other nine SEM models. As such, it is statistically significant when comparing the Kirkpatrick compliance training success SEM model with the other nine SEM models, combined with the marginality of the 0.082 p-value of the Kirkpatrick model.

Table 6.9 illustrates that the indirect effect is also statistically significant with a p-value of 0.004, thus smaller than 0.05.

According to the Kirkpatrick model, entrepreneurial orientation has a variance accounted for (VAF) of 58% ($0.341/0.587$) in the relationship between corporate entrepreneurship and compliance training success. The level of VAF mediation is between 20%-80% and can thus be regarded as partial mediation (Ali *et al.*, 2022:10). The type of partial mediation is complementary partial mediation, where the direct effect and indirect effects are both significant and point in the same (positive or negative) direction, in this instance being a positive effect (Timothy, 2022:4).

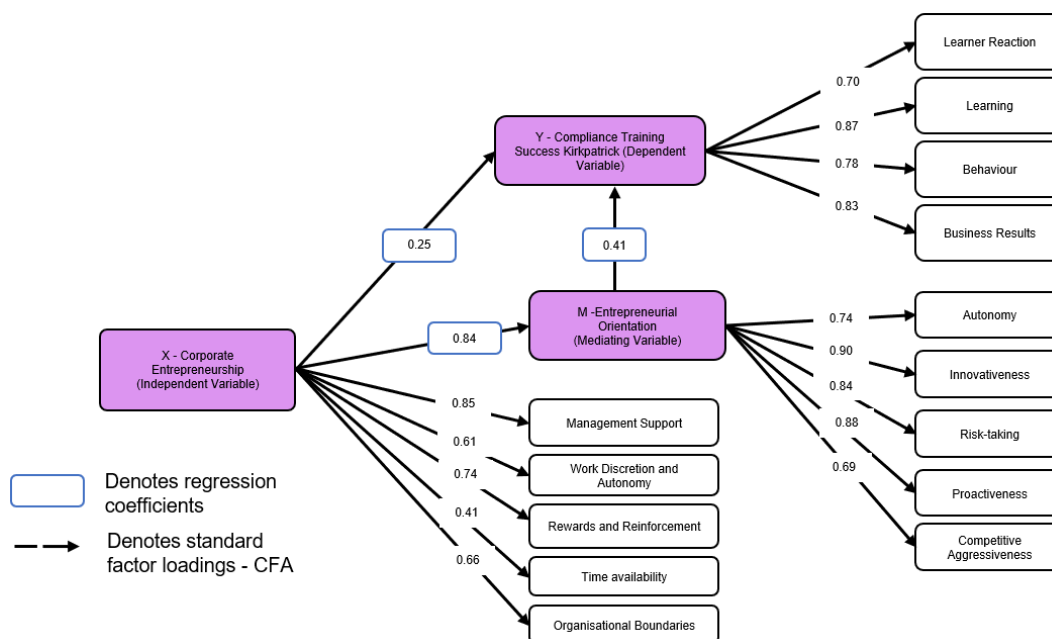
H¹¹. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and compliance training success, according to Kirkpatrick, is therefore accepted.

In the next section, the SEM path for analysing the relationship between the independent variables, corporate entrepreneurship, the dependent variables, compliance training success according to Kirkpatrick, and the mediating variables, entrepreneurial orientation, will be considered.

6.4.5.4 Structural Equation Modelling Path: Compliance Training Success model - Kirkpatrick

Figure 6.1 reflects the SEM path for analysing the relationship between the independent variables, corporate entrepreneurship, the dependent variables, compliance training success according to Kirkpatrick and the mediating variables, entrepreneurial orientation.

Figure 6.1: SEM Path: compliance training success model – Kirkpatrick



Individual items and standard errors are not reflected for the sake of conciseness.

A positive relationship exists between corporate entrepreneurship and compliance training success, according to Kirkpatrick, with a regression coefficient of 0.25 being evident. Standard regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome variable (compliance training success) in a standardised form (Field, 2018:1008). Thus, the change in compliance training success is indicated based on one standard deviation change in corporate entrepreneurship.

A positive relationship between corporate entrepreneurship and entrepreneurial orientation can be observed, with a correlation coefficient of 0.84.

Standard factor loadings in confirmatory factor analysis of more than 0.5 are evident, except for time availability loaded at a borderline 0.41, but are still considered acceptable. The lower factor loading of time availability may be because the two negative questions may have been interpreted inconsistently. Items with factor loadings of less than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

H¹. There is a positive relationship between corporate entrepreneurship and compliance training success, according to Kirkpatrick, is therefore accepted.

Next, the relationship between selected biographic variables and the success of compliance training success, according to Kirkpatrick, will be investigated. As part of the SEM model, a regression model was run with the various success factors of compliance training and biographic variables. Age, education level, and level of seniority within the organisation were all treated as ordinal variables to account for the different categories in age group, education level, and level of seniority in the organisation. An ordinal variable is one whose categories can be rank-ordered, but the distances between the categories are unequal across the range (Bryman *et al.*, 2017:380).

Table 6.10: Direct biographic relationships: compliance training success model – Kirkpatrick

Biographic variable	Regression Coefficient	p-value	Standardised Regression Coefficient
Gender	0.001	0.980	0.003
Age	-0.081	0.004	-0.185
Seniority within the organisation	-0.028	0.206	-0.063
Education level	-0.034	0.124	-0,077

In Table 6.10, age is the only statistically significant relationship with a p-value less than 0.05. Therefore, a negative relationship is observed between age and the success of the construct compliance training, according to Kirkpatrick. Thus, as age increases, the success score of compliance training, according to Kirkpatrick, decreases.

The following section will investigate the SEM model fit statistics for the return on investment model according to Phillips (1996:20) and Marcheselli (2019).

6.4.5.5 SEM model fit statistics: return on investment model – Phillips and Marcheselli

Table 6.11 indicates the model fit statistics for the model, including the factors measuring corporate entrepreneurship, entrepreneurial orientation, and return on investment, according to Phillips (1996:20) and Marcheselli (2019).

Table 6.11 **Model fit statistics: return on investment model – Phillips and Marcheselli**

Fit Indices	Test Statistic χ^2	Degrees of Freedom df	p-value	Goodness of fit χ^2/df	CFI	TLI	RMSEA	90 % Confidence Interval Lower	90 % Confidence Interval Upper
Model Values	2690.911	1261	<0.001	2.134	0.851	0.843	0.058	0.055	0.061
Recommended Values			<0.05	<5	>0.9	>0.9	<0.10		

Note: χ^2 = Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation

Table 6.11 indicates an acceptable goodness-of-fit index value (also an absolute fit index), calculated as χ^2 divided by the degrees of freedom (df) of 2.134 against a recommended value of less than 5 (Maqableh *et al.*, 2021:250). Similarly, RMSEA was calculated at an acceptable value of 0.058 against a recommended value smaller than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3). The p-value is also considered significant.

From an incremental fit perspective, the CFI and TLI measured slightly below the 0.9 threshold at 0.851 and 0.843, respectively. These measurements are still regarded acceptable (Ferdinand, 2014 cited by Anggriani *et al.*, 2020:66-67) and have been used in research before (Kim *et al.*, 2016:4). The CFI and TLI are only two factors considered in the overall model fit, where all other measurements fell within the parameters, and thus these indices are deemed acceptable.

In the following section, the confirmation factor analysis of the return on investment model will be discussed, which is reflected in Table 6.12.

6.4.5.6 Confirmatory factor analysis and convergent validity: return on investment model – Phillips and Marcheselli

Table 6.12: Confirmatory factor analysis - standardised factor loadings: return on investment model – Phillips and Marcheselli

Variable	Items	Standardised factor loadings	Standard Error	p-value
Management Support (Corporate Entrepreneurship)	MS1	0.788		
	MS2	0.769	0.071	0.001*
	MS3	0.644	0.072	0.001*
	MS4	0.609	0.076	0.001*
Work Discretion and Autonomy (Corporate Entrepreneurship)	WD1	0.743		
	WD2	0.848	0.075	0.001*
	WD3	0.873	0.077	0.001*
	WD4	0.676	0.069	0.001*
Rewards and Reinforcement (Corporate Entrepreneurship)	RE1	0.528		
	RE2	0.358	0.091	0.001*
	RE3	0.871	0.168	0.001*
	RE4	0.692	0.125	0.001*
Time Availability (Corporate Entrepreneurship)	TA1	0.855		
	TA2	0.504	0.066	0.001*
	TA3	0.753	0.068	0.001*
	TA4	0.532	0.071	0.001*
Organisational Boundaries (Corporate Entrepreneurship)	OB1	0.893		
	OB2	0.929	0.054	0.001*
	OB3	0.500	0.083	0.001*
	OB4	0.443	0.060	0.001*
Autonomy (Entrepreneurial Orientation)	A1	0.627		
	A2	0.823	0.129	0.001*
	A3	0.633	0.133	0.001*
	A4	0.742	0.116	0.001*
	A5	0.433	0.118	0.001*
Innovativeness (Entrepreneurial Orientation)	I1	0.672		
	I2	0.831	0.083	0.001*
	I3	0.666	0.082	0.001*
	I4	0.832	0.075	0.001*
	I5	0.444	0.087	0.001*
	I6	0.767	0.080	0.001*
	I7	0.788	0.073	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
	I8	0.744	0.068	0.001*
	I9	0.713	0.079	0.001*
Risk-Taking (Entrepreneurial Orientation)	R1	0.708		
	R2	0.659	0.092	0.001*
	R3	0.802	0.091	0.001*
	R4	0.793	0.088	0.001*
	R5	0.827	0.090	0.001*
Proactiveness (Entrepreneurial Orientation)	P1	0.742		
	P2	0.755	0.075	0.001*
	P3	0.813	0.075	0.001*
	P4	0.740	0.068	0.001*
Competitive Aggressiveness (Entrepreneurial Orientation)	C1	0.709		
	C2	0.828	0.104	0.001*
	C3	0.754	0.098	0.001*
	C4	0.450	0.081	0.001*
Return on investment (Phillips and Marcheselli)	SROI1	0.744		
	SROI2	0.730	0.068	0.001*
	SROI3	0.843	0.069	0.001*
	SROI4	0.720	0.074	0.001*
	SROI5	0.730	0.073	0.001*

* P<0.001

Table 6.12 indicates some item loadings below the 0.5 threshold (Baharum *et al.*, 2023:4). RE2 measured at 0.358, OB4 at 0.443, A5 at 0.433, I5 at 0.444 and C4 at 0.450. The fact that most factor loadings are higher than 0,5 is evidence of convergent validity (Civelek, 2018:33). Again, most of the borderline items, on closer inspection, reflect a work environment uncommon to a compliance department within the banking sector, which has been discussed under 6.4.5.2 when discussing Table 6.7 and have been accepted as items with factor loadings below 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Standard errors and p-values are reflected, and the p-values indicate significance.

In Table 6.13, the convergent validity and the composite reliability were examined of the return on investment model.

Table 6.13: AVE and CR of the return on investment measurement model – Phillips and Marcheselli

Variable	AVE	CR
Management Support (Corporate Entrepreneurship)	0.495	0.799
Work Discretion and Autonomy (Corporate Entrepreneurship)	0.632	0.868
Rewards and Reinforcement (Corporate Entrepreneurship)	0.432	0.733
Time Availability (Corporate Entrepreneurship)	0.457	0.741
Organisational Boundaries (Corporate Entrepreneurship)	0.479	0.773
Autonomy (Entrepreneurial Orientation)	0.433	0.787
Innovativeness (Entrepreneurial Orientation)	0.510	0.896
Risk-Taking (Entrepreneurial Orientation)	0.579	0.873
Proactiveness (Entrepreneurial Orientation)	0.584	0.847
Competitive Aggressiveness (Entrepreneurial Orientation)	0.513	0.804
Return on investment (Phillips and Marcheselli)	0.567	0.869

Convergent validity was further assessed and achieved when the average variance extracted (AVE) exceeded a threshold value greater than 0.5 for the model (Baharum *et al.*, 2023:1). The composite reliability (CR) value was also determined by examining that all CR values exceeded the threshold value of 0.7, indicating the composite reliability for the construct (Civelek, 2018:42). The items highlighted in yellow were regarded as borderline, but still acceptable AVE. Composite reliability (CR) values are also shown within a minimum acceptable level of 0.7.

The mediation effect will be discussed in Table 6.14.

6.4.5.7 Mediation effect and relationships: return on investment model – Phillips and Marcheselli

Table 6.14: Mediation effect and relationships: return on investment model - Phillips and Marcheselli

Type of relationship	Standard regression weight β - weight	Standard error	p-value
Direct	0.391	0.168	0.010
Indirect	0.086	0.133	0.472
Total affect	0.478	0.079	P<0.001

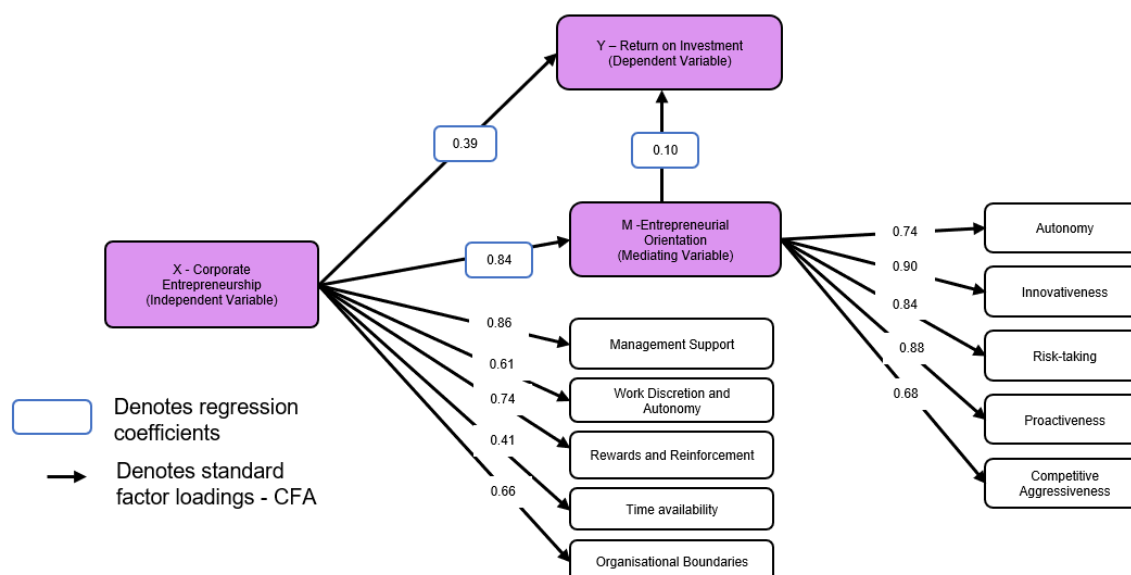
The p-value for the indirect relationship was measured at 0.472, which is therefore regarded as not significant, and the mediating relationship was not measured. The type of non-mediation is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and return on investment is significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

H13. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and return on investment, according to Phillips and Marcheselli, is therefore rejected.

In the next section, the SEM path will be reflected in the return on investment model, according to Phillips and Marcheselli.

6.4.5.8 Structural Equation Modelling Path: return on investment model – Phillips and Marcheselli

Figure 6.2: SEM Path: return on investment model - Phillips and Marcheselli



Individual items and standard errors are not reflected for the sake of conciseness.

A positive relationship exists between corporate entrepreneurship and return on investment, according to Phillips and Marcheselli, with a positive correlation coefficient of 0.39. Standard regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome variable (return on investment) in a standardised form (Field, 2018:1008). Thus, the change in return on investment is indicated based on one standard deviation change in corporate entrepreneurship.

A positive relationship between corporate entrepreneurship and entrepreneurial orientation can be observed, with a correlation coefficient of 0.84.

Standard factor loadings in confirmatory factor analysis more than 0.5 are evident, except for time availability loaded at a borderline 0.41, but is still considered acceptable. Time availability had two negative questions that may have been interpreted inconsistently. Items with factor loadings of less than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Although not part of the secondary objectives of this study, entrepreneurial orientation measured a positive relationship with return on investment, according to Phillips

(1996:20) and Marcheselli (2019). Therefore, the more entrepreneurial orientation is enhanced in the compliance departments of South African banks, the higher the performance relating to the return on investment.

H². There is a positive relationship between corporate entrepreneurship and return on investment, according to Phillips and Marcheselli, is therefore accepted.

Next, the relationship between selected biographic variables and return on investment will be investigated using regression analysis as part of the SEM model. Again, age, education level, and level of seniority within the organisation were all treated as ordinal variables to account for the different categories in age group, education level, and level of seniority in the organisation.

Table 6.15: Direct biographic relationships: return on investment model - Phillips and Marcheselli

Biographic variable	Regression Coefficient	p-value	Standardised Regression Coefficient
Gender	0.005	0.951	0.003
Age	-0.089	0.031	-0.123
Seniority within the organisation	-0.037	0.264	-0.063
Education level	-0.122	P<0.001	-0.209

In Table 6.15, the only statistically significant relationships with a p-value less than 0.05 are age and level of education. Therefore, a negative relationship is observed between age and the construct return on investment. Thus, as age increases, the score of return on investment decreases. A negative relationship is also observed between education level and return on investment; as education level increases, the score on return on investment decreases.

The following section will investigate the SEM model fit statistics for a supportive learning environment model according to Garvin *et al.* (2008:112-113).

6.4.5.9 SEM model fit statistics: supportive learning environment model – Garvin *et al.*

Table 6.16 indicates the model fit statistics for the model, including the factors measuring corporate entrepreneurship, entrepreneurial orientation, and a supportive learning environment, according to Garvin *et al.* (2008:112-113).

Table 6.16: Model fit statistics: supportive learning environment – Garvin *et al.*

Fit Indices	Test Statistic χ^2	Degrees of Freedom df	p-value	Goodness of fit χ^2/df	CFI	TLI	RMSEA	90 % Confidence Interval Lower	90 % Confidence Interval Upper
Model Values	3471.142	1635	<0.001	2.123	0.857	0.805	0.057	0.055	0.060
Recommended Values			<0.05	<5	>0.9	>0.9	<0.10		

Note: χ^2 = Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation

Table 6.16 indicates an acceptable goodness-of-fit index value (also an absolute fit index), calculated as χ^2 divided by the degrees of freedom (df) of 2.123 against a recommended value of less than 5 (Maqableh *et al.*, 2021:250). Similarly, RMSEA was calculated at an acceptable value of 0.057 against a recommended value smaller than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3). The p-value is also considered significant.

From an incremental fit perspective, the CFI and TLI measured slightly below the 0.9 threshold at 0.857 and 0.805, respectively. These measurements are still regarded acceptable (Ferdinand, 2014 cited by Anggriani *et al.*, 2020:66-67) and have been used in research before (Kim *et al.*, 2016:4). The CFI and TLI are only two factors considered in the overall model fit, where all other measurements fell within the parameters, and thus these indices are deemed acceptable.

Next, the confirmatory factor analysis of the supportive learning environment model will be discussed, reflected in Table 6.17.

6.4.5.10 Confirmatory factor analysis and convergent validity: supportive learning environment model – Garvin *et al.*

Table 6.17: Confirmatory factor analysis - standardised factor loadings: supportive learning environment model: Garvin *et al.*

Variable	Items	Standardised factor loadings	Standard Error	p-value
Management Support (Corporate Entrepreneurship)	MS1	0.788		
	MS2	0.770	0.070	0.001*
	MS3	0.642	0.072	0.001*
	MS4	0.610	0.075	0.001*
Work Discretion and Autonomy (Corporate Entrepreneurship)	WD1	0.745		
	WD2	0.846	0.075	0.001*
	WD3	0.871	0.077	0.001*
	WD4	0.681	0.068	0.001*
Rewards and Reinforcement (Corporate Entrepreneurship)	RE1	0.532		
	RE2	0.350	0.090	0.001*
	RE3	0.863	0.163	0.001*
	RE4	0.700	0.124	0.001*
Time Availability (Corporate Entrepreneurship)	TA1	0.851		
	TA2	0.507	0.066	0.001*
	TA3	0.755	0.069	0.001*
	TA4	0.534	0.071	0.001*
Organisational Boundaries (Corporate Entrepreneurship)	OB1	0.890		
	OB2	0.932	0.053	0.001*
	OB3	0.499	0.083	0.001*
	OB4	0.443	0.060	0.001*
Autonomy (Entrepreneurial Orientation)	A1	0.627		
	A2	0.823	0.129	0.001*
	A3	0.632	0.133	0.001*
	A4	0.743	0.116	0.001*
	A5	0.433	0.118	0.001*
Innovativeness (Entrepreneurial Orientation)	I1	0.670		
	I2	0.831	0.084	0.001*
	I3	0.665	0.083	0.001*
	I4	0.833	0.076	0.001*
	I5	0.443	0.088	0.001*
	I6	0.767	0.081	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
	I7	0.789	0.074	0.001*
	I8	0.744	0.069	0.001*
	I9	0.714	0.080	0.001*
Risk-Taking (Entrepreneurial Orientation)	R1	0.708		
	R2	0.656	0.092	0.001*
	R3	0.801	0.091	0.001*
	R4	0.795	0.088	0.001*
	R5	0.828	0.090	0.001*
Proactiveness (Entrepreneurial Orientation)	P1	0.741		
	P2	0.754	0.075	0.001*
	P3	0.814	0.075	0.001*
	P4	0.740	0.069	0.001*
Competitive Aggressiveness (Entrepreneurial Orientation)	C1	0.709		
	C2	0.828	0.105	0.001*
	C3	0.753	0.098	0.001*
	C4	0.450	0.081	0.001*
Phycological Safety (Supportive Learning Environment – Garvin <i>et al.</i>)	SSLEP1	0.881		
	SSLEP2	0.866	0.043	0.001*
	SSLEP3	0.777	0.047	0.001*
	SSLEP4	0.847	0.042	0.001*
Appreciation of differences (Supportive Learning Environment – Garvin <i>et al.</i>)	SSLEA1	0.836		
	SSLEA2	0.897	0.048	0.001*
	SSLEA3	0.913	0.045	0.001*
	SSLEA4	0.794	0.047	0.001*
Openness to new ideas (Supportive Learning Environment – Garvin <i>et al.</i>)	SSLEO1	0.891		
	SSLEO2	0.778	0.060	0.001*
Time for reflection (Supportive Learning Environment – Garvin <i>et al.</i>)	SSLET1	0.896		
	SSLET2	0.908	0.062	0.001*

* P<0.001

Table 6.17 indicates some item loadings below the 0.5 threshold (Baharum *et al.*, 2023:4). RE2 measured at 0.350, OB3 at 0.499, OB4 at 0.443, I5 at 0.443 and C4 at 0.450. OB3 is accepted and measured very close to the 0.5 threshold. The fact that most factor loadings are above 0,5 is evidence of convergent validity (Civelek, 2018:33). Again, most of the borderline items, on closer inspection, reflect a work environment uncommon to a

compliance department within the banking sector that has been discussed under 6.4.5.2 when discussing Table 6.7 and have been accepted as items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Standard errors and p-values are reflected, and p-values indicate significance.

The convergent validity and composite reliability are examined in Table 6.18 of the supportive learning environment model.

Table 6.18: AVE and CR of the supportive learning environment measurement model – Garvin *et al.*

Variable	AVE	CR
Management Support (Corporate Entrepreneurship)	0.495	0.799
Work Discretion and Autonomy (Corporate Entrepreneurship)	0.632	0.869
Rewards and Reinforcement (Corporate Entrepreneurship)	0.431	0.731
Time Availability (Corporate Entrepreneurship)	0.457	0.743
Organisational Boundaries (Corporate Entrepreneurship)	0.479	0.773
Autonomy (Entrepreneurial Orientation)	0.433	0.787
Innovativeness (Entrepreneurial Orientation)	0.510	0.895
Risk-Taking (Entrepreneurial Orientation)	0.578	0.872
Proactiveness (Entrepreneurial Orientation)	0.584	0.846
Competitive Aggressiveness (Entrepreneurial Orientation)	0.513	0.804
Psychological Safety (Supportive Learning Environment – Garvin)	0.712	0.909
Appreciation of differences (Supportive Learning Environment – Garvin)	0.744	0.924
Openness to new ideas (Supportive Learning Environment – Garvin)	0.689	0.816
Time for reflection (Supportive Learning Environment – Garvin)	0.814	0.897

Convergent validity was further assessed and achieved when the average variance extracted (AVE) exceeded a threshold value greater than 0.5 for the model (Baharum *et*

al., 2023:1). The composite reliability (CR) value was also determined by examining that all CR values exceeded the threshold value of 0.7, indicating the composite reliability for the construct (Civelek, 2018:42). The items highlighted in yellow were regarded as borderline, but still acceptable AVE. Composite reliability (CR) values are also shown within a minimum acceptable level of 0.7.

The mediation effect will be discussed in Table 6.19 in the next section.

6.4.5.11 Mediation effect of entrepreneurial orientation and relationships: supportive learning environment model – Garvin *et al.*

Table 6.19: Mediation effect and relationships: supportive learning environment model – Garvin *et al.*

Type of relationship	Standard regression weight β - weight	Standard error	p-value
Direct	0.988	0.230	P<0.001
Indirect	-0.121	0168	0.280
Total affect	0.878	0.103	P<0.001

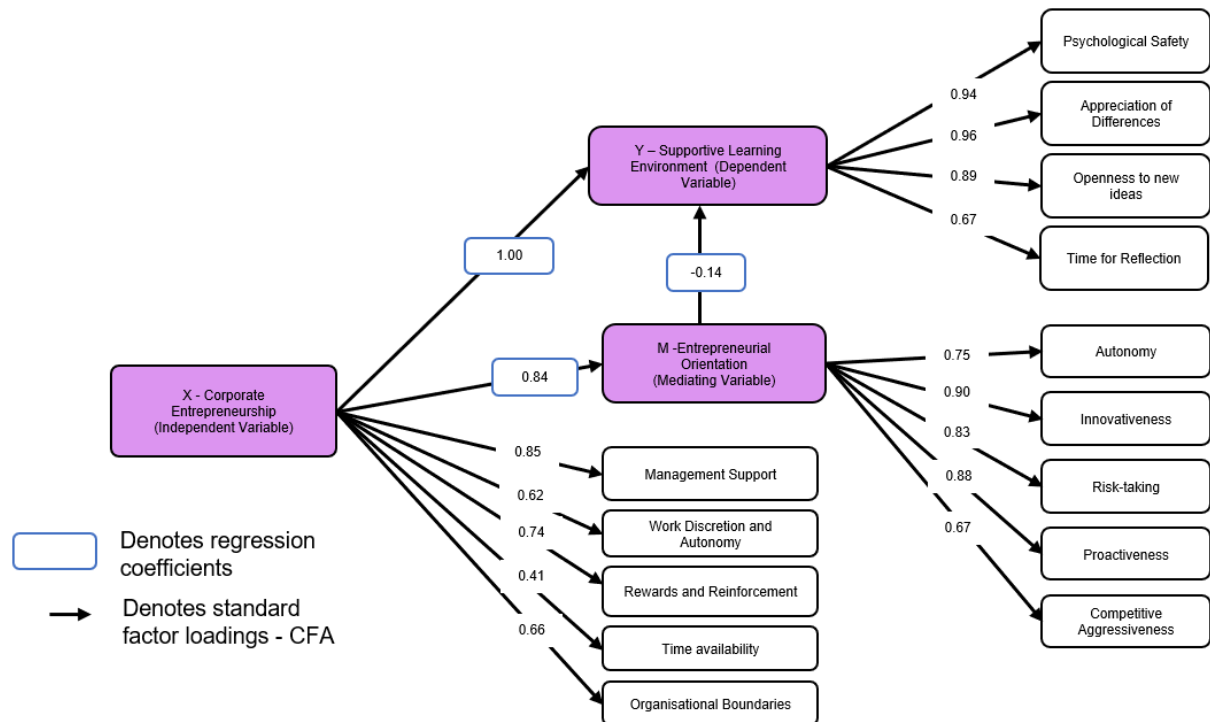
The p-value for the indirect relationship is above the threshold of 0.05, and subsequently, this model is not considered significant. Therefore, the mediation effect is not measured. The type of non-mediation is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and a supportive learning environment is significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

H¹³. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and a supportive learning environment, according to Garvin, is therefore rejected.

In the next section, the SEM path will be reflected on the supportive learning environment model according to Garvin *et al.*

6.4.5.12 Structural equation modelling path: supportive learning environment model – Garvin *et al.*

Figure 6.3: SEM Path: supportive learning environment model– Garvin *et al.*



Individual items and standard errors are not reflected for the sake of conciseness.

A positive relationship exists between corporate entrepreneurship and a supportive learning environment, according to Garvin *et al.*, with a regression coefficient of 1.00 being evident. Standard regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome (supportive learning environment) in a standardised form (Field, 2018:1008). Thus, the change in a supportive learning environment is indicated based on one standard deviation change in corporate entrepreneurship.

A positive relationship between corporate entrepreneurship and entrepreneurial orientation can be observed, with a correlation coefficient of 0.84.

Standard factor loadings in confirmatory factor analysis more than 0.5 are evident, except for time availability loaded at a borderline 0.41, but is still considered acceptable. Time availability has two negative questions that may have been interpreted inconsistently. Items with factor loadings of less than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

H³. There is a positive relationship between corporate entrepreneurship and a supportive learning environment, according to Garvin, which is therefore accepted.

The relationship between selected biographic variables and a supportive learning environment, according to Garvin *et al.*, will be investigated using regression analysis as part of the SEM model. Again, age, education level, and level of seniority within the organisation were all treated as ordinal variables to account for the different categories in age group, education level, and level of seniority in the organisation.

Table 6.20: Direct biographic relationships: supportive learning environment model (Garvin *et al.*)

Biographic variable	Regression Coefficient	p-value	Standardised Regression Coefficient
Gender	-0.123	0.227	-0.068
Age	-0.012	0.820	-0.013
Seniority within the organisation	0.008	0.850	0.011
Education level	-0.064	0.138	-0.083

Table 6.20 shows no statistically significant relationships; all p-values were greater than 0.05.

The following section will investigate the SEM model fit statistics for the concrete learning processes model by Garvin *et al.* (2008:112-113).

6.4.5.13 SEM model fit statistics: concrete learning processes model – Garvin *et al.*

Table 6.21 indicates the model fit statistics for the model, including the factors measuring corporate entrepreneurship, entrepreneurial orientation, and concrete learning processes by Garvin *et al.* (2008:112-113).

Table 6.21: Model fit statistics: concrete learning processes – Garvin *et al.*

Fit Indices	Test Statistic χ^2	Degrees of Freedom df	P-value	Goodness of fit χ^2/df	CFI	TLI	RMSEA	90 % Confidence Interval Lower	90 % Confidence Interval Upper
Model Values	3158.527	1521	<0.001	2.077	0.854	0.847	0.056	0.053	0.059
Recommended Values			<0.05	<5	>0.9	>0.9	<0.10		

Note: χ^2 = Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation

Table 6.21 indicates an acceptable goodness-of-fit index value (also an absolute fit index), calculated as χ^2 divided by the degrees of freedom (df) of 2.077 against a recommended value of less than 5 (Maqableh *et al.*, 2021:250). Similarly, RMSEA was calculated at an acceptable value of 0.053 against a recommended value smaller than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3). The p-value is also considered significant.

From an incremental fit perspective, the CFI and TLI measured slightly below the 0.9 threshold at 0.854 and 0.847, respectively. These measurements are still regarded acceptable (Ferdinand, 2014 cited by Anggriani *et al.*, 2020:66-67) and have been used in research before (Kim *et al.*, 2016:4). The CFI and TLI are only two factors considered in the overall model fit, where all other measurements fell within the parameters, and thus these indices are deemed acceptable.

The confirmatory factor analysis of the concrete learning processes model will be discussed, reflected in Table 6.22.

6.4.5.14 Confirmatory factor analysis and convergent validity: concrete learning processes model- Garvin *et al.*

Table 6.22: Confirmatory factor analysis - standardised factor loadings: concrete learning processes: Garvin *et al.*

Variable	Items	Standardised factor loadings	Standard Error	p-value
Management Support (Corporate Entrepreneurship)	MS1	0.787		
	MS2	0.767	0.072	0.001*
	MS3	0.648	0.073	0.001*
	MS4	0.609	0.076	0.001*
Work Discretion and Autonomy (Corporate Entrepreneurship)	WD1	0.744		
	WD2	0.848	0.075	0.001*
	WD3	0.871	0.077	0.001*
	WD4	0.678	0.068	0.001*
Rewards and Reinforcement (Corporate Entrepreneurship)	RE1	0.525		
	RE2	0.353	0.091	0.001*
	RE3	0.873	0.169	0.001*
	RE4	0.694	0.126	0.001*
Time Availability (Corporate Entrepreneurship)	TA1	0.860		
	TA2	0.498	0.065	0.001*
	TA3	0.752	0.067	0.001*
	TA4	0.529	0.070	0.001*
Organisational Boundaries (Corporate Entrepreneurship)	OB1	0.889		
	OB2	0.933	0.052	0.001*
	OB3	0.499	0.083	0.001*
	OB4	0.445	0.060	0.001*
Autonomy (Entrepreneurial Orientation)	A1	0.627		
	A2	0.823	0.129	0.001*
	A3	0.632	0.133	0.001*
	A4	0.743	0.116	0.001*
	A5	0.433	0.118	0.001*
Innovativeness (Entrepreneurial Orientation)	I1	0.672		
	I2	0.831	0.083	0.001*
	I3	0.665	0.082	0.001*
	I4	0.832	0.075	0.001*
	I5	0.444	0.087	0.001*
	I6	0.767	0.080	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
	I7	0.788	0.073	0.001*
	I8	0.743	0.068	0.001*
	I9	0.714	0.079	0.001*
Risk-Taking (Entrepreneurial Orientation)	R1	0.708		
	R2	0.658	0.092	0.001*
	R3	0.802	0.091	0.001*
	R4	0.793	0.088	0.001*
	R5	0.827	0.090	0.001*
Proactiveness (Entrepreneurial Orientation)	P1	0.740		
	P2	0.753	0.075	0.001*
	P3	0.814	0.075	0.001*
	P4	0.742	0.069	0.001*
Competitive Aggressiveness (Entrepreneurial Orientation)	C1	0.709		
	C2	0.827	0.104	0.001*
	C3	0.754	0.098	0.001*
	C4	0.451	0.081	0.001*
Experimentation with new ways of working (Concrete learning processes – Garvin <i>et al.</i>)	SCLEP1	0.881		
	SCLEP2	0.730	0.067	0.001*
Information is systematically collected (Concrete learning processes – Garvin <i>et al.</i>)	SCLPI1	0.752		
	SCLPI2	0.742	0.081	0.001*
Active analysis occurs in the workplace (Concrete learning processes – Garvin <i>et al.</i>)	SCLPA1	0.889		
	SCLPA2	0.899	0.046	0.001*
Education and training are valued and offered (Concrete learning processes – Garvin <i>et al.</i>)	SLCPET1	0.853		
	SLCPET2	0.864	0.067	0.001*
Information is shared in the organisation (Concrete learning processes – Garvin <i>et al.</i>)	SLCPIT1	0.882		
	SLCPIT2	0.887	0.049	0.001*

* P<0.001

Table 6.22 indicates some item loadings below the 0.5 threshold (Baharum *et al.*, 2023:4). RE2 measured at 0.353, TA2 measured at 0.498, OB3 measured at 0.499, OB4 at 0.445, A5 at 0.433, I5 at 0.444, and C4 at 0.451. TA2 and OB3 were accepted and measured very close to the 0.5 threshold. The fact that most factor loadings are above 0,5 is

evidence of convergent validity (Civelek, 2018:33). Again, most of the borderline items, on closer inspection, reflect a work environment uncommon to a compliance department within the banking sector that has been discussed under 6.4.5.2 when discussing Table 6.7 and have been accepted as items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Standard errors and p-values are reflected, and p-values indicate significance.

The convergent validity and the composite reliability were examined in Table 6.23 of the concrete learning processes model.

Table 6.23: AVE and CR of the concrete learning processes model – Garvin *et al.*

Variable	AVE	CR
Management Support (Corporate Entrepreneurship)	0.495	0.799
Work Discretion and Autonomy (Corporate Entrepreneurship)	0.632	0.869
Rewards and Reinforcement (Corporate Entrepreneurship)	0.432	0.731
Time Availability (Corporate Entrepreneurship)	0.456	0.738
Organisational Boundaries (Corporate Entrepreneurship)	0.479	0.773
Autonomy (Entrepreneurial Orientation)	0.433	0.787
Innovativeness (Entrepreneurial Orientation)	0.510	0.895
Risk-Taking (Entrepreneurial Orientation)	0.579	0.873
Proactiveness (Entrepreneurial Orientation)	0.583	0.846
Competitive Aggressiveness (Entrepreneurial Orientation)	0.513	0.804
Experimentation with new ways of working (Concrete Learning Processes – Garvin)	0.656	0.791
Information is systematically collected (Concrete Learning Processes – Garvin)	0.558	0.716
Active analysis occurs in the workplace (Concrete Learning Processes – Garvin)	0.799	0.888

Variable	AVE	CR
Education and training are valued and offered (Concrete Learning Processes – Garvin)	0.738	0.849
Information is shared in the organisation (Concrete Learning Processes – Garvin)	0.783	0.878

The convergent validity was further assessed and achieved when the average variance extracted (AVE) exceeded a threshold value of greater than 0.5 for the model (Baharum *et al.*, 2023:1). The composite reliability (CR) value was also determined by examining that all CR values exceeded the threshold value of 0.7, indicating the composite reliability for the construct (Civelek, 2018:42). The items highlighted in yellow were regarded as borderline, but still acceptable AVE within a minimum acceptable level of 0.7.

The mediation effect will be discussed in Table 6.24.

6.4.5.15 Mediation effect of entrepreneurial orientation and relationships: concrete learning processes model– Garvin *et al.*

Table 6.24: Mediation effect and relationships: concrete learning processes model – Garvin *et al.*

Type of relationship	Standard regression weight β - weight	Standard error	p-value
Direct	0.922	0.164	P<0.001
Indirect	-0.059	0.112	0.272
Total affect	0.862	0.095	P<0.001

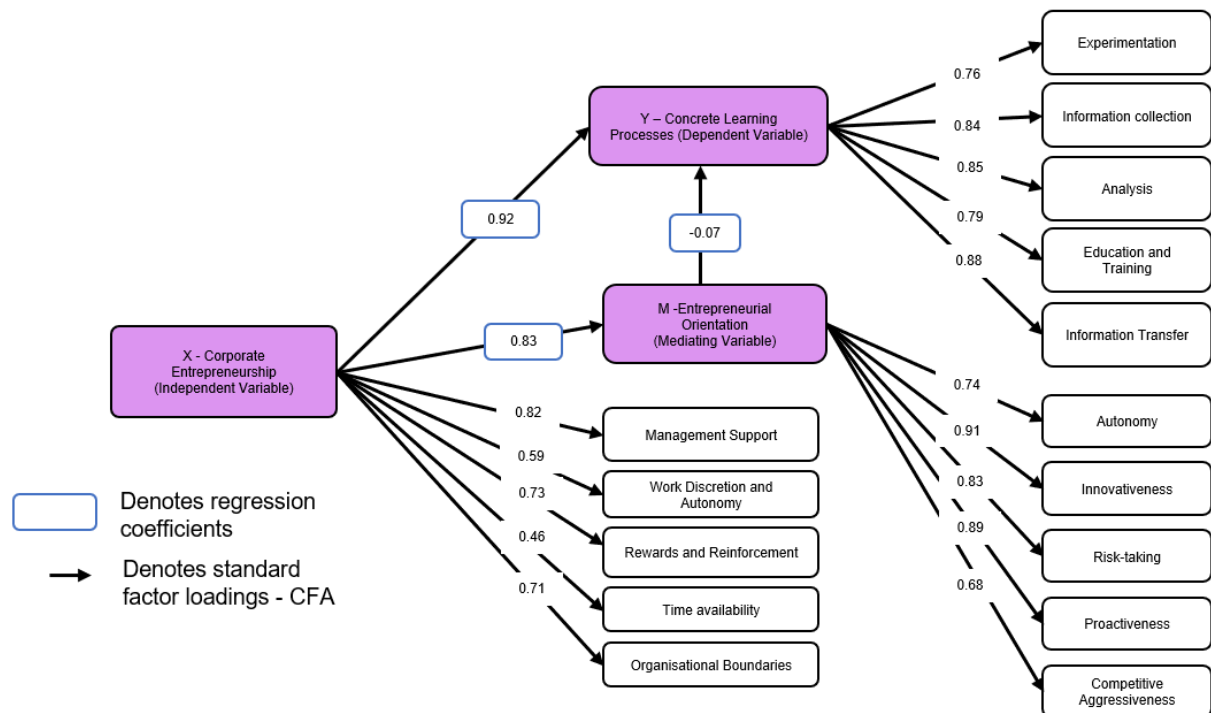
Again, the p-value of 0.272 for the indirect effect is above the 0.05 threshold, and therefore, the model is not significant, and no mediating effect was calculated. The type of non-mediation is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and concrete learning processes is significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

H¹⁴. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and concrete learning processes, according to Garvin, is thus rejected.

In the next section, the SEM path of the concrete learning processes, according to Garvin *et al.*, will be reflected.

6.4.5.16 Structural equation modelling path: concrete learning processes model – Garvin *et al.*

Figure 6.4: SEM Path: concrete learning processes model– Garvin *et al.*



Individual items and standard errors are not reflected for the sake of conciseness.

A positive relationship exists between corporate entrepreneurship and concrete learning processes, according to Garvin *et al.*, with a regression coefficient of 0.92 being evident. Standard regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome (concrete learning processes) in a standardised form (Field, 2018:1008). Thus, the change in concrete learning processes is indicated based on one standard deviation change in corporate entrepreneurship.

A positive relationship between corporate entrepreneurship and entrepreneurial orientation can be observed, with a correlation coefficient of 0.83.

Standard factor loadings in confirmatory factor analysis more than 0.5 are evident, except for time availability, loaded at a borderline 0.46 but are still considered acceptable. Time availability has two negative questions that may have been interpreted inconsistently. Items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

H⁴. There is a positive relationship between corporate entrepreneurship and concrete learning processes, which is accepted.

The relationship between selected biographic variables and concrete learning processes, according to Garvin *et al.*, will be investigated by using regression analysis as part of the SEM model. Again, age, education level, and level of seniority within the organisation were all treated as ordinal variables to account for the different categories in age group, education level, and level of seniority in the organisation.

Table 6.25: Direct biographic relationships: concrete learning processes model (Garvin *et al.*)

Biographic variable	Regression Coefficient	p-value	Standardised Regression Coefficient
Gender	-0.111	0.115	-0.092
Age	-0.025	0.499	-0.039
Seniority within the organisation	-0.019	0.514	-0.038
Education level	-0.036	0.229	-0.070

Table 6.25 depicts no statistically significant relationships; all the p-values were greater than 0.05.

The following section will investigate the SEM model fit statistics for the leadership that reinforces the learning model by Garvin *et al.* (2008:112-113).

6.4.5.17 SEM model fit statistics: leadership that reinforces learning model – Garvin *et al.*

Table 6.26 indicates the model fit statistics for the model, including the factors measuring corporate entrepreneurship, entrepreneurial orientation, and leadership that reinforces learning by Garvin *et al.* (2008:112-113).

Table 6.26: Model fit statistics: leadership that reinforces learning model– Garvin *et al.*

Fit Indices	Test Statistic χ^2	Degrees of Freedom df	p-value	Goodness of fit χ^2/df	CFI	TLI	RMSEA	90 % Confidence Interval Lower	90 % Confidence Interval Upper
Model Values	2716.191	1261	<0.001	2.154	0.860	0.852	0.058	0.055	0.061
Recommended Values			<0.05	<5	>0.9	>0.9	<0.10		

Note: χ^2 = Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation

Table 6.26 indicates an acceptable goodness of fit index value (also an absolute fit index), calculated as χ^2 divided by the degrees of freedom (df) of 2.154 against a recommended value of below 5 (Maqableh *et al.*, 2021:250). Similarly, the RMSEA was calculated at an acceptable value of 0.058 against a recommended value smaller than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3). The p-value is also considered significant.

From an incremental fit perspective, the CFI and TLI measured slightly under the 0.9 threshold at 0.860 and 0.852, respectively. These measurements are still regarded as acceptable (Ferdinand, 2014 cited by Anggriani *et al.*, 2020:66-67) and have been used in research before (Kim *et al.*, 2016:4). The CFI and TLI are only two factors considered in overall model fit, where all the other measurements fell within the parameters, and thus these indices are deemed acceptable.

The confirmatory factor analysis of the leadership that reinforces the learning model will be discussed, reflected in Table 6.27.

6.4.5.18 Confirmatory factor analysis and convergent validity: leadership that reinforces learning model – Garvin *et al.*

Table 6.27: Confirmatory factor analysis - standardised factor loadings: leadership that reinforces learning model: Garvin *et al.*

Variable	Items	Standardised factor loadings	Standard Error	p-value
Management Support (Corporate Entrepreneurship)	MS1	0.785		
	MS2	0.774	0.072	0.001*
	MS3	0.644	0.073	0.001*
	MS4	0.607	0.076	0.001*
Work Discretion and Autonomy (Corporate Entrepreneurship)	WD1	0.745		
	WD2	0.847	0.075	0.001*
	WD3	0.870	0.077	0.001*
	WD4	0.681	0.068	0.001*
Rewards and Reinforcement (Corporate Entrepreneurship)	RE1	0.526		
	RE2	0.351	0.091	0.001*
	RE3	0.870	0.167	0.001*
	RE4	0.697	0.126	0.001*
Time Availability (Corporate Entrepreneurship)	TA1	0.857		
	TA2	0.502	0.065	0.001*
	TA3	0.751	0.068	0.001*
	TA4	0.533	0.071	0.001*
Organisational Boundaries (Corporate Entrepreneurship)	OB1	0.888		
	OB2	0.935	0.053	0.001*
	OB3	0.498	0.083	0.001*
	OB4	0.444	0.060	0.001*
Autonomy (Entrepreneurial Orientation)	A1	0.628		
	A2	0.823	0.129	0.001*
	A3	0.632	0.133	0.001*
	A4	0.743	0.116	0.001*
	A5	0.432	0.118	0.001*
Innovativeness (Entrepreneurial Orientation)	I1	0.671		
	I2	0.830	0.084	0.001*
	I3	0.665	0.082	0.001*
	I4	0.833	0.076	0.001*
	I5	0.444	0.087	0.001*
	I6	0.768	0.080	0.001*
	I7	0.788	0.073	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
	I8	0.743	0.068	0.001*
	I9	0.714	0.079	0.001*
Risk-Taking (Entrepreneurial Orientation)	R1	0.708		
	R2	0.658	0.092	0.001*
	R3	0.802	0.091	0.001*
	R4	0.794	0.088	0.001*
	R5	0.828	0.090	0.001*
Proactiveness (Entrepreneurial Orientation)	P1	0.741		
	P2	0.754	0.075	0.001*
	P3	0.814	0.075	0.001*
	P4	0.740	0.068	0.001*
Competitive Aggressiveness (Entrepreneurial Orientation)	C1	0.709		
	C2	0.828	0.105	0.001*
	C3	0.753	0.098	0.001*
	C4	0.450	0.081	0.001*
Leadership that reinforces learning (Garvin)	SLRL1	0.852		
	SLRL2	0.855	0.053	0.001*
	SLRL3	0.853	0.057	0.001*
	SLRL4	0.899	0.053	0.001*
	SLRL5	0.819	0.053	0.001*

* P<0.001

Table 6.27 indicates some item loadings below the 0.5 threshold (Baharum *et al.*, 2023:4). RE2 measured at 0.351, OB3 at 0.498, OB4 at 0.444, A5 at 0.432, I5 at 0.444, and C4 at 0.450. OB3 is very close to the 0.5 threshold and was accepted. The fact that most factor loadings are above 0,5 is evidence of convergent validity (Civelek, 2018:33). Again, most of the borderline items, on closer inspection, reflect a work environment uncommon to a compliance department within the banking sector that has been discussed under 6.4.5.2 when discussing Table 6.7 and have been accepted as items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Standard errors and p-values are reflected, and p-values indicate significance.

The convergent validity and composite reliability were examined in Table 6.28 of the leadership that reinforces the learning model.

Table 6.28: AVE and CR of the leadership that reinforces learning model – Garvin *et al.*

Variable	AVE	CR
Management Support (Corporate Entrepreneurship)	0.495	0.798
Work Discretion and Autonomy (Corporate Entrepreneurship)	0.632	0.870
Rewards and Reinforcement (Corporate Entrepreneurship)	0.431	0.730
Time Availability (Corporate Entrepreneurship)	0.457	0.741
Organisational Boundaries (Corporate Entrepreneurship)	0.479	0.773
Autonomy (Entrepreneurial Orientation)	0.433	0.787
Innovativeness (Entrepreneurial Orientation)	0.510	0.895
Risk-Taking (Entrepreneurial Orientation)	0.579	0.872
Proactiveness (Entrepreneurial Orientation)	0.584	0.846
Competitive Aggressiveness (Entrepreneurial Orientation)	0.513	0.804
Leadership that reinforces learning (Garvin)	0.735	0.933

The convergent validity was further assessed and achieved when the average variance extracted (AVE) exceeded a threshold value of greater than 0.5 for the model (Baharum *et al.*, 2023:1). The composite reliability (CR) value was also determined by examining that all CR values exceeded the threshold value of 0.7, indicating the composite reliability for the construct (Civelek, 2018:42). The items highlighted in yellow were regarded as borderline, but still acceptable AVE. Composite reliability (CR) values are also shown within a minimum acceptable level of 0.7.

The mediation effect is presented in Table 6.25.

6.4.5.19 Mediation effect of entrepreneurial orientation and relationships: leadership that reinforces learning model – Garvin *et al.*

Table 6.29: Mediation effect and relationships: leadership that reinforces learning model – Garvin *et al.*

Type of relationship	Standard regression weight β - weight	Standard error	p-value
Direct	0.902	0.181	P<0.001
Indirect	-0.094	0.132	0.377
Total affect	0.808	0.092	P<0.001

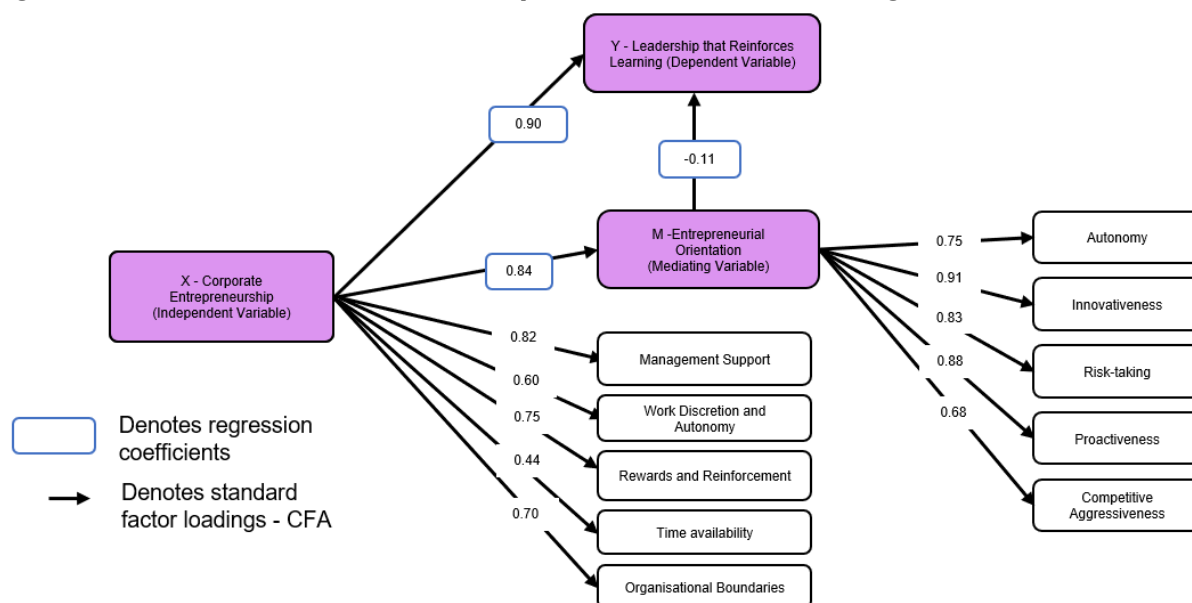
Once more, the p-value of 0.377 for the indirect effect is above the 0.05 threshold, and therefore, the model is not significant, and no mediating effect was calculated. The type of non-mediation is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and leadership that reinforces learning is significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

H¹⁵. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and leadership that reinforces learning, according to Garvin, is therefore rejected.

The following section will discuss the SEM path of leadership that reinforces the learning model by Garvin *et al.*

6.4.5.20 Structural equation modelling path: leadership that reinforces learning model – Garvin *et al.*

Figure 6.5: SEM Path: leadership that reinforces learning model– Garvin *et al.*



Individual items and standard errors are not reflected for the sake of conciseness.

A positive relationship exists between corporate entrepreneurship and leadership that reinforces learning, according to Garvin *et al.*, with a regression coefficient of 0.90 being evident. Standard regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome (leadership that reinforces learning) in a standardised form (Field, 2018:1008). Thus, the change in leadership that reinforces learning is indicated based on one standard deviation change in corporate entrepreneurship.

A positive relationship between corporate entrepreneurship and entrepreneurial orientation can be observed, with a correlation coefficient of 0.84.

Standard factor loadings in confirmatory factor analysis more than 0.5 are evident, except for time availability, loaded at a borderline 0.44 but are still considered acceptable. Time availability has two negative questions that may have been interpreted inconsistently. Items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

H⁵. There is a positive relationship between corporate entrepreneurship and leadership that reinforces learning, according to Garvin, is therefore accepted.

The relationship between selected biographic variables and leadership that reinforces learning, according to Garvin *et al.*, will be investigated using regression analysis as part of the SEM model. Age, education level, and level of seniority within the organisation were all treated as ordinal variables to account for the different categories in age group, education level, and level of seniority in the organisation.

Table 6.30: Direct biographic relationships: leadership that reinforces learning model (Garvin *et al.*)

Biographic variable	Regression Coefficient	p-value	Standardised Regression Coefficient
Gender	-0.100	0.201	-0.071
Age	-0.092	0.028	-0.123
Seniority within the organisation	-0.015	0.642	-0.026
Education level	-0.044	0.190	-0.073

In Table 6.30, age is the only statistically significant relationship with a p-value less than 0.05. Therefore, a negative relationship is observed between age and the construct of leadership that reinforces learning, according to Garvin *et al.* Thus, as age increases, the score of leadership that reinforces learning, according to Garvin *et al.*, decreases.

The following section will discuss the model fit statistics for extracting business value from the compliance training model by Young (2017:4).

6.4.5.21 SEM model fit statistics: extracting business value from compliance training model – Young

Table 6.31 indicates the model fit statistics for the model, including the factors measuring corporate entrepreneurship, entrepreneurial orientation, and extracting business value from compliance training by Young (2017:4).

Table 6.31: Model fit statistics: extracting business value from compliance training model – Young

Fit Indices	Test Statistic χ^2	Degrees of Freedom df	p-value	Goodness of fit χ^2/df	CFI	TLI	RMSEA	90 % Confidence Interval Lower	90 % Confidence Interval Upper
Model Values	5305.797	2610	<0.001	2.033	0.837	0.832	0.055	0.053	0.057
Recommended Values			<0.05	<5	>0.9	>0.9	<0.10		

Note: χ^2 = Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation

Table 6.31 indicates an acceptable goodness-of-fit index value (also an absolute fit index), calculated as χ^2 divided by the degrees of freedom (df) of 2.033 against a recommended value of less than 5 (Maqableh *et al.*, 2021:250). Similarly, RMSEA was calculated at an acceptable value of 0.053 against a recommended value smaller than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3). The p-value is also considered significant.

From an incremental fit perspective, the CFI and TLI measured slightly below the 0.9 threshold at 0.837 and 0.832, respectively. These measurements are still regarded acceptable (Ferdinand, 2014 cited by Anggriani *et al.*, 2020:66-67) and have been used in research before (Kim *et al.*, 2016:4). The CFI and TLI are only two factors considered in the overall model fit, where all other measurements fell within the parameters, and thus these indices are deemed acceptable.

The confirmatory factor analysis on extracting business value from the compliance training model will be discussed, as reflected in Table 6.32.

6.4.5.22 Confirmatory factor analysis and convergent validity: extracting business value from compliance training model - Young

Table 6.32: Confirmatory factor analysis – standardised factor loadings: extracting business value from compliance training model– Young

Variable	Items	Standardised factor loadings	Standard Error	p-value
Management Support (Corporate Entrepreneurship)	MS1	0.791		
	MS2	0.767	0.071	0.001*
	MS3	0.642	0.072	0.001*
	MS4	0.610	0.075	0.001*
Work Discretion and Autonomy (Corporate Entrepreneurship)	WD1	0.742		
	WD2	0.849	0.075	0.001*
	WD3	0.873	0.077	0.001*
	WD4	0.676	0.069	0.001*
Rewards and Reinforcement (Corporate Entrepreneurship)	RE1	0.525		
	RE2	0.353	0.092	0.001*
	RE3	0.874	0.170	0.001*
	RE4	0.693	0.126	0.001*
Time Availability (Corporate Entrepreneurship)	TA1	0.857		
	TA2	0.502	0.065	0.001*
	TA3	0.752	0.068	0.001*
	TA4	0.531	0.071	0.001*
Organisational Boundaries (Corporate Entrepreneurship)	OB1	0.893		
	OB2	0.930	0.053	0.001*
	OB3	0.499	0.083	0.001*
	OB4	0.443	0.060	0.001*
Autonomy (Entrepreneurial Orientation)	A1	0.626		
	A2	0.823	0.130	0.001*
	A3	0.632	0.134	0.001*
	A4	0.742	0.116	0.001*
	A5	0.434	0.118	0.001*
Innovativeness (Entrepreneurial Orientation)	I1	0.672		
	I2	0.831	0.083	0.001*
	I3	0.666	0.082	0.001*
	I4	0.832	0.075	0.001*
	I5	0.444	0.087	0.001*
	I6	0.767	0.080	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
	I7	0.788	0.073	0.001*
	I8	0.743	0.068	0.001*
	I9	0.714	0.079	0.001*
Risk-Taking (Entrepreneurial Orientation)	R1	0.708		
	R2	0.659	0.092	0.001*
	R3	0.803	0.091	0.001*
	R4	0.793	0.087	0.001*
	R5	0.827	0.090	0.001*
Proactiveness (Entrepreneurial Orientation)	P1	0.741		
	P2	0.755	0.075	0.001*
	P3	0.812	0.075	0.001*
	P4	0.742	0.069	0.001*
Competitive Aggressiveness (Entrepreneurial Orientation)	C1	0.709		
	C2	0.828	0.104	0.001*
	C3	0.753	0.098	0.001*
	C4	0.450	0.081	0.001*
Individually relevant learning (Extracting business value from compliance training – Young)	SEIRL1	0.794		
	SEIRL2	0.816	0.055	0.001*
	SEIRL3	0.828	0.058	0.001*
	SEIRL4	0.753	0.055	0.001*
	SEIRL5	0.816	0.055	0.001*
	SEIRL6	0.678	0.069	0.001*
	SEIRL7	0.824	0.052	0.001*
	SEIRL8	0.868	0.055	0.001*
	SEIRL9	0.774	0.061	0.001*
High-impact learner experiences, using social, workplace and media-rich digital learning (Extracting business value from compliance training – Young)	SEHIL1	0.733		0.001*
	SEHIL2	0.502	0.058	0.001*
	SEHIL3	0.718	0.077	0.001*
	SEHIL4	0.781	0.072	0.001*
	SEHIL5	0.735	0.090	0.001*
	SEHIL6	0.747	0.089	0.001*
	SEHIL7	0.777	0.079	0.001*
	SEHIL8	0.721	0.087	0.001*
A focus on knowledge, skills, behaviours and decisions that embed lasting behaviour change	SEKSB1	0.857		
	SEKSB2	0.865	0.047	0.001*
	SEKSB3	0.822	0.051	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
(Extracting business value from compliance training – Young)	SEKSB4	0.670	0.055	0.001*
	SEKSB5	0.764	0.046	0.001*
Joined up as strategic learning, reinforced and delivered at the point of need (Extracting business value from compliance training – Young)	SELRDN1	0.753		
	SELRDN2	0.751	0.076	0.001*
	SELRDN3	0.894	0.075	0.001*
	SELRDN4	0.903	0.074	0.001*
	SELRDN5	0.725	0.072	0.001*

* P<0.001

Table 6.32 indicates some item loadings below the 0.5 threshold (Baharum *et al.*, 2023:4). RE2 measured at 0.353, OB3 at 0.499, OB4 at 0.443, A5 at 0.434, I5 at 0.444 and C4 at 0.450. OB3 was measured close to the threshold of 0.5 and was accepted. The fact that most factor loadings are above 0,5 is evidence of convergent validity (Civelek, 2018:33). Most of the borderline items, on closer inspection, reflect a work environment uncommon to a compliance department within the banking sector that has been discussed under 6.4.5.2 when discussing Table 6.7 and have been accepted as items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Standard errors and p-values are reflected, and p-values indicate significance.

Next, the convergent validity and composite reliability were examined in Table 6.33 of the extracting business value from the compliance training model.

Table 6.33: AVE and CR of the extracting business value from compliance training model – Young

Variable	AVE	CR
Management Support (Corporate Entrepreneurship)	0.495	0.799
Work Discretion and Autonomy (Corporate Entrepreneurship)	0.632	0.868
Rewards and Reinforcement (Corporate Entrepreneurship)	0.432	0.731
Time Availability (Corporate Entrepreneurship)	0.457	0.740
Organisational Boundaries (Corporate Entrepreneurship)	0.479	0.773

Variable	AVE	CR
Autonomy (Entrepreneurial Orientation)	0.433	0.787
Innovativeness (Entrepreneurial Orientation)	0.510	0.896
Risk-Taking (Entrepreneurial Orientation)	0.579	0.873
Proactiveness (Entrepreneurial Orientation)	0.584	0.846
Competitive Aggressiveness (Entrepreneurial Orientation)	0.513	0.804
Individually relevant learning (Extracting business value from compliance training – Young)	0.627	0.941
High-impact learner experiences, using social, workplace and media-rich digital learning (Extracting business value from compliance training – Young)	0.533	0.899
A focus on knowledge, skills, behaviours and decisions that embed lasting behaviour change (Extracting business value from compliance training – Young)	0.642	0.898
Joined up as strategic learning, reinforced and delivered at the point of need (Extracting business value from compliance training – Young)	0.661	0.910

The convergent validity was further assessed and achieved when the average variance extracted (AVE) exceeded a threshold value of greater than 0.5 for the model (Baharum *et al.*, 2023:1). The composite reliability (CR) value was also determined by examining that all CR values exceeded the threshold value of 0.7, indicating the composite reliability for the construct (Civelek, 2018:42). The items highlighted in yellow were regarded as borderline, but still acceptable AVE. Composite reliability (CR) values are also shown within a minimum acceptable level of 0.7.

The mediation effect of extracting business value from compliance training, according to Young, is presented in Table 6.34.

6.4.5.23 Mediation effect of extracting business value from compliance training model - Young

Table 6.34: Mediation effect and relationships: extracting business value from compliance training model – Young

Type of relationship	Standard regression weight β - weight	Standard error	p-value
Direct	0.624	0.156	P<0.001
Indirect	0.075	0.116	0.473
Total affect	0.699	0.083	P<0.001

The p-value of 0.473 for the indirect effect is above the 0.05 threshold, and therefore, the model is not significant, and no mediating effect was calculated. The type of non-mediation is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and extracting business value from compliance training is significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

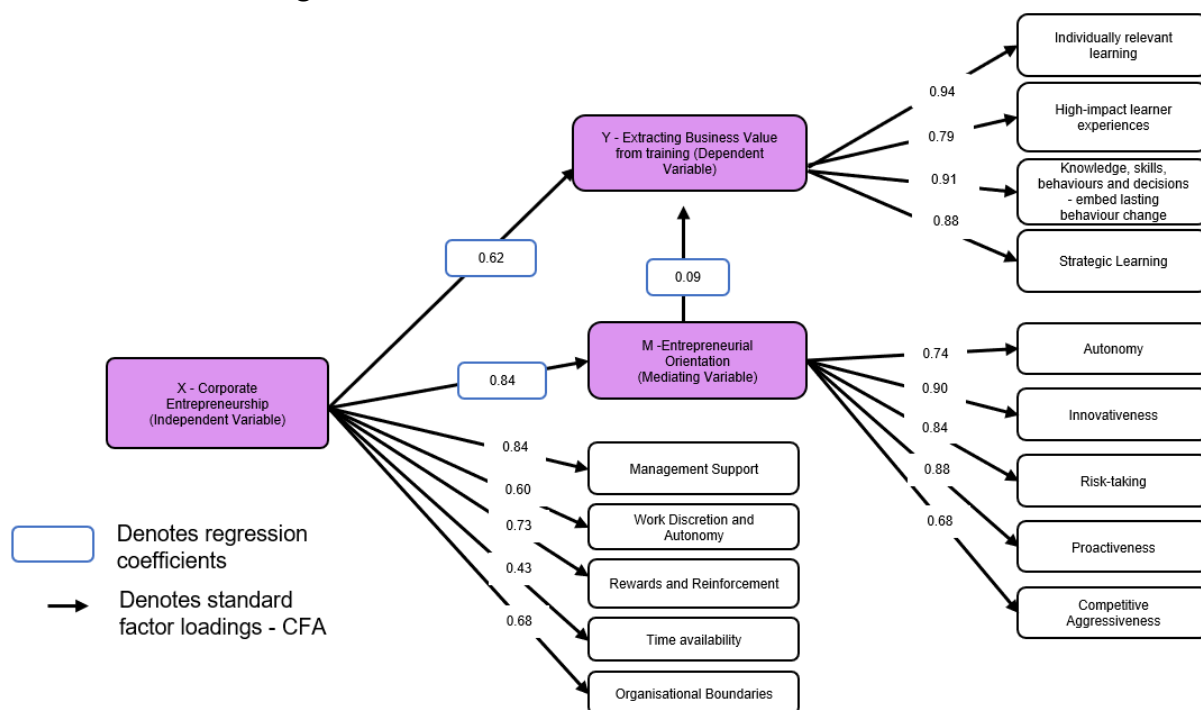
H¹⁶. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and extracting business value from compliance training, according to Young, is thus rejected.

In the next section, the SEM path of extracting business value from compliance training, according to Young, will be reflected.

6.4.5.24 Structural equation modelling path: extracting business value from Compliance training – Young

Figure 6.6 reflects Young's SEM path of extracting business value from compliance training.

Figure 6.6: SEM Path: extracting business value from compliance training – Young



Individual items and standard errors are not reflected for the sake of conciseness.

A positive relationship exists between corporate entrepreneurship and extracting business value from compliance training, according to Young, with a regression coefficient of 0.62. Standard regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome (extracting business value from compliance training) in a standardised form (Field, 2018:1008). Thus, the change in extracting business value from compliance training is indicated based on one standard deviation change in corporate entrepreneurship.

A positive relationship between corporate entrepreneurship and entrepreneurial orientation can be observed, with a correlation coefficient of 0.84.

Furthermore, outside of the secondary objectives of this study, entrepreneurial orientation measured a positive relationship with extracting business value from compliance training, according to Young (2017:4), with a correlation coefficient of 0.09. Therefore, the more entrepreneurial orientation is enhanced in the compliance departments of South African banks, the higher the performance that would be related to extracting business value from compliance training.

Standard factor loadings in confirmatory factor analysis more than 0.5 are evident, except for time availability, loaded at a borderline 0.43 but are still considered acceptable. Time availability has two negative questions that may have been interpreted inconsistently. Items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

H⁶. There is a positive relationship between corporate entrepreneurship and extracting business value from compliance training, according to Young, is therefore accepted.

The relationship between selected biographic variables and extracting business value from compliance training, according to Young, will be investigated by using regression analysis as part of the SEM model. Age, education level, and level of seniority within the organisation were all treated as ordinal variables to account for the different categories in age group, education level, and level of seniority in the organisation.

Table 6.35: Direct Biographic Relationships: Extracting business value from compliance training model (Young)

Biographic variable	Regression Coefficient	p-value	Standardised Regression Coefficient
Gender	-0.069	0.355	-0.052
Age	-0.071	0.073	-0.102
Seniority within the organisation	-0.003	0.919	-0.006
Education level	-0.025	0.422	-0.045

In Table 6.35, age is the only statistically significant relationship with a borderline p-value. The p-value of 0.073 is borderline against the threshold of 0.05, and the model is still considered significant. Using arbitrary cut-offs for statistical significance, such as 0.05, can lead to erroneous conclusions about the validity of statistically significant results (Whitley & Ball, 2002:224). To determine whether the observed effect is likely the result of chance, researchers may combine the exact p-values with other available evidence. Consequently, the researcher believes this direct relationship model has a much lower p-value than the other constructs, which may be considered statistically significant.

Therefore, a negative relationship is observed between age and the construct extracting business value from compliance training, according to Young. Thus, as age increases, the score of extracting business value from compliance training decreases.

The model fit statistics on the effectiveness of compliance programmes- Health Care Compliance Association (2017:24-27) will be discussed.

6.4.5.25 SEM model fit statistics: effectiveness of compliance programmes model– Health Care Compliance Association

Table 6.36 indicates the model fit statistics for the model, including the factors measuring corporate entrepreneurship, entrepreneurial orientation, and the effectiveness of compliance programmes- Health Care Compliance Association (2017:24-27).

Table 6.36: Model fit statistics: effectiveness of compliance programmes model – Health Care Compliance Association

Fit Indices	Test Statistic χ^2	Degrees of Freedom df	p-value	Goodness of fit χ^2/df	CFI	TLI	RMSEA	90 % Confidence Interval Lower	90 % Confidence Interval Upper
Model Values	4433.931	2128	<0.001	2.084	0.826	0.820	0.056	0.054	0.059
Recommended Values			<0.05	<5	>0.9	>0.9	<0.10		

Note: χ^2 = Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation

Table 6.36 indicates an acceptable goodness-of-fit index value (also an absolute fit index), calculated as χ^2 divided by the degrees of freedom (df) of 2.084 against a recommended value of less than 5 (Maqableh *et al.*, 2021:250). Similarly, RMSEA was calculated at an acceptable value of 0.056 against a recommended value smaller than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3). The p-value is also considered significant.

From an incremental fit perspective, the CFI and TLI measured slightly below the 0.9 threshold at 0.826 and 0.820, respectively. These measurements are still regarded acceptable (Ferdinand, 2014 cited by Anggriani *et al.*, 2020:66-67) and have been used in research before (Kim *et al.*, 2016:4). The CFI and TLI are only two factors considered in the overall model fit, where all other measurements fell within the parameters, and thus these indices are deemed acceptable.

The confirmatory factor analysis of the effectiveness of compliance programmes – Health Care Compliance Association model will be discussed, reflected in Table 6.37.

6.4.5.26 Confirmatory factor analysis and convergent validity: effectiveness of compliance programmes model – Health Care Compliance Association

Table 6.37: Confirmatory factor analysis – standardised factor loadings: effectiveness of compliance programmes model – Health Care Compliance Association

Variable	Items	Standardised factor loadings	Standard Error	p-value
Management Support (Corporate Entrepreneurship)	MS1	0.787		
	MS2	0.766	0.071	0.001*
	MS3	0.649	0.073	0.001*
	MS4	0.609	0.076	0.001*
Work Discretion and Autonomy (Corporate Entrepreneurship)	WD1	0.744		
	WD2	0.848	0.075	0.001*
	WD3	0.871	0.077	0.001*
	WD4	0.679	0.068	0.001*
Rewards and Reinforcement (Corporate Entrepreneurship)	RE1	0.524		
	RE2	0.355	0.092	0.001*
	RE3	0.874	0.171	0.001*
	RE4	0.693	0.126	0.001*
Time Availability (Corporate Entrepreneurship)	TA1	0.856		
	TA2	0.502	0.065	0.001*
	TA3	0.753	0.068	0.001*
	TA4	0.531	0.071	0.001*
Organisational Boundaries (Corporate Entrepreneurship)	OB1	0.893		
	OB2	0.930	0.053	0.001*
	OB3	0.499	0.083	0.001*
	OB4	0.442	0.060	0.001*
Autonomy (Entrepreneurial Orientation)	A1	0.627		
	A2	0.823	0.129	0.001*
	A3	0.632	0.133	0.001*
	A4	0.742	0.116	0.001*
	A5	0.433	0.118	0.001*
Innovativeness (Entrepreneurial Orientation)	I1	0.671		
	I2	0.831	0.084	0.001*
	I3	0.666	0.082	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
	I4	0.832	0.076	0.001*
	I5	0.444	0.087	0.001*
	I6	0.766	0.080	0.001*
	I7	0.789	0.074	0.001*
	I8	0.744	0.068	0.001*
	I9	0.714	0.079	0.001*
Risk-Taking (Entrepreneurial Orientation)	R1	0.708		
	R2	0.657	0.092	0.001*
	R3	0.802	0.091	0.001*
	R4	0.793	0.088	0.001*
	R5	0.828	0.090	0.001*
Proactiveness (Entrepreneurial Orientation)	P1	0.741		
	P2	0.754	0.075	0.001*
	P3	0.814	0.075	0.001*
	P4	0.740	0.068	0.001*
Competitive Aggressiveness (Entrepreneurial Orientation)	C1	0.709		
	C2	0.828	0.105	0.001*
	C3	0.753	0.098	0.001*
	C4	0.450	0.081	0.001*
Planning for compliance training (Health Care Compliance Association)	SEFFB1	0.778		
	SEFFB2	0.837	0.065	0.001*
	SEFFB3	0.769	0.069	0.001*
	SEFFB4	0.695	0.079	0.001*
	SEFFB5	0.750	0.062	0.001*
	SEFFB6	0.782	0.073	0.001*
	SEFFB7	0.495	0.087	0.001*
	SEFFB8	0.766	0.064	0.001*
Implementation of compliance training (Health Care Compliance Association)	SEFFD1	0.763		
	SEFFD2	0.773	0.071	0.001*
	SEFFD3	0.658	0.084	0.001*
	SEFFD4	0.660	0.083	0.001*
	SEFFD5	0.608	0.077	0.001*
	SEFFD6	0.718	0.069	0.001*
	SEFFD7	0.529	0.085	0.001*
Evaluation and administration of	SEFFA1	0.709		
	SEFFA2	0.634	0.088	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
compliance training (Health Care Compliance Association)	SEFFA3	0.708	0.069	0.001*
	SEFFA4	0.710	0.096	0.001*
	SEFFA5	0.814	0.069	0.001*

* P<0.001

Table 6.37 indicates some item loadings below the 0.5 threshold (Baharum *et al.*, 2023:4). RE2 measured at 0.355, OB3 at 0.499, OB4 at 0.442, A5 at 0.433, I5 at 0.444, C4 at 0.450 and SEFFB7 at 0.495. OB3 and SEFFB7 measured close to the 0.5 threshold and were accepted. The fact that most factor loadings are above 0,5 is evidence of convergent validity (Civelek, 2018:33). Most of the borderline items, upon closer inspection, reflect a work environment uncommon to a compliance department within the banking sector that has been discussed in Section 6.4.5.2 when discussing Table 6.7 and have been accepted as items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Standard errors and p-values are reflected, and p-values indicate significance.

The convergent validity and composite reliability were then examined in Table 6.38 of the effectiveness of the compliance programmes model - Health Care Compliance Association.

Table 6.38: AVE and CR of the effectiveness of compliance programmes model – Health Care Compliance Association

Variable	AVE	CR
Management Support (Corporate Entrepreneurship)	0.495	0.799
Work Discretion and Autonomy (Corporate Entrepreneurship)	0.632	0.869
Rewards and Reinforcement (Corporate Entrepreneurship)	0.432	0.731
Time Availability (Corporate Entrepreneurship)	0.457	0.740
Organisational Boundaries (Corporate Entrepreneurship)	0.479	0.772
Autonomy (Entrepreneurial Orientation)	0.433	0.787

Variable	AVE	CR
Innovativeness (Entrepreneurial Orientation)	0.510	0.895
Risk-Taking (Entrepreneurial Orientation)	0.579	0.872
Proactiveness (Entrepreneurial Orientation)	0.584	0.846
Competitive Aggressiveness (Entrepreneurial Orientation)	0.513	0.804
Planning for compliance training (Health Care Compliance Association)	0.530	0.903
Implementation of compliance training (Health Care Compliance Association)	0.447	0.843
Evaluation and administration of compliance training (Health Care Compliance Association)	0.502	0.822

The convergent validity was further assessed and achieved when the average variance extracted (AVE) exceeded a threshold value of greater than 0.5 for the model (Baharum *et al.*, 2023:1). The composite reliability (CR) value was also determined by examining that all CR values exceeded the threshold value of 0.7, indicating the composite reliability for the construct (Civelek, 2018:42). In Table 6.38 the items highlighted in yellow were regarded as borderline, but still acceptable AVE. Composite reliability (CR) values are also shown within a minimum acceptable level of 0.7.

The mediation effect of the effectiveness of compliance programmes - Health Care Compliance Association - will be discussed in Table 6.39.

6.4.5.27 Mediation effect of effectiveness of compliance programmes model – Health Care Compliance Association

Table 6.39: Mediation effect and relationships: Effectiveness of Compliance Programmes – Health Care Compliance Association

Type of relationship	Standard regression weight β - weight	Standard error	P-value
Direct	0.793	0.143	P<0.001
Indirect	-0.135	0.108	0.269
Total affect	0.658	0.067	P<0.001

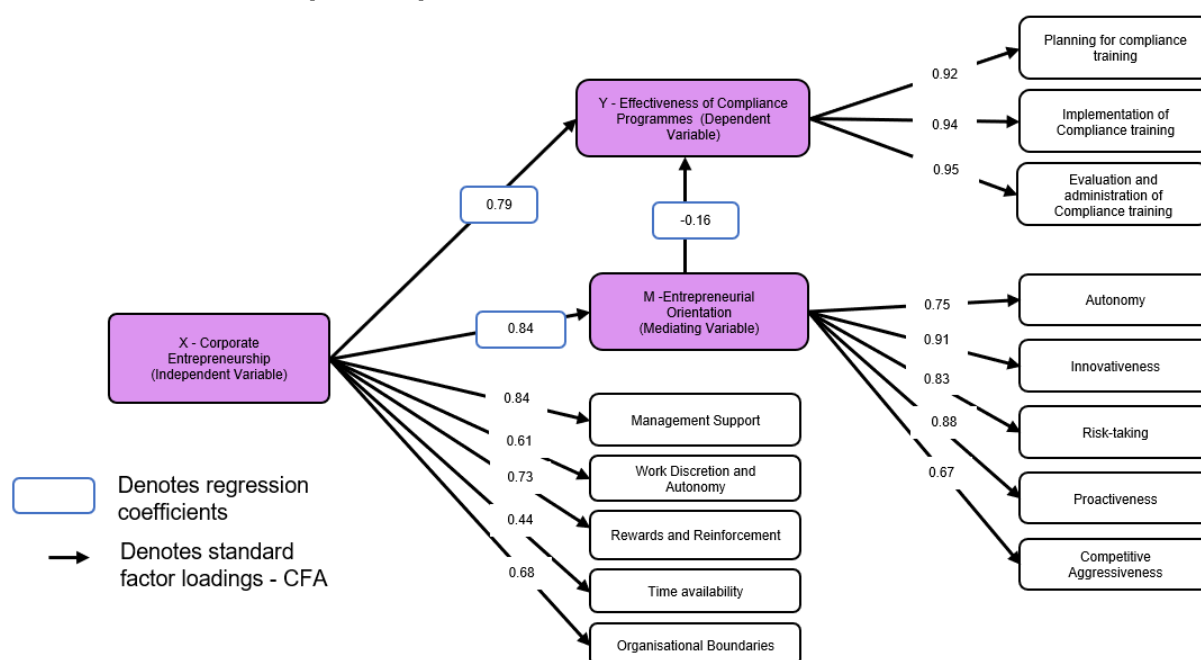
The p-value for the indirect relationship is above the threshold of 0.05; subsequently, this model is not considered significant. Therefore, the mediation effect was not measured. The type of non-mediation is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and the effectiveness of compliance programmes is significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

H¹⁷. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and the effectiveness of compliance programmes, according to the Health Care Compliance Association, is therefore rejected.

The following section will reflect the SEM path of the effectiveness of compliance programmes according to the Health Care Compliance Association.

6.4.5.28 Structural equation modelling path: effectiveness of compliance programmes – Health Care Compliance Association

Figure 6.7: SEM path: effectiveness of compliance programmes (Health Care Compliance)



Individual items and standard errors are not reflected for the sake of conciseness.

A positive relationship exists between corporate entrepreneurship and the effectiveness of compliance programmes according to Health Care Compliance, with a regression coefficient of 0.79 being evident. Standard regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome

(effectiveness of compliance programmes) in a standardised form (Field, 2018:1008). Thus, the change in the effectiveness of compliance programmes is indicated based on one standard deviation change in corporate entrepreneurship.

A positive relationship between corporate entrepreneurship and entrepreneurial orientation can be observed, with a correlation coefficient of 0.84.

Standard factor loadings in confirmatory factor analysis of more than 0.5 are evident, except for time availability, loaded at a borderline 0.44 but are still considered acceptable. Time availability has two negative questions that may have been interpreted inconsistently. Items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

H⁷. There is a positive relationship between corporate entrepreneurship and the effectiveness of compliance programmes, according to the Health Care Compliance Association, is therefore accepted.

The relationship between selected biographic variables and the effectiveness of compliance training programmes according to the Health Care Compliance Association will be investigated using regression analysis as part of the SEM model. Age, education level, and level of seniority within the organisation were all treated as ordinal variables to account for the different categories in age group, education level, and level of seniority in the organisation.

Table 6.40: Direct biographic relationships: effectiveness of compliance training programmes model (Health Care Compliance Association)

Biographic variable	Regression Coefficient	p-value	Standardised Regression Coefficient
Gender	-0.099	0.096	-0.095
Age	-0.015	0.636	-0.027
Seniority within the organisation	0.001	0.979	0.002
Education level	-0.003	0.904	-0.006

Table 6.40 depicts no statistically significant relationships; all the p-values were greater than 0.05.

The Model Fit Statistics of the compliance training success model, according to Dixon and Overton (2017:38), will be discussed in Table 6.41.

6.4.5.29 SEM model fit statistics: compliance training success model according to Dixon and Overton

Table 6.41 indicates the model fit statistics, including the factors measuring corporate entrepreneurship, entrepreneurial orientation, and the compliance training success model by Dixon and Overton (2017:38).

Table 6.41: Model fit statistics: compliance training success model – Dixon and Overton

Fit Indices	Test Statistic χ^2	Degrees of Freedom df	p-value	Goodness of fit χ^2/df	CFI	TLI	RMSEA	90 % Confidence Interval Lower	90 % Confidence Interval Upper
Model Values	4162.172	1756	<0.001	2.370	0.797	0.788	0.063	0.061	0.066
Recommended Values			<0.05	<5	>0.9	>0.9	<0.10		

Note: χ^2 = Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation

Table 6.41 indicates an acceptable goodness-of-fit index value (also an absolute fit index), calculated as χ^2 divided by the degrees of freedom (df) of 2.370 against a recommended value of less than 5 (Maqableh *et al.*, 2021:250). Similarly, RMSEA was calculated at an acceptable value of 0.063 against a recommended value smaller than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3). The p-value is also considered significant.

From an incremental fit perspective, the CFI and TLI measured below the 0.9 threshold at 0.797 and 0.788, respectively, but were still regarded as borderline and close to 0.8. These measurements are still considered acceptable (Ferdinand, 2014 cited by Anggriani *et al.*, 2020:66-67) and have been used in research before (Kim *et al.*, 2016:4). The CFI and TLI are only two factors considered in the overall model fit, where all other measurements fell within the parameters, and thus these indices are deemed acceptable.

The confirmatory factor analysis of the compliance training success model, according to Dixon and Overton, will be discussed and reflected in Table 6.42.

6.4.5.30 Confirmatory factor analysis and convergent validity: compliance training success model – Dixon and Overton

Table 6.42: Confirmatory factor analysis – standardised factor loadings: compliance training success model – Dixon and Overton

Variable	Items	Standardised factor loadings	Standard Error	p-value
Management Support (Corporate Entrepreneurship)	MS1	0.787		
	MS2	0.768	0.071	0.001*
	MS3	0.645	0.073	0.001*
	MS4	0.611	0.076	0.001*
Work Discretion and Autonomy (Corporate Entrepreneurship)	WD1	0.744		
	WD2	0.849	0.075	0.001*
	WD3	0.871	0.077	0.001*
	WD4	0.678	0.068	0.001*
Rewards and Reinforcement (Corporate Entrepreneurship)	RE1	0.528		
	RE2	0.355	0.091	0.001*
	RE3	0.871	0.168	0.001*
	RE4	0.693	0.125	0.001*
Time Availability (Corporate Entrepreneurship)	TA1	0.856		
	TA2	0.503	0.065	0.001*
	TA3	0.753	0.068	0.001*
	TA4	0.531	0.071	0.001*
Organisational Boundaries (Corporate Entrepreneurship)	OB1	0.892		
	OB2	0.931	0.053	0.001*
	OB3	0.498	0.083	0.001*
	OB4	0.442	0.060	0.001*
Autonomy (Entrepreneurial Orientation)	A1	0.627		
	A2	0.824	0.129	0.001*
	A3	0.632	0.133	0.001*
	A4	0.741	0.116	0.001*
	A5	0.434	0.118	0.001*
Innovativeness (Entrepreneurial Orientation)	I1	0.671		
	I2	0.831	0.084	0.001*
	I3	0.666	0.082	0.001*
	I4	0.832	0.076	0.001*
	I5	0.444	0.087	0.001*
	I6	0.766	0.080	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
	I7	0.788	0.073	0.001*
	I8	0.744	0.068	0.001*
	I9	0.714	0.079	0.001*
Risk-Taking (Entrepreneurial Orientation)	R1	0.708		
	R2	0.657	0.092	0.001*
	R3	0.802	0.091	0.001*
	R4	0.794	0.088	0.001*
	R5	0.828	0.090	0.001*
Proactiveness (Entrepreneurial Orientation)	P1	0.742		
	P2	0.754	0.075	0.001*
	P3	0.814	0.075	0.001*
	P4	0.740	0.068	0.001*
Competitive Aggressiveness (Entrepreneurial Orientation)	C1	0.709		
	C2	0.828	0.105	0.001*
	C3	0.753	0.098	0.001*
	C4	0.450	0.081	0.001*
Compliance training success factors (Dixon and Overton)	STSFD01	0.476		
	STSFD02	0.519	0.152	0.001*
	STSFD03	0.506	0.151	0.001*
	STSFD04	0.644	0.208	0.001*
	STSFD05	0.600	0.193	0.001*
	STSFD06	0.642	0.186	0.001*
	STSFD07	0.742	0.202	0.001*
	STSFD08	0.774	0.207	0.001*
	STSFD09	0.717	0.212	0.001*
	STSFD010	0.709	0.185	0.001*
	STSFD011	0.781	0.219	0.001*
	STSFD012	0.764	0.237	0.001*
	STSFD013	0.488	0.174	0.001*
	STSFD014	0.768	0.223	0.001*

* P<0.001

Table 6.42 indicates some item loadings below the 0.5 threshold (Baharum *et al.*, 2023:4). RE2 measured at 0.355, OB3 at 0.498, OB4 at 0.442, A5 at 0.433, A5 at 0.434, I5 at 0.444, C4 at 0.450, STSFDO1 at 0.476 and STSFDO13 at 0.488. OB3 was measured close to the threshold of 0.5 and was considered acceptable. The fact that most factor

loadings are above 0,5 is evidence of convergent validity (Civelek, 2018:33). Most of the borderline items, on closer inspection, reflect a work environment uncommon to a compliance department within the banking sector that has been discussed under 6.4.5.2 when discussing Table 6.7 and have been accepted. Item STSFD01 stipulates that the training completion rate is assessed where there is no assessment, and the reason for the low loading may be that most mandatory compliance training courses have an assessment component as part of the training to determine whether learning took place. Item STSFD013 specifies that contractors and third parties are trained on compliance, and this may reflect a weakness, or it may be that contracts have been signed with contractors and third parties that will ensure that training occurs. All standardised factor loadings were accepted as items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Standard errors and p-values are reflected, and p-values indicate significance.

The convergent validity and composite reliability were examined in Table 6.43 of the compliance training success model – Dixon and Overton.

Table 6.43: AVE and CR of the compliance training success model – Dixon and Overton

Variable	AVE	CR
Management Support (Corporate Entrepreneurship)	0.495	0.799
Work Discretion and Autonomy (Corporate Entrepreneurship)	0.632	0.869
Rewards and Reinforcement (Corporate Entrepreneurship)	0.432	0.732
Time Availability (Corporate Entrepreneurship)	0.457	0.740
Organisational Boundaries (Corporate Entrepreneurship)	0.479	0.772
Autonomy (Entrepreneurial Orientation)	0.433	0.787
Innovativeness (Entrepreneurial Orientation)	0.510	0.895
Risk-Taking (Entrepreneurial Orientation)	0.579	0.872
Proactiveness (Entrepreneurial Orientation)	0.584	0.846

Variable	AVE	CR
Competitive Aggressiveness (Entrepreneurial Orientation)	0.513	0.804
Compliance training success factors (Compliance training success factors – Dixon and Overton)	0.449	0.907

The convergent validity was further assessed and achieved when the average variance extracted (AVE) exceeded a threshold value of greater than 0.5 for the model (Baharum *et al.*, 2023:1). The composite reliability (CR) value was also determined by examining that all CR values exceeded the threshold value of 0.7, indicating the composite reliability for the construct (Civelek, 2018:42). The items highlighted in yellow were regarded as borderline, but still acceptable AVE. Composite reliability (CR) values are also shown within a minimum acceptable level of 0.7.

The mediating effect of entrepreneurial orientation and relationships of the compliance training success model, according to Dixon and Overton, will be explored in Table 6.44.

6.4.5.31 Mediation effect of entrepreneurial orientation and relationships: compliance training success factor – Dixon and Overton

Table 6.44: Mediation effect and relationships: compliance training success – Dixon and Overton

Type of relationship	Standard regression weight β - weight	Standard error	P-value
Direct	0.777	0.100	P<0.001
Indirect	-0.150	0.071	0.229
Total affect	0.627	0.053	P<0.001

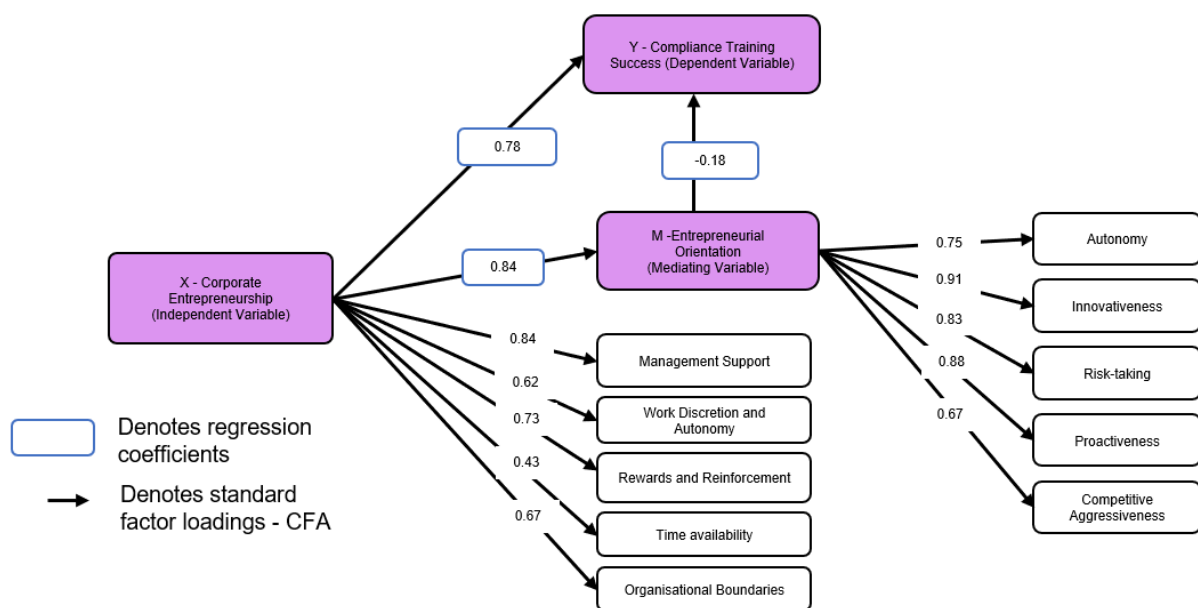
The p-value for the indirect relationship is above the threshold of 0.05; subsequently, this model is not considered significant. The mediation effect was, therefore, not measured. The type of non-mediation is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and compliance training success, according to Dixon and Overton, is significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

H¹⁸. Entrepreneurial Orientation positively mediates the relationship between corporate entrepreneurship and compliance training success, according to Dixon and Overton, is therefore rejected.

The SEM path of compliance training success, according to Dixon and Overton, will be discussed in Figure 6.8.

6.4.5.32 Structural equation modelling path: compliance training success – Dixon and Overton

Figure 6.8: SEM path: compliance training success - Dixon and Overton



Individual items and standard errors are not reflected for the sake of conciseness.

A positive relationship exists between corporate entrepreneurship and compliance training success, according to Dixon and Overton, with a regression coefficient of 0.78 being evident. Standard regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome (compliance training success, according to Dixon & Overton) in a standardised form (Field, 2018:1008). Thus, the change in compliance training success, according to Dixon & Overton, is indicated based on one standard deviation change in corporate entrepreneurship.

A positive relationship between corporate entrepreneurship and entrepreneurial orientation can be observed, with a correlation coefficient of 0.84.

Standard factor loadings in confirmatory factor analysis more than 0.5 are evident, except for time availability, loaded at a borderline 0.43 but are still considered acceptable. Time availability has two negative questions that may have been interpreted inconsistently. Items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

H⁸. There is a positive relationship between corporate entrepreneurship and compliance training success factors, according to Dixon and Overton, is therefore accepted.

The relationship between selected biographic variables and compliance training success, according to Dixon and Overton, will be investigated using regression analysis as part of the SEM model. Again, age, education level, and level of seniority within the organisation were all treated as ordinal variables to account for the different categories in age group, education level, and level of seniority in the organisation.

Table 6.45: Direct biographic relationships: compliance training success model (Dixon and Overton)

Biographic variable	Regression Coefficient	p-value	Standardised Regression Coefficient
Gender	-0.026	0.476	-0.040
Age	-0.028	0.162	-0.080
Seniority within the organisation	0.015	0.332	0.055
Education level	-0.015	0.352	-0.053

Table 6.45 depicts no statistically significant relationships; all the p-values were greater than 0.05.

The Model Fit Statistics of a holistic compliance communication programme, according to Rogers (2022:2-11), will be discussed in Table 6.46.

6.4.5.33 SEM model fit statistics: a holistic compliance communication programme model – Rogers

Table 6.46 indicates the model fit statistics for the model, including the factors measuring corporate entrepreneurship, entrepreneurial orientation, and a holistic communication programme, including training by Rogers (2022:2-11).

Table 6.46: Model fit statistics: a holistic compliance communication programme model – Rogers

Fit Indices	Test Statistic χ^2	Degrees of Freedom df	p-value	Goodness of fit χ^2/df	CFI	TLI	RMSEA	90 % Confidence Interval Lower	90 % Confidence Interval Upper
Model Values	3457.901	1582	<0.001	2.186	0.830	0.823	0.059	0.056	0.062
Recommended Values			<0.05	<5	>0.9	>0.9	<0.10		

Note: χ^2 = Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation

Table 6.46 indicates an acceptable goodness-of-fit index value (also an absolute fit index), calculated as χ^2 divided by the degrees of freedom (df) of 2.186 against a recommended value of less than 5 (Maqableh *et al.*, 2021:250). Similarly, RMSEA was calculated at an acceptable value of 0.056 against a recommended value smaller than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3). The p-value is also considered significant.

From an incremental fit perspective, the CFI and TLI measured slightly below the 0.9 threshold at 0.830 and 0.823, respectively. These measurements are still regarded acceptable (Ferdinand, 2014 cited by Anggriani *et al.*, 2020:66-67) and have been used in research before (Kim *et al.*, 2016:4). The CFI and TLI are only two factors considered in the overall model fit, where all other measurements fell within the parameters, and thus these indices are deemed acceptable.

The confirmatory factor analysis of a holistic compliance communication programme model will be discussed, as reflected in Table 6.47.

6.4.5.34 Confirmatory factor analysis and convergent validity: a holistic compliance communication programme model - Rogers

Table 6.47: Confirmatory factor analysis - standardised factor loadings: a holistic compliance communication programme model – Rogers

Variable	Items	Standardised factor loadings	Standard Error	p-value
Management Support (Corporate Entrepreneurship)	MS1	0.787		
	MS2	0.767	0.072	0.001*
	MS3	0.647	0.073	0.001*
	MS4	0.611	0.076	0.001*
Work Discretion and Autonomy (Corporate Entrepreneurship)	WD1	0.744		
	WD2	0.849	0.075	0.001*
	WD3	0.871	0.077	0.001*
	WD4	0.678	0.068	0.001*
Rewards and Reinforcement (Corporate Entrepreneurship)	RE1	0.526		
	RE2	0.357	0.091	0.001*
	RE3	0.872	0.169	0.001*
	RE4	0.693	0.126	0.001*
Time Availability (Corporate Entrepreneurship)	TA1	0.855		
	TA2	0.503	0.065	0.001*
	TA3	0.754	0.068	0.001*
	TA4	0.531	0.071	0.001*
Organisational Boundaries (Corporate Entrepreneurship)	OB1	0.893		
	OB2	0.930	0.053	0.001*
	OB3	0.499	0.083	0.001*
	OB4	0.442	0.060	0.001*
Autonomy (Entrepreneurial Orientation)	A1	0.627		
	A2	0.824	0.129	0.001*
	A3	0.632	0.133	0.001*
	A4	0.741	0.116	0.001*
	A5	0.433	0.118	0.001*
Innovativeness (Entrepreneurial Orientation)	I1	0.671		
	I2	0.831	0.084	0.001*
	I3	0.666	0.082	0.001*
	I4	0.832	0.075	0.001*
	I5	0.444	0.087	0.001*
	I6	0.767	0.080	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
	I7	0.788	0.073	0.001*
	I8	0.744	0.068	0.001*
	I9	0.714	0.079	0.001*
Risk-Taking (Entrepreneurial Orientation)	R1	0.708		
	R2	0.658	0.092	0.001*
	R3	0.802	0.091	0.001*
	R4	0.793	0.088	0.001*
	R5	0.828	0.090	0.001*
Proactiveness (Entrepreneurial Orientation)	P1	0.742		
	P2	0.755	0.075	0.001*
	P3	0.814	0.075	0.001*
	P4	0.740	0.068	0.001*
Competitive Aggressiveness (Entrepreneurial Orientation)	C1	0.709		
	C2	0.828	0.104	0.001*
	C3	0.753	0.098	0.001*
	C4	0.450	0.081	0.001*
Desired characteristics of a holistic compliance communication program, including training (Holistic compliance communication programme – Rogers)	SHCP1	0.711		
	SHCP2	0.658	0.090	0.001*
	SHCP3	0.765	0.096	0.001*
	SHCP4	0.779	0.093	0.001*
	SHCP5	0.732	0.091	0.001*
	SHCP6	0.678	0.102	0.001*
	SHCP7	0.759	0.084	0.001*
	SHCP8	0.780	0.104	0.001*
	SHCP9	0.574	0.072	0.001*
	SHCP10	0.645	0.080	0.001*
	SHCP11	0.599	0.078	0.001*

* P<0.001

Table 6.47 indicates some item loadings below the 0.5 threshold (Baharum *et al.*, 2023:4). RE2 measured at 0.357, OB3 at 0.499, OB4 at 0.442, A5 at 0.433, I5 at 0.433, I5 at 0.444 and C4 at 0.450. OB3 was measured close to the 0.5 threshold and was accepted. The fact that most factor loadings are above 0,5 is evidence of convergent validity (Civelek, 2018:33). Most of the borderline items, on closer inspection, reflect a work environment uncommon to a compliance department within the banking sector that has been discussed under 6.4.5.2 when discussing Table 6.7 and have been accepted as items

with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Standard errors and p-values are reflected, and p-values indicate significance.

The convergent validity and composite reliability were then examined in Table 6.48 of a holistic compliance communication programme model.

Table 6.48: AVE and CR of a holistic compliance communication programme model – Rogers

Variable	AVE	CR
Management Support (Corporate Entrepreneurship)	0.495	0.799
Work Discretion and Autonomy (Corporate Entrepreneurship)	0.632	0.869
Rewards and Reinforcement (Corporate Entrepreneurship)	0.432	0.732
Time Availability (Corporate Entrepreneurship)	0.457	0.741
Organisational Boundaries (Corporate Entrepreneurship)	0.479	0.772
Autonomy (Entrepreneurial Orientation)	0.433	0.787
Innovativeness (Entrepreneurial Orientation)	0.510	0.895
Risk-Taking (Entrepreneurial Orientation)	0.579	0.872
Proactiveness (Entrepreneurial Orientation)	0.584	0.847
Competitive Aggressiveness (Entrepreneurial Orientation)	0.513	0.804
Desired characteristics of a holistic compliance communication program, including training (Holistic compliance communication programme – Rogers)	0.506	0.916

The convergent validity was further assessed and achieved when the average variance extracted (AVE) exceeded a threshold value of greater than 0.5 for the model (Baharum *et al.*, 2023:1). The composite reliability (CR) value was also determined by examining that all CR values exceeded the threshold value of 0.7, indicating the composite reliability for the construct (Civelek, 2018:42). The items highlighted in yellow were regarded as borderline, but still acceptable AVE. Composite reliability (CR) values are also shown within a minimum acceptable level of 0.7.

The mediation effect will be discussed in Table 6.49 below.

6.4.5.35 Mediation effect of entrepreneurial orientation and relationships: a holistic compliance communication programme model - Rogers

Table 6.49: Mediation effect and relationships: a holistic compliance communication programme model – Rogers

Type of relationship	Standard regression weight β - weight	Standard error	p-value
Direct	0.691	0.144	P<0.001
Indirect	-0.092	0.109	0.443
Total affect	0.599	0.067	P<0.001

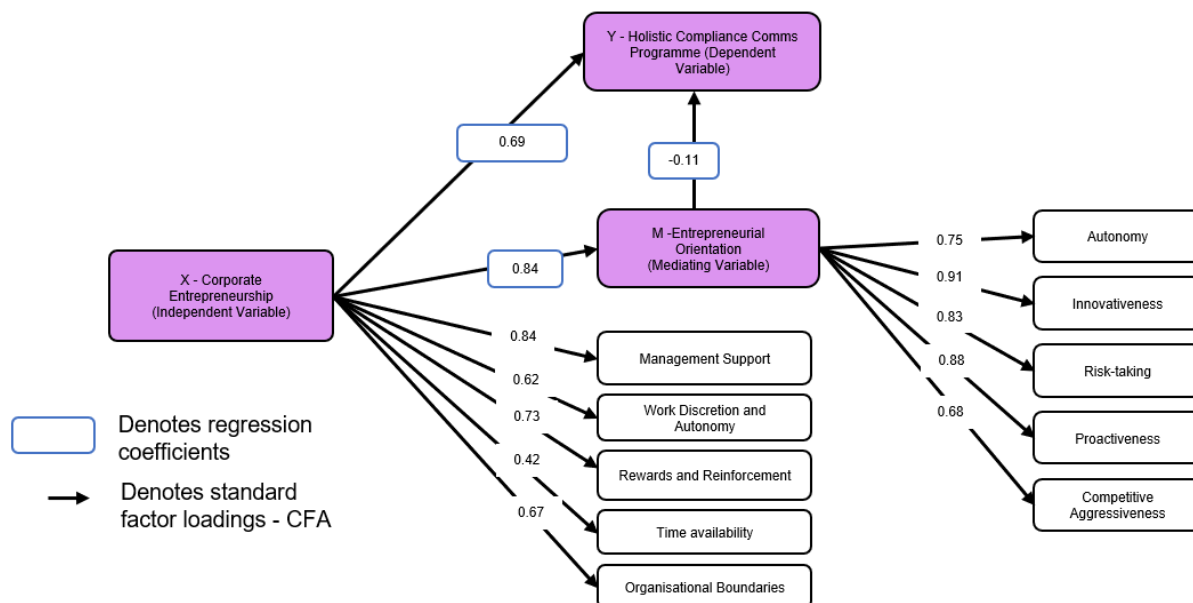
The p-value for the indirect relationship is above the threshold of 0.05; subsequently, this model is not considered significant. Therefore, the mediation effect was not measured. The type of non-mediation is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and a holistic compliance communication programme is significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

H¹⁹. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and a holistic compliance communication programme, according to Rogers, is therefore rejected.

The following section will assess the SEM path for a holistic compliance communication programme model in Figure 6.9.

6.4.5.36 Structural equation modelling path: a holistic compliance communication programme model – Rogers

Figure 6.9: SEM path: a holistic compliance communication programme model – Rogers



Individual items and standard errors are not reflected for the sake of conciseness.

A positive relationship exists between corporate entrepreneurship and a holistic compliance communication programme (according to Rogers), with a regression coefficient of 0.69 being evident. Standard regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome (a holistic compliance communication programme) in a standardised form (Field, 2018:1008). Thus, a holistic compliance communication programme change is indicated based on one standard deviation change in corporate entrepreneurship.

A positive relationship between corporate entrepreneurship and entrepreneurial orientation can be observed, with a correlation coefficient of 0.84.

Standard factor loadings in confirmatory factor analysis more than 0.5 are evident, except for time availability, loaded at a borderline 0.42 but are still considered acceptable. Time availability has two negative questions that may have been interpreted inconsistently. Items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

H⁹. There is a positive relationship between corporate entrepreneurship and a holistic compliance communication programme, according to Rogers, is therefore accepted.

The relationship between selected biographic variables and a holistic compliance communication programme, according to Rogers, will be investigated by using regression analysis as part of the SEM model. Age, education level and level of seniority within the organisation were all treated as ordinal variables to account for the different categories in age group, education level and level of seniority in the organisation.

Table 6.50: Direct biographic relationships: A holistic compliance communication programme model (Rogers)

Biographic variable	Regression Coefficient	p-value	Standardised Regression Coefficient
Gender	-0.021	0.729	-0.020
Age	-0.062	0.053	-0.110
Seniority within the organisation	0.011	0.667	0.024
Education level	-0.023	0.359	-0.052

In Table 6.50, the p-value of the age is borderline at 0.053, and the model is accepted as significant. Therefore, a negative relationship is observed between age and the construct of a holistic compliance communication programme, according to Rogers. Thus, as age increases, the score of a holistic compliance communication programme, according to Rogers, decreases.

The model fit statistics of the factors that make the training stick model, according to Katz (2014:66), will be discussed in Table 6.51 below.

6.4.5.37 SEM Model fit statistics: factors that make training stick model – Katz

Table 6.51 indicates the model fit statistics for the model, including the factors measuring corporate entrepreneurship, entrepreneurial orientation, and the factors that make training stick (Katz, 2014:66).

Table 6.51: Model fit statistics: factors that make training stick – Katz

Fit Indices	Test Statistic χ^2	Degrees of Freedom df	p-value	Goodness of fit χ^2/df	CFI	TLI	RMSEA	90 % Confidence Interval Lower	90 % Confidence Interval Upper
Model Values	2467.179	1114	<0.001	2.22	0.848	0.839	0.060	0.057	0.063
Recommended Values			<0.05	<5	>0.9	>0.9	<0.10		

Note: χ^2 = Chi-square; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation

Table 6.51 indicates an acceptable goodness-of-fit index value (also an absolute fit index), calculated as χ^2 divided by the degrees of freedom (df) of 2.220 against a recommended value of below 5 (Maqableh *et al.*, 2021:250). Similarly, RMSEA was calculated at an acceptable value of 0.057 against a recommended value smaller than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3). The p-value is also considered significant.

From an incremental fit perspective, the CFI and TLI measured slightly below the 0.9 threshold at 0.848 and 0.839, respectively. These measurements are still regarded acceptable (Ferdinand, 2014 cited by Anggriani *et al.*, 2020:66-67) and have been used in research before (Kim *et al.*, 2016:4). The CFI and TLI are only two factors considered in the overall model fit, where all other measurements fell within the parameters, and thus these indices are deemed acceptable.

The confirmatory factor analysis of the factors that make the training stick model will be discussed, reflected in Table 6.52.

6.4.5.38 Confirmatory factor analysis and convergent validity: factors that make training stick model – Katz

Table 6.52: Confirmatory factor analysis – standardised factor loadings: factors that make training stick model – Katz

Variable	Items	Standardised factor loadings	Standard Error	p-value
Management Support (Corporate Entrepreneurship)	MS1	0.786		
	MS2	0.770	0.071	0.001*
	MS3	0.648	0.072	0.001*
	MS4	0.606	0.076	0.001*
Work Discretion and Autonomy (Corporate Entrepreneurship)	WD1	0.743		
	WD2	0.849	0.075	0.001*
	WD3	0.873	0.077	0.001*
	WD4	0.676	0.069	0.001*
Rewards and Reinforcement (Corporate Entrepreneurship)	RE1	0.526		
	RE2	0.358	0.092	0.001*
	RE3	0.872	0.169	0.001*
	RE4	0.692	0.126	0.001*
Time Availability (Corporate Entrepreneurship)	TA1	0.851		
	TA2	0.507	0.066	0.001*
	TA3	0.756	0.069	0.001*
	TA4	0.532	0.071	0.001*
Organisational Boundaries (Corporate Entrepreneurship)	OB1	0.892		
	OB2	0.931	0.054	0.001*
	OB3	0.499	0.083	0.001*
	OB4	0.441	0.060	0.001*
Autonomy (Entrepreneurial Orientation)	A1	0.627		
	A2	0.824	0.129	0.001*
	A3	0.632	0.133	0.001*
	A4	0.742	0.116	0.001*
	A5	0.433	0.118	0.001*
Innovativeness (Entrepreneurial Orientation)	I1	0.671		
	I2	0.830	0.084	0.001*
	I3	0.666	0.082	0.001*
	I4	0.833	0.075	0.001*
	I5	0.444	0.087	0.001*
	I6	0.766	0.080	0.001*

Variable	Items	Standardised factor loadings	Standard Error	p-value
	I7	0.788	0.073	0.001*
	I8	0.744	0.068	0.001*
	I9	0.714	0.079	0.001*
Risk-Taking (Entrepreneurial Orientation)	R1	0.708		
	R2	0.657	0.093	0.001*
	R3	0.802	0.091	0.001*
	R4	0.794	0.088	0.001*
	R5	0.828	0.090	0.001*
Proactiveness (Entrepreneurial Orientation)	P1	0.741		
	P2	0.755	0.075	0.001*
	P3	0.814	0.075	0.001*
	P4	0.740	0.068	0.001*
Competitive Aggressiveness (Entrepreneurial Orientation)	C1	0.709		
	C2	0.828	0.105	0.001*
	C3	0.754	0.098	0.001*
	C4	0.450	0.081	0.001*
Factors that Make Training Stick (Katz)	SMTS1	0.621		
	SMTS2	0.795	0.150	0.001*

* P<0.001

Table 6.52 indicates some item loadings below the 0.5 threshold (Baharum *et al.*, 2023:4). RE2 measured at 0.358, OB3 at 0.499, OB4 at 0.441, A5 at 0.433, I5 at 0.444, and C4 at 0.450. OB3 was measured close to the 0.5 threshold and was accepted. The fact that most factor loadings are above 0,5 is evidence of convergent validity (Civelek, 2018:33). Most of the borderline items, on closer inspection, reflect a work environment uncommon to a compliance department within the banking sector that has been discussed under 6.4.5.2 when discussing Table 6.7 and have been accepted as items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

Standard errors and p-values are also reflected and indicate significance.

Table 6.53 of the factors that make the training stick model examines the convergent validity and composite reliability.

Table 6.53: AVE and CR of the Factors that Make Training Stick Model – Katz

Variable	AVE	CR
Management Support (Corporate Entrepreneurship)	0.495	0.799
Work Discretion and Autonomy (Corporate Entrepreneurship)	0.632	0.868
Rewards and Reinforcement (Corporate Entrepreneurship)	0.432	0.733
Time Availability (Corporate Entrepreneurship)	0.457	0.742
Organisational Boundaries (Corporate Entrepreneurship)	0.479	0.772
Autonomy (Entrepreneurial Orientation)	0.433	0.787
Innovativeness (Entrepreneurial Orientation)	0.510	0.895
Risk-Taking (Entrepreneurial Orientation)	0.579	0.872
Proactiveness (Entrepreneurial Orientation)	0.584	0.846
Competitive Aggressiveness (Entrepreneurial Orientation)	0.513	0.804
Factors that make training stick - Katz	0.494	0.661

The convergent validity was further assessed and achieved when the average variance extracted (AVE) exceeded a threshold value of greater than 0.5 for the model (Baharum *et al.*, 2023:1). The composite reliability (CR) value was also determined by examining that all CR values exceeded the threshold value of 0.7, indicating the composite reliability for the construct (Civelek, 2018:42). The items highlighted in yellow were regarded as borderline, but still acceptable AVE. The composite reliability (CR) values are also shown within a minimum acceptable level of 0.7. with the Factors that Make Training Stick factor measuring at a borderline but acceptable value of 0.661.

The mediation effect and relationships of the Factors that Make the Training Stick model will be discussed in Table 6.54 below.

6.4.5.39 Mediation effect of entrepreneurial orientation and relationships: factors that make training stick model - Katz

Table 6.54: Mediation effect and relationships: factors that make training stick model – Katz

Type of relationship	Standard regression weight β - weight	Standard error	p-value
Direct	0.697	0.199	P<0.001
Indirect	-0.038	0.146	0.782
Total affect	0.660	0.106	P<0.001

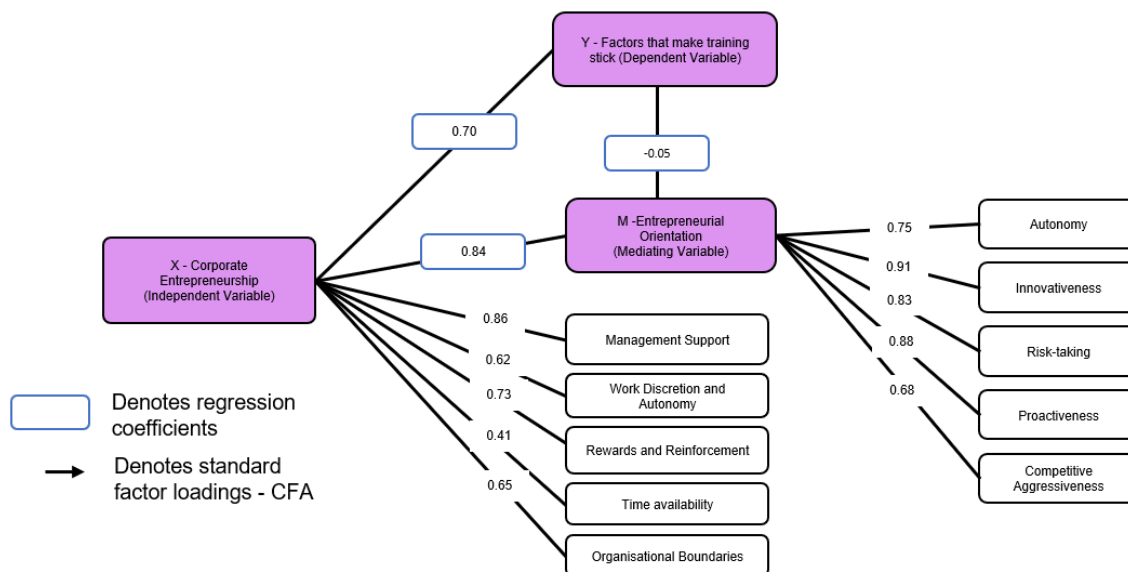
The p-value for the indirect relationship is above the threshold of 0.05; subsequently, this model is not considered significant. Therefore, the mediation effect will not be measured. The type of non-mediation is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and factors that make training stick is significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

H²⁰. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and factors that make training stick, according to Katz, and is therefore rejected.

The following section will discuss the SEM path of factors that make the training stick model by Katz, as reflected in Figure 6.10.

6.4.5.40 Structural equation modelling path: factors that make training stick model – Katz

Figure 6.10: SEM path: factors that make training stick model – Katz



Individual items and standard errors are not reflected for the sake of conciseness.

A positive relationship exists between corporate entrepreneurship and the factors that make the training stick model, according to Katz, with a regression coefficient of 0.70 being evident. Standard regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome (factors that make training stick) in a standardised form (Field, 2018:1008). Thus, the change in the factors that make training stick is indicated based on one standard deviation change in corporate entrepreneurship.

A positive relationship between corporate entrepreneurship and entrepreneurial orientation can be observed, with a correlation coefficient of 0.84.

Standard factor loadings in confirmatory factor analysis more than 0.5 are evident, except for time availability, loaded at a borderline 0.41 but are still considered acceptable. Time availability has two negative questions that may have been interpreted inconsistently. Items with factor loadings smaller than 0.3 have been considered acceptable in research (Hassim *et al.*, 2020:4).

H¹⁰. There is a positive relationship between corporate entrepreneurship and factors that make training stick, according to Katz, is therefore accepted.

The relationship between selected biographic variables and the factors that make training stick, according to Katz, was investigated in Table 6.55.

Table 6.55: Direct biographic relationships: factors that make training stick model (Katz)

Biographic variable	Regression Coefficient	p-value	Standardised Regression Coefficient
Gender	-0.019	Unable to calculate	-0.000
Age	-0.120	Unable to calculate	-0.004
Seniority within the organisation	-0.010	Unable to calculate	-0.000
Education level	-0.099	Unable to calculate	-0.004

The statistical program did not compute the p-values for Table 6.55. Due to the proximity of the standardised regression coefficients to zero, no relationship is evident. This regression model may not converge because the factor consists only of two items.

A summary of the findings of the hypothesised relationships is indicated in Table 6.56.

Table 6.56: Summary of the findings of the hypothesised relationships

Hypothesis number	Hypothesis statement	Accepted or Rejected
H ¹	There is a positive relationship between Corporate Entrepreneurship and Compliance Training Success, according to Kirkpatrick.	Accepted
H ²	There is a positive relationship between Corporate Entrepreneurship and return on investment, according to Phillips and Marcheselli.	Accepted
H ³	There is a positive relationship between Corporate Entrepreneurship and a Supportive Learning Environment, according to Garvin.	Accepted
H ⁴	There is a positive relationship between Corporate Entrepreneurship and Concrete Learning Processes, according to Garvin.	Accepted
H ⁵	There is a positive relationship between Corporate Entrepreneurship and Leadership that Reinforces Learning, according to Garvin.	Accepted
H ⁶	There is a positive relationship between Corporate Entrepreneurship and Extracting business value from Compliance training, according to Young.	Accepted
H ⁷	There is a positive relationship between Corporate Entrepreneurship and the Effectiveness of compliance	Accepted

Hypothesis number	Hypothesis statement	Accepted or Rejected
	programmes, according to the Health Care Compliance Association.	
H ⁸	There is a positive relationship between Corporate Entrepreneurship and Compliance training success factors, according to Dixon and Overton.	Accepted
H ⁹	There is a positive relationship between Corporate Entrepreneurship and a Holistic compliance communication programme, according to Rogers.	Accepted
H ¹⁰	There is a positive relationship between Corporate Entrepreneurship and Factors that make training stick, according to Katz.	Accepted
H ¹¹	Entrepreneurial Orientation positively mediates the relationship between Corporate Entrepreneurship and Compliance Training Success, according to Kirkpatrick.	Accepted
H ¹²	Entrepreneurial Orientation positively mediates the relationship between Corporate Entrepreneurship and return on investment, according to Phillips and Marcheselli.	Rejected
H ¹³	Entrepreneurial Orientation positively mediates the relationship between Corporate Entrepreneurship and a Supportive Learning Environment, according to Garvin.	Rejected
H ¹⁴	Entrepreneurial Orientation positively mediates the relationship between Corporate Entrepreneurship and Concrete Learning Processes, according to Garvin.	Rejected
H ¹⁵	Entrepreneurial Orientation positively mediates the relationship between Corporate Entrepreneurship and Leadership that Reinforces Learning, according to Garvin.	Rejected
H ¹⁶	Entrepreneurial Orientation positively mediates the relationship between Corporate Entrepreneurship and Extracting business value from Compliance training, according to Young.	Rejected
H ¹⁷	Entrepreneurial Orientation positively mediates the relationship between Corporate Entrepreneurship and the Effectiveness of compliance programmes, according to the Health Care Compliance Association.	Rejected
H ¹⁸	Entrepreneurial Orientation positively mediates the relationship between Corporate Entrepreneurship and Compliance training success factors, according to Dixon and Overton.	Rejected
H ¹⁹	Entrepreneurial Orientation positively mediates the relationship between Corporate Entrepreneurship and a Holistic compliance communication programme, according to Rogers.	Rejected
H ²⁰	Entrepreneurial Orientation positively mediates the relationship between Corporate Entrepreneurship and Factors that make training stick, according to Katz.	Rejected

6.5 TOTAL RESPONSES OF ALL QUESTION ITEMS PER SCALE

In addition to the descriptive statistics already discussed and reflected in Tables 6.1-6.4, the following statistics are provided that considered the total responses to all question items per scale for corporate entrepreneurship (Table 6.57), entrepreneurial orientation (Table 6.58) and the ten different models evaluating compliance training success (Tables 6.59-6.68).

Table 6.57: Corporate entrepreneurship: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	345	1230	933	3279	1033
Percentage of respondents	5.06%	18.04%	13.68%	48.08%	15.15%

Table 6.57 reflects that the majority (63.23%) of the respondents agreed and strongly agreed with the statements measuring the presence of corporate entrepreneurship.

Table 6.58: Entrepreneurial orientation: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	283	1713	2142	4047	1022
Percentage of respondents	3.07%	18.61%	23.26%	43.96%	11.10%

The results in Table 6.58 indicate that just over half (55.06%) of the respondents agreed and strongly agreed with the statements measuring entrepreneurial orientation.

Table 6.59: Compliance training success factors - Kirkpatrick: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	196	953	1389	2427	491
Percentage of respondents	3.59%	17.47%	25.46%	44.48%	9.00%

The results in Table 6.59 indicate that just over half (53.48%) of the respondents agreed and strongly agreed with the statements measuring compliance training success factors according to Kirkpatrick (1996:55-56).

Table 6.60: Return on investment-Phillips and Marcheselli: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	73	267	833	463	69
Percentage of respondents	4.28%	15.66%	48.86%	27.16%	4.05%

The results in Table 6.60 indicate that only 31.21% of the respondents agreed and strongly agreed with the statements measuring return on investment, according to Phillips (1996:20) and Marcheselli (2019).

Table 6.61: Supportive learning environment-Garvin *et al.*: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	199	629	656	2157	451
Percentage of respondents	4.86%	15.37%	16.03%	52.71%	11.02%

Table 6.61 reflects that the majority (63.73%) of the respondents agreed and strongly agreed with the statements measuring a supportive learning environment by Garvin *et al.* (2008:112-113).

Table 6.62: Concrete learning processes-Garvin *et al.*: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	83	309	559	1982	477
Percentage of respondents	2.43%	9.06%	16.39%	58.12%	13.99%

Table 6.62 reflects that the majority (72.11%) of the respondents agreed and strongly agreed with the statements measuring concrete learning processes by Garvin *et al.* (2008:112-113).

Table 6.63: Leadership that reinforces learning-Garvin *et al.*: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	55	151	233	1028	238
Percentage of respondents	3.23%	8.86%	13.67%	60.29%	13.96%

Table 6.63 reflects that the majority (74.25%) of the respondents agreed and strongly agreed with the statements measuring leadership that reinforces learning by Garvin *et al.* (2008:112-113).

Table 6.64: Extracting business value from compliance training-Young: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	226	1204	1377	5161	1239
Percentage of respondents	2.45%	13.08%	14.96%	56.06%	13.46%

Table 6.64 reflects that most (69.52%) respondents agreed and strongly agreed with Young's statements measuring extracting business value from compliance training (2017:4).

Table 6.65: Effectiveness of compliance programmes-Health Care Compliance Association: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	89	323	1006	4046	1356
Percentage of respondents	1.30%	4.74%	14.75%	59.33%	19.88%

Table 6.65 reflects that the majority (79.21%) of the respondents agreed and strongly agreed with the statements measuring the effectiveness of compliance programmes (Health Care Compliance Association, 2017:24-27).

Table 6.66: Compliance training success factors-Dixon and Overton: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	68	273	963	2654	816
Percentage of respondents	1.42%	5.72%	20.17%	55.60%	17.09%

Table 6.66 reflects that the majority (72.69%) of the respondents agreed and strongly agreed with the statements measuring compliance training success factors, according to Dixon and Overton (2017:38).

Table 6.67: A holistic compliance communication programme-Rogers: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	82	329	592	2205	543
Percentage of respondents	2.19%	8.77%	15.78%	58.78%	14.48%

Table 6.67 reflects that the majority (73.26%) of the respondents agreed and strongly agreed with the statements measuring a holistic compliance communication programme (Rogers, 2022:2-11).

Table 6.68: Factors that make training stick-Katz: percentage of respondents per scale

	Totally Disagree	Disagree	Undecided	Agree	Strongly Agree
Total responses of all question items per scale	21	141	121	328	71
Percentage of respondents	3.08%	20.67%	17.74%	48.09%	10.41%

The results in Table 6.58 indicate that most respondents (58.50%) agreed and strongly agreed with the statements measuring factors that make training stick (Katz, 2014:66).

6.6 SUMMARY

Chapter 6 commenced with a discussion about the adequacy of the sample size and an account of the biographic profile of the 341 respondents who completed the survey. The

reliability of the research instrument was considered in terms of the Cronbach alpha coefficients. After that, the steps of the SEM process were evaluated.

The question whether hypothesised measurement instruments to measure the relationship between organisational antecedents, corporate entrepreneurship and entrepreneurial orientation as a mediating variable and success factors of compliance training have acceptable attributes such as reliability, validity, and unidimensional capacity (Vijayamohanan & Rjumohan, 2020:3; Nazim & Ahmad, 2013:6; Hair *et al.*, 2010:125), has been answered affirmatively in this chapter.

Each of the 10 SEM models was discussed concerning the success models of compliance training. Overall, SEM model fit was considered, the confirmatory factor analysis and average variance extracted as part of the convergent validity were calculated, and the composite reliability. The mediation models and SEM paths reflecting the direct relationships between corporate entrepreneurship and the various success factors of compliance training models were discussed, as well as the mediating relationships and the regression coefficients and factor loadings considered. A summary of the findings of the hypothesised relationships is provided. Statistics were also provided showing the total responses to all question items per scale for corporate entrepreneurship, entrepreneurial orientation, and the ten different models of compliance training success.

Chapter 7 reports on the outcomes of the empirical results, the interpretation of the findings, and recommendations in the study's conclusion. The compliance training success framework for South African banks is presented and discussed to enhance an entrepreneurial business environment as part of the primary objective of this study and to address the problem statement. The contributions and limitations of this study are discussed, together with recommendations for future research.

CHAPTER 7 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

In Chapter 6, the study's empirical results were presented by describing the sample size, summarising the biographic characteristics of the respondents, and considering the steps and results of the structural equation modelling (SEM) process.

The research findings are explained and interpreted in this study's concluding chapter. The sixth methodological objective included discussing the primary data generated from this study, which is covered in this chapter. The seventh methodological objective of this study is addressed in this chapter: to use the results of the empirical study to draw conclusions and make recommendations, particularly on how to increase corporate entrepreneurship and entrepreneurial orientation within compliance departments where positive relationships and positive mediating relationships are evident with the success of compliance training within the South African banking sector. Furthermore, this chapter achieves secondary objective 1, investigating and establishing the relationship between corporate entrepreneurship and the success of compliance training within South African banks; secondary objective 2, investigating and establishing the relationship between entrepreneurial orientation as a mediating variable in the relationship between corporate entrepreneurship and the success of compliance training within South African banks, secondary objective 3, investigating the relationship between selected biographic variables and compliance training within South African banks, and research question 3 – to answer the question of what is the relationship between corporate entrepreneurship constructs, entrepreneurial orientation constructs as a mediating variable and compliance training success in South African banks' compliance departments. In essence, the problem statement is addressed in this chapter.

This chapter begins with a general outline of the complete study, followed by a summary of the biographic profiles of the respondents. Subsequently, the empirical result of this study is interpreted, and recommendations are made to various stakeholder groups on the statistically relevant relationships that emerged from the findings in Chapter 6. As specified in the primary objective, the compliance training success framework is also discussed in detail, including a practical quality assurance framework on compliance

training success developed for compliance departments. In closing, the study's contributions, limitations, and areas to explore for future research are discussed.

7.2 OVERVIEW OF THE STUDY

Entrepreneurship within the banking sector can be beneficial by creating something that does not exist or solving a problem (Nymbus, 2022). Across the banking sector, compliance functions vary significantly in size and cost (McKinsey & Company, 2019:22). Despite the attempts of organisations to ensure compliance with regulatory mandates, compliance failures persist (Bird & Park, 2017:285). Financial institutions' compliance costs increased by 18% in 2020 due to the Coronavirus pandemic (Lang, 2021). It can be challenging to measure the effectiveness of compliance training and its impact on employee behaviour and organisation (FinSMEs, 2023). Accordingly, compliance departments are viewed as having high costs, exacerbated by failures, sanctions, and the difficulty of proving the value of compliance, explicitly referring to compliance training. Compliance functions need adaptive, innovative, and forward-looking capabilities (Pogson, 2019). Furthermore, bank employees must bring an entrepreneurial spirit into their banks (Nymbus, 2022). In an era of rapid innovation, this can make all the difference in keeping the banking sector relevant.

The argument in this research, therefore, centred around the criticality for Compliance Officers within the banking sector, operating within a high-cost, sanction-driven environment, to be enabled to display entrepreneurial behaviour, which will lead to increased performance, as is proven in the research (Fan *et al.*, 2021:17; Ziyae & Sadeghi, 2020:113) and tested in this study. In this study, the success of compliance training was evaluated as a performance factor. Additionally, a compliance training success framework will provide a tool to measure the effectiveness of compliance training and, at the same time, improve an entrepreneurial business environment. Therefore, the study proposed a success framework for compliance training for South African banks to enhance an entrepreneurial business environment. The achievement of this primary objective was achieved by examining the relationship between corporate entrepreneurship and compliance training success, as well as the mediating role of entrepreneurial orientation, which is a subset of corporate entrepreneurship (Kuratko & Morris, 2018:50). As a result, the causal chain between corporate entrepreneurship and

compliance training success was investigated by applying the mediating variable, entrepreneurial orientation.

Because of the previously positively proven relationship between both corporate entrepreneurship and entrepreneurial orientation and performance, the researcher, therefore, **argues** that there should be a positive relationship between corporate entrepreneurship and the various compliance training success models, and entrepreneurial orientation should positively mediate this relationship due to entrepreneurial orientation being a subset of corporate entrepreneurship (Kuratko & Morris, 2018:50). This argument is made taking into account the resource-based view of Barney (1991:99), where corporate entrepreneurship and entrepreneurial orientation is seen as resources of the organisation, increasing performance, and Schumpeter's theory of innovation, entrepreneurship, and economic development (1939:84) that views employees of the organisation also as entrepreneurs.

Section 7.2.1, below, summarises the underlying theories used to frame the conceptual model into hypotheses and the research process followed, referencing the chapters in which the primary, secondary, and methodological objectives were addressed and discussed.

7.2.1 Underlying theories and the research process

The study commenced with Chapter 1, where the nature and scope of the study were discussed, the problem statement conferred, and the theories leading to the conceptual model, namely Schumpeter's theory of innovation, entrepreneurship, and economic development (1939:84) and the resource-based view of entrepreneurial orientation (Barney, 1991:99) deliberated in Section 1.5. Using Schumpeter's (1934) theory of innovation, entrepreneurship, and economic development as a framework for the conceptual model in the compliance industry is appropriate, particularly within the South African banking sector, which is the largest on the African continent (Galal, 2023), to assess the relationship between corporate entrepreneurship and the success of compliance training and entrepreneurial orientation as a mediating variable. Innovation alters and displaces the equilibrium state before innovation, and entrepreneurs can also be employees of an organisation, such as in compliance departments of the South African banking sector. According to the resource-based model of entrepreneurial orientation

(Barney, 1991:99), it is argued that because of an organisational orientation, a synergistic alignment of organisational elements leads to a pattern of new entry initiatives that can contribute significantly to the value creation and success of an organisation (Wales *et al.*, 2021). As a result, the aim is to answer the question: What are the reasons for the impact of entrepreneurial orientation on the performance of an organisation?

Training-related theoretical frameworks were also discussed as part of the performance in terms of compliance training success in Section 3.6.2. The **reinforcement management theory** by Skinner posits that positive and negative consequences may perpetuate behaviour (Abiola *et al.*, 2023:37). Managers can use this theory to positively reinforce training as a success factor endorsed by both Garvin *et al.* (2008:112-113) and Dixon and Overton (2017:38). **The social learning theory** of Vygotsky suggests that through connectivism, contemporary learning takes place in a digital environment through the exchange of information, skills, experiences, and viewpoints using networks (Khushk *et al.*, 2022:41-42). Young (2017:4) proposes that learning should use social, workplace, and media-rich digital learning, which aligns with social learning theory. **The experiential learning cycle theory** of Kolb is a continuous process of concrete experiencing, reflecting, thinking and acting (Kolb & Kolb, 2018:8). Alignment can be found with Young (2017:10-11) that suggests that learning should focus on knowledge, skills, behaviours, and decisions that embed a lasting behaviour change, and a supportive learning environment according to Garvin *et al.* (2008:112-113) that suggests that time for reflection is critical for learning to take place. **The adult learning theory** by Knowles suggests that adults learn differently from children, called andragogy. Adults use their familiarity with the content and previous knowledge because of the characteristics of adult learning. Andragogy focuses on the learner's familiarity with the topic being taught (Livingston & Cummings-Clay 2023:34). Close alignment can be seen with Young (2017:4), who proposed that compliance training should be embedded in role-based pathways that are individually relevant, using relevant case studies. **The sensory theory** of Laird posits that most of the knowledge is gained through seeing, then through hearing, and then through touch, smell, and taste (Bachhav, 2022:12). Thus, the senses must be enthused to ensure that effective learning takes place. Young (2017:4) argues compliance training should involve multiple senses, consistent with sensory theory.

The research study followed the following process:

In **Chapter 1**, hypotheses for the study emanating from the theoretical models were formulated into the conceptual model, providing 20 hypotheses that test direct relationships between corporate entrepreneurship and the various success factors of compliance training success, as well as the mediating effect of entrepreneurial orientation.

Chapters 2 and 3 comprise the literature review of this study. Chapter 2 conducted a comprehensive literature review on entrepreneurship, intrapreneurship, corporate entrepreneurship, and entrepreneurial orientation. Chapter 3 presented an extensive literature review on compliance departments within the financial services industry, corporate training environments, and factors that affect compliance training success.

Chapter 4 discussed the research design and methodology used to address the research objectives following the development of the hypothesised model. Paying attention to the research paradigm, approach, and method used was essential.

In this study, a positivist research paradigm and a quantitative methodology were used, as well as a purposive sampling technique, where the researcher's judgement is used to select the sample (Saunders *et al.*, 2019:813), which in this case represents a complete population sample method in which access to the entire population was obtained, making the sample representative of the relevant population (Welman *et al.*, 2010:69). A detailed description of the data collection method was also provided. Data was collected using an analytical survey, which was cross-sectional, thus at one point in time.

In **Chapter 5**, a structured questionnaire was developed, which was used to collect the primary data and the items were used to investigate the relationship between the independent, dependent, and mediating variables. Generally, items were adapted from pre-validated scales (with corporate entrepreneurship and entrepreneurial orientation) to suit the context of this study. However, some items were generated based on secondary sources obtained during the literature review (mainly with the compliance training success factors) and were tested in this study.

In total, 341 usable responses were received, and the collected data was analysed to investigate the relationships established in the hypothesised model. In addition to

summarising and presenting the biographic information, the confirmatory factor analysis results were presented to verify the factor structures of the variables. As a further assessment of the convergent validity, the average variance extracted (AVE) was determined, and the composite reliability values (CR) were examined. The Cronbach's Alpha coefficients of the factors were calculated to assess the reliability of the research instrument. The hypotheses were then tested using SEM, following validity and reliability tests. Several factors were considered in determining the model's fit, including the test statistics, degrees of freedom, goodness of fit, the comparative fit index, the Tucker-Lewis index, root mean square error of approximation, and p-values to determine model significance.

Chapter 6 presented the results of the data analysis and summarised the discussion and interpretation of the results. The chapter ended with a summary of the findings of the hypothesised relationships.

The achievement of the research objectives of this study will now be assessed in Section 7.2.2 below.

7.2.2 Achievement of research objectives and research questions

Table 7.1 indicates this study's research objectives, questions, and corresponding chapters that addressed the objectives. The methodology employed to achieve the research objectives and research questions is discussed.

Table 7.1: Objectives and research questions addressed in the various chapters

Primary Objective	Relevant chapter	The methodology used to achieve the objectives
The primary objective of this study was to propose a compliance training success framework for South African banks to enhance an entrepreneurial business environment.	Chapter 1: Nature and scope of the study Chapter 2: An overview of entrepreneurship, intrapreneurship, corporate entrepreneurship and entrepreneurial orientation Chapter 3: Compliance departments within South African banks Chapter 4: Research design and methodology Chapter 5: Measuring instrument development	The primary objective was achieved through a substantive aggregation in all seven chapters. The research was planned and scoped in Chapter 1. Chapter 2 covered the review of the literature on entrepreneurship, focusing on corporate entrepreneurship and entrepreneurial orientation. This step was critical in operationalising the variables that would measure corporate entrepreneurship and entrepreneurial orientation contained in Chapter 5, Section 5.5. Chapter 3 explored compliance departments within South African banks, focusing on training success by conducting a literature review. This step

Primary Objective	Relevant chapter	The methodology used to achieve the objectives
	Chapter 6: Empirical results Chapter 7: Summary, conclusions and recommendations	was critical to operationalise the variables that would measure compliance training success, contained in Chapter 5, Section 5.5. In Chapter 4, the research onion by Saunders <i>et al.</i> (2019:174) was used to frame the research design and methodology that assisted in the approach followed in the research. In Chapter 5, the various constructs of the survey questionnaire were developed, and the questions were framed. The pilot study conducted was also described. Chapter 6 detailed the empirical results, establishing structural equation model fit, reliability, validity, and significance. The compliance training success framework to enhance an entrepreneurial business environment is discussed in detail in Chapter 7.

Secondary objectives	Relevant chapter	The methodology used to achieve the objectives
SO¹: To investigate and establish the relationship between corporate entrepreneurship and the success of compliance training within South African banks.	Chapter 2: An overview of entrepreneurship, intrapreneurship, corporate entrepreneurship and entrepreneurial orientation Chapter 3: Compliance departments within South African banks Chapter 4: Research design and methodology Chapter 5: Measuring instrument development Chapter 6: Empirical results Chapter 7: Summary, conclusions and recommendations	The constructs measuring corporate entrepreneurship were reviewed in the literature review during Chapter 2. The constructs measuring compliance training success were reviewed in the literature review during Chapter 3. The research methodology used was planned in Chapter 4. The variables of corporate entrepreneurship, entrepreneurial orientation and compliance training success were operationalised, and the survey questionnaire was developed in Chapter 5. The empirical results are presented and discussed in Chapter 6, showing the positive relationships between corporate entrepreneurship and the success of compliance training. Conclusions were drawn regarding the relationships between corporate entrepreneurship and compliance training success during Chapter 7, and recommendations were provided.
SO²: To investigate and establish the relationship between entrepreneurial orientation as a mediating variable in the relationship between corporate entrepreneurship and the success of	Chapter 2: An overview of entrepreneurship, intrapreneurship, corporate entrepreneurship and entrepreneurial orientation Chapter 3: Compliance departments within South African banks	The constructs measuring corporate entrepreneurship and entrepreneurial orientation were reviewed in the literature review during Chapter 2. The constructs that measure compliance training success were reviewed in the literature review during Chapter 3. The research methodology used was planned in Chapter 4.

Secondary objectives	Relevant chapter	The methodology used to achieve the objectives
compliance training within South African banks.	Chapter 4: Research design and methodology Chapter 5: Measuring instrument development Chapter 6: Empirical results Chapter 7: Summary, conclusions and recommendations	The variables were operationalised, and the survey questionnaire was developed in Chapter 5. The empirical results are presented and discussed in Chapter 6, which shows the mediating effect of entrepreneurial orientation in the relationship between corporate entrepreneurship and the success of compliance training. Conclusions were drawn about the mediating variable, entrepreneurial orientation, in the relationship between corporate entrepreneurship and compliance training success during Chapter 7. Possible reasons for the empirical results were provided and contemplated, with recommendations offered.
SO³: To investigate the relationship between selected biographic variables and the success of compliance training within South African banks.	Chapter 3: Compliance departments within South African banks Chapter 4: Research design and methodology Chapter 5: Measuring instrument development Chapter 6: Empirical results Chapter 7: Summary, conclusions and recommendations	The constructs measuring compliance training success were established in Chapter 3 during the literature review. The research design and methodology were planned during Chapter 4. The operationalisation of the success variables of compliance training was presented in Table 5.4 in Chapter 5. The compliance training success variables were operationalised, as well as the measurement instrument developed in Chapter 5. The empirical results of the relationship between selected biographic variables and compliance training success are presented in Chapter 6. The results are interpreted in Chapter 7.

Methodological objectives	Relevant chapter	The methodology used to achieve the objectives
MO¹: To identify and comprehend the theoretical models available and constructs measuring corporate entrepreneurship, entrepreneurial orientation, and compliance training success through a literature review.	Chapter 1: Nature and scope of the study Chapter 2: An overview of entrepreneurship, intrapreneurship, corporate entrepreneurship and entrepreneurial orientation Chapter 3: Compliance departments within South African banks Chapter 5: Measuring instrument development	The relevant theoretical models applicable to corporate entrepreneurship and entrepreneurial orientation were identified in Chapter 1 in Section 1.5.1, Schumpeter's theory of innovation, entrepreneurship and economic development (1939:84), and Section 1.5.2, the resource-based view of entrepreneurial orientation (Barney,1991:99). The relevant theoretical models applicable to compliance training success were discussed in Chapter 3 under Section 3.6.2, namely the reinforcement management theory by Skinner (Abiola <i>et al.</i> , 2023:37), the social learning theory by Vygotsky (Khushk <i>et al.</i> , 2022:41-42), the

Methodological objectives	Relevant chapter	The methodology used to achieve the objectives
		experiential learning cycle theory by Kolb (Kolb & Kolb, 2018:8), the adult learning theory by Knowles (O'Neill, 2023) and the sensory theory by Laird (Bachhav, 2022:12). The constructs measuring corporate entrepreneurship were identified in Section 2.11 of Chapter 2 Section 2.11, and the constructs measuring entrepreneurial orientation were identified in Section 2.15 of Chapter 2 Section 2.15. The constructs measuring compliance training success were identified in Chapter 3, Section 3.8. The variables were operationalised, and the measurement instrument was developed in Chapter 5.
MO²: To obtain insight into the current state of the compliance industry and compliance training environments through a literature review and propose compliance training success factors.	Chapter 3: Compliance departments within South African banks	Insight into the current state of the compliance industry and compliance training environments was conducted through a literature review in Chapter 3. The compliance training success factors used in this study were proposed in Chapter 3, Section 3.9.
MO³: To propose a conceptual and hypothesised model that illustrates relationships between the independent variable in this study, namely corporate entrepreneurship, the mediating variable, namely entrepreneurial orientation, and the dependent variable, compliance training success factors.	Chapter 1: Nature and scope of the study	The conceptual model flowing from the theoretical models can be seen in Chapter 1 in Figure 1.1. The hypothesised model formulated from the conceptual model can be seen in Chapter 1 in Figure 1.2.
MO⁴: To describe the research design and methodology employed to achieve the objectives and manage the research questions in this study.	Chapter 4: Research design and methodology	The research design and methodology used to achieve the objectives and manage the research questions in this study can be seen in Chapter 4. The research onion by Saunders <i>et al.</i> (2019:130) is reflected in Figure 4.1 and was used to select the most appropriate research philosophy, approach to theory development, methodological choice, research strategy, time horizon, and techniques and procedures used in this research study to manage research questions in this study.
MO⁶: To collect primary data from respondents, statistically analyse the	Chapter 6: Empirical results	Chapter 6 included a discussion of the adequacy of the sample size and a description of the biographical profiles of the 341 respondents who completed the

Methodological objectives	Relevant chapter	The methodology used to achieve the objectives
data, and present, illustrate and discuss the primary data generated from this study.	Chapter 7: Summary, conclusions and recommendations	survey. The reliability of the research instrument was assessed, and the steps of the SEM process were considered. Direct and mediating relationships were discussed, and statistics were reported. A summary of the findings of the hypothesised relationships was provided. Chapter 7 included a detailed discussion of the primary data, with conclusions and recommendations made.
MO⁷: To use the results of the empirical study to draw conclusions and make recommendations, particularly on how to increase corporate entrepreneurship and entrepreneurial orientation within compliance departments where positive relationships and positive mediating relationships are evident with the success of compliance training within the South African banking sector.	Chapter 7: Summary, conclusions and recommendations	In Chapter 7, the results of the empirical study are used to draw conclusions and make appropriate recommendations. The summary of the research findings, deductions, and conclusions is included in Section 7.3. The recommendations are contained in Section 7.5.

Research questions	Relevant chapter	The methodology used to achieve the research questions
Research question 1: Which constructs measure corporate entrepreneurship, entrepreneurial orientation, and success of compliance training?	Chapter 2: An overview of entrepreneurship, intrapreneurship, corporate entrepreneurship and entrepreneurial orientation Chapter 3: Compliance departments within South African banks Chapter 5: Measuring instrument development Chapter 6: Empirical results	During the literature review on corporate entrepreneurship and entrepreneurial orientation in Chapter 2, the constructs measuring these concepts were identified and encapsulated in Chapter 5, which covers the operationalisation of the variables and the development of the measuring instrument. A shortened version of the corporate entrepreneurship assessment instrument designed initially by Hornsby <i>et al.</i> (2002: 264-265), adapted, and tested by Strydom (2013:174-177) in the South African context and tested more recently in the South African context by Steyn and de Bruin (2018:1), has been used and adapted to measure corporate entrepreneurship. The questionnaire developed by Lotz and Van der Merwe (2013:31-32) has been used and adapted to measure entrepreneurial orientation. During the literature review on compliance training success in Chapter 3, the constructs measuring compliance training success were identified and included in Chapter 5, which covered the development of the measuring instrument. The structured survey questionnaire used in a previous study by Botha (2012:171-175) has been used as a foundation that identified constructs for corporate training by classical writers such as Kirkpatrick (1996:55-56), Phillips (1996:20), and the concepts from a learning environment, according to Garvin <i>et al.</i> (2008:112-113), and was expanded based on current literature applicable to compliance training success. During Chapter 6, the question of whether hypothesised measurement instruments to measure the relationship between organisational antecedents, corporate entrepreneurship and entrepreneurial orientation as a mediating variable and success factors of compliance training have acceptable attributes such as reliability, validity, and unidimensional capacity has been answered affirmatively in this chapter.
Research question 2: What is the current state of the compliance industry and training environments?	Chapter 3: Compliance departments within South African banks	The comprehensive literature review in Chapter 3 covered the current state of the compliance industry from a South African, the United Kingdom, and the United States of America perspective. The state of compliance training environments was also investigated through a literature review.
Research question 3: What is the relationship between	Chapter 6: Empirical results	Direct and mediating relationships are reported in Chapter 6.

Research questions	Relevant chapter	The methodology used to achieve the research questions
constructs of corporate entrepreneurship, constructs of entrepreneurial orientation as a mediating variable, and the success of compliance training in South African banks' compliance departments?	Chapter 7: Summary, conclusions and recommendations	Chapter 7 explained the direct relationships between corporate entrepreneurship and compliance training success in Section 7.3.7 and the mediation effect of entrepreneurial orientation in Section 7.3.4. The ten compliance training success models measured positive relationships with corporate entrepreneurship, and a positive partial mediation relationship with entrepreneurial orientation was observed in the relationship between corporate entrepreneurship and training success, as specified by the classical author Kirkpatrick (1996:55-56).

Table 7.1 illustrates how this study's primary and secondary objectives, methodological objectives, and research questions have been addressed. Relevant chapters and sections were included, where appropriate, in which the objectives and questions were addressed.

In the next section, the summary of the empirical findings is discussed, and deductions and recommendations are made.

7.3 SUMMARY OF THE EMPIRICAL FINDINGS, DEDUCTIONS, AND CONCLUSIONS

The following sections provide a summary of the findings of the biographic profile of the respondents, followed by a discussion of the validity and reliability results, as well as a summary, discussion and interpretation of each of the significant relationships derived from the SEM analysis.

7.3.1 Biographic profile of the respondents

Most of the respondents in this study (145 out of 341) represent a mature age group category of 40-49 years (42.5%), followed by 30-39 years (31.1%). According to the Sector Skills Plan of BANKSETA (2022:13), most South African banking sector employees (45%) are between 35 and 55 years of age. It is difficult to make a meaningful comparison due to the different age categories used. Most respondents were female (54.8%), followed by 44.3% of men and 0.9% identified as other. A fair comparison with the banking sector can be seen of 60% women and 40% men (BANKSETA, 2022:13).

Concerning the seniority of the respondents within the organisation, most Compliance Officers fell within the middle management level (32%), followed by 25.5% at the senior management level. Most respondents (44.9%) hold a post-graduate degree, followed by 26.4% with a general degree. No respondents possess a qualification lower than matric compared to the banking sector, where 21.2% hold a postgraduate degree, 12.8% have a general degree, and 0.5% possess a qualification lower than matric (BANKSETA, 2022:16).

Based on biographic data, the respondents represented a mature age group, primarily female, aligned with the banking sector (BANKSETA, 2022:13). Most respondents represented the managerial levels of employees in middle and senior management positions within the banks. In conjunction with their age group, it may be concluded that the respondents are seasoned, highly qualified employees, most of whom possess postgraduate degrees. The respondents appeared to have the correct population representation to participate in the study compared to the banking sector (BANKSETA, 2022, 13, 16).

7.3.2 Direct relationships between biographic variables and compliance training success factors

The SEM models measured a negative relationship between age and the constructs of compliance training success according to Kirkpatrick (1996:55-56), return on investment, leadership that reinforces learning, extracting business value from compliance training, and a holistic compliance communication programme. Therefore, these compliance training success factors' scores decrease as age increases. A negative relationship between education level and return on investment was also measured. Thus, as the level of education increases, the return on investment score decreases. It may only be speculated that more mature and educated Compliance Officers still need to practice these compliance training success factors, either because they do not know about these success measures or because they feel they are too cumbersome for implementation in compliance contexts. The fact that some banks have dedicated learning and development departments for compliance training may explain why Compliance Officers are unaware of training success models. These Compliance Officers may not be exposed to the success models of compliance training and may need to be aware that these factors should be measured. This statistic is representative of most of the respondents, as 42%

were mature in age and fell within the age group category of 40-49 years, and 44.9% hold a postgraduate degree. It is recommended that Compliance Officers receive in-depth training on how the various success factors of compliance training are measured, as well as the value-added associated with each factor. Providing training to employees regarding compliance is the responsibility of Compliance Officers, so Compliance Officers must be up skilled in training evaluation.

7.3.3 Reliability and validity of the measuring instrument

7.3.3.1 Reliability

As a measure of internal consistency reliability, Cronbach's alpha is widely used in social and organisational sciences (Gong, 2018:171; Bonett & Wright, 2015:3). According to Shrestha (2021:5), a Cronbach alpha value greater than 0.7 is considered acceptable, although there is no universal minimum acceptable reliability value, which will depend on the application type, focusing on population reliability rather than sample reliability (Bonnet & Wright, 2015:4). Cronbach alpha coefficients greater than 0.6 are still considered acceptable (Ling *et al.*, 2021:4).

In this study, all factors in the measurement instrument reflected a Cronbach alpha of more than 0.7, except for rewards and reinforcement, which measured 0.69, and factors that make training stick, which was 0.66, both borderline and acceptable. Furthermore, the composite reliability of the various factors within the SEM models was above the 0.7 threshold, except for the factors that make training stick, which measured 0.661 in the SEM model where corporate entrepreneurship was assessed as an independent variable, entrepreneurial orientation as a mediating variable, and the factors that make training stick as the dependent variable. However, it was considered borderline and still acceptable.

7.3.3.2 Construct validity and model fit

A confirmatory factor analysis was performed to assess the validity of the constructs. Confirmatory factor analysis is a version of factor analysis in which specific hypotheses about the structure and relationships between the latent variables that underlie the data are tested (Field, 2018:1011). Instrument validity refers to the instrument's ability to measure what it intends to (El-Den *et al.*, 2020:328). Confirmatory factor analysis proves

or disproves the structures or dimensions of the underlying factors identified in previous research (Tavakol & Wetzel, 2020:246). A threshold of 0.5 was used to determine the validity of the confirmatory factor analysis (Baharum *et al.*, 2023:4). Field (2013:692) recommends suppressing factor loadings less than 0.3, however, according to Stevens (cited by Field, 2013:681), factor loadings of greater than 0.298 can be acceptable in samples larger than 300. However, a score greater than 0.4 is considered stable (Samuels, 2017:1) for sample sizes between 300 and 400 (Guadagnoli & Velicer, 1988:274).

Six items in the 10 SEM models consistently measured slightly lower standard factor loadings. These were the following: As part of Corporate Entrepreneurship: Rewards and reinforcement (RE), item RE2 measured 0.350 at its lowest and 0.358 at its highest, organisational boundaries (OB), item OB3 measured 0.498 at its lowest and 0.499 at its highest, and OB4 measured 0.441 at its lowest and 0.445 at its highest. OB3 is considered borderline and acceptable at 0.498. As part of entrepreneurial orientation: autonomy (A), item A5 measured 0.432 at its lowest and 0.434 at its highest. Innovativeness (I) item I5 measured 0.443 at its lowest and 0.444 at its highest, and competitive aggressiveness (C), C4, measured 0.450 at its lowest and 0.451 at its highest.

These elements indicate a work environment that may be uncommon for a compliance department. Item RE2 states that the supervisor will increase job responsibilities if the performance on the job is good. The respondents may not have answered this statement consistently, and not everyone may have recognised the connection between performing well and receiving additional responsibilities. Item OB4 states that standard operating procedures or practices have always been followed in the past three months to execute significant tasks. Considering that Compliance Officers manage risks and are sometimes required to provide advice and interpret legislation and regulations, this question was answered inconsistently, as standard operating procedures are not always followed; however, the policies and procedures laid down regarding regulations are imperative.

Similarly, item A5 specifies that the same work methods or steps must rarely be followed while performing major tasks day by day. Banks and compliance departments operate within a highly regulated environment, and whilst there is some room for interpretation by specialists, the same work methods or steps should still be followed when adhering to

policies and procedures. This statement was also not answered consistently. Item I5 states that over the past few years, changes in the department's processes, services, and product lines have been quite dramatic. There may have been a difference of opinion on this specific question. Some respondents may have interpreted the word "dramatic" differently, although changes are evident in the banking sector overall. Item C4 specifies that the department knows when it is in danger of acting overly aggressively. The banking sector has a general risk aversion, and compliance departments will be careful not to act excessively aggressively. However, the standardised factor loadings of the items were still considered acceptable according to Stevens (cited by Field, 2013:681), where standardised factor loadings of greater than 0.298 can be accepted in samples larger than 300.

Furthermore, the time availability item TA2, as part of corporate entrepreneurship, was measured borderline at 0.498 within the concrete learning processes model of Garvin *et al.* (2008:112-113) and was regarded as acceptable.

The following four compliance training success factor items measured slightly lower standardised factor loadings than the threshold of 0.5: learner reaction, SR2 as part of Kirkpatrick's compliance training success model (1996:55-56), measured at 0.389. This item states that the learner's reaction to compliance training is completed anonymously. Although this item is part of the success factors of the classical author Kirkpatrick (1996:55), some learner reactions are currently not being collected on compliance training, which is a deficiency that needs to be addressed. It may also be that the respondents adopt an inconsistent approach towards collecting anonymous learner reactions. This standardised factor loading was still accepted as per Stevens (cited by Field, 2013:681), where standardised factor loadings of greater than 0.298 can be accepted in samples larger than 300. Planning compliance training (SEFFB), as part of the effectiveness of compliance programmes (Health Care Compliance Association, 2017:24-27), SEFFB7 measured borderline at 0.495 and was considered acceptable. Compliance Training Success Factors (STSFD0), according to Dixon and Overton (2017:38), item STSFDO1 and item STSFDO13 measured borderline at 0.476 and 0.488, respectively, and were considered adequate. The STSFDO1 item stipulates that the training completion rate is evaluated where there is no assessment, and the reasoning for the low loading may be that most mandatory compliance training courses have an assessment component as part of the training to determine whether learning took place.

The item STSFDO13 specifies that contractors and third parties are trained in compliance, which may reflect a weakness, or it may be that contracts have been signed with contractors and third parties that will ensure that training occurs.

With the automation of processes within compliance departments, Compliance Officers have free time to provide informed judgment to businesses in an advisory capacity and spend time on innovations. Furthermore, the training evaluation methodologies within the compliance industry in South Africa may not reflect those of other longer-established disciplines such as law and finance. As such, processes for evaluation measures of compliance training such as completion rate, catering for special needs learners, and training contractors and third parties may not be as well established.

Convergent validity was further assessed when the extracted average variance (AVE) exceeded a threshold greater than 0.5 for the model (Baharum *et al.*, 2023:1). When looking at the results of the 10 SEM models, the AVE measurements that fell below the 0.5 threshold complied with the confirmatory factor analysis, except for management support, which was measured at a borderline of 0.495 and is regarded acceptable. Implementation of compliance training as part of the Department of Health and Human Services (Health Care Compliance Association, 2017:24-27) measured at a borderline of 0.447, as well as compliance training success factors according to Dixon and Overton (2017;38), measuring at 0.449 and the factors that make training stick by Katz (2014:66) measured at 0.494 and are all considered borderline and acceptable. SEM is a composite of factor analysis and regression analysis (Civelek, 2018:9). Next, the model fit statistics of the 10 SEM models will be discussed.

The model fit indices are considered to justify the SEM model (Civelek, 2018:9). In terms of absolute fit indices reveal how well an a priori model based on the literature study fits the sampling data and demonstrates which proposed model has the best fit (Hooper *et al.*, 2008:53), the following indices were considered: the p-value indicating the significance of the model against a recommended value of less than 0.05 (Zhu, 2016:77), the goodness of fit, which is the test statistic (χ^2) divided by the degrees of freedom, and should be less than 5 (Maqableh *et al.*, 2021:250) and the root mean square error of approximation (RMSEA), which indicates how well the model, with unknown but optimally chosen parameter estimates would fit the population's covariance matrix (Hooper *et al.*,

2008:54) against a recommended value of less than 0.10 for an acceptable fit (Zhao *et al.*, 2022:3).

The 10 SEM models indicated acceptable p-values smaller than 0.001, Goodness of Fit measures smaller than 5, and RMSEA smaller than 0.10 as part of absolute fit indices.

In terms of incremental fit indices, the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI) were considered (Hooper *et al.*, 2008:55) with a recommended value of 0.9. All ten models measured the CFI and TLI slightly below 0.9. The CFI assumes that all latent variables are not correlated and compares the sample covariance matrix with this null model. Ferdinand (cited by Anggriani *et al.*, 2020:66-67) views a CFI and TLI as a marginal but seemingly acceptable fit when the values are greater than or equal to 0.8 but smaller than 0.9. These values have previously been used in research (Kim *et al.*, 2016:4). Furthermore, these are only two measures of the model's overall fit, and all ten models were deemed fit.

7.3.4 Mediation effect

The research study evaluated the mediating role of entrepreneurial orientation in the relationship between corporate entrepreneurship and the various success factors of compliance training. The following were observed in the 10 SEM models.

Only one model indicated partial mediation of entrepreneurial orientation in the relationship between corporate entrepreneurship and compliance training success, according to Kirkpatrick (1996:55-56). Therefore, corporate entrepreneurship causes entrepreneurial orientation that positively impacts the success of compliance training. The results revealed a significant direct effect of corporate entrepreneurship on compliance training success, according to Kirkpatrick (1996:55-56), as well as a significant indirect effect through the mediator entrepreneurial orientation. Entrepreneurial orientation measured a variance accounted for of 58% in the relationship between corporate entrepreneurship and compliance training success, which means the level of mediation variance accounted for is between 20-80% and is, therefore, regarded as partial mediation (Ali *et al.*, 2022:10, Ali & Park, 2016:1674). The type of partial mediation is a complementary partial mediation, where the direct effect and indirect effects are both significant and point in the same (positive or negative) direction, in this instance being a positive effect (Timothy, 2022:4). The p-value of the direct relationship is measured at

0.082, which is close to the 0.05 threshold and much lower when compared to the other p-values of the other nine models and is therefore accepted as significant.

P-values alone cannot be used to accept or reject the null hypothesis. The 0.05 cut-off level is arbitrary and does not indicate whether the observed differences are clinically significant (Pitak-Arnnop *et al.*, 2010:357). It is often misleading to accept or reject the null hypothesis based on a statistical significance cut-off based on an arbitrary value such as 0.05, which can lead to the conclusion that a statistically significant result is accurate in some sense (Whitley & Ball, 2002:224). By providing exact p-values, the researcher can make an educated judgement on whether the observed effect is likely to be due to chance, which, when combined with other available evidence, will allow the researcher to draw a more informed conclusion. Using a p-value of 0.05, there is a 5% chance that the null hypothesis is accurate, thus using a p-value of 0.08, there is an 8% chance that the null hypothesis is valid. Therefore, the researcher, when comparing the mediating effect of the Kirkpatrick compliance training success SEM model with the other nine SEM models, believes that it is not a coincidence that this mediation effect model has a much lower p-value than the other models, and as such this model is considered statistically significant.

The other nine models' highest p-value was the Katz model (2014:66), which indicated an indirect effect p-value of 0.782. The other models showed indirect effect p-values as follows, and all these nine models were therefore regarded as not statistically significant, and non-mediation is evident:

- The Phillips (1996:20) and Marcheselli (2019) return in investment model measured an indirect relationship p-value of 0.472.
- The Garvin *et al.* (2008:112-113) supportive learning environment measured an indirect relationship p-value of 0.280.
- The Garvin *et al.* (2008:112-113) concrete learning processes model measured an indirect relationship p-value of 0.272.
- The Garvin *et al.* (2008:112-113) leadership that reinforces the learning model measured an indirect relationship p-value of 0.377.

- The Young (2017:4) extracting business value from the compliance training model measured an indirect relationship p-value of 0.473.
- The Health Care Compliance Association's (2017:24-27) effectiveness of the compliance programmes model measured an indirect relationship p-value of 0.269.
- The Dixon and Overton (2017:38) compliance training success model measured an indirect relationship p-value of 0.229.
- The Rogers (2022:2-11) holistic compliance communication programme model measured an indirect relationship p-value of 0.443.

The type of non-mediation for the nine SEM models above is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and success factors of compliance training for the nine models is significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

From a mediation perspective, the following hypothesis is therefore **accepted**:

H¹¹. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and compliance training success, according to Kirkpatrick.

It was noted at the beginning of Chapter 6 that the citation of the authors of the compliance training success models will not be repeated during the discussion of the empirical results, and the authors' surnames are included in the model's name.

The following hypotheses are therefore **rejected**:

H¹². Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and return on investment, according to Phillips and Marcheselli.

H¹³. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and a supportive learning environment, according to Garvin.

H¹⁴. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and concrete learning processes, according to Garvin.

H¹⁵. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and leadership that reinforces learning, according to Garvin.

H¹⁶. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and extracting business value from compliance training, according to Young.

H¹⁷. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and the effectiveness of compliance programmes, according to the Health Care Compliance Association.

H¹⁸. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and compliance training success factors, according to Dixon and Overton.

H¹⁹. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and a holistic compliance communication programme, according to Rogers.

H²⁰. Entrepreneurial orientation positively mediates the relationship between corporate entrepreneurship and factors that make training stick, according to Katz.

Therefore, corporate entrepreneurship causes entrepreneurial orientation, positively affecting compliance training success, according to Kirkpatrick (1996:55-56). The question beckons as to why the other training success factors reflected direct-only non-mediation when compared to the partial mediation of the compliance training success, according to Kirkpatrick.

The Kirkpatrick (1996:55-56) compliance training success factors have been used for decades, and Don Kirkpatrick is seen as the father of the four levels of training evaluation (Site Staff, 2009). Of all the training success models, this model is known to more Compliance Officers than the others, and some components are probably being implemented.

Structures may be in place within the compliance departments of South African banks to support corporate entrepreneurship. However, corporate entrepreneurship appears not to translate into or cause entrepreneurial behaviour. The reason may be that within the

compliance departments of South African banks, which are regulated by wide-ranging primary and secondary or subordinate legislation (South African Reserve Bank, 2020), there are limits as to the autonomy being allowed and selecting their methods to do their jobs or making decisions without approval procedures. Also, in terms of innovation and proactiveness, these behaviours must be considered within the constraints of regulatory requirements, and the banking sector is historically risk-averse (Coetzee, 2019:146); therefore, competitive aggressiveness and risk-taking may be subdued.

The following section will consider the direct relationships between corporate entrepreneurship and entrepreneurial orientation.

7.3.5 Direct relationships between corporate entrepreneurship and entrepreneurial orientation

The SEM paths are reflected in Chapter 6. The positive relationship between corporate entrepreneurship and entrepreneurial orientation is evident in the positive regression coefficient measuring 0.84. In the model of concrete learning processes, a regression coefficient of 0.83 is reflected, most probably due to rounding.

Standardised regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome (entrepreneurial orientation) in a standardised form (Field, 2018:1008). Thus, the change in entrepreneurial orientation is indicated based on one standard deviation change in corporate entrepreneurship. A strong positive relationship is reflected between corporate entrepreneurship and entrepreneurial orientation, with a regression coefficient of 0.84, which coincides with the research theory that entrepreneurial orientation is a subset of corporate entrepreneurship (Kuratko & Morris, 2018:50).

The following section will consider the direct relationships between corporate entrepreneurship and the various success factors of compliance training.

7.3.6 The direct relationship between entrepreneurial orientation and success factors of compliance training

The SEM paths are reflected in Chapter 6. Although not part of the secondary objectives of this study, entrepreneurial orientation measured a positive relationship concerning return on investment, according to Phillips (1996:20) and Marcheselli (2019), as well as

regarding extracting business value from compliance training, according to Young (2017:4).

Therefore, the more entrepreneurial orientation is enhanced in the compliance departments of South African banks, the higher the performance concerning the return on investment and the extraction of business value from the compliance training measures.

7.3.7 Direct relationships between corporate entrepreneurship and success factors of compliance training (various models)

It has already been mentioned that with the Kirkpatrick training success factors model, a positive complementary partial mediation effect was observed with entrepreneurial orientation. The type of non-mediation with the other nine SEM models is that of a direct-only non-mediation (Hair *et al.*, 2021:142), meaning that the direct effect between corporate entrepreneurship and the various compliance training success factors of the nine other models was significant. However, the indirect effect through the mediator, entrepreneurial orientation, is not significant.

The direct relationship between corporate entrepreneurship and the various success factors of compliance training is summarised in Table 7.2.

Table 7.2: Direct relationships between corporate entrepreneurship and the various success factor models of compliance training

Compliance Training Success Factor	Regression coefficient between corporate entrepreneurship and compliance training success
Compliance training success - Kirkpatrick	0.25
Return on investment - Phillips and Marcheselli	0.39
Supportive learning environment - Garvin <i>et al.</i>	1.00
Concrete learning processes - Garvin <i>et al.</i>	0.92
Leadership that reinforces learning - Garvin <i>et al.</i>	0.90
Extracting business value from compliance training - Young	0.62
Effectiveness of compliance programmes - Health Care Compliance Association	0.79
Compliance training success - Dixon and Overton	0.78
Holistic compliance communication programme - Rogers	0.69

Compliance Training Success Factor	Regression coefficient between corporate entrepreneurship and compliance training success
Factors that make training stick - Katz	0.70

Table 7.2 reflects the standard regression coefficients for the various compliance training success models. Standardised regression coefficients indicate the strength of the relationship between a given predictor (corporate entrepreneurship) and an outcome (compliance training success) in a standardised form (Field, 2018:1008). Thus, the change in compliance training success is indicated based on a standard deviation change in corporate entrepreneurship. All positive relationships can be observed between corporate entrepreneurship and the various training success factor models, with the weakest positive relationship being with the compliance training success factors, according to Kirkpatrick, measuring a regression coefficient of 0.25, followed by the return on investment model of 0.39. All other regression coefficients have measured relatively strong regression correlations above 0.6, with the highest being a supportive learning environment at 1.00, which indicates a strong relationship. Therefore, the more employees within the compliance departments of South African banks are allowed and supported to display and enter corporate entrepreneurship activities, the more significant the positive impact on compliance training success, although within the constraints of the regulatory landscape.

Therefore, the following hypotheses have been **accepted**:

H¹. There is a positive relationship between corporate entrepreneurship and compliance training success, according to Kirkpatrick.

H². There is a positive relationship between corporate entrepreneurship and return on investment, according to Phillips and Marcheselli.

H³. There is a positive relationship between corporate entrepreneurship and a supportive learning environment, according to Garvin *et al.*

H⁴. There is a positive relationship between corporate entrepreneurship and concrete learning processes, according to Garvin *et al.*

H⁵. There is a positive relationship between corporate entrepreneurship and leadership that reinforces learning, according to Garvin *et al.*

H⁶. There is a positive relationship between corporate entrepreneurship and extracting business value from compliance training, according to Young.

H⁷. There is a positive relationship between corporate entrepreneurship and the effectiveness of compliance programmes, according to the Health Care Compliance Association.

H⁸. There is a positive relationship between corporate entrepreneurship and compliance training success factors, according to Dixon and Overton.

H⁹. There is a positive relationship between corporate entrepreneurship and a holistic compliance communication programme, according to Rogers.

H¹⁰. There is a positive relationship between corporate entrepreneurship and factors that make training stick, according to Katz.

7.3.8 Total responses of all question items per scale

Descriptive analysis included the total responses to all the question items per scale for corporate entrepreneurship, entrepreneurial orientation, and the ten different models to evaluate the effectiveness of compliance training.

Only 31.21% of the respondents agreed and strongly agreed with the statements measuring the return on investment by Phillips (1996:20) and Marcheselli (2019). Most compliance departments within South African banks are not using this specific measure of the effectiveness of compliance training. There may be several reasons, including the mandatory nature of compliance training, the complexity of calculating the return on investment, or simply a lack of awareness.

Approximately half of the respondents agreed and strongly agreed with the statements measuring entrepreneurial orientation (55.06%) and compliance training success factors, according to Kirkpatrick (1996:55-56) (53.48%). These indicators are present to some degree within the compliance departments of South African banks.

The majority of respondents agreed and strongly agreed to the statements measuring the following: corporate entrepreneurship (63.23%), a supportive learning environment (63.73%) according to Garvin *et al.* (2008:112-113), concrete learning processes (72.11%) according to Garvin *et al.* (2008:112-113), leadership that reinforces learning (74.25%) according to Garvin *et al.* (2008:112-113), extracting business value from compliance training (69.52%) according to Young (2017:4), effectiveness of compliance programmes (79.21%) according to Health Care Compliance Association (2017:24-27), compliance training success factors (72.69%) according to Dixon and Overton (2017:38), a holistic compliance communication programme (73.26%) by Rogers (2022:2-11) and factors that make training stick (58.50%) by Katz (2014:66). According to statistics, some structures support corporate entrepreneurship, and these success factors are implemented by more than half of the respondents.

7.4 CONFIRMATION OF UNDERLYING THEORIES

The empirical study confirms the underlying theories that supported the conceptual model. It is shown in Table 7.3 how the various underlying theories on which this study is based have been substantiated.

Table 7.3: Confirmation of underlying theories

Theory	Confirmed through the empirical study
Schumpeter's theory of innovation, entrepreneurship, and economic development (1934).	Schumpeter viewed entrepreneur in the broader sense of the word to include everyone who performs the function for which the concept has been defined and thus to include employees of an organisation. The entrepreneurial framework can be performed by a series of actions, following Schumpeter's theory, including finding a new way to conduct and organise business (Ungureanu, 2020:404), which may be considered part of domain redefinition, and thus a dimension of corporate entrepreneurship (Castriotta <i>et al.</i>, 2021:2823). This empirical study's instrument used to measure corporate entrepreneurship proved valid and reliable. Research quality is evaluated using the concepts of reliability and validity (Middleton, 2023). The concepts of reliability and validity refer to the accuracy of a method, technique, or test. A measure's reliability is determined by consistency (the ability to reproduce the results under the same conditions every time). The validity of a measure refers to the accuracy of its results (whether they reflect the intended outcome of measuring what it was supposed to). According to Schumpeter's theory of innovation, entrepreneurship, and economic development (1934), entrepreneurs may also be employees of organisations, as is the case with Compliance Officers within the banking sector, where corporate entrepreneurship was studied, and the success factors of training were positively correlated with corporate entrepreneurship. Furthermore, just over half of the respondents (55.06%) and most (63.23%) agreed and strongly agreed with the statements measuring entrepreneurial orientation and corporate entrepreneurship, respectively. Statistics indicate that entrepreneurial behaviour is present

Theory	Confirmed through the empirical study
	and that the environment within compliance departments within South African banks is conducive to corporate entrepreneurship. Furthermore, Compliance Officers contribute to economic development by protecting the banks' operating licenses. Therefore, Schumpeter's theory of innovation, entrepreneurship, and economic development (1934) has been confirmed in this empirical study.
The theory of the resource-based view of entrepreneurial orientation (Barney, 1991:99).	The resource-based view of Barney (1991:99) opines entrepreneurial orientation as a resource of the organisation that increases performance. Entrepreneurial orientation is also a construct of corporate entrepreneurship (Kuratko & Morris, 2018:50), and therefore, the theory that corporate entrepreneurship increases performance was investigated, looking at compliance training success. Seeing that entrepreneurial orientation is a subset of corporate entrepreneurship (Kuratko & Morris, 2018:50), which was also tested, the causal link of corporate entrepreneurship to entrepreneurial orientation was tested, and therefore, the impact of entrepreneurial orientation on performance through corporate entrepreneurship was tested. Thus, entrepreneurial orientation was assessed as a mediating variable in the relationship. The theory of the resource-based view of Barney (1991:99) was confirmed with all 10 SEM models reflecting positive relationships of corporate entrepreneurship on compliance training success and entrepreneurial orientation impacting compliance training success in a positive mediating capacity on the training success model by Kirkpatrick (1996:55-56). A strong positive relationship was observed between corporate entrepreneurship and entrepreneurial orientation. Therefore, entrepreneurial orientation as a subset of corporate entrepreneurship has been confirmed (Kuratko & Morris, 2018:50). Although not part of the primary or secondary objectives of this study, entrepreneurial orientation also showed a direct positive relationship with the training success models of return on investment (Phillips, 1996:20) and Marcheselli (2019) as well as with the extraction of business value from the compliance model by Young (2017:4). Consequently, the theory on the resource-based view of entrepreneurial orientation (Barney, 1991:99) has been confirmed in this research study, as positive relationships were observed between corporate entrepreneurship and compliance training success and between entrepreneurial orientation and some compliance training success models.
Reinforcement management theory by Skinner (Abiola <i>et al.</i>, 2023:37).	The reinforcement management theory by Skinner (Abiola <i>et al.</i>, 2023:37) centres around the importance of managers reinforcing the behaviour they want to see or instituting negative consequences to stop undesirable behaviour. Positive reinforcement is more effective than reprimanding to adapt and maintain desired behaviour. As part of the compliance training success models, leadership that reinforces learning has been identified as a model by Garvin <i>et al.</i> (2008:112-113), as well as part of the model by Young (2017:4) that placed a focus on knowledge, skills, behaviours, and decisions that embed lasting behaviour change as part of the extracting business value from compliance training. The Garvin <i>et al.</i> (2008:112-113) model subscribes to leaders encouraging multiple points of view, providing time and resources for identifying problems and challenges, acknowledging their limitations concerning knowledge, information, or expertise, listening attentively and asking probing questions. Young (2017:4) believes that within compliance training, a connection or emotional feeling should be created with the content, such as outlining the consequences of wrong or appropriate behaviour. There should also be time for reflective observation around the content and the correct behaviour to be displayed. Time should be built for active experimentation using scenarios where learners must decide what action to take based on content and context. Microlearning should be used to reinforce learning. A

Theory	Confirmed through the empirical study
	safe learning environment should be established where positivity, optimism, safety, and certainty are displayed. These compliance training success factors and items measured adequate standardised factor loadings and average variance extracted measures and are considered valid and reliable factors and items measuring compliance training success. Furthermore, most of the respondents (63.73%) agreed and strongly agreed to the statements measuring a supportive learning environment by Garvin <i>et al.</i> (2008:112-113) and most of the respondents (69.52%) agreed and strongly agreed to the statements measuring the extraction of business value from compliance training by Young (2017:4), which both indicate that these compliance evaluation measures are used within compliance departments of South African banks. Therefore, the reinforcement management theory of Skinner (Abiola <i>et al.</i>, 2023:37) is confirmed and applied in this research study.
Social learning theory by Vygotsky (Khushk <i>et al.</i>, 2022:41-42).	According to the social learning theory by Vygotsky (Khushk <i>et al.</i>, 2022:41-42), through the lens of connectivism, contemporary learning takes place in a digital environment through the exchange of skills, viewpoints, and experiences through network connections. Learning occurs through social platforms, such as Yammer groups, where learners can connect with experts in the field to help solve problems. This theory aligns with Young (2017:4), specifying that learning should provide high-impact learning experiences using social, workplace and media-rich digital learning. These compliance training success factors include items such as focusing on digital technologies, gamification, simulations in complex role-based learning, augmented and virtual reality, collaboration platforms such as SAP Jam to ask questions from peers and connect to experts, using discussion forums, with tips and Wiki pages, and 30-day challenges for at most 10 minutes a day to build new habits. These compliance training success factors and items measured adequate standardised factor loadings and average variance extracted measures and are considered valid and reliable factors and items measuring compliance training success. Furthermore, the majority (69.52%) of the respondents agreed and strongly agreed with the statements measuring the extraction of business value from compliance (Young, 2017:4), indicating that these compliance training evaluation measures are being used within the compliance departments of South African banks. Therefore, the social learning theory by Vygotsky (Khushk <i>et al.</i>, 2022:41-42) is confirmed and applied in this research study.
Experiential learning cycle theory by Kolb (Kolb & Kolb, 2028:8).	The experiential learning cycle by Kolb (Kolb & Kolb, 2018:8) has four stages: concrete experience, reflective observation, abstract conceptualisation, and active experimentation. Learners engage in an experience to learn, then analyse their experiences based on their observations, apply what they have learned to explain and justify their experiences, and then actively experiment to apply what they have learned in future situations (Kolb & Kolb, 2018:30). The experiential learning cycle is iterative. In the training success model by Young (2017:10-11), referring to knowledge, skills, behaviours, and decisions that embed a lasting behaviour change, a specific reference is made to the experiential learning cycle. Also, as part of creating a supportive learning environment by Garvin <i>et al.</i> (2008:112-113), a reference is made to time for reflection that aligns with the experiential learning cycle. These compliance training success factors and items measured adequate standardised factor loadings and average variance extracted measures and are considered valid and reliable factors and items measuring compliance training success.

Theory	Confirmed through the empirical study
	Furthermore, most respondents (63.73%) agreed and strongly agreed with the statements measuring a supportive learning environment by Garvin <i>et al.</i> (2008:112-113). Most of the respondents (69.52%) agreed and strongly agreed with the statements measuring the extracting business value from compliance training by Young (2017:4), which both indicate that these compliance evaluation measures are used within compliance departments of South African banks. Therefore, the experiential learning cycle by Kolb (Kolb & Kolb 2018:8) is confirmed and applied in this research study.
Adult learning theory by Knowles (O'Neill, 2023).	The adult learning theory by Knowles (O'Neill, 2023) postulates that adults learn differently from children. Adults need to participate in their learning and have control over what, when, and how they learn. Adults learn more effectively when they can draw on past experiences. Memorising facts and information should not be part of how adults learn. The best way to absorb information is for adults to solve problems and use reasoning. Adults must immediately practice what they have learned in the workplace, and the content must be relevant. Young (2017:4) proposed that compliance learning should be embedded in role-based pathways that are individually relevant. The case studies used should be relevant and meaningful. There is a direct alignment with adult learning theory. These compliance training success factors and items measured adequate standardised factor loadings and average variance extracted measures and are considered valid and reliable factors and items measuring compliance training success. Furthermore, the majority (69.52%) of the respondents agreed and strongly agreed with the statements measuring the extraction of business value from compliance (Young, 2017:4), indicating that these compliance training evaluation measures are being used within compliance departments of South African banks. Therefore, the adult learning theory of Knowles (O'Neill, 2023) is confirmed and applied in this research study.
Sensory theory by Laird (Bachhav, 2022:12).	Laird postulated that 75% of knowledge is obtained by seeing, 13% by hearing, and 12% by odour, taste, and touch. Thus, most of the knowledge is gained through seeing, then through hearing, and then through touch, smell, and taste (Bachhav, 2022:12). It is essential that the senses are stimulated to make learning effective. Young (2017:4) postulated that multiple senses must be engaged with compliance training under the factor of high-impact learner experiences using social, workplace, and media-rich digital learning, which aligns with the sensory theory by Laird (Bachhav, 2022:12). This factor and the item measured adequate standardised factor loadings and average variance extracted measures and are considered valid and reliable factors and items measuring compliance training success. Furthermore, the majority (69.52%) of the respondents agreed and strongly agreed with the statements measuring the extraction of business value from compliance (Young, 2017:4), indicating that these compliance training evaluation measures are being used within the compliance departments of South African banks. The sensory theory of Laird (Bachhav, 2022:12) is therefore confirmed and applied in this research study.

In the next section, recommendations will be proposed.

7.5 RECOMMENDATIONS

Based on empirical evidence that corporate entrepreneurship has a positive impact on compliance training success within South African banks, that entrepreneurial orientation

positively mediates the relationship between corporate entrepreneurship and training success according to Kirkpatrick (1996:55-56), and that entrepreneurial orientation positively impacts return on investment according to Phillips (1996:20) and Marcheselli (2019), as well as extracting business value measures according to Young (2017:4), the following recommendations are made.

7.5.1 Recommendations for management and leaders of compliance departments in South African banks

Corporate entrepreneurship is where entrepreneurial mindsets are nurtured and supported so innovative activities can be carried out (Kuratko, Hornsby & McKelvie, 2021:132). Lumpkin & Pidduck (2021:18) indicate that the multidimensional approach of entrepreneurial orientation comprises five dimensions (autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness) that contribute to the formation of entrepreneurial orientations that may vary depending on the environment and organisational context. Against this backdrop, the following recommendations are made to management and leaders within compliance departments of South African banks.

Managers and leaders of compliance departments within the banking sector should create an environment and structures that support and encourage innovative thinking and proactiveness and allow autonomy within the constraints of the regulatory landscape and mandate of compliance departments. RegTech could assist Compliance Officers to focus on decision-making and complex regulatory issues where their expertise is valued. They could spend time implementing their innovations within the department or assessing risks related to innovation within the banking sector. Managers and leaders should be considered experts in innovation, understanding the implications and possible compliance risks associated with innovations. Managers and leaders should also receive training on the innovation process and provide ongoing employee support. Awareness and clarity should also be created around what is expected of Compliance Officers so that they know the volume, quality, and procedural aspects of work required. Within the innovation process, some projects are deemed to fail, and compliance departments must take cognisance of this fact within the regulatory landscape and the organisation's risk appetite. It is essential to fail forward and foster a safe culture of risk-taking in the workplace where learning occurs to avoid repeating the same mistakes (Childs, 2019). Appropriate rewards and recognition of outstanding work are also essential, and this

could be supplemented with special innovation-related incentives within risk appetite and regulatory requirements for Compliance Officers, where Compliance Officers can proactively identify innovations to implement and compete for budget against other Compliance Officers to implement, with appropriate reward systems in place. There is often a perception that internal compliance processes are static, complex, and time-consuming; however, if intelligently implemented, the compliance department can play a crucial role in promoting, for example, data-driven innovation effectively and in compliance with regulatory requirements (Neubert & Berlin, 2022).

Furthermore, in assessing the compliance risk of innovative ideas within business areas in South African banks, Compliance Officers can participate early in the innovation process, together with other functional expertise, to find ways to make innovation possible whilst ensuring regulatory requirements are still met, but at the same time ensuring the bank is competitive in the marketplace possibly with a first mover advantage. First-movers could achieve high switching costs and brand recognition (Isaacson *et al.*, 2022), taking the example of central bank digital currency. If switching to a competitor is costly for a customer, the first provider to acquire a customer will benefit. Additionally, a first mover can establish brand loyalty in some cases.

The empirical results show that not all Compliance Officers have a detailed understanding of the compliance training evaluation measures and how they are implemented. Therefore, it is recommended that Compliance Officers be trained on compliance training evaluation measures. For this purpose, the quality assurance framework on compliance training success may be used as specified in Table 7.10.

It is also noted that there is an alignment between the constructs of corporate entrepreneurship, entrepreneurial orientation, and the success factors of compliance training. In corporate entrepreneurship, management support aligns with a supportive learning environment and leadership that reinforces learning (Garvin *et al.*, 2008:112-113), contributing to a learning organisation. Regarding risk-taking, innovativeness and proactiveness as part of entrepreneurial orientation, there is an alignment to openness to new ideas as part of a supportive learning environment and experimentation with new ways of working as part of concrete learning processes by Garvin *et al.* (2008:112-113). Time for reflection as part of a supportive learning environment aligns well with time availability as part of corporate entrepreneurship. By implementing these compliance

training success factors, the compliance department would also increase corporate entrepreneurship and entrepreneurial orientation. These concepts will be further unpacked in Section 7.6.8 when discussing the compliance training success framework.

Recommendations to managers and leaders of compliance departments within South African banks will now be discussed with a focus on how these outcomes will be attained by focusing on the tasks needed to accomplish them in the action plan for management and leaders of compliance departments in South African banks, depicted in Table 7.4.

Table 7.4: An action plan for management and leaders of compliance departments within South African banks

Outcome	Suggested focus areas and implementation steps	Suggested responsible areas and roles
Create the right environment and structures that support and encourage corporate entrepreneurship and entrepreneurial orientation within the constraints of the regulatory landscape and the compliance mandate.	- Managers and leaders should consider innovative and proactive thinking, ideas, and behaviour and how these could be incorporated within the work processes of their specific compliance area, with cognisance of regulatory requirements and the mandate and remit of the area. Acceptable and unacceptable behaviours must be clarified. Acceptable behaviours should be encouraged, for example, by incorporating a specific innovative or proactive category in the recognition campaigns of the area. - Acceptable behaviours can also be incorporated into the required behavioural competencies within the performance management contracts, as well as for recruitment requirements. - Awareness could be created for acceptable behaviours through microlearning, such as short video snippets sent to the different compliance areas, illustrating the required behaviour and potential value created through these behaviours.	Chief Compliance Officer. Leaders and Managers. People and Culture Consultants.
Explore and implement RegTech to free up time to spend on one's innovations or assess compliance risk in the bank regarding innovations.	- An integrated approach should be taken to consider the application of RegTech within the compliance area. It is recommended that a programme of work be commissioned on a project basis to assess the various opportunities to use and implement automation, machine learning, augmented and virtual reality, and predictive analytics. - A prioritisation process should occur to match the need, urgency, and value-add (efficiencies created) with budgets. Compliance Officers can even compete for budgets to have their innovations approved and accepted to be implemented. - Business cases for prioritised RegTech projects should be completed, taken through an approval process, and implemented accordingly.	Information technology heads. Project areas. Heads of compliance areas. Compliance Officers.

Outcome	Suggested focus areas and implementation steps	Suggested responsible areas and roles
	The efficiencies created by implementing RegTech projects should be included in governance and other reporting. They could consist of saving time for Compliance Officers that can be spent driving more innovations within the compliance department or assessing the compliance requirements of innovative products and processes within the bank as part of the new product and process forums.	
Upskill all Compliance Officers with the compliance training evaluation model adopted within the bank.	- All Compliance Officers should receive in-depth training on the compliance training evaluation models adopted within the bank. - Compliance Officers usually act as subject matter experts and should understand how compliance training is evaluated and the roles and responsibilities.	Heads of compliance areas. Managers and leaders. Compliance Officers. Learning and development practitioners.
Make managers and leaders experts in the innovation process.	- Managers and leaders should attend training on the stages in the innovation process, from ideation, innovation, and incubation to implementation. Training should include innovative behaviour and how to cultivate this behaviour in teams. Innovative behaviour should align with acceptable behaviours as identified up front, aligned with the group's regulatory requirements and risk appetite. - Broader training on the types of innovation prevalent in the banking sector is critical for managers, leaders, and the compliance team involved in providing advice, training, monitoring, and reporting. An in-depth understanding of the different types of innovation in the banking sector (FinTech), such as blockchain, open banking, data and analytics, and banking as a service, to name but a few, will be beneficial for Compliance Officers. A deep understanding will allow compliance employees to assess compliance sufficiently. An innovation hub is associated with such innovations and helps find ways to bring new products and processes to the market, enabling businesses and ensuring a competitive advantage. Finding a way to make business happen instead of just declining innovations that may appear highly risky is critical. Training in the innovation process will help create understanding and awareness.	Managers and leaders within compliance departments. People and culture partners. Training providers. Compliance employees.
Create clarity in terms of what is expected in the work environment.	- Job descriptions and duty lists should include details about what is expected in the workplace. - Managers should clarify the volume, quality, and minimal expected procedural processes required to attain stretch goals during the performance contracting process. Compliance employees should know what is expected in the work environment.	People and culture partners. Managers and leaders. Compliance employees.

Outcome	Suggested focus areas and implementation steps	Suggested responsible areas and roles
Encourage work autonomy and not micromanage employees.	Within the set parameters of what compliance employees must do, they should have discretion about how the job is done. Compliance employees must not be micro-managed but can try innovative ideas to achieve goals within the minimum requirements. There should be an understanding of what may be changed and innovated (parameters).	Managers and leaders. Compliance employees.
Ensure there is sufficient time for tasks in the workplace to get the work done and reflect and spend on innovations.	Managers and leaders should also ensure that there is enough time to meet the goals as set out in the performance contracts and beyond that to have time to reflect on how better the work could be done in terms of innovations that may be implemented. Employees should be open to raising time restrictions with their line leaders, and this could be a discussion point in the performance contracting phase.	Managers and leaders. Compliance employees.
Ensure compliance stakeholders participate early in the innovation process with other functional experts.	- During the review sessions of new products and services, Compliance Officers should be included from the beginning of the design process to assess the compliance risk. - Banks are recommended to start an innovation hub if they do not already have one, focusing on creating a first-mover advantage. An innovation hub is a step before signing on to new products and services. An innovation hub is a physical location that bridges the gap between innovators, researchers, and creators, enabling ideas to be nurtured and developed into products and services that transform industries. Compliance Officers must form part of the innovation hub to assess compliance risk and find ways to get innovations to the market whilst considering the regulatory requirements. - For the organisation, the innovation process must be crafted, and awareness must be created among all players in the role about their responsibilities in the innovation process. - Failure should be built into the innovation process with the view of failing forward and learning from failures so that mistakes are not repeated. The innovation hub should be a safe space where risks may be taken, and learned from mistakes.	Product and services owners. Innovation department head. Compliance Officers.
Align rewards and recognition with innovation-related incentives within the bank's risk appetite and regulatory requirements for Compliance Officers.	- Special innovation-related incentives can be created in which rewards and recognition are introduced for successful innovations introduced into the market. - Rewards and recognition should also include the acceptable innovative and proactive behaviour that is rewarded.	Managers and leaders. People and Culture partners.

7.5.2 Recommendations for compliance departments of South African banks

Against the setting of high costs and difficulty in showing value-add of compliance training, it is recommended that compliance departments regularly conduct research into best practices and benchmarking the department on innovative and proactive developments as part of corporate entrepreneurship.

Furthermore, the compliance training success framework designed and developed in this study can be used to evaluate the success of compliance training, show the value-add of training solutions, and justify the costs. The success framework for compliance training can also be used during the design and development process of compliance training solutions, building these factors upfront and increasing the opportunity for success. The compliance training success framework can be used within the broader learning and development industry.

In addition to the recommendation to managers and leaders within compliance departments already outlined in Table 7.4, the recommendations to compliance departments will now be discussed with a focus on how these outcomes will be achieved, focusing on the tasks needed to accomplish them in the action plan for compliance departments depicted in Table 7.5.

Table 7.5: Action plan for compliance departments of South African banks

Outcome	Suggested focus areas and implementation steps	Suggested responsible areas and roles
Substantiate compliance costs and value-add of the department.	- Research and benchmarking are critical to stay on top of the latest developments and trends in the banking sector. Compliance departments can implement action plans to control or maintain specific cost items by benchmarking compliance costs globally and locally. Furthermore, knowing the details of the cost components will provide details as to where an analysis should be conducted to prove value-add to banks of the compliance department. - Furthermore, training compliance employees on the evaluation models for compliance training success will assist in the budget discussions.	Strategic enablement or research-related areas within compliance departments. Learning and development.
Measuring and providing a dashboard of value of innovations implemented and supported.	Benchmarking innovations, specifically, is also a good idea. For example, industry standards or best practices concerning innovation regarding RegTech in the banking sector would provide valuable data and information. Specific competitors can be compared with information available in the	Managers and leaders. Head of Innovation.

Outcome	Suggested focus areas and implementation steps	Suggested responsible areas and roles
	public domain. Compliance departments outside the banking sector can also be compared regarding publicly available information. Benchmarking the specific compliance department against its past performance on innovations implemented itself or supported and implemented within the broader bank can also be used to show progress and measure value-add against innovative and proactive objectives. Value measurements could be in quantitative or qualitative formats.	
Showing value-add of compliance training.	It would be beneficial to use the compliance training success framework developed and proposed in this research study to calculate the value-add of compliance training and to play this back at various forums within the bank. Compliance training costs could be high, taking direct and indirect costs into account, and having a tool ready to prove value-added can assist in making the compliance department a competitive advantage. Refer to the compliance training success framework in Section 7.6.8 and the quality assurance framework for compliance training in Table 7.10. A training standard document may be adopted, incorporating the compliance training success and quality assurance frameworks.	Compliance employees responsible for compliance training or learning and development areas responsible for designing, developing, and implementing compliance training.

7.5.3 Recommendations for South African banks

Innovation is essential for banks, and compliance departments must play an important role in this process. Although Silicon Valley's "move fast and break things" philosophy does not work in the highly regulated banking sector, banks should still strive to bring innovations to market promptly (Meinert, 2019:37). South African banks can consider building corporate entrepreneurship and entrepreneurial orientation characteristics into their culture, to positively reinforce entrepreneurial behaviour into the culture and ethos around how things are done around here. Empirical research in this study has shown that in the compliance departments of South African banks, this may lead to increased success in compliance training. Therefore, it is not just crucial for Compliance departments to be entrepreneurial and strive to enhance an entrepreneurial business environment, but this should be permeated throughout the organisation and, thus, the banking sector in South Africa.

Policymakers within individual South African banks can consider incorporating some entrepreneurial characteristics into the bank's conduct regime. Entrepreneurial

behaviours may be built into the bank's capability framework to build future skills for the banking sector.

The recommendations to South African banks will now be discussed with a focus on how these results will be achieved by concentrating on the tasks needed to achieve them in the South African banks' action plan, depicted in Table 7.6.

Table 7.6: Action Plan for South African Banks

Outcome	Suggested focus areas and implementation steps	Suggested responsible areas and roles
Build corporate entrepreneurship and entrepreneurial orientation characteristics into the banks' culture and positively reinforce entrepreneurial behaviour into the culture and ethos around how things are done in the bank.	• Banks should build appropriate characteristics, processes and behaviours of entrepreneurial and corporate orientation into the standard operating procedures of the various bank business units. Heads of business units should be involved in this process, which may be driven by the culture domain within the people and culture area of the bank. • The right environment and structures must be built in each business unit to support the application of corporate entrepreneurship and entrepreneurial orientation in the work environment. A review of standard operating procedures is necessary. People and culture may drive this process within business units with direction from the culture area. • Entrepreneurial orientation behaviours should be selected for implementation that aligns with the bank's strategy and is purposefully built into the cultural behaviours expected of employees. • Senior executives can support the behaviours from the top by leading by example and with the words they use in their messaging to employees and the marketing messaging within the organisation. • Employees within the banking sector should be trained on the right behaviours to display, making them relevant to the roles they fulfil in the organisation. • The required behaviours should also be built into the bank's performance management programme. • The bank's reward and recognition programmes should display the required entrepreneurial behaviour.	Culture head. People and Culture. Business Unit heads.
Incorporate entrepreneurial characteristics into the conduct regime of the bank.	• The innovative and proactive behaviours required should be built into the conduct regime within the bank. • Feedback on the successes of implementing these behaviours can be tracked through conducting governance reporting at various levels.	Policymakers on conduct within the bank.

Outcome	Suggested focus areas and implementation steps	Suggested responsible areas and roles
Build entrepreneurial behaviours into the bank's capability framework to broadly build future skills for the banking sector.	- The broader entrepreneurial behaviours identified by the bank and aligned to the strategy should be built into the bank's capability framework. - Specific training programmes should be launched by learning and development in consultation with the relative business units to build these skills among employees and line leaders who will monitor and track the correct application of the skills.	Learning and development partners. Business unit heads.
Explore and implement the required FinTech-related products and services within the bank to nurture innovation and proactiveness.	- Innovation centres should be established at various levels within the bank to drive the innovation cycle from ideation, innovation, and incubation to implementation. Innovation hubs will create dedicated physical structures to consider and drive innovative products and services within the bank (UNDP, 2023). - The construction or acquisition of technology, applications and software that makes life easier for client and business customers could be the focus within the banking sector.	Innovation area. Business unit heads.

7.5.4 Recommendations for the People and Culture (Human Capital) industry within South African banks

South African banks' People and Culture (Human Capital) industry could consider building entrepreneurial characteristics and required behaviour into their recruitment processes. This process will ensure that individuals with entrepreneurial skills will be given preference in the hiring process.

As part of the training agenda and to build future skills, learning and development professionals should build curricula focused on entrepreneurial skills for the banking sector and specifically for the compliance department.

Recommendations for the People and Culture (Human Capital) industry will now be discussed, focusing on how these outcomes will be achieved by concentrating on the tasks needed to accomplish them in the People and Culture industry action plan, depicted in Table 7.7.

Table 7.7: Action plan for the People and Culture (Human Capital) industry within SA banks

Outcome	Suggested focus areas and implementation steps	Suggested responsible areas and roles
Increase the calibre of employees recruited within compliance departments.	The entrepreneurial characteristics and required behaviour should be built into the recruitment processes for the banking sector and, specifically, the compliance area. Relevant behavioural and skill assessments can determine whether employees have appropriate knowledge, skills, and aptitude in broader entrepreneurship. Behavioural and skill assessments will ensure that employees' general entrepreneurial aptitude and skill within compliance departments will increase over time.	People and Culture partners.
Increase the entrepreneurial skills of employees within compliance departments.	- Appropriate curricula, learning paths, and upskilling opportunities are built and available for Compliance Officers and employees to increase entrepreneurial skills. - Formal and informal learning should be considered. Therefore, social learning, coaching, and mentoring could help with upskilling. - Line leaders need specific upskilling to enable the application of entrepreneurial skills and reinforcement of behaviours in the workplace.	Learning and development partners. Training suppliers.

7.5.5 Recommendations for industry stakeholders

External bodies such as CISA (Compliance Institute of South Africa) and even the International Federation of Compliance Associations (IFCA) can consider broad entrepreneurial behavioural skills and capabilities as part of a competency and skills framework for professionals within the compliance industry of South African banks.

Two areas need to be looked at: behaving entrepreneurial individually, having the structures, encouragement, and support to be entrepreneurial as an organisation, and how to best deal with evaluating risks associated with entrepreneurial ventures within the constraints of regulatory requirements. For banks' clients, being entrepreneurial (corporate entrepreneurship and entrepreneurial orientation) may be advantageous, as it has been proven in research to increase performance (Ziyae & Sadeghi, 2020:113; Fan *et al.*, 2021:17). Suitable risk taxonomies may be enhanced for entrepreneurial venture clients that exhibit entrepreneurial behaviours to give credit to these behaviours.

Furthermore, the compliance training success framework to evaluate the success of compliance training, showing the value-add of training activities, may be used and

advocated by the Compliance Institute of South Africa and the BANKSETA, both indicating an interest in the framework. Consider incorporating the compliance training success framework into a training standards document that may be made available to the compliance industry. The BANKSETA may also consider supporting the development of entrepreneurial skills within the banking sector.

Recommendations for industry stakeholders will now be discussed with a focus on how these outcomes will be achieved by concentrating on the tasks needed to accomplish them in the action plan for industry stakeholders, depicted in Table 7.8.

Table 7.8: Action plan for industry stakeholders within SA banks

Outcome	Suggested focus areas and implementation steps	Suggested responsible areas and roles
Increase entrepreneurial capabilities within the compliance industry.	- Create and implement a competency and skill framework for professionals within the compliance industry, including entrepreneurial skills. - Facilitate seminars, workshops, and conferences around entrepreneurship, where compliance employees can collaborate with industry specialists.	Compliance Institute of South Africa. International Federation of Compliance Associations.
Enhance risk taxonomies within the compliance industry.	The Compliance Institute of South Africa and the International Federation of Compliance Associations may assist the compliance industry in enhancing risk taxonomies for banks' clients to build entrepreneurial behaviours and consider how this may help businesses succeed and increase performance. These entrepreneurial skills' subsequent influence on the client's risk profile should be considered.	Compliance Institute of South Africa. International Federation of Compliance Associations.
Increase the assessment of compliance training applied within the compliance industry.	- The compliance training success framework can be advocated by role players such as the Compliance Institute of South Africa and the BANKSETA to increase the number of compliance training evaluations implemented within the compliance industry. This framework may also be considered when hiring training providers to conduct compliance training within the industry. - The compliance training success framework can be incorporated into a training standards document that can be made available to the compliance industry through stakeholders such as the Compliance Institute of South Africa and BAKSETA, which can increase the quality of compliance training within South Africa.	Compliance Institute of South Africa. BANKSETA.

7.5.6 Banking regulators in South Africa

There is a dichotomy between innovation and safety. The protection concept aims to be achieved by enacting regulations establishing a risk aversion culture and a procedural structure. The mindset and culture of entrepreneurship are different (Ward, 2017). The government structure is, in many ways, designed to create a sense of change inertia, reducing the likelihood that a malignant individual or philosophy will be able to take over the future. Innovations like Bitcoin and blockchain must be regulated without stifling innovation and competition.

Against this backdrop, regulators in South Africa, namely the Financial Sector Conduct Authority (FSCA) and Prudential Authority, may look at designing a framework that may be used within financial services' governance structures to guide further what is acceptable conduct behaviour, taking cognisance of corporate entrepreneurship and entrepreneurial orientation behaviour within the constraints of the regulatory landscape. Furthermore, the compliance training success framework may be used to evaluate the success of compliance training within South African banks to show the value added of training solutions across banks.

Recommendations for the banking regulators in South Africa will now be discussed with a focus on how these outcomes will be achieved by concentrating on the tasks needed to achieve them in the action plan for the regulators in South Africa, depicted in Table 7.9.

Table 7.9: Action plan for the banking regulators in South Africa

Outcome	Suggested focus areas and implementation steps	Suggested responsible areas and roles
Guide and manage acceptable conduct in banks, supporting entrepreneurial behaviour within the constraints of the regulatory landscape.	A framework may be designed that will assist regulators to guide and manage acceptable conduct behaviour of banks, considering broader entrepreneurial skills required whilst adhering to regulatory requirements.	Financial Sector Conduct Authority. Prudential Authority.
Measure the success of compliance training within banks.	- Regulators can use the success framework for compliance training to encourage banks to allow the assessment and value addition of compliance training. - Items in the compliance training success framework may be used as a bank monitoring tool.	Financial Sector Conduct Authority. Prudential Authority.

7.6 CONTRIBUTIONS OF THE STUDY

The contributions arising from this study are discussed below.

The study's main contribution is the compliance training success framework for South African banks to enhance an entrepreneurial business environment, as shown in Figure 7.1. The compliance training success framework is unpacked and discussed in Section 7.6.8, and the accompanying quality assurance framework for compliance training is reflected in Table 7.9.

The contributions of this study are conferred next, namely the theoretical contributions, the practical contributions, the contributions from a banking sector perspective, contributions from a People and Culture perspective, contributions from an industry stakeholder perspective, contributions from a South African regulator perspective, and lastly, the design and development of a compliance training success framework for South African banks to enhance an entrepreneurial business environment perspective and the quality assurance framework for compliance training.

7.6.1 Theoretical contributions

This research study has supplemented the theoretical knowledge on corporate entrepreneurship and entrepreneurial orientation, specifically within an industry not traditionally synonymous with entrepreneurship, such as the South African banking sector and compliance departments.

Furthermore, this research study has also contributed to theoretical knowledge on evaluating training and training success, with specific applicability to the compliance industry.

7.6.2 Practical contributions for managers and leaders of compliance departments within South African banks and compliance departments of South African banks

Section 7.5.1 recommends to the management and leaders of compliance departments within the South African banking sector to enhance the entrepreneurial spirit within compliance departments. The importance of reinforcing the right entrepreneurial behaviours within compliance departments is paramount. Compliance departments

should take the time to implement the right RegTech solutions aligned with the bank strategy, which should realise efficiencies that can free up time for compliance employees to focus on enhanced processes and innovative products. Furthermore, the importance of knowledge and application of the innovation process must be considered. Compliance costs should be benchmarked, and a plan should be developed to use the compliance training success framework proposed in this study.

Table 7.5 provides an action plan for the areas and roles suggested responsible, highlighting the outcomes to be achieved with the proposed focus areas and implementation steps. The outcomes include to:

- Create the right environment and structures that support and encourage corporate entrepreneurship and entrepreneurial orientation within the constraints of the regulatory landscape and the compliance mandate.
- Explore and implement RegTech to free up time to spend on one's innovations or assess compliance risk in the bank regarding innovations.
- Upskill all Compliance Officers with the compliance training evaluation model adopted within the bank.
- Make managers and leaders experts in the innovation process.
- Create clarity in terms of what is expected in the work environment.
- Encourage work autonomy and not micromanage employees.
- Ensure there is sufficient time for tasks in the workplace to get the work done and reflect and spend on innovations.
- Ensure compliance stakeholders participate early in the innovation process with other functional experts.
- Align rewards and recognition with innovation-related incentives within the bank's risk appetite and regulatory requirements for Compliance Officers.

Section 7.5.2 recommends compliance departments within the South African banking sector to improve entrepreneurship. Table 7.6 provides an action plan for the suggested

areas and responsibilities, highlighting the outcomes to be achieved with the proposed focus areas and implementation steps. The outcomes include to:

- Substantiate compliance costs and value-add of the department.
- Show the value-add of compliance training.

7.6.3 South African banks

Section 7.5.3 recommends that South African banks integrate corporate entrepreneurship and entrepreneurial orientation characteristics into their culture and successfully use the success framework of compliance training to prove the effectiveness of compliance training and validate training costs. The importance of including entrepreneurial behaviours in the bank's conduct regime and clarifying acceptable behaviours within the constraints of regulatory requirements and the bank's risk appetite should be considered. The function of innovation centres and processes should be established. The importance of innovation hubs focused on the implication and value of Fintech is highlighted. Table 7.7 provides an action plan that highlights the outcomes to be achieved with suggested focus areas and implementation steps. The outcomes include to:

- Build corporate entrepreneurship and entrepreneurial orientation characteristics into the banks' culture and positively reinforce entrepreneurial behaviour into the culture and ethos around how things are done in the bank.
- Incorporate entrepreneurial characteristics into the conduct regime of the bank.
- Build entrepreneurial behaviours into the bank's capability framework to broadly build future skills for the banking sector.
- Explore and implement the required FinTech-related products and services within the bank to nurture innovation and proactiveness.

7.6.4 The People and Culture industry in South African banks

Section 7.5.4 provides guidelines to the People and Culture industry to build entrepreneurial behavioural components into the recruitment process and, as part of future skills, consider these behaviours to make their employees' future fit. The criticality of either recruiting (thus buying) or building entrepreneurial skills is highlighted. Table 7.8

provides an action plan highlighting outcomes to be attained with suggested focus areas and implementation steps. The outcomes include to:

- Increase the calibre of employees recruited within compliance departments.
- Increase the entrepreneurial skills of employees within compliance departments.

7.6.5 Industry stakeholders, such as the Compliance Institute of South Africa, the International Federation of Compliance Associations and the BANKSETA

Practical suggestions are made to the Compliance Institute of South Africa, the International Federation of Compliance Associations and the BANKSETA of South Africa in Section 7.5.5.

The broad entrepreneurial behavioural capabilities as part of the competency and skills framework for professionals within the compliance industry were considered to rethink the compliance risk evaluation associated with entrepreneurial ventures. It should be contemplated to enhance risk taxonomies with due consideration of the entrepreneurial behaviours of clients and the value of such behaviours, including the impact on compliance risk, seeing that entrepreneurial behaviour increases performance.

Table 7.9 provides an action plan highlighting outcomes to be attained with suggested focus areas and implementation steps. The outcomes include to:

- Increase entrepreneurial capabilities within the compliance industry.
- Enhance risk taxonomies within the compliance industry.
- Increase the assessment of compliance training applied within the compliance industry.

7.6.6 Banking regulators in South Africa

Bank regulators in South Africa can use the compliance training success framework to broaden the interest from training completion to the other compliance training success factors. An improved view of the value of training could be measured amongst banks and monitored by regulators. The apparent dichotomy of the mindset and culture of entrepreneurship and the regulatory environment must be considered and overcome.

Recommendations made to banking regulators are covered in Section 7.5.6. Table 7.9 provides an action plan that highlights the outcomes to be achieved with suggested focus areas and implementation. The outcomes include to:

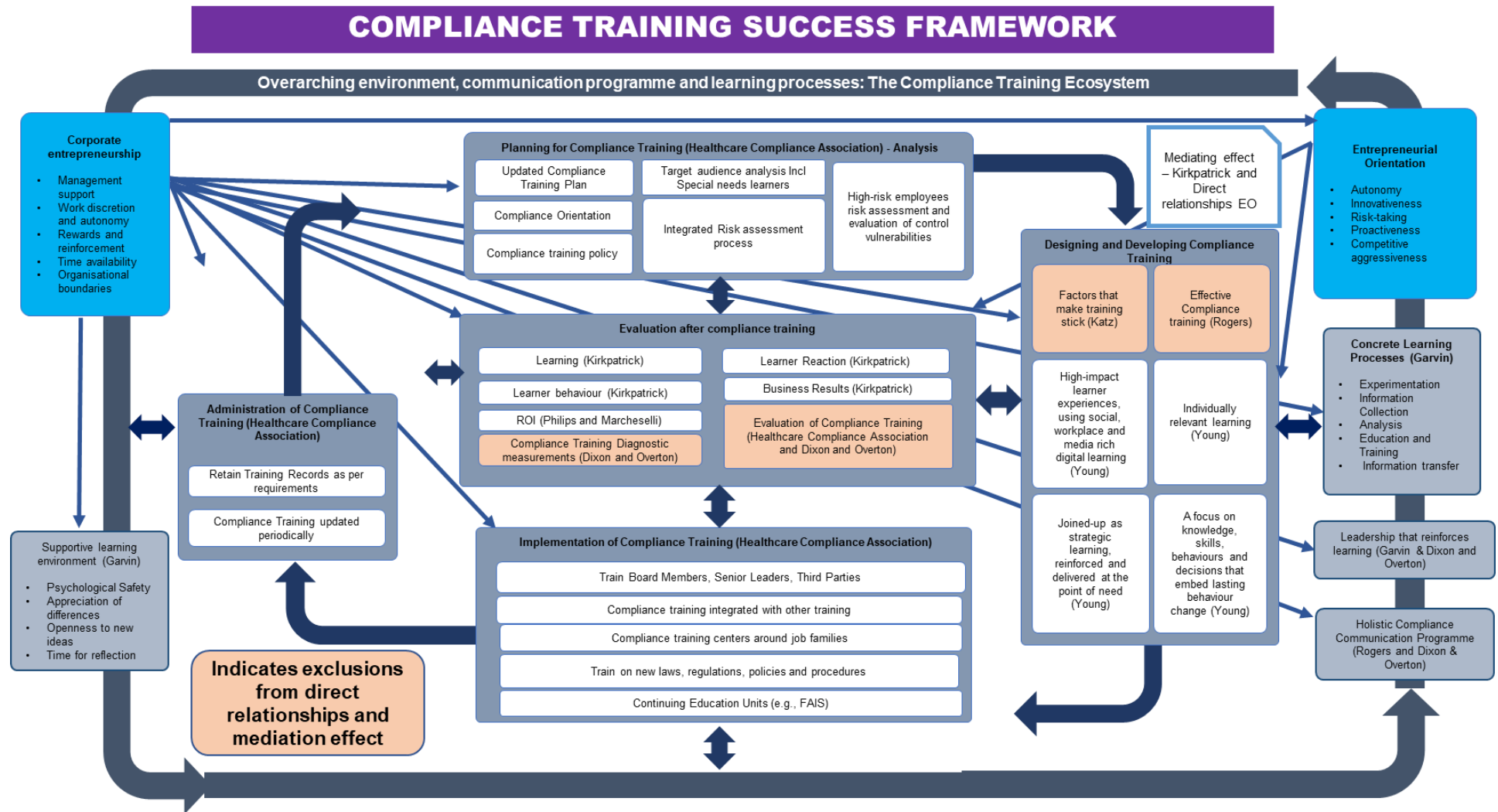
- guide and manage acceptable conduct in banks, supporting entrepreneurial behaviour within the constraints of the regulatory landscape.
- measure the success of compliance training within banks.

7.6.7 The compliance training success framework

The following compliance training success framework was derived from a literature review and empirically tested through a research questionnaire within the South African banking sector, specifically within compliance departments.

The framework can be seen in Figure 7.1.

Figure 7.1: Compliance training success framework



Source: Researcher's design

Figure 7.1 shows the various success factors of compliance training, as obtained from the literature and validated by the empirical study, as having a positive relationship with corporate entrepreneurship. Therefore, as corporate entrepreneurship increases, so will the various success factors of compliance training. Furthermore, entrepreneurial orientation has proven to have a complementary mediating effect in the relationship of the training success factors, per Kirkpatrick (1996:55-56), through corporate entrepreneurship. Although not an objective of this study, the structural equation modelling (SEM) pathway depicted a positive relationship between entrepreneurial orientation and return on investment based on Phillips (1996:20) and Marcheselli (2019) and extracting business value from compliance training by Young (2017:4). The various compliance training success factors have been placed chronologically, similar to the well-known ADDIE (Analysis, Design, Development, Implement, and Evaluation) instructional design process within the Learning and Development field (Afia & Laili, 2023:58).

The literature study where the compliance training success factors were extracted from and used to include in and develop the survey questionnaire is depicted below.

- The classical author Kirkpatrick's evaluation model and training success factors (1996:55-56).
- The Phillips (1996:20) and Marcheselli (2019) models on measuring return on investment.
- The learning organisation criteria, as hypothesised by Garvin *et al.* (2008:112-113), consists of a supportive learning environment, concrete learning processes and leadership that reinforces learning.
- Extracting business value from compliance training measures (Young, 2017:4), which consists of individually relevant learning, high-impact learner experiences using social, workplace and media-rich digital learning, a focus on knowledge, skills, behaviours and decisions that embed lasting behaviour change and joined-up as strategic learning, reinforced and delivered at the point of need.
- Effectiveness of compliance programs, including training and awareness factors as recognised by the Department of Health and Human Services, Office of Inspector

General (Health Care Compliance Association, 2017:24-27), which has been divided into planning for compliance training, implementation of compliance training and evaluation and administration after compliance training.

- Compliance training success factors as identified by Dixon and Overton (2017:38).
- The desired characteristics of a holistic compliance communication programme including training by Rogers (2022:2-11).
- Factors making training stick by Katz (2014:66).

These success factors for compliance training were maintained according to the literature study to assess the statistical relevance within the compliance departments of South African banks and the relationships mentioned above.

The compliance training success framework will be discussed and explained in more detail.

7.6.7.1 Overarching environment, communication programme and learning processes: The compliance training ecosystem

Within the compliance training ecosystem, the following clusters can be noted:

- The extent to which compliance departments within the banking sector allow, encourage, and support corporate entrepreneurship and entrepreneurial orientation.
- A supportive learning environment.
- Concrete learning processes are in place.
- Leadership that reinforces learning.
- Having a holistic compliance communication programme in place.

7.6.7.1.1 The extent to which compliance departments within the banking sector encourage and support corporate entrepreneurship and entrepreneurial orientation

Suggestions were already made on how to enhance, encourage, and support corporate entrepreneurship and entrepreneurial orientation within South African banks' compliance departments for managers and leaders within compliance departments in Section 7.5.1, compliance departments within South African banks in Section 7.5.2, South African banks in Section 7.5.3 and People and Culture departments within South African banks in Section 7.5.4. Tables 7.4-7.7 contain the action plans with suggested focus areas, implementation steps, and suggested responsible areas and roles that can help South African banks. Table 7.10 provides a quality assurance checklist with a specific section to enhance corporate entrepreneurship and entrepreneurial orientation within the compliance department.

An increase in corporate entrepreneurship has been empirically demonstrated to increase compliance training success and the mediating role that entrepreneurial orientation shows in the relationship between corporate entrepreneurship and compliance training success, as per Kirkpatrick (1996:55-56).

7.6.7.1.2 A supportive learning environment

As part of a supportive learning environment, the importance of creating psychological safety, appreciating differences, openness to new ideas, and time for reflection is critical. Each of these factors will be discussed in more detail below.

Psychological safety

Psychological safety refers to employees who do not fear speaking up. Employees need to speak up about what is on their minds, feel safe to ask naïve questions, feel comfortable admitting mistakes, and be eager to share information about what does and does not work. A speak-up culture should be encouraged, and employees should not feel afraid to contribute to discussions. Feeling psychologically safe will assist in the learning process, where individuals are not afraid to ask questions, share information freely, and learn from each other.

Appreciation of differences

Appreciation of differences considers that learning occurs when people become aware of opposing ideas and respect and recognise the value of these ideas. Employees should feel comfortable disagreeing with peers and authority figures, feel safe to present minority viewpoints, differences of opinion should be appreciated and welcomed, and employees should be open to alternative ways of getting work done.

Openness to new ideas

The openness to new ideas implies that learning is not simply about correcting mistakes and solving problems but also about crafting novel approaches. New ideas should be encouraged and valued, and employees should take risks and explore the unknown and untested. An environment open to ideas unlocks learning to enable what is possible and stimulates a curious mind.

Time for reflection

Learners need to reflect. When learners are too busy or overwhelmed by deadlines and scheduling pressures, their ability to think analytically and creatively may be compromised. Employees need to find time to review and reflect on how work is going. Reflection time thus aids in the learning process.

7.6.7.1.3 Concrete learning processes being in place

Concrete learning processes refer to experimentation with new ways of working. Information is systematically collected, analysed, shared, or transferred in the organisation, and education and training are offered and valued.

Experimentation with new ways of working

Formal processes must be established for conducting and evaluating experiments and new ideas. Prototypes and simulations must be frequently used when trying out new ideas. With formal processes in place, it will be much easier to try experiments and prototypes, which is part of the learning process.

Information is systematically collected

The organisation should have formal processes to generate, collect, interpret, and disseminate information so that learning can take place by using this information. The organisation should also use information to regularly compare its performance with competitors and best-in-class industry organisations to improve their performance.

Active analysis occurs in the workplace

Active analysis should be part of workplace processes. The organisation should engage in productive conflict, debate during discussions, and actively analyse what transpired. The assumptions that underlie these assumptions must be identified and discussed. Learning will emerge from actively examining what has and has not worked.

Education and training are offered and valued in the organisation

Employees should perceive that they receive adequate training in the organisation. Resources should be available in the organisation to ensure education and training happen. Time should also be available for education and training activities. Learners must trust the value they will receive from education and training within the organisation.

Information is shared in the organisation

New knowledge in the organisation should be quickly and accurately communicated to key decision-makers. Information should be regularly shared with networks of experts in the organisation who need to evaluate and use the information. Learning takes place with information that needs to be readily available and shared in the organisation.

7.6.7.1.4 Leadership that reinforces learning

The learner must experience a similar experience after the learning event. Leadership should reinforce what is learned. Leaders should ask probing questions, listen attentively, and acknowledge their knowledge, information, or expertise limitations. Multiple points of view should be encouraged, and time and resources should be provided to identify problems and challenges. Leaders and local champions must support and motivate learners.

7.6.7.1.5 Having a holistic compliance communication programme in place

As part of the compliance training plan, there should be a clear communication plan in place with stakeholders. Furthermore, compliance communication should be ongoing, reinforcing critical messages with regularity. There should be a direct alignment between what is trained and communicated. Alignment needs to happen regarding the content, objective, intent, and tone of the messaging. Communication experiences should be low bandwidth and nonintrusive interactions that last no more than 30 seconds to four minutes and may easily be incorporated into the workday. Engaging multimedia communications anticipating an audience comprising multiple learning styles should be used. The participation and commitment of the learners should be tracked, for example, when they commit to a policy in the form of a pledge or confirmation that they will adhere to the procedures. Declarations and commitments are recommended, such as declarations that policies have been read and commitments to follow them. Real-time messaging should be used, sometimes within minutes of identifying a risk.

7.6.7.2 Planning for compliance training – analysis

The inside of the compliance training success framework will now be discussed, starting with the planning for compliance training, which may be considered the analysis phase of the ADDIE model.

An updated compliance training plan should be in place, specifying the training to be completed by the different target audiences, the topics covered, the frequency of training, and the deployment method. It should also be considered whether the training should be generic, mandatory, or role-specific. A precursor to the compliance training plan should be a thorough analysis of the learning need. The assessment strategy should also be discussed. The compliance training plan should be periodically updated when new legislation and regulations occur.

A detailed target audience analysis takes place. The target audience is identified for each type of compliance risk, such as general, issue-specific, and high risk, in addition to special needs learners, for example, learners with learning or other disabilities or language barriers.

An integrated risk assessment process is used where specific risks identified through the risk assessment process are integrated and flow into compliance training. Compliance training for high-risk employees is based on a formal process for assessing risk and evaluating control vulnerabilities. Following a risk-based approach, higher-risk employees would receive more in-depth specific training than generic mandatory training that provides an overview and general principles. It may also be decided to provide face-to-face training in instances where the content is complex and opportunities for questions need to be provided.

A compliance training policy is established for the organisation, stipulating the requirements of compliance training and education completion, the frequency of completion, consequences of non-compliance, and roles and responsibilities. A formal method also guides new employees to the compliance programme, highlighting their obligations and responsibilities.

7.6.7.3 Designing and developing compliance training

The following considerations should be considered when designing and developing suitable compliance training.

Factors that make training stick include using humour to keep employees engaged. Although compliance training is not funny in and of itself, the humour in compliance training should be aligned with the company culture. Humour should not be forced in training if culture is reserved. Training should include humour in addition to and not as a prerequisite (Larson, 2021). Current news events should be used to engage employees and help retain essential compliance content.

Effective compliance training should be repeated and positively reinforced topics. Compliance training should also be exciting and engaging. The compliance training should highlight the negative social stigma and painful consequences of non-compliance.

Compliance training should be **individually relevant to employees**. Compliance training should be embedded in role-specific training as much as possible to ensure training is based on everyday scenarios. Individually relevant learning, covering work processes employees follow daily, will create a framework where employees can move from known

to unknown and, in such a manner, embed the training. It is essential that compliance training is based on the contextual application of knowledge, skills, behaviour, and judgement, as well as storytelling and focusing on the spirit of understanding and applying the law. Workplace coaching and follow-up exercises are critical to embed training. Individually relevant training means that compliant behaviour may be observed whilst providing excellent customer experiences and business outcomes.

The focus is on **high-impact learner experiences using social, workplace, and media-rich digital learning** where multiple senses are engaged. Gamification and simulations are used to implement complex role-based compliance training. Augmented and virtual reality is part of immersive technologies and collaborative platforms such as Yammer, Jive, Jam, or Facebook Workplace to share content, ask questions from peers, and connect with experts. Discussion forums with scenarios, tips, Wiki pages, and frequently asked questions are used as part of compliance training. Repetition, such as 30-day challenges after compliance training, to use microlearning actions of at most 10 minutes a day over 30 days to form a new habit and drive macro behaviour change.

Focusing on knowledge, skills, behaviours, and decisions that embed lasting behaviour change. Compliance training is designed to create an emotional connection with training, such as highlighting the consequences of wrong behaviour. During training, there is time for reflective observation around the content and the correct behaviour to be displayed, for example, in how scenarios and case studies are designed in formative and summative assessments. During the learning experience, a safe learning environment is created where positivity, optimism, safety, and certainty are experienced.

Compliance training is **joined as strategic learning, reinforced, and delivered at the point of need.** Compliance training is perceived as part of strategic learning and aligns with the overall learning goals of the organisation. Role-based training is designed to ensure compliance training needs are addressed simultaneously with other learning needs. Leadership exhibits and role models the required new behaviour and coaches employees on the necessary behaviour. Employees' knowledge, skills, and behaviours are assessed using, for example, surveillance measures, compliance behaviour, and compliance culture.

7.6.7.4 Implementation of compliance training

The following should be considered when implementing compliance training. Based on knowledge, skill, and behavioural requirements, **board members, senior leaders, and third parties** should be trained on their responsibilities in terms of compliance. Compliance training should also be **integrated into the organisation's other training** – thus, a holistic, integrated approach. The compliance training programme should **centre around job families**, geared towards addressing specific risks based on the employee's role in the organisation. Employees are trained on **new laws, regulations, policies, and procedures** as a bare minimum to satisfy the requirements of the regulators. **For example, continuing education units should be offered as part of compliance education and training in South Africa** to meet the FAIS (Financial Advisory and Intermediary Services) requirements.

7.6.7.5 Administration of compliance training

Training records are retained per requirements (for example, training material, attendee records, deployment method, and post-training results). **Compliance training is updated periodically** based on new policies, procedures, laws, and regulations.

7.6.7.6 Evaluation after compliance training

Evaluation after compliance training consists of various factors and has been placed in the middle of the model, as it constitutes a reiterative process, as indicated by the two-way arrows, and may affect every other item in the ADDIE process. For example, evaluating whether learning took place may result in an improvement, affecting the analysis (planning), design, development, implementation, and evaluation processes. Furthermore, double-headed arrows can also be observed with ecosystem factors, as the ADDIE process can influence the compliance training ecosystem and be influenced by the compliance training ecosystem.

The evaluation process is constituted by the learner reaction, learning, learner behaviour, business results and return on investment. There are also diagnostic measures and other evaluation measures that will be discussed.

The learner reaction assesses the learners' feelings toward the learning event. Few learning professionals obtain learner reactions to electronic learning, although this is important and necessary. The learner reaction is generally obtained by a survey, which should be anonymous and provide space for additional comments by the learners. Reactions to the subject, techniques used in training, and the trainer's performance (in face-to-face or online sessions) are determined. Feedback from the learner's reaction is used to make improvements, such as to the learning material and facilitation style.

Learning is defined as the principles, facts, and techniques that were understood and absorbed by the learners during the training. Learning is usually determined by a formative assessment during the learning process and a summative assessment at the end. The pre and post-assessments assess the amount of learning gained during training. Knowledge, skills, and attitudes may be measured as part of learning. In need, action may be taken if, for example, most learners fail a particular question. The assessment design will be reviewed to establish possible reasons, such as ambiguous questions.

Behaviour refers to on-the-job performance, behaviours, and application of what was learned in the workplace. A self-assessment in the workplace may occur, or an assessment by the supervisor, subordinates, peers, or others thoroughly familiar with the compliance performance of the learner. A pre-assessment is done before training, and a post-training appraisal of on-the-job performance three or more months after the compliance training is undertaken to allow the learner to practice what has been learned. A control group may also assess on-the-job performance against employees who have not yet undergone training.

Business results refer to the improvement of the desired business results, and in the case of compliance training, refers to the compliance risk results that are being identified and measured, such as a reduction in the number of breaches or misconduct. Those variables that may impact the compliance risk results other than training-related should be highlighted. The results of the compliance risk should be measured before and after the compliance training. Enough time should be allowed for on-the-job performance to translate into compliance risk results before compliance risk results are calculated after compliance training.

Return on investment refers to the return on monies spent on compliance training. The effects of training should be isolated from other factors that may have contributed to the calculation of return on investment. Existing data should be used in the return on investment calculation, such as the average time employees complete compliance courses and comments and feedback auditors have provided regarding the organisation's compliance standing. Role-specific training may be measured in terms of reducing training time, increasing productivity, or minimising compliance risk. The monetary return on investment includes calculating financial benefits divided by the cost of compliance training. Nonmonetary benefits should also be included in the return on investment calculation.

Compliance Training Diagnostic Measurements include measuring the compliance training completion rate, where no assessment is conducted, the compliance training pass rate, where an assessment is undertaken, the assessment score percentage obtained for an assessment, the time spent on compliance training, the compliance training delivery time for face-to-face or online training, and the costs associated with compliance training.

The evaluation of compliance training includes generic compliance training evaluation measures, discussed below.

There is an **assessment of whether employees find the compliance training valuable**, sufficient, and relevant to address the requirements of their jobs (also for contractors and third parties), and changes to the training material are made to ensure the relevance and value add of training material. Training should be practical and focus on behaviour change. Here is an alignment between the learner's reaction and behaviour. The use of adaptive learning tools and a variety of content and questions allows learners to focus on their areas of weakness. Performance support tools are used where learning occurs in the workflow as part of the holistic compliance programme. **Policy and compliance failures are evaluated**, and retraining is provided where needed. **Disclosure reports, including whistleblowing lines and details of the interaction with the compliance department**, are tracked to determine the extent to which the compliance material was successful. Specific business indicators are measured that show a change in the behaviour of employees, such as breaches or non-compliance,

reduced compliance risk management, and non-compliance being reported through whistleblowing channels. Here is an alignment with business results, as discussed before.

7.6.8 Quality assurance framework on compliance training success

Based on the compliance training success framework, the following quality assurance framework has been developed and is presented in Table 7.10. In addition to guiding what can be done to improve compliance training success, the quality assurance framework will allow compliance departments to benchmark themselves against the framework to prioritise those items they need to concentrate on first.

Table 7.10: Quality assurance framework on compliance training success

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
Compliance training ecosystem				
An environment that encourages and supports corporate entrepreneurship and entrepreneurial orientation	Leaders within compliance understand and role model the innovation process, which is cascaded down into the compliance area.			Provide training on the innovation process to leaders in compliance.
	New ideas, for example, on compliance training, are supported and tested, even though they may fail.			Create new categories within project plans for new ideas, with weekly focus provided.
	Within the value chain of work, employees can decide how the job is done.			Leaders should focus on "what" and allow freedom on "how"; for example, how training solutions are created and implemented.
	Innovative ideas concerning, for example, compliance training are rewarded.			Create and monitor a specific reward category and incentive for innovation and creativity within the team.
	There is reflection time, for example, within the training value chain, to be creative.			The notion of 'busyness' should be addressed. Employees within the compliance team should build reflection time into their diaries.
	Processes are mapped out; for example, the compliance training processes are mapped out in ADDIE (Analysis, Design, Development, Implement, and Evaluate).			In need, re-evaluate processes. Run workshops to ensure everyone in the team understands the processes.

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
	In compliance, we monitor best practices and identify future needs.			Each team member has the opportunity to research a best practice and how that can be implemented in the team during monthly team meetings.
	Our compliance area is part of a community of practice.			Start a community of practice, for example, a compliance training best practice, combining a focus on technical upskilling and innovative solutions, modes, and media of training.
	Our compliance area is creative and comes up with new solutions.			New solutions should be tracked and evaluated by the team, perhaps through weekly stand-ups (lean methodology) with suggestions for improvements by everyone.
	Our compliance area takes risks and tries out, for example, new training solutions, media, and modes of training.			When new solutions are evaluated, one of the criteria is the risk, and mitigation techniques are used to manage these. The boundary needs to be pushed in terms of novel, new solutions, media and modes of training, for example.
A supportive learning environment (Should be implemented within the whole bank to create a supportive learning environment where learning is supported, and compliance training would specifically be received well to enhance learning overall)	In compliance, employees are unafraid to speak up about what is on their minds and ask naïve questions. Employees feel comfortable admitting mistakes and are eager to share information on what works and does not.			In meetings, a speak-up culture is encouraged. All employees in the compliance area are trained in psychological safety. Leaders attend workshops to brainstorm ideas to cultivate this behaviour within their teams.
	Different and opposing ideas are valued and respected within the compliance training area.			Tolerance for opposing views is built into performance contracts. Intolerant behaviour is pointed out.
	There is an openness in our area to try new ideas.			New ideas and solutions are tracked as part of the project plan.
	Time for reflection is built into our area.			Employees get into the habit of booking time out in the diary to reflect.
Concrete learning processes (Should be	Formal processes are in place to experiment with new ways of working.			Incorporate experimentation processes within the broader processes of the area.

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
implemented within the bank)	Formal processes are in place to generate, collect, interpret, and disseminate information.			Incorporate information processes within the broader processes of the area.
	During discussions, there is productive conflict and discussion about what happened. Underlying assumptions of what can affect critical decisions are identified and discussed.			The analysis behaviour should be incorporated into the desired behaviours as part of the performance management system.
	Employees should feel that they receive adequate training in the organisation.			Adequate resources should be allocated to training, training time allowed, and required training to meet a need should easily be searched for and be able to book on.
	Information is shared in the organisation and communicated to key decision-makers and networks of experts.			Where information is not "need to know" restricted, information should be found quickly and easily within the area using intranet sites, for example.
Leadership that reinforces learning (Should be implemented within the bank)	Back in the workplace, leaders support learning and do not focus on what are sometimes incorrect processes or undesirable behaviours, as entrenched over the years.			Contact should be made with managers, leaders, and learners after learning events to ensure they can practice what they have learned in the workplace.
Having a holistic compliance communication programme in place, which includes compliance training	A holistic compliance communication programme supports compliance training.			Set up a compliance communication programme either with the marketing or compliance departments, and include the following: • Start by developing a communication strategy. • Ongoing communication that reinforces critical messages with regularity. • Communication experiences should use low bandwidth and be nonintrusive, lasting at most between 30 seconds and 4 minutes at a time, easily incorporated into the workday.

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
				• Multimedia applicable to multi-learning styles should be used (visual, auditory, and kinaesthetic).
Having a holistic compliance communication programme in place, which includes compliance training				• Learner participation in communication is tracked. • The student's commitment is tracked in terms of declarations that the policies have been read. • When a critical risk is identified, real-time messaging should be used within minutes, and employees must be advised. • The tone of the communication should not be condescending, and employees should feel that the organisation trusts them to do the right thing.
Analysis of Compliance Training				
Planning for Compliance Training	There is a training plan in place for compliance training.			The compliance training plan includes the following: • Which target audience must do which training, how often, and with which method (rule book for mandatory compliance training, whether generic or role-specific)? • The shelf-life of training material should be reviewed again to ensure it is current. • Topics covered include the outcomes and at which Bloom level this needs to be assessed (Armstrong, 2010). • The compliance plan should be updated at least every year or as legislation and regulations change, and new training is introduced or changed.

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
				- Processes should be plotted out and cover, for example, what happens if an assessment is failed – when and how should retraining happen and when and how should remediation kick in. - The 70%, 20% and 10% approach to learning should be used, where 70% of learning occurs in the workplace through coaching, mentoring, social learning, and performance support tools. 20% of learning occurs from peers, and 10% is spent on formal learning.
	Target audience analysis takes place during planning compliance training.			- The target audience is identified for each training solution by assessing role responsibilities and risk. Types of risk include general, issue-specific and high-risk. - Special needs learners, such as visually impaired learners and learners with learning disabilities, are considered. - Language barriers are overcome. Compliance training should be conducted in the local language where regulations are required. - As part of the formal risk assessment process for high-risk employees, the compliance training risk assessment evaluates the vulnerability of control measures.
	A formal risk assessment process is in place where specific risks identified are integrated into compliance training.			Using the risk assessment process within compliance as input, high-risk employees within core legislation, for example, should receive specific training to address control vulnerabilities. This approach should be process-mapped.
	A formal compliance training policy is in place.			

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
				The compliance training policy should be input into the consequence management process. The compliance training policy should include the requirement of employees to be trained, and even education and training requirements (as for FAIS) and stipulate the frequency of completion. Compensation should also be based on compliance training certifications' successful completion and currency.
	A formal process is in place to guide new employees through the compliance programme.			As part of the formal orientation process, a specific topic should be compliance and their obligations and responsibilities.
Design and Development of Compliance Training				
Designing and developing compliance training	Compliance training is joined up as strategic learning, reinforced and delivered at the point of need.			• Compliance training should be aligned with the organisation's goals, culture, and needs of the employees. • Role-based training is implemented to ensure compliance training needs are addressed with workplace learning needs. • Leaders are taught to role-model the correct behaviour and should coach employees. The right tone from the top is critical. • Knowledge, skills, and behaviours are assessed using, for example, surveillance measures, compliance behaviour, and compliance culture as yardsticks.
	In the design and development process of compliance training, there is a focus on knowledge, skills, behaviours, and decisions that embed lasting behaviour change.			• Employees should know what non-compliance is and how to handle situations of non-compliance. • Pre- and post-assessments should be used to determine what employees knew before

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
				the training and what learning took place. • An emotional connection should be created with the training, such as showing the negative consequences of wrong behaviour. Rational and emotional hooks can be used in training. • Scenarios and case studies are used to show the correct behaviour and decisions made and the consequences of those decisions. • Formative assessments are used during the training, and summative assessments at the end of the training programme. Adaptive learning is used in assessments, where reasons are provided for why multiple-choice questions have been answered incorrectly, and learners receive more content in the learning process on topics where they have responded to the questions incorrectly. • A safe learning environment is created where positivity, optimism, safety, and certainty are experienced, working from what is known to the unknown. • Compliance learning occurs by experiencing a topic, reflecting, thinking, and acting. During the training, the learner should be able to experience all these phases by using, for example, case studies and showing the learner where they have gone wrong.

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
	Compliance training is designed as high-impact learner experiences using social, workplace and media-rich digital learning.			• Multiple senses participate in compliance training. • Gamification is used in the training (media-rich training). • Simulations are used in training to implement complex role-based compliance training. • Augmented and virtual reality are used in the training where relevant as part of immersive technologies. • Collaborative platforms are used, for example, Yammer, to share content, ask questions, and connect with peers and experts. • Discussion forums are designed with, for example, tips, Wikis and frequently asked questions. • Repetition occurs by using 30-day challenges after the training as part of microlearning that lasts a maximum of 10 minutes a day for 30 days to form a new habit that leads to macro behavioural changes.

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
	Compliance training is designed as individually relevant learning.			- Compliance training should be embedded in role-specific training based on everyday scenarios. - Training should be based on the contextual application of knowledge, skills, behaviour and judgement. - Storytelling should be included in compliance training. - There should be a focus on understanding the spirit of the law.
	Effectiveness components are built into the design of compliance training.			- Important topics should be repeated, and the correct behaviour should be positively reinforced. - Training should be exciting and engaging. - The negative social stigma and painful consequences of non-compliance are highlighted in the training.
	Compliance training design builds in factors that make training stick.			- Use current news events as part of compliance training. - Use humour with caution - compliance training is not funny in and of itself.
Implementation of Compliance Training				
Implementation of Compliance Training	We train board members, senior leaders and third parties on compliance responsibilities.			As part of the target audience analysis and risk assessment process, board members, senior leaders and third parties should specifically be included and trained as a potential high-risk category.
	Compliance training is integrated with other learning and development-related content, where appropriate.			Compliance training should be integrated and implemented where it fits into business processes.

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
	Compliance training is implemented by using job families to identify the target audience.			Job families are used to break down, according to roles and responsibilities, what employees should know about compliance, and may be used to implement and allocate the training to a specific user group.
	Compliance training includes content on new laws, regulations, policies, and procedures.			As a bare minimum, compliance training should include the technical components of the legislation, regulation, policies, and procedures.
	Compliance training includes training relevant employees in continuing education units, such as with FAIS.			The following should be considered part of compliance training: certification, regulatory licences, qualifications, and mandatory compliance training to be implemented.
Administration of Compliance Training				
Administration of Compliance Training	Training records are retained as per requirements.			Where the training department has been registered as a training provider with the BANKSETA, the quality assurance period for retaining records should be followed (usually five years). Training records should consist of training material, attendee records, deployment method and post-training results as a minimum or as stipulated in the quality assurance documentation or policies.
	Compliance training is updated periodically.			Based on new policies, procedures, laws and regulations, the compliance training should be updated according to the details in the compliance training plan.

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
Evaluation of Compliance Training				
Evaluation after compliance training	The learner's reaction is obtained after every learning event.			• The learner reaction that assesses the learners' feelings towards the learning event is obtained after every learning event, including electronic learning. • The preferable method to obtain feedback from the learners is through an electronic survey that is anonymous and provides space for additional comments by the learner to jot down further feedback, concerns, or compliments. • The feedback of the learning reaction is used to make improvements, such as to the learning material.
	Learning is measured after the compliance training event and, in some instances, before and after the compliance training event.			• Learning measures the principles, facts and techniques the learners understood and absorbed during the training. • At minimum, a post-learning assessment should occur after the training session. • If the amount of learning needs to be determined, a pre-assessment can be conducted before the training and compared to the post-assessment. During formative multiple-choice assessments, reasons for wrong question selection should be provided, as this is how learning occurs.

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
				The post-assessment after the training is also called a summative assessment. Assessment results are used to improve, for example, ambiguously framed questions.
	Learner behaviour is measured after compliance training, whether learning has led to on-the-job performance and behaviour by the employee (not in all instances, but for specific training events, as agreed up-front as part of the scope of the training in the analysis phase).			- When agreed to determine the learner's behaviour, it is preferred to measure the behaviour before and after the training event and compare the results to determine the change in the learner's behaviour. - The learner can perform a self-assessment, a manager, subordinate, or peer can assess behaviour change, or others that are thoroughly familiar with the compliance performance of the learner. - Enough time should be allowed so the learner has applied to the workplace (three or more months) what has been learned. - A control group may also be used to compare learner behaviour with employees who have not received training.
	Changes in business results are measured before and after the compliance training event (as agreed upfront as part of the scope of the training during the analysis phase)			Business results refer to the improvement of the desired business results. They can refer to compliance risk results being identified and measured (for example, reducing the number of compliance breaches).

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
	Return-on- investment on selected compliance training is measured.			- Return on investment refers to the return on monies spent on compliance training (as a percentage). - The effects of training should be isolated from other factors that may have contributed to the calculation of return on investment. - Existing data should be used, such as the average time employees spend on compliance training and comments and feedback auditors have provided regarding the bank's compliance standing. Regarding role-specific training, a reduction in training time could be measured, increased productivity, or compliance risk minimised being expressed in a monetary value. - Non-monetary benefits should also be included in the return on investment calculation. - The cost of non-compliance can also be calculated as part of the risk mitigated through the training.
	Various diagnostic measures of compliance training are measured after a compliance training event as part of compliance training evaluation.			Measures include the compliance training completion rate, where no assessment is conducted; the compliance training pass rate, where an assessment is undertaken; the assessment score percentage obtained for an assessment; the time spent on compliance training, the compliance training delivery time for face-to-face training sessions, and the costs associated with compliance training.

Focus Area	Detail of focus area	Used Yes	Used No	Recommended enhancements if “no”
Evaluation after compliance training	Generic evaluation measures are calculated as part of the compliance training evaluation.			In addition to the evaluation measures already mentioned, the following have been added: - Assessment banks should have at least three times as many questions as needed during a particular assessment. Comprehensive assessment banks will ensure that when retaking an assessment, the same questions will not be seen, as questions need to be randomised according to the outcomes they address. The same questions will also not be received by the learners or peers every time. - Disclosure reports, including whistleblowing lines and details of the interaction with the compliance department, should be tracked to determine if unnecessary questions posed to the department declined, which may indicate that training has had a positive effect.

7.7 WHAT IS NEW IN THE STUDY

This study empirically assessed corporate entrepreneurship and entrepreneurial orientation as a mediating variable in the relationship with compliance training success within the compliance industry of South African banks using structural equation modelling. The dichotic subject of entrepreneurship within a regulated environment is considered, such as in compliance departments. A positive relationship is evident between corporate entrepreneurship and performance concerning compliance training success, and entrepreneurial orientation mediates this relationship in the Kirkpatrick (1996:55-56) training evaluation model within compliance departments of South African banks.

A compliance training success framework is proposed for South African banks to enhance an entrepreneurial business environment. The compliance training success framework was curated from various training evaluation models researched over time. The compliance training success framework is supplemented with a practical quality assurance framework on compliance training success that will assist banks in evaluating how their compliance training compares to the proposed success factors, including indications of what needs to be done to remedy the situation and enhance an entrepreneurial business environment.

Recommendations are made and included in action plan tables with suggested outcomes, focus areas, implementation steps, and suggested responsible areas and roles. Action plan tables were drafted for the management and leaders of compliance departments within South African banks, compliance departments of South African banks, South African banks, the People and Culture industry of South African banks, and industry stakeholders, including the Compliance Institute of South Africa, the International Federation of Compliance Associations, and the BANKSETA and banking regulators in South Africa.

7.8 ETHICAL AND CONFIDENTIALITY CONSIDERATIONS

This study was conducted following the following ethical and confidentiality considerations.

The North-West University Ethics Committee approved the research, and the clearance number is NWU-01902-22-A4. All participants in the survey questionnaire gave their informed consent. In the online survey, a consent question with all supporting context documentation was made mandatory, and participants were only permitted to proceed with the survey if they provided their informed consent. Furthermore, each bank's compliance department was required to provide informed consent, and the individual bank's formal approval process followed before approaching the Compliance Officers through the respective bank. Where Skills Development Facilitators were used as contact persons in the bank, their consent was also obtained. The informed consent of Skills Development Facilitators is included in Appendix B, the informed consent of the Chief Compliance Officer in Appendix C, and the informed consent of participants in Appendix D.

Furthermore, respondents were not pressured to participate, and their participation was voluntary. In terms of anonymity, the respondents remained anonymous throughout the study, and no email records were ever obtained or kept. No harm was done to any of the respondents to the survey questionnaire. The researcher will share the results upon completion with BANKSETA and the Compliance Institute of South Africa, who both expressed interest in the results.

7.9 LIMITATIONS OF THE STUDY

The scope of this study included the compliance departments of South African banks that agreed to participate. Some banks declined the request to participate in the study to distribute the link of the survey questionnaire to their Compliance Officers through the internal processes of their bank. Some banks did not provide feedback despite follow-ups. This limitation was overcome by expanding and using LinkedIn contacts from compliance departments and sending the link to the survey directly to them. Occasionally, it was challenging to establish that the compliance employees worked in South African banks. Clarification occurred at times with direct messages. The link to the survey was also placed on the researcher's LinkedIn feed, and personal contacts were approached. The Compliance Institute of South Africa also agreed to place the link to the survey on its website and sent a message to its members to encourage them to participate. The context documentation of the survey questionnaire specified that the target audience was Compliance Officers in the banking sector.

The sampling unit is the compliance officer, responsible, among other tasks, for training employees within the bank about their compliance responsibilities. During the research process, it was confirmed that some banks use their learning and development departments to design and develop compliance training, which is also responsible for the evaluation metrics in terms of compliance training success. Some banks have incorporated these employees into the compliance department; others were part of the learning and development departments. To overcome this limitation, the researcher worked closely with the banks to also include the learning and development employees who were responsible for the design, development, implementation, and evaluation of compliance training in the investigation, and they participated in the survey questionnaire. Another limitation arose for banks that used a dedicated learning and development area

not embedded within the compliance department to design and develop their compliance training. Compliance Officers operating in an area with a dedicated learning and development area, responsible for the evaluation of compliance training, may not be au fait with training evaluation practices, which may have made it challenging for them to answer some of the questions in the survey. Since Compliance Officers work closely with the centralised learning and development area, they may have prior knowledge about the training environment. As specified above, this limitation was overcome by including employees responsible for the study's design, development, implementation, and evaluation of compliance training.

As the link to the survey was placed on LinkedIn and the Compliance Institute of South Africa's website, anyone who had access to the link could participate in the survey, which may affect inference. Likewise, CISA members outside the banking sector could have completed the survey, as the link to the survey was placed on the website. To overcome this limitation, in the context of the research questionnaire and embodied in the title of the investigation undertaken, it was specified that the investigation focused on compliance within South African banks. The researcher clarified the sample frame being Compliance Officers within the South African banking sector, with the different banks during the approval processes, and in individual messages when questioned by respondents.

The sampling frame is generally limited to compliance departments within South African banks, and interpretation should be confined to this context. Furthermore, according to the biographic analysis, the education level of compliance employees is higher than in the banking sector in general. Thus, care should be taken to extrapolate the results outside the borders of compliance departments within South African banks.

7.10 CONSIDERATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Several considerations and recommendations are made for future research.

Although relatively young, RegTech is rapidly maturing (Ascent, 2023). RegTech companies are now utilising natural language processing, machine learning, artificial intelligence, blockchain, and other technologies to bring the benefits of digital transformation to the world of regulatory compliance. These advances in regulatory technology free up time in the compliance department through efficiencies to take over

mundane tasks and to enable compliance employees to focus on being entrepreneurial or to assess the risk of entrepreneurial clients. It would be interesting to conduct a longitudinal study over, say, three years within the compliance departments of South African banks to assess whether corporate entrepreneurship and entrepreneurial orientation within the compliance departments in South African banks increase over time, possibly attributable to the extra time to spend on entrepreneurial activities.

The current research study could also be replicated within other regulatory departments within South African banks, such as within the risk or legal departments, and a comparison could be made to the research results and results of the current study.

The FinTech industry is also maturing and entering a period of rapid change (Dietz *et al.*, 2016). These developments in regulatory technology free up time in the banking sector to handle repetitive tasks and may free up banking employees to focus on being entrepreneurial. Conducting a longitudinal study over three years within South African banks is recommended to assess whether corporate entrepreneurship and entrepreneurial orientation within South African banks increase over time, possibly due to the additional time available to spend on entrepreneurial activities.

The development of the compliance training success framework in this study transformed a general learning and development evaluation approach into a compliance-specific framework. It would be beneficial to use the questions in this research study to measure whether the success factors of compliance training would be applicable in the learning and development department of South African banks, beyond compliance departments, providing various training, including technical and leadership training. The compliance training success framework may apply to the broader learning and development community, and it would be valuable if it could be empirically tested.

During this research, it was observed that there is an alignment between the constructs of corporate entrepreneurship, the entrepreneurial orientation, and the success factors of compliance training. Management support in corporate entrepreneurship aligns with a supportive learning environment and leadership that reinforces learning by Garvin *et al.* (2008:112-113), which all form part of creating a learning organisation. Risk-taking, innovativeness, and proactiveness as part of entrepreneurial orientation align with openness to new ideas as part of a supportive learning environment and experimentation

with new ways of working as part of concrete learning processes by Garvin *et al.* (2008:112-113), again part of the creation of a learning organisation. Time for reflection as part of a supportive learning environment (part of creating a learning organisation) aligns well with time availability as part of corporate entrepreneurship. Due to this apparent alignment, it is recommended to conduct a study that views a learning organisation as a mediating (causal) variable in the relationships between corporate entrepreneurship and entrepreneurial orientation and the success of compliance training or training in general.

7.11 REFLECTIONS FROM THE RESEARCHER

The researcher started to contemplate registering for a PhD during Covid 19. Remote work was demanding; however, saving travel time to and from the office provided work and reflection time, giving a fresh perspective on the opportunities within the industry. Innovation, intrapreneurship, and entrepreneurship have been critical drivers in the banking sector for the past few years, and the apparent dichotomy between compliance departments and entrepreneurship was intriguing. There were two parts to the dichotomy: how departments tasked to enable regulatory compliance could be entrepreneurial within the constraints of apparent restrictive laws and regulations and how these departments could facilitate entrepreneurial or novel solutions for clients within the constraints of the regulatory landscape. Evidence that corporate entrepreneurship and entrepreneurial orientation could lead to increased performance within compliance departments would validate what the researcher expected to find. The learning and development industry has not seen a new coalesced learning evaluation framework in quite some time, and a specific compliance training success framework for the compliance industry has been lacking.

The journey was fascinating. The literature review chapters sometimes made the researcher feel like Alice in Wonderland, going from one rabbit hole to another, wondering where it started. The researcher's skill and experience with reading and evaluating journal articles and finding required information quickly in books and online sources increased tremendously during this time. Most learning occurred during the research methodology chapter and with the empirical study, interpreting, and writing the results. The empirical study and recommendations were the most enjoyable sections. Working many hours for

extended periods early in the morning and late at night became the norm, but seeing the sections come together made it all worthwhile.

The compliance training success framework curated evaluation measures in the literature over many years, and the quality assurance framework on compliance training success provides a practical tool that may be used to assess the value of compliance training within the banking sector in South Africa with practical steps to implement.

7.12 SUMMARY AND CONCLUDING REMARKS

This chapter provides a summary and completion of the study. A description of how the research and methodological objectives and research questions were achieved was provided, and how the research problem was addressed. The research problem was addressed by proposing a compliance training success framework to justify costs, evaluate training effectiveness and incorporate entrepreneurship in the environment, increasing competitiveness and performance of compliance training success within compliance departments of South African banks.

In this final chapter, the empirical research results and deductions were summarised, discussed and explained. Furthermore, the process of accepting or rejecting hypotheses was discussed. In addition, the underlying theories were confirmed. Several recommendations were made to a variety of stakeholders. Study contributions were contemplated. There was an overview of what was new in the study and a discussion of ethical and confidentiality considerations. A discussion of the limitations of this study was also provided and how these were dealt, as well as considerations and recommendations for future research. Finally, the researcher's reflections were presented.

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APPENDIX A: RESEARCH SURVEY QUESTIONNAIRE

PROPOSING A COMPLIANCE TRAINING SUCCESS FRAMEWORK FOR SOUTH AFRICAN BANKS TO ENHANCE AN ENTREPRENEURIAL BUSINESS ENVIRONMENT.

Dear respondent,

Thank you for your time and participation in this survey. There is a total of 169 questions. We truly value your feedback.

The need for an innovative, agile, and forward-thinking compliance function may be more urgent than ever. It is therefore inferred that the requirement for an entrepreneurial compliance department may be more urgent than ever. Furthermore, robust compliance can make a business more competitive. Therefore, there is an intensifying dilemma for compliance departments within South African banks to curtail fines, realise a competitive advantage, and display corporate entrepreneurship in order to pursue a sustainable competitive advantage and an increase in performance.

This survey aims to propose a compliance training success framework for South African banks by measuring the corporate entrepreneurship and entrepreneurial orientation in compliance departments within the SA banking sector, as well as the compliance training success factors currently prevalent within South African banks. The relationship between the constructs will also be measured, as well as the mediating role of entrepreneurial orientation on the success of compliance training. Your honest opinion regarding the various statements is valued.

Please note that your participation in this survey is voluntary and should take you approximately 45 minutes to complete. By participating in this survey, you provide implicit and informed consent that the data may be used for the purposes of this research study. No person's identity will be used or exposed during this study, and anonymity will be maintained.

CONTACT DETAILS:

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The following question is mandatory, and a “no” answer will prevent the further completion of the questionnaire.

You hereby consent to continue with the survey questionnaire:

YES	NO

Please complete every statement/question to ensure the validity of this study.

GENERAL INSTRUCTIONS:

Please answer the questions by clicking on the most appropriate option which best describes your opinion about a specific question or statement.

Use the following key to indicate your preference:

Grade	Terms used	Meaning of the scale
1	Totally disagree	Strongly disagree with the statement
2	Disagree	Disagree with the statement
3	Undecided	Unable to decide between disagreement or agreement with the statement
4	Agree	Agree with the statement
5	Strongly agree	Strongly agree with the statement

Statement		Totally disagree	Disagree	Undecided	Agree	Strongly Agree
A1	I have enough autonomy in my job without continual supervision to do my work.	1	2	3	~~4~~	5

SECTION A: CORPORATE ENTREPRENEURSHIP

The purpose of this questionnaire is to determine the corporate entrepreneurship within compliance departments of South African banks. Please read every statement thoroughly and decide how you feel about it before selecting it. Please answer ALL the questions to ensure the reliability of this study.

This section consists of 20 questions. Please indicate which statement best describes your opinion by selecting that option.									
A shortened version of the corporate entrepreneurship assessment instrument initially designed by Hornsby <i>et al.</i> (2002: 264-265), adapted and tested by Strydom (2013:174-177), will be used to measure corporate entrepreneurship.									
1 Totally disagree		2 Disagree		3 Undecided		4 Agree		5 Strongly agree	
MANAGEMENT SUPPORT									
MS1	In our organisation, individual risk-takers are often recognised for their willingness to champion new projects, whether eventually successful or not.				1	2	3	4	5
MS2	People are often encouraged to take calculated risks with new ideas around here.				1	2	3	4	5
MS3	Many top managers have been known for their experience with the innovation process.				1	2	3	4	5
MS4	This organisation supports many small and experimental projects, realising that some will undoubtedly fail.				1	2	3	4	5
WORK DISCRETION / AUTONOMY									
WD1	It is basically my own responsibility to decide how my job gets done.				1	2	3	4	5
WD2	I almost always get to decide what I do in my job.				1	2	3	4	5
WD3	I have the freedom to decide what I do in my job.				1	2	3	4	5
WD4	I have a great deal of autonomy in my job, and I am left on my own to do my own work.				1	2	3	4	5
REWARDS/REINFORCEMENT									
RE1	My manager would inform their boss if my work was outstanding.				1	2	3	4	5
RE2	My supervisor will increase my job responsibilities if I am performing well in my job.				1	2	3	4	5

RE3	My supervisor will give me special recognition if my work performance is especially good.	1	2	3	4	5
RE4	The rewards I receive are dependent upon my work on the job.	1	2	3	4	5
TIME AVAILABILITY						
TA1	I have just the right amount of time and workload to do everything well.	1	2	3	4	5
TA2	I feel that I am always working with time constraints in my job.	1	2	3	4	5
TA3	I always seem to have plenty of time to get everything done.	1	2	3	4	5
TA4	During the past three months, my workload was too heavy to spend time on developing new ideas.	1	2	3	4	5
ORGANISATIONAL BOUNDARIES						
OB1	I clearly know what level of work performance is expected from me in terms of amount, quality and timelines of output.	1	2	3	4	5
OB2	In my job, I have no doubt regarding what is expected of me.	1	2	3	4	5
OB3	There is little uncertainty in my job.	1	2	3	4	5
OB4	In the past three months, I have always followed standard operating procedures or practices to execute my major tasks.	1	2	3	4	5

SECTION B: ENTREPRENEURIAL ORIENTATION

The purpose of this questionnaire is to determine the entrepreneurial orientation within compliance departments of South African banks. Please read every statement thoroughly and decide how you feel about it before selecting it. Please answer ALL the questions to ensure the reliability of this study.

This section consists of 27 questions. Please indicate which statement best describes your opinion by selecting that alternative.									
The questionnaire developed by Lotz and Van der Merwe (2013:31-32) will measure entrepreneurial orientation.									
1 Totally disagree		2 Disagree		3 Undecided		4 Agree		5 Strongly agree	
AUTONOMY									
A1	I have enough autonomy in my job without continual supervision to do my work.				1	2	3	4	5
A2	Our department allows me to be creative and try different methods to do my job.				1	2	3	4	5
A3	Employees in our department are allowed to make decisions without going through elaborate justification and approval procedures.				1	2	3	4	5
A4	Employees in our department are encouraged to manage their own work and have the flexibility to resolve problems.				1	2	3	4	5
A5	I seldom have to follow the same work methods or steps while performing my major tasks from day to day.				1	2	3	4	5
INNOVATIVENESS									
I1	Our department regularly introduces new services/products/processes.				1	2	3	4	5
I2	Our department places a strong emphasis on new and innovative products/services/processes.				1	2	3	4	5
I3	Our department has increased the number of services/products offered during the past two years.				1	2	3	4	5
I4	Our department is continually pursuing new opportunities.				1	2	3	4	5
I5	Over the past few years, changes in our department's processes, services and product lines have been quite dramatic.				1	2	3	4	5
I6	In our department, there is a strong relationship between the number of new ideas generated and the number of new ideas successfully implemented.				1	2	3	4	5
I7	Our department places a strong emphasis on continuous improvement of products/service delivery/processes.				1	2	3	4	5

I8	We have a widely held belief that innovation is an absolute necessity for our department's future.	1	2	3	4	5
I9	Our leaders seek to maximise value from opportunities without constraint to existing models, structures or resources.	1	2	3	4	5
RISK-TAKING						
R1	When confronted with undecided decisions, our department typically adopts a bold posture to maximise the probability of exploiting opportunities.	1	2	3	4	5
R2	In general, our department has a strong inclination towards high-risk projects.	1	2	3	4	5
R3	Owing to the environment, our department believes that bold, wide-ranging acts are necessary to achieve our objectives.	1	2	3	4	5
R4	Employees in our department are often encouraged to take calculated risks concerning new ideas.	1	2	3	4	5
R5	The term 'risk-taker' is considered a positive attribute of employees in our department.	1	2	3	4	5
PROACTIVENESS						
P1	Our department is very often the first to introduce new products/services/processes.	1	2	3	4	5
P2	Our department typically initiates actions that competitors respond to.	1	2	3	4	5
P3	Our department continuously seeks out new products/processes/services.	1	2	3	4	5
P4	Our department continuously monitors market trends and identifies the future needs of our stakeholders.	1	2	3	4	5
COMPETITIVE AGGRESSIVENESS						
C1	In dealing with competitors, our department typically adopts a very competitive 'undo-the-competitor' posture.	1	2	3	4	5
C2	Our department is aggressively and intensely competitive.	1	2	3	4	5
C3	Our department effectively assumes an aggressive posture to combat industry trends that may threaten our survival or competitive position.	1	2	3	4	5
C4	Our department knows when it is in danger of acting overly aggressively (as this could lead to the erosion of our reputation or to retaliation by competitors).	1	2	3	4	5

SECTION C: COMPLIANCE TRAINING SUCCESS FACTORS

The purpose of this questionnaire is to determine how successful compliance training is within South African banks. Please read every statement thoroughly and decide how you feel about it before selecting it. Please answer ALL the questions to ensure the reliability of this study.

This section consists of 122 questions. Please indicate which statement best describes your opinion by selecting that alternative.						
The structured survey questionnaire used in a previous study by Botha (2012:171-175) will be used as a foundation that identified constructs for corporate training by classical writers such as Kirkpatrick (1996:55-56).						
1 Totally disagree	2 Disagree	3 Undecided	4 Agree	5 Strongly agree		
LEARNER REACTION: KIRKPATRICK's first level of evaluation						
Learner reaction is defined as measuring the feelings of learners who attended the training programme. Reactions to the subject, the techniques used in training as well as the performance of the trainer (where appropriate) are determined as part of this level.						
SR1	The learner reaction to all our compliance training is assessed by measuring the feelings of learners toward the learning event.	1	2	3	4	5
SR2	The learner reaction to compliance training is completed anonymously.	1	2	3	4	5
SR3	The learner reaction to compliance training provides space for additional comments for learners to express feelings regarding the learning event.	1	2	3	4	5
SR4	The learner reaction sheet for compliance training is used to make improvements, such as to the course material.	1	2	3	4	5
LEARNING: KIRKPATRICK's second level of evaluation						
Learning is defined as the principles, facts and techniques that were understood and absorbed by the learners during the training.						
SL1	The learning knowledge, skill and/or attitude achieved during each compliance training course is measured.	1	2	3	4	5
SL2	Pre- and post-test assessments are used to measure the learning achieved during compliance training.	1	2	3	4	5
SL3	Feedback from scores on knowledge, skill and/or attitude level, for compliance training achieved, is used to take appropriate action.	1	2	3	4	5
SL4	Feedback and insights are provided during the learning process, such as reasons why questions have been answered incorrectly in the assessments as part of compliance training.	1	2	3	4	5

BEHAVIOUR: KIRKPATRICK's third level of evaluation						
Behaviour refers to the on-the-job behaviours and application in the workplace of what was learned.						
SB1	A systematic appraisal of on-the-job performance before and after a compliance training course is undertaken.	1	2	3	4	5
SB2	On-the-job performance assessment is done by one or more of the following groups: • The person receiving training; • The supervisor, subordinates, peers; and/or • Others thoroughly familiar with the compliance performance of the learner.	1	2	3	4	5
SB3	Post-training appraisal of on-the-job performance, three months or more after the compliance training, is undertaken so that the learner has the opportunity to put into practice what he/she has learned.	1	2	3	4	5
SB4	A control group is used to assess on-the-job performance against employees who did not receive compliance training.	1	2	3	4	5
BUSINESS RESULTS: KIRKPATRICK's fourth level of evaluation						
Business results refer to the improvement of the desired business results.						
SRes1	Compliance risk results are measured as part of compliance training success (such as a reduction in the number of breaches or misconduct).	1	2	3	4	5
SRes2	When determining the compliance risk results of compliance training programmes, those variables that may have an impact on the compliance risk results (other than training-related) are highlighted.	1	2	3	4	5
SRes3	As part of assessing the compliance risk results of compliance training, the results are measured before and after the occurrence of compliance training for comparative purposes.	1	2	3	4	5
SRes4	Enough time is allowed for on-the-job performance to translate into compliance risk results before compliance risk results are measured after compliance training.	1	2	3	4	5
RETURN ON INVESTMENT: PHILLIPS and MARCHESELLI						
The structured survey questionnaire used in a previous study by Botha (2012:171-175) is used as a foundation that identified constructs for corporate training by classical writers such as Phillips (1996:20) and is enhanced by the specifics around return on investment for compliance training by (Marcheselli 2019).						
Return on investment (ROI) refers to the return on monies spent on training.						

SROI1	Our department calculates the ROI on compliance training.	1	2	3	4	5
SROI2	The effects of training are isolated from other factors that may have contributed when determining the ROI results of compliance training.	1	2	3	4	5
SROI3	Existing data is used in the ROI calculation, such as the average time employees spend taking compliance courses and comments and feedback auditors have provided regarding the organisation's compliance standing.	1	2	3	4	5
SROI4	Role-specific compliance training is measured in terms of reducing training time, increasing productivity and minimising risk.	1	2	3	4	5
SROI5	Our department also includes non-monetary benefits as additional evidence of the ROI on compliance training.	1	2	3	4	5
LEARNING ORGANISATION: Garvin <i>et al.</i>						
The structured survey questionnaire used in a previous study by Botha (2012:171-175) is used as a foundation that identified constructs for corporate training by classical writers, such as the constructs from a learning environment, according to Garvin <i>et al.</i> (2008:112-113).						
SUPPORTIVE LEARNING ENVIRONMENT						
Psychological safety						
Psychological safety is having no fear of speaking up						
SSLEP1	In our organisation, it is easy to speak up about what is on your mind.	1	2	3	4	5
SSLEP2	Employees in our organisation feel safe to ask naive questions.	1	2	3	4	5
SSLEP3	Employees in our organisation feel comfortable owning up to their mistakes.	1	2	3	4	5
SSLEP4	In our organisation, employees are eager to share information about what does and does not work.	1	2	3	4	5
Appreciation of differences						
Appreciation of differences considers that learning occurs when people become aware of opposing ideas and respect and recognise the value of these ideas.						
SSLEA1	Employees in our organisation feel comfortable disagreeing with peers or authority figures.	1	2	3	4	5
SSLEA2	Employees in our organisation feel safe to present minority viewpoints.	1	2	3	4	5
SSLEA3	In our organisation, differences of opinion are appreciated and welcomed.	1	2	3	4	5
SSLEA4	In our organisation, people are open to alternative ways of getting work done.	1	2	3	4	5
Openness to new ideas						

Openness to new ideas contemplates that learning is not simply about correcting mistakes and solving problems, learning is also about crafting novel approaches.						
SSLEO1	In our organisation, novel, new ideas are encouraged and valued.	1	2	3	4	5
SSLEO2	Employees in our organisation are encouraged to take risks and explore the untested and unknown.					
Time for reflection						
Learners need time for reflection. When learners are too busy or overstressed by deadlines and scheduling pressures, their ability to think analytically and creatively is compromised.						
SSLET1	Despite the workload, people in our organisation find time to review how the work is going.	1	2	3	4	5
SSLET2	In our organisation, we have time to reflect.	1	2	3	4	5
LEARNING ORGANISATION: Garvin <i>et al.</i>						
CONCRETE LEARNING PROCESSES						
Experimentation						
Experimentation with new ways of working.						
SCLPE1	Our organisation has a formal process for conducting and evaluating experiments or new ideas.	1	2	3	4	5
SCLPE2	Our organisation frequently employs prototypes or simulations when trying out new ideas.	1	2	3	4	5
Information collection						
Information is systematically collected.						
SCLPI1	Our organisation has formal processes for generating, collecting, interpreting and disseminating information.	1	2	3	4	5
SCLPI2	Our organisation frequently compares its performance with that of competitors and best-in-class organisations in the industry.	1	2	3	4	5
Analysis						
Active analysis occurs in the workplace.						
SCLPA1	Our organisation engages in productive conflict and debate during discussions.	1	2	3	4	5
SCLPA2	Our organisation frequently identifies and discusses underlying assumptions that might affect key decisions.	1	2	3	4	5
Education and training						
Education and training are valued and offered.						
SCLPET1	Employees in our organisation receive adequate training.	1	2	3	4	5

SCLPET2	In our organisation, time is made available for education and training activities.	1	2	3	4	5
Information transfer						
Information is shared in the organisation.						
SCLPIT1	Our organisation quickly and accurately communicates new knowledge to key decision-makers.	1	2	3	4	5
SCLPIT2	Our organisation regularly shares information with networks of experts within the organisation.	1	2	3	4	5
LEARNING ORGANISATION: Garvin et al.						
LEADERSHIP THAT REINFORCES LEARNING						
SLRL1	Our organisation's leaders encourage multiple points of view.	1	2	3	4	5
SLRL2	Our organisation's leaders provide time and resources to identify problems and challenges.	1	2	3	4	5
SLRL3	Our organisation's leaders acknowledge their own limitations with respect to knowledge, information or expertise.	1	2	3	4	5
SLRL4	Our organisation's leaders listen attentively.	1	2	3	4	5
SLRL5	Our organisation's leaders ask probing questions.	1	2	3	4	5
EXTRACTING BUSINESS VALUE FROM COMPLIANCE TRAINING: Young						
The following constructs are included as obtained from the literature study specifically applicable to compliance training success: extracting business value from compliance training measures (Young, 2017:4).						
INDIVIDUALLY RELEVANT LEARNING						
SEIRL1	Our organisation's compliance training is embedded into role-specific training to ensure that it is based on everyday scenarios.	1	2	3	4	5
SEIRL2	Our organisation's compliance training encourages the contextual application of knowledge, skills, behaviour and judgement.	1	2	3	4	5
SEIRL3	There is continual participation and engagement in the learning content of our compliance training.	1	2	3	4	5
SEIRL4	In our compliance training, learners have the ability to see the consequences of their decisions (judgement).	1	2	3	4	5
SEIRL5	Real-life case studies and storytelling are used in our compliance training.	1	2	3	4	5
SEIRL6	Coaching and follow-up exercises in the workplace are used as part of our compliance training to enable learners to better connect with the training.	1	2	3	4	5

SEIRL7	Our compliance training ensures that employees not only understand the letter of the law but also the spirit of the law.	1	2	3	4	5
SEIRL8	After the compliance training is completed, employees are not only able to demonstrate compliant behaviours but do so in a way that creates great customer experiences and business outcomes.	1	2	3	4	5
SEIRL9	Our organisation focuses on a blended compliance training journey for learners (using a variety of learning methods and experiences).	1	2	3	4	5
EXTRACTING BUSINESS VALUE FROM COMPLIANCE TRAINING: Young						
HIGH-IMPACT LEARNER EXPERIENCES USING SOCIAL, WORKPLACE AND MEDIA-RICH DIGITAL LEARNING						
SEHIL1	In our organisation's compliance training, multiple senses are engaged.	1	2	3	4	5
SEHIL2	Our organisation uses digital technologies in our compliance training.	1	2	3	4	5
SEHIL3	In our organisation, we use gamification as part of compliance training.	1	2	3	4	5
SEHIL4	In our organisation, we use simulations in our compliance training to implement complex role-based compliance training.	1	2	3	4	5
SEHIL5	In our organisation, we use immersive technologies such as augmented and virtual reality in our compliance training.	1	2	3	4	5
SEHIL6	We use collaboration platforms, such as Yammer (part of Office 365), Jive, SAP Jam or Facebook at Work, as part of our compliance training for learners to share content and experiences, ask questions from their peers and connect with experts.	1	2	3	4	5
SEHIL7	In our organisation, we use collaborative learning tools such as discussion forums with scenarios, tips, wiki pages and frequently asked questions as part of our compliance training.	1	2	3	4	5
SEHIL8	We use repetition as part of our compliance training, such as a 30-day challenge after compliance training, to use micro-actions of at most 10 minutes a day over 30 days to form a new habit and drive macro-behaviour change.	1	2	3	4	5

EXTRACTING BUSINESS VALUE FROM COMPLIANCE TRAINING: Young						
A FOCUS ON KNOWLEDGE, SKILLS, BEHAVIOURS AND DECISIONS THAT EMBED LASTING BEHAVIOUR CHANGE						
SEKSB1	In our organisation's compliance training, we ensure learners create a connection with the training (emotional feeling), such as outlining the consequences of the wrong or right behaviour of what they have learned.	1	2	3	4	5
SEKSB2	In our organisation's compliance training, there is time for reflective observation around the content and the correct behaviours to be displayed.	1	2	3	4	5
SEKSB3	In our organisation's compliance training, time is built in for active experimenting by posing scenarios where learners need to decide what action to take based on the content and the context.	1	2	3	4	5
SEKSB4	In our organisation, compliance training is also done using bite-sized learning (micro-learning).	1	2	3	4	5
SEKSB5	During our compliance training, a safe learning environment is created where positivity, optimism, safety and certainty are displayed.	1	2	3	4	5
EXTRACTING BUSINESS VALUE FROM COMPLIANCE TRAINING: Young						
JOINED UP AS STRATEGIC LEARNING, REINFORCED AND DELIVERED AT THE POINT OF NEED						
SELRDN1	In our organisation, compliance training is seen as part of strategic learning, and there is alignment with the overall learning goals of the organisation.	1	2	3	4	5
SELRDN2	In our organisation, different compliance training needs are addressed simultaneously by also implementing role-based training.	1	2	3	4	5
SELRDN3	The leadership team in our organisation acts as role models by setting the tone, setting a clear direction for the organisation and exhibiting the new desired behaviours.	1	2	3	4	5
SELRDN4	The leadership in our organisation acts as coaches to instil the required behaviours to be displayed with regard to compliance.	1	2	3	4	5
SELRDN5	In our organisation, we assess employees' compliance capability using, for example, surveillance measures, compliance behaviours and compliance culture.	1	2	3	4	5

EFFECTIVENESS OF COMPLIANCE PROGRAMMES, INCLUDING COMPLIANCE TRAINING AND AWARENESS (HEALTH CARE COMPLIANCE ASSOCIATION)						
The following constructs are included as obtained from the literature study specifically applicable to compliance training success: the effectiveness of compliance programmes, including training and awareness factors as identified by the Department of Health and Human Services, Office of Inspector General (Health Care Compliance Association, 2017:24-27).						
PLANNING FOR COMPLIANCE TRAINING						
SEFFB1	Our organisation has a compliance training plan that includes the training to be completed by the audience, topics covered, frequency of training to be completed and the deployment method.	1	2	3	4	5
SEFFB2	Our organisation's compliance training plan is periodically updated when new legislation and regulations come into effect.	1	2	3	4	5
SEFFB3	Our organisation defines the appropriate audience for each type of compliance training (general, issue-specific, and high-risk).	1	2	3	4	5
SEFFB4	Our organisation bases compliance training for high-risk employees using a formal process for assessing risk and the evaluation of control vulnerabilities.	1	2	3	4	5
SEFFB5	Our organisation has established a policy requiring compliance training and education, which stipulates the frequency of completion.	1	2	3	4	5
SEFFB6	In our organisation, there is a formal method for orientating new employees to the compliance programme, highlighting their obligations and responsibilities.	1	2	3	4	5
SEFFB7	Our organisation considers special needs learners (for example, learners with disabilities or language barriers) in our compliance training.	1	2	3	4	5
SEFFB8	Our organisation integrates specific risks identified through the risk assessment process into compliance training.	1	2	3	4	5
IMPLEMENTATION OF COMPLIANCE TRAINING						
SEFFD1	Where appropriate, our organisation offers continuing education units for compliance education and training (for example, FAIS).	1	2	3	4	5
SEFFD2	In our organisation, employees are trained on new laws, regulations, policies and procedures.	1	2	3	4	5
SEFFD3	In our organisation, compliance training is integrated into all other training the organisation offers.	1	2	3	4	5

SEFFD4	In our organisation, the compliance training programme centres around job families to address specific risks.	1	2	3	4	5
SEFFD5	In our organisation, we train board members on compliance.	1	2	3	4	5
SEFFD6	In our organisation, we train senior leaders on their compliance obligations.	1	2	3	4	5
SEFFD7	In our organisation, we train third parties on their compliance obligations.	1	2	3	4	5
EVALUATION AND ADMINISTRATION AFTER COMPLIANCE TRAINING						
SEFFA1	In our organisation, policy and compliance failures are evaluated, and re-training is provided where needed.	1	2	3	4	5
SEFFA2	Disclosure reports, including whistleblowing lines and the details of the interaction with the compliance department, are tracked to determine the extent to which the compliance training was successful.	1	2	3	4	5
SEFFA3	In our organisation, the compliance training records are retained, as per requirements (including training material, attendee records, deployment method and post-training results).	1	2	3	4	5
SEFFA4	In our organisation, we assess whether employees find compliance training valuable and sufficient to address the compliance requirements of their jobs.	1	2	3	4	5
SEFFA5	Compliance training is updated periodically based on new policies, procedures, laws and regulations.	1	2	3	4	5
COMPLIANCE TRAINING SUCCESS FACTORS: Dixon & Overton						
The following constructs are included as obtained from the literature study specifically applicable to compliance training success: compliance training success factors as identified by Dixon and Overton (2017:38).						
STSFD01	In our organisation, we measure the compliance training completion rate (if no assessment is available).	1	2	3	4	5
STSFD02	In our organisation, we measure the compliance training pass rate (if an assessment is done).	1	2	3	4	5
STSFD03	In our organisation, we measure compliance training assessment scores (by the percentage obtained for assessments).	1	2	3	4	5
STSFD04	In our organisation, we measure compliance training study time (by the time spent on the training).	1	2	3	4	5

STSFD05	In our organisation, we measure compliance training delivery time for face-to-face sessions.	1	2	3	4	5
STSFD06	In our organisation, we measure the costs associated with compliance training.	1	2	3	4	5
STSFD07	In our organisation, the compliance function works with leaders and local champions to support and encourage learners.	1	2	3	4	5
STSFD08	In our organisation, as part of the compliance training plan, there is a clear communication strategy with stakeholders.	1	2	3	4	5
STSFD09	In our organisation, we measure specific business indicators that show a change in the behaviour of employees (such as breaches or non-compliance, reduced compliance, risks managed, and non-compliance being reported through whistleblowing channels).	1	2	3	4	5
STSFD010	In our organisation, compliance training is relevant to the employees.	1	2	3	4	5
STSFD011	Our compliance training is practical and focuses on behaviour change.	1	2	3	4	5
STSFD012	In our compliance training, we use adaptive learning tools and a variety of content and questions allowing learners to focus on what they do not know.	1	2	3	4	5
STSFD013	We train contractors and third parties on compliance.	1	2	3	4	5
STSFD014	We make use of performance support tools where learning takes place in the flow of work as part of the compliance programme.	1	2	3	4	5
DESIRED CHARACTERISTICS OF A HOLISTIC COMPLIANCE COMMUNICATION PROGRAMME, INCLUDING TRAINING: Rogers						
The following constructs are included as obtained from the literature study specifically applicable to compliance training success: the desired characteristics of a holistic compliance communication programme, including training by Rogers (2022:2-11).						
SHCP1	In our organisation, compliance communication is ongoing, reinforcing critical messages with regularity.	1	2	3	4	5
SHCP2	In our organisation, compliance communication provides for low bandwidth and non-intrusive interactions (experiences that last no more than 30 seconds to four minutes, which can easily be incorporated into the workday).	1	2	3	4	5
SHCP3	In our organisation, compliance communication incorporates interesting multi-media content.	1	2	3	4	5

SHCP4	In our organisation, compliance communication anticipates an audience comprising multiple learning styles.	1	2	3	4	5
SHCP5	In our organisation, compliance communication tracks participation and commitment.	1	2	3	4	5
SHCP6	In our organisation, compliance communication offers real-time messaging, sometimes within minutes of having identified a specific risk.	1	2	3	4	5
SHCP7	In our organisation, we repeat and positively reinforce compliance training.	1	2	3	4	5
SHCP8	Compliance training in our organisation is exciting and engaging.	1	2	3	4	5
SHCP9	In our organisation, we use compliance declarations and commitments in training such as declarations that policies have been read and commitments to policies.	1	2	3	4	5
SHCP10	In our compliance training, we include a focus on the negative social stigma that may occur due to wrong behaviour.	1	2	3	4	5
SHCP11	Our compliance training shows the painful consequences of non-compliance.	1	2	3	4	5
FACTORS MAKING TRAINING STICK: Katz						
The following constructs are included as obtained from the literature study specifically applicable to compliance training success: factors making training stick by Katz (2014:66).						
SMTS1	Our organisation uses humour in compliance training to keep employees engaged.	1	2	3	4	5
SMTS2	In our organisation, we use current events in the news to engage employees and aid with the retention of essential compliance content.	1	2	3	4	5

SECTION D: BIOGRAPHICAL INFORMATION

The following information is required to assist with the statistical analysis of data for comparison among different interest groups. Responses will be treated confidentially. Your assistance in providing this important information will be highly appreciated.

Mark the appropriate response with an X.

C01	Indicate your age group	≤ 29	30-39	40-49	50-59	60+

C02	Indicate your gender	Male	Female	Other

C04	Indicate your seniority within the organisation				
General staff					
Junior management					
Middle management					
Senior management					
Executive					

C05	Indicate your highest academic qualification				
Lower than matric					
Matric					
Certificate					
Diploma					
Degree					
Post-graduate degree					

**THANK YOU FOR YOUR TIME IN COMPLETING THIS
SURVEY**

APPENDIX B: INFORMED CONSENT OF SKILLS DEVELOPMENT FACILITATORS



NWU Business School
North-West University
Private Bag x6001
Potchefstroom, 2520
<http://commerce.nwu.ac.za/business-school>

08 March 2023

To whom it may concern

INFORMED CONSENT TO ACT AS THE CONTACT WITHIN THE BANK TO:

- RECEIVE E-MAILS FROM THE RESEARCHER
- REQUEST INFORMED CONSENT FROM CHIEF COMPLIANCE OFFICER TO ALLOW COMPLIANCE OFFICERS TO PARTICIPATE IN THE SURVEY
- FORWARD THE LINK TO AN ELECTRONIC SURVEY TO COMPLIANCE OFFICERS WITHIN YOUR BANK AFTER INFORMED CONSENT HAS BEEN OBTAINED FROM THE CHIEF COMPLIANCE OFFICER

Dear Skills Development Facilitator,

My name is Deseré Botha, and I am a PhD candidate at the North-West University (NWU) Business School. This study proposes a Compliance Training Success Framework for SA banks enhancing an Entrepreneurial Business Environment.

The outcome of this study will be a thesis submitted to the university as a requirement to obtain a Doctor of Philosophy in Economic and Management Sciences. The NWU is a reputable and internationally accredited institution with high ethical standards and expectations throughout conducting a research study.

The researcher will adhere to the POPI Act regulations in accessing and managing participants' personal information. Please note that participation is voluntary, and participants can stop completing the questionnaire anytime. There will be no compensation paid for participation.

The survey questionnaire should take approximately 45 minutes to complete. No personal details will be recorded or stored. Participants will have the option to mail the responses to themselves at the end of the survey questionnaire.



Furthermore, any identifiable information will be concealed during the analysis process. The stored data will be destroyed after three years. Although your responses will be used to analyse the data, no names will be revealed.

The limited demographic information in the survey questionnaire is insufficient to identify any person and will only be used to profile the respondents.

The Scientific Committee has approved the study of the NWU Business School. The Chair of the Scientific Committee is Prof. Joseph Lekunze. He can be reached at 018 285 2500, and his email address is joseph.lekunze@nwu.ac.za.

The Faculty of Economic and Management Sciences Ethics Committee (EMS-REC) has given this study an ethical clearance. The ethical clearance number is NWU-01902-22-A4. Mark Rathbone is the chair of the Ethical Committee. His contact number is 018 299 1356, and his email address is mark.rathbone@nwu.ac.za.

My supervisor for this MBA research study is Professor Stephan Van der Merwe. His contact details are as follows: Tel: 018 299 1414; Email: stephan.vandermerwe@nwu.ac.za. Please feel free to contact him regarding my credentials and concerns about the study.

Thank you once more for your co-operation in the study. Your contribution to this study is highly valued.

Kind regards

Deseré Botha

PhD Candidate (North-West University)

APPENDIX C: INFORMED CONSENT: CHIEF COMPLIANCE OFFICERS



NWU Business School
North-West University
Private Bag x6001
Potchefstroom, 2520
<http://commerce.nwu.ac.za/business-school>

08 March 2023

To whom it may concern

INFORMED CONSENT TO ALLOW COMPLIANCE OFFICERS TO PARTICIPATE IN A SURVEY QUESTIONNAIRE

Dear Chief Compliance Officer,

My name is Deseré Botha, and I am a PhD candidate at the North-West University (NWU) Business School. This study proposes a Compliance Training Success Framework for SA banks enhancing an Entrepreneurial Business Environment.

The outcome of this study will be a thesis submitted to the university as a requirement to obtain a Doctor of Philosophy in Economic and Management Sciences. The NWU is a reputable and internationally accredited institution with high ethical standards and expectations throughout conducting a research study.

The researcher will adhere to the POPI Act regulations in accessing and managing participants' personal information. Please note that participation is voluntary, and compliance officers can stop completing the questionnaire anytime. There will be no compensation paid for participation.

The survey questionnaire should take participants approximately 45 minutes to complete. No personal details will be recorded or stored. Your compliance officers will have the option to mail responses to themselves at the end of the survey questionnaire.

Furthermore, any identifiable information will be concealed during the analysis process. The stored data will be destroyed after three years. Although responses will be used to analyse the data, no names will be revealed.



The limited demographic information in the survey questionnaire is insufficient to identify any person and will only be used to profile the respondents.

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My supervisor for this MBA research study is Professor Stephan Van der Merwe. His contact details are as follows: Tel: 018 299 1414; Email: stephan.vandermerwe@nwu.ac.za. Please feel free to contact him regarding my credentials and concerns about the study.

Your informed consent is thus sought to send the link of the electronic survey to compliance officers in your bank to decide to participate in the survey questionnaire.

Thank you once more for your support. Your contribution to this study is highly valued.

Kind regards

Deseré Botha

PhD Candidate (North-West University)

APPENDIX D: INFORMED CONSENT OF PARTICIPANTS



NWU Business School
North-West University
Private Bag x6001
Potchefstroom, 2520
<http://commerce.nwu.ac.za/business-school>

15 May 2023

To whom it may concern

INFORMED CONSENT TO PARTICIPATE IN A SURVEY QUESTIONNAIRE

Dear Participant,

My name is Deseré Botha, and I am a PhD candidate at the North-West University (NWU) Business School. This study proposes a Compliance Training Success Framework for SA banks enhancing an Entrepreneurial Business Environment.

The outcome of this study will be a thesis submitted to the university as a requirement to obtain a Doctor of Philosophy in Economic and Management Sciences. The NWU is a reputable and internationally accredited institution with high ethical standards and expectations throughout conducting a research study.

The researcher will adhere to the POPI Act regulations in accessing and managing participants' personal information. Please note that your participation is voluntary, and you can stop completing the questionnaire anytime. There will be no compensation paid for participation.

The survey questionnaire should take approximately 45 minutes to complete. No personal details will be recorded or stored. You will have the option to mail your responses to yourself at the end of the survey questionnaire.

Furthermore, any identifiable information will be concealed during the analysis process. The stored data will be destroyed after three years. Although your responses will be used to analyse the data, no names will be revealed.



The limited demographic information in the survey questionnaire is insufficient to identify any person and will only be used to profile the respondents.

The Scientific Committee has approved the study of the NWU Business School. The Chair of the Scientific Committee is Prof. Joseph Lekunze. He can be reached at 018 285 2500, and his email address is joseph.lekunze@nwu.ac.za.

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My supervisor for this MBA research study is Professor Stephan Van der Merwe. His contact details are as follows: Tel: 018 299 1414; Email: stephan.vandermerwe@nwu.ac.za. Please feel free to contact him regarding my credentials and concerns about the study.

Thank you once more for your participation. Your honest contribution to this study is highly valued.

Kind regards

Deseré Botha

PhD Candidate (North-West University)