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The role of organisational culture in talent management at selected Johannesburg engineering firms

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Johannesburg, 2025

Ethics Protocol Number: WBS/BA2775135/191

DECLARATION

I, **Kibala Adiam,** hereby confirm that this academic research article is my own work, except where reference has been made for all the sources used.

Signature  Date 2025/03/17

ACKNOWLEDGEMENTS

Above all, I thank the most High God for His blessings and mercy.

Thank you to Dr Manamela Matshabaphala, my academic supervisor, for your continuous guidance and for making this journey enjoyable.

To the study respondents, your contribution has contributed immensely to the success of this study; thank you so much. Additionally, I thank the University of the Witwatersrand administrative team for all their assistance.

Finally, I thank my wife, Neo Motlhabane Adiam, my family, friends, and my church, Impact for Christ Ministries, for the unconditional prayers I have received. Your teaching and inspiration have kept me going.

DEDICATIONS

I dedicate this research article with humility to my father, Jonas Kibala Adiame, and my mother, Louise Lubama.

To my niece, Christenvie Kusina Makieya, I hope that I have inspired you to go beyond limits.

ABSTRACT

With intense competition for talent globally, more than simply concentrating on traditional aspects like compensation for managing talent is required, and other factors must be considered. Literature suggests that consideration must be given to organisational context when addressing the challenges associated with talent management, where, among other factors, organisational culture can be leveraged to facilitate talent management.

Several scholars' interests have unequivocally focused on exploring talent management practices and the impact of organisational culture on several organisational outcomes. Minimal attention was directed to empirically testing the relationship between organisational culture (OC) and talent management (TM). The literature deficiency in OC and TM in the context of engineering firms in Johannesburg, South Africa, resulted in a gap in the literature.

This study aimed to investigate the relationship between OC and elements of TM (recruitment, employee retention and training & development) and to understand the general perceptions of employees regarding cultural practices in their respective organisations. A concurrent mixed method was adopted in this study, with primary data collected through a questionnaire survey from employees in different engineering firms located in Johannesburg.

A significant and positive relationship was found between organisational culture and talent management elements. Organisational culture influences talent management; therefore, culture should be considered in strategic decisions. The study demonstrated that organisational culture is crucial in recruiting, retaining, training & developing employees. Hence, organisations need to focus on improving cultural elements to ensure success.

The study recommends that leaders and managers continuously evaluate cultural practices and cultivate an environment conducive to all employees. Similarly, future studies should consider the evolving nature of culture, rapid technological advancements and changing workforce demographics.

Key Terms

Framework, hypothesis, organisation culture, talent, talent management

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ABBREVIATIONS

CESA	:	Consulting Engineers South Africa
DoL	:	Department of Employment and Labour
HCM	:	Human Capital Management
HR	:	Human Resource
HRD	:	Human Resource Development
HRM	:	Human Resource Management
INSEAD	:	Institut Européen d'Administration des Affaires
NDP	:	National Development Plan
SD	:	Standard Deviation
SEIAS	:	Socio-Economic Impact Assessment System

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CHAPTER 1 INTRODUCTION

1.1 Research Introduction

The foundation of the study, context and rationale are presented in this section.

1.2 Research Purpose

This research evaluates the role of organisational culture in managing talent within engineering firms in Johannesburg. Specifically, this research investigates the relationship between organisational culture and elements of talent management (recruitment, retention and training & development). Furthermore, it seeks to understand employees' general views on cultural practices within their organisations.

1.3 Research Background and Context

1.3.1 Organisational culture and talent management

While technology and tools can improve operational efficiency, delivering exceptional services and products also depends on the quality of an organisation’s human capital, which is considered talent (Alshuaibi et al., 2020; Deros et al., 2008). In the current knowledge-driven economy, products and services can be replicated, and a firm’s sustainable competitive advantage primarily lies in its talent. (Abdul-Kareem, 2016; Bartlett & Ghoshal, 2002). Talent is essential in the value creation process of the organisation, and it is a view that aligns with the resource-based view (RBV).

Given the intense competition for talent due to a global shortage (Kuvarjee, 2014; Mendes & Stander, 2011; Njeri, 2017), effective talent management (TM) is critical (Alshuaibi et al., 2020; Barkhuizen et al., 2014; Mendes & Stander, 2011). Organisational culture (OC) is a significant factor in TM and needs to be leveraged to facilitate TM (Kontoghiorghes, 2016; Meng et al., 2016; Sadeli, 2015). Integrating culture into TM strategies is necessary for improved employee

retention (Chikumbi, 2011; Krishnakumar & Kavya, 2021). Therefore, OC should also be a central element in strategic decisions, as TM is a strategic endeavour (Abdul-Kareem, 2016; Bartlett & Ghoshal, 2002; Borisova et al., 2017; Caldwell, 2017; Gogo, 2021; Vasiljeva, 2020).

1.3.2 Establishing context

INSEAD's 2023 Global Talent Competitiveness Index reported that South Africa holds the seventy-fifth position globally in brain retention. This index measures a country's ability to retain talent, with a scale ranging from one to one hundred thirty-two. A higher ranking signifies challenges in talent retention. Moreover, the Socio-Economic Impact Assessment System (SEIAS) 2020 report from the South African Department of Employment and Labour highlights a concerning trend. The report emphasises that South Africa is facing a brain drain, with skilled individuals leaving the country, negatively affecting economic development. The exodus of skilled people presents obstacles to the nation's economic progress, as highlighted by the Department of Employment and Labour (2020).

Kuvarjee (2014) asserts that the challenge facing talent is not limited to a particular sector but is widespread in financial services, mining, retail and engineering. Blersch et al. (2020), Akinradewo et al. (2022), and Andreas (2022) recognise engineering skills as critical and assert that a shortage of engineering skills persists in South Africa. These assessments align with earlier views expressed by Consulting Engineers South Africa (CESA) in 2015 and Blyth (2016).

CESA reported that engineering firms had experienced difficulties hiring engineering personnel for the past fifteen years, which could lead to continued dependence on foreign companies, and importing skills is costly, according to Gogo (2021). The importance of retaining and managing engineering talent is, therefore, essential.

1.4 Research Problem

The research problem is particularly significant for an engineering firm in Johannesburg that is grappling with retaining engineering talent. This issue has the potential to undermine the firm's competitiveness and growth. Exit interviews with departing employees revealed that organisational culture (OC) contributed to their decisions to leave. The implications of failing to retain engineering skills are far-reaching, including loss of productivity, talent acquisition and turnover costs, and difficulties in finding and recruiting new talent. The literature suggests that OC can be critical in improving talent management (TM).

From the literature review conducted, challenges related to TM are not unique or specific to a company, such as the engineering firm stated above, but are prevalent across all industries. Therefore, this research aims to explore the role of OC in TM across engineering firms in Johannesburg. Johannesburg was selected because it has the largest concentration of engineering firms and professionals in South Africa.

There are extensive studies on OC and its impact on several organisational outcomes, most prevalently on organisational performance, employee commitment, and innovation. (Ahmad, 2012; Baqutayan, 2014; Gasela, 2022; Kontoghiorghes, 2016; Ojo, 2009; Oladimeji et al., 2023; Paais & Pattiruhu, 2020; Setyawan, 2021; Srihandayani & Kusnendi, 2020). Similar studies that examined the relationship between OC and TM are listed in Table 1-1; however, there is a noticeable gap in the literature regarding empirical research on the role of OC in TM within Johannesburg's engineering firms. This gap has motivated the current study, as it aims to contribute to the existing body of knowledge in this area.

Table 1-1: Previous studies on organisational culture and talent management.

Researcher	Research title	Country	Research Method employed
Adewale and Anthonia, (2013)	"Impact of Organizational Culture on Human Resource Practices: A Study of Selected Nigerian Private Universities"	Nigeria	Quantitative study
Bula and Njeri (2017)	"Organization culture and talent management in state corporations in Kenya: A case of Kenya broadcasting corporation."	Kenya	Quantitative
Eversole et al. (2012)	"Creating a flexible organizational culture to attract and retain talented workers across generations."	United States	Literature review using secondary data
Krishnakumar & Kavya Vasu (2021)	"The Impact of Organization Culture on Talent Management"	India	Quantitative studies
Mahajan (2019)	"Relationship of Talent Management with Organizational Culture"	India	Literature review using secondary data
Meng et al. (2016)	"The influence of organizational culture on talent management: A case study of a real estate company."	China	Qualitative study
Nyameh (2017)	"Empirical Investigation of the Impact of Organizational Culture on Human Resource Management"	Nigeria	Quantitative study
Vasiljeva (2020)	"The Influence of Organizational Culture on Talent Management"	Latvia	Literature review using secondary data

1.5 Research Objectives

This study is guided by two clear objectives: to evaluate the role of organisational culture in talent management within engineering firms in Johannesburg and to understand the general perception of employees towards cultural practices in their organisations.

I. **RO1**: To explore the relationship between organisational culture and talent management elements (recruitment, employee retention, training and development).
II. **RO2**: To understand the general view of employees regarding cultural practices in their organisation.

1.6 Research Questions

The study aims to address two specific questions which are related to the research objectives:

I. **RQ1**: Is there a significant relationship between organisational culture and elements of talent management (recruitment, employee retention and training & development)?
II. **RQ2**: What are the general views of employees regarding organisational culture practices in their organisations?

1.7 Relevance of the Research

The results of this research will provide further insight into understanding the influence of organisational culture in talent management. Furthermore, the study is conducted in a specific industry and geographical location and could offer new insights specific to the engineering industry.

1.8 Study Limitations

This research is focused on engineering firms in Johannesburg. Furthermore, the study views talent inclusively, encompassing all employees, rooted in the belief that sustained competitive advantage arises from collaboration and interactions among individuals, as highlighted by Lee (2018).

Keyword definitions are derived from the WordWeb® English dictionary. The text is restated without altering its context.

Framework	:	Concepts and ideas that offer context and justification for the proposed theory in a research study.
Hypothesis	:	A preliminary understanding of an unverified concept that, if proven true, would clarify specific facts or phenomena.
Organisation culture	:	The attitudes and behaviours that are typical of a specific social group or organisation.
Talent management	:	Strategic use of human resource functions for attracting, developing, and retaining individuals.

1.9 Assumptions

Assumptions stem from researchers' beliefs and inferred reasoning without formal testing or verification (Marshall & Rossman, 2016). The assumption is that research respondents will engage and offer insights into their experiences and perspectives.

1.10 Report Outline

This study comprises of six chapters as outlined below:

1. **Chapter 1: Introduction and Background**
   This chapter introduces the research context, problem statement, study questions, objectives and relevance.

2. **Chapter 2: Review of Related Literature**
   The literature, theories and frameworks relevant to organisational culture and talent management are reviewed in this chapter.

3. **Chapter 3: Research Methodology**
   This chapter defines and explains the research process, strategy, and data collection method to answer the research questions.

4. **Chapter 4: Data Analysis and Results**
   This chapter presents the results of the analysis based on the collected data to address the research questions.

5. **Chapter 5: Discussion of Findings**
   This chapter discusses research results and assesses the alignment of the results against research objectives and prior studies.

6. **Chapter 6: Conclusion and Recommendations**
   The study is concluded in this chapter. Furthermore, recommendations for leaders and opportunities for future research are presented, concluding with limitations and contributions of the study.

1.11 Chapter Summary

This chapter established the research context, objectives, significance, and report structure; the next chapter focuses on relevant literature.

CHAPTER 2 REVIEW OF RELATED LITERATURE

This chapter examines relevant literature, establishing the foundation for the study.

2.1 Organisational culture (OC)

The study of OC emerged as a research focus in the late 1970s (Hsieh et al., 2018; Van der Post et al., 1997); however, there is a continuous disagreement on its precise definition (Hsieh et al., 2018; Meng et al., 2016; Sadeli, 2015). When examining the various definitions of OC, it is influenced by the shared assumptions, beliefs, behaviours, norms, and rituals within a group of people (Lee, 2019), including the process of indoctrinating new members and reinforcing the culture's core elements (Schein, 2010; Trice & Beyer, 1984).

OC is not monolithic but diverse (Helms & Stern, 2001; Hofstede, 1991; Lok & Crawford, 2004; Sadeli, 2015; Schein, 2010). Behaviours, beliefs, and norms are often intricate and challenging for organisations to replicate across the entire organisation effectively. Although experiences and shared meanings are significant factors in defining a cultural group, variations across multiple dimensions can exist, giving rise to subcultural distinctions within a single organisation (Tsui et al., 2007).

2.1.1 Organisational culture theories and literature

Prior research on OC focused on culture measurements and dimensions, resulting in four areas: theoretical frameworks, classifying cultures, exploring the impact on different organisation outputs, and studying multinational companies. These led to the development of frameworks and models such as Schein's structural model of OC (Schein, 1992), Cameron and Quinn's value competing framework model (Cameron & Quinn, 2011), and Deal and Kennedy's model (Deal & Kennedy, 1982). Schein's model views OC as group-learned assumptions for problem-solving of external adaptation and internal integration. Quinn's CVF categorises OC based on creativity and flexibility, in contrast to

control, efficiency and flexibility, emphasising teamwork instead of customer-centric and competition. Deal and Kennedy's model proposes quadrants based on risk and feedback speed.

Studies (Adeoye & Hope, 2020; Adewale & Anthonia, 2013; Cummings & Worley, 2014; Gasela, 2022; Trice & Beyer, 1984; Tsui et al., 2007) have shown the pivotal role of OC. OC defines an organisation's identity and provides a competitive advantage when defined clearly. It serves as a guiding ethos, promoting goal alignment, recognising contributions, and empowering employees to achieve common objectives. Similarly, OC is instrumental in improving efficiency (Adewale & Anthonia, 2013).

Krishnakumar and Kavya (2021) maintain that management has a role in cultivating a culture that prioritises employee engagement, recognition, and inclusivity to improve satisfaction and retention. Similarly, researchers such as Schneider and Smith (2004), Giberson et al. (2009), Huang (2010), Sherman et al. (2014) and Mahajan (2019) view leaders as the originators, promoters, and predictors of OC in driving behaviours and change; however; Helms and Stern (2001) as well as Lok and Crawford (2004) argue that the collective influence of individuals' attributes shape culture, and everyone is ultimately an agent of the organisation.

Despite being considered the softer side of the business, OC significantly impacts organisational outcomes, strategy implementation, and competitive advantage. (Hsieh et al., 2018). Business objectives are achieved through effective collaboration, which requires individuals to understand the norms, values, and beliefs that shape the organisation (Ojo, 2009). Interestingly, OC influences recruitment, selection, and development practices, with ethical values shaping employee behaviour when integrated into OC.

2.2 Talent and Talent Management

2.2.1 Concept of talent

Debate exists over what constitutes talent, with the consensus being that it relates to people (Gallardo-Gallardo & Thunnissen, 2016). The work of Lee (2018) and Kravariti (2016) concluded that talent may be characterised into three distinct categories. The first category hinges on exclusivity, positing that talent refers to high potential human capital, referred to as “more elite” by Lee (2018). The second category defines talent as individuals who can perform better than others (Kravariti, 2016). The third category is inclusive and believes all employees are able and skilled to contribute to the success of an organisation.

2.2.2 Talent management overview

Human resource development (HRD) and human resource management (HRM) are two examples of perspectives that are included in talent management (TM). TM’s primary objective is to recruit, train, and retain individuals who can positively contribute to the organisation’s success.TM is a strategic HR practice that treats employees as vital assets and contributors to organisational goals (Kwon & Jang, 2022; Meng et al., 2016; Sadeli, 2015).

The central debate within TM is centred around the discord between inclusivity and exclusivity. Some emphasise the recognition and rewards for high potential and top performers, while others advocate for a more inclusive approach, valuing the contributions of all employees. As Kwon and Jang (2022) pointed out, this juxtaposition highlights the challenge of balancing differentiation and egalitarianism in TM practices.

Gezgin (2020) and Michaels et al. (2001) caution against exclusivity-focused TM, citing practical challenges. Advocates of the inclusivity approach, such as Minbaeva and Collings (2013) and Warner (2016), propose prioritising strategic positions over solely targeting talented individuals, as structural barriers may impede talent visibility. However, proponents of exclusivity (Abdul-Kareem, 2016; Baqutayan, 2014) endorse the notion of TM for unique skill sets, emphasising the

need for differentiation in performance evaluation and rewards, not to discourage excellence and undermine organisational effectiveness. Thus, balancing entails navigating this tension and recognising individual contributions while supporting an inclusive environment that encourages continuous improvement and excellence.

2.3 Organisational Culture and Talent Management

Researchers (Adewale & Anthonia, 2013; Bula & Kireru, 2017; Kontoghiorghes, 2016; Krishnakumar & Kavya, 2021; Nyameh, 2013; Sanchez-Torres; Setyawan, 2021) empirically confirm the critical role of OC in TM, observing that OC significantly impacts TM by driving TM and influencing how organisations attract, motivate, and retain their employees. While a healthy and positive OC can attract, engage, and retain talent, a poor and negative culture has the opposite effect, reducing productivity and having an adverse impact on productivity (Paais & Pattiruhu, 2020).

Wei et al. (2008) posited that TM practices are a channel for instilling beliefs, norms and values of the organisation in employees, further suggesting that OC precedes TM, influencing both TM and organisational outcomes. Jerome (2013) highlights that HRM effectiveness hinges on OC, and poor TM adversely affects organisational performance.

Burke and Ng (2006) and Eversole et al. (2012) emphasise aligning TM with OC to meet employee needs and improve loyalty. OC influences employee retention and commitment, as individuals are sensitive to cultural alignment, impacting their motivation and performance (McMurray et al., 2004). This view resonates with Vroom's expectancy theory (1964), which posits that individuals choose behaviours based on the expected outcomes.

In contrast, Ghinea and BrĂtianu (2012) argue that employee loyalty cannot be purchased, and the specific type of culture is inconsequential if it aligns with employees' internal and external environment. They contend that a strong culture

does not always yield benefits, nor does a weak culture necessarily lead to poor performance. Aggarwal and Bhargava (2009) and Ratten and Ferreira (2016) support this view, suggesting that employee loyalty can fluctuate rapidly, although they acknowledge the influence of factors such as working conditions and environment.

2.4 Theoretical Frameworks

This study adopts social exchange and human capital theories. Social Exchange Theory, introduced by Blau (1964) and later applied to management, emphasises the reciprocal nature of social interactions and the need for employers to create supportive work environments to cultivate employee loyalty (Aselage & Eisenberger, 2003; Cropanzano & Mitchell, 2005). Human Capital Theory, originating with Smith in 1776 and revived by Schultz in 1961, highlights the crucial role of human resources in organisational growth and advocates for strategic investments in workforce development (Ndung'u & Omondi, 2015; Ringson & Matshabaphala, 2023; Stockley, 2008).

2.5 Conceptual Framework

Figure 2-1 shows the conceptual framework and illustrates the relationship between OC and TM, suggesting that OC influences TM. A conducive OC is necessary when managing talent (recruiting, developing, and retaining) employees.

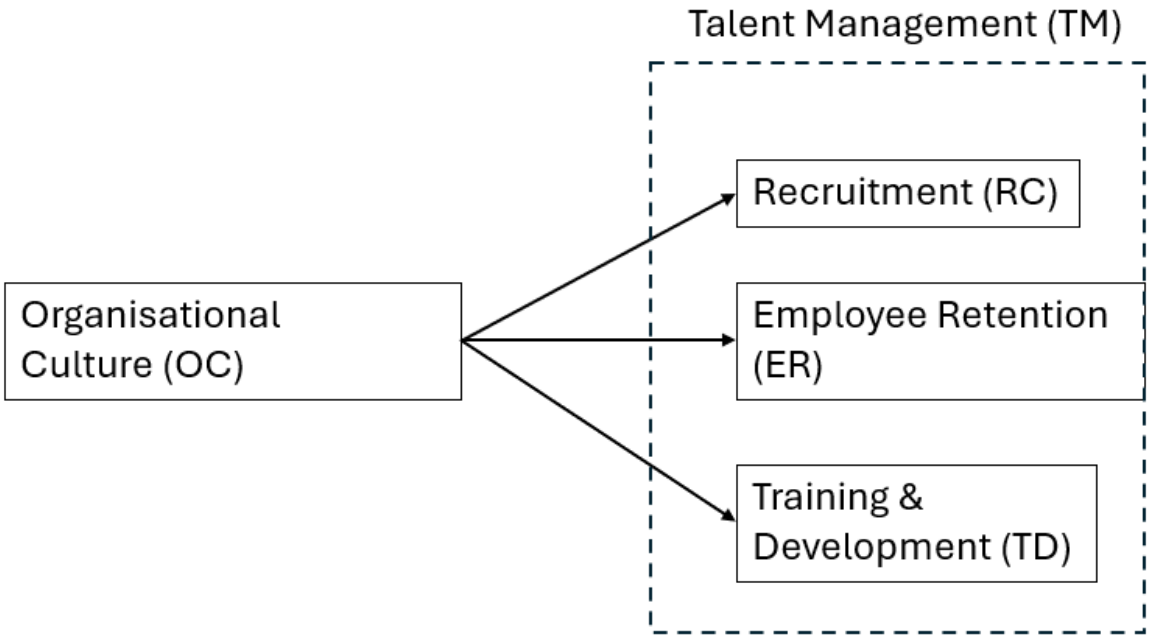


Figure 2-1 Conceptual framework.

2.6 Chapter Summary

This chapter reviewed relevant theories and literature on organisational culture and talent management, establishing the theoretical and conceptual framework that underpins this study. The subsequent chapter discusses the adopted research methodology.

CHAPTER 3 RESEARCH METHODOLOGY

The research methodology approach is presented in this chapter. The research process followed is displayed in Figure 3-1.

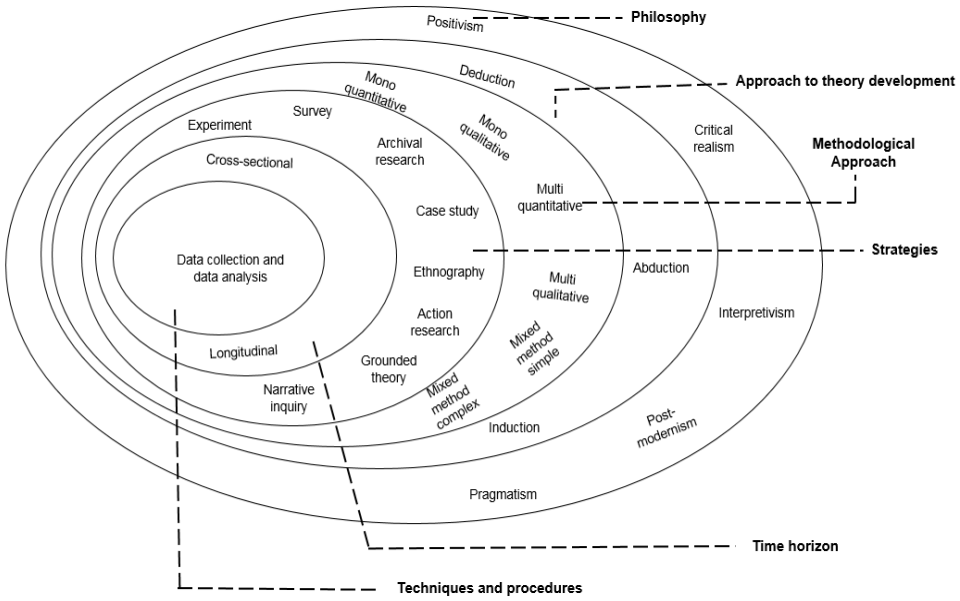


Figure 3-1: Research onion (Saunders et al., 2023) adapted by Adiam (2018).

3.1 Research Philosophy

Pragmatism was adopted as a philosophy, using quantitative methods to assess variable relationships. The final question is open-ended and aimed at understanding employees' perceptions (Collis & Hussey, 2021). This approach combines positivism and interpretivism, offering more insights than a single philosophy (Denzin & Lincoln, 2018; Kankam, 2019; Saunders et al., 2023; Sekaran & Bougie, 2016).

3.2 Theory Development

This study adopted abductive thinking, integrating deductive and inductive approaches (Saunders et al., 2023). Research question one is quantitative; therefore, deductive reasoning is applied. In contrast, research question two

employed inductive reasoning due to its qualitative aspect and potential for new knowledge emergence.

3.3 Methodological Approach

A quantitative approach is used based on the study's research questions and objectives (Bryman & Bell, 2011; Creswell & Creswell, 2023b; Denzin & Lincoln, 2018; Sekaran & Bougie, 2016). Although research question two includes qualitative aspects, Saunders et al. (2023) assert that a range of data can be analysed within a quantitative method.

The quantitative aspect explains variable constructs using numbers, supporting broad generalisations about the population under study. The open-ended question, in contrast, assists in collecting opinions and insights that cannot be fully captured through numerical data (Bryman & Buchanan, 2018; Clark & Ivankova, 2015; Creswell & Clark, 2017; Tashakkori, 2010).

3.4 Research Strategy

A case study approach is adopted. Yin (2017) defines a case study as an enquiry and analysis of a concept within its real-life context. Neuman (2016) supports this definition, noting that a case study involves a thorough examination of a specific event, object, group of organisations, or process. This study focuses on engineering firms in Johannesburg. The case under investigation is the challenges these firms face in retaining engineering talent, a concern that cuts across the industry.

The weaknesses of case studies include limitations in generalisation and confinement to a specific context and environment, however; case studies offer advantages in data collection. Kothari (2014) and Neuman (2016) assert that data for case studies can be gathered from diverse sources, including surveys, interviews, questionnaires, and organisational reports.

3.5 Time Horizon

This study is not repeated over time and is conducted at a single time point (Cooper & Schindler, 2014); therefore, it is categorised as cross-sectional.

3.6 Data Collection Technique and Process

This research used primary data to answer research questions (Dul & Hak, 2008). An online survey using Google Forms was used to distribute and collect data from engineering personnel in Johannesburg firms.

The questionnaire instrument from the study of Krishnakumar and Kavya (2021) was adopted and modified to suit the current research. The modification included adjusting the wording and separating double-barrel questions into individual questions. The revised questionnaires were pilot-tested with eleven individuals to evaluate the length of the survey, ensure clarity in the wording, and confirm the usability and functionality of the online platform.

3.7 Study Population and Sampling

The study employed probability and random sampling, targeting three hundred diverse personnel from Johannesburg engineering firms, including engineers, draughtsmen, estimators, technicians, supervisors, and managers at various levels to gather diverse perspectives. Slovin's equation was used to estimate the sample size (Syarif et al., 2024).

3.8 Unit of Analysis

This study used individuals working in engineering firms as the unit of analysis, which aligned with the research questions (Yin, 2012).

3.9 Study Reliability and Validity

The reliability and validity of research instruments are crucial to a successful research study (Tanner, 2018). This study assessed reliability using Cronbach's alpha. The supervisor reviewed the research instrument. Furthermore, a pilot study was conducted before distribution (Dul & Hak, 2008; Zivkovic, 2012). This study used a validated scale from Krishnakumar and Kavya (2021).

3.10 Data Analysis

Data analysis includes structuring, cleaning, assessing, and plotting evidence based on data collected to address research questions (Blaxter et al., 2010). SPSS (Statistical Package for Social Science) Version 29 and Amos Version 24 were used for quantitative analysis to answer research question one. ATLAS ti Version 24 was used for thematic analysis of the general comments provided by participants in response to research question two.

3.11 Ethical Considerations

This research prioritised ethical conduct to ensure participants will experience no harm (Saunders et al., 2023; Sekaran & Bougie, 2016). Ethical approval was obtained, and participant anonymity was guaranteed before data collection. Participation was voluntary, and the academic sources used are referenced. To ensure confidentiality, raw data is excluded from this study, and data will be discarded after two years of study completion.

3.12 Limitations

This research focused exclusively on engineering firms in Johannesburg, South Africa; the findings cannot be generalised.

3.13 Chapter Summary

The research methodology is presented, including the data collection approach to answer research questions and the rationale for the selected design. Similarly, study limitations and ethical considerations were explained. Analysis of data and related results are presented in the subsequent chapter.

CHAPTER 4 DATA ANALYSIS AND RESULTS

This chapter presents the analysis of data and related results. The study aimed to investigate the role of organisational culture in talent management at selected Johannesburg engineering firms.

Statistical Program for Social Science (SPSS) Version 29, in conjunction with Amos Version 24 for structural equation modelling, were used for quantitative analysis related to research question one, while qualitative data for research question two was analysed using ATLAS ti Version 24. The sections below comprise demographic information, descriptive statistics, inferential statistics, qualitative results and chapter conclusion.

4.1 Survey Response Rate

A Google Forms link for an online survey was randomly distributed via LinkedIn and email, targeting directors, draughtsmen, engineers, estimators, project planners, quality control personnel, technicians, supervisors, and managers at various levels. A sample of three hundred (300) questionnaires was distributed. One hundred and forty-seven (147) questionnaires were collected using Google Forms. All collected questionnaires were deemed acceptable after verification of completeness, indicating a response rate of forty-nine percent (49%). Although there is no agreement on a definitive minimum response rate among scholars, a 49% rate is consistent with the values reported by Sataloff and Vontela (2021).

4.2 Demographics Data

Research respondents' demographic data is presented in this section.

4.2.1 Engineering industry of respondents

Table 4-1 and Figure 4-1 show the primary engineering sector of the research respondents. As presented in Table 4-1, 9.5% of the research respondents are in civil engineering & infrastructure. 28.6% are in the energy and utilities sector,

while 1.4% of the research respondents are in the environmental and telecommunication industries. Further, 4.8% and 8.2% of the research respondents are in fast-moving consumer goods (FMCG) and general engineering consulting, respectively.

Furthermore, 0.70% of the research respondents are in the maintenance engineering (transport) sector, while 17.7% and 17.0% are in the manufacturing, mining & metals sectors. Lastly, 10.9% of the research respondents are in the Petrochem sector.

Table 4-1: Frequency table of the primary engineering industry.

Primary Engineering Sector	Frequency/ occurrence	Percentage	Valid Percentage	Cumulative Percentage
Civil engineering & infrastructure	14	9.5	9.5	9.5
Energy & utilities	42	28.6	28.6	38.1
Environmental	2	1.4	1.4	39.5
Fast Moving Consumer Goods (FMCG)	7	4.8	4.8	44.2
General engineering consulting	12	8.2	8.2	52.4
Maintenance engineering (Transport)	1	0.7	0.7	53.1
Manufacturing	26	17.7	17.7	70.7
Mining & metals	25	17.0	17.0	87.8
Petrochem (oil and gas included)	16	10.9	10.9	98.6
Telecommunication	2	1.4	1.4	100.0
Total	**147**	**100.0**	**100.0**	

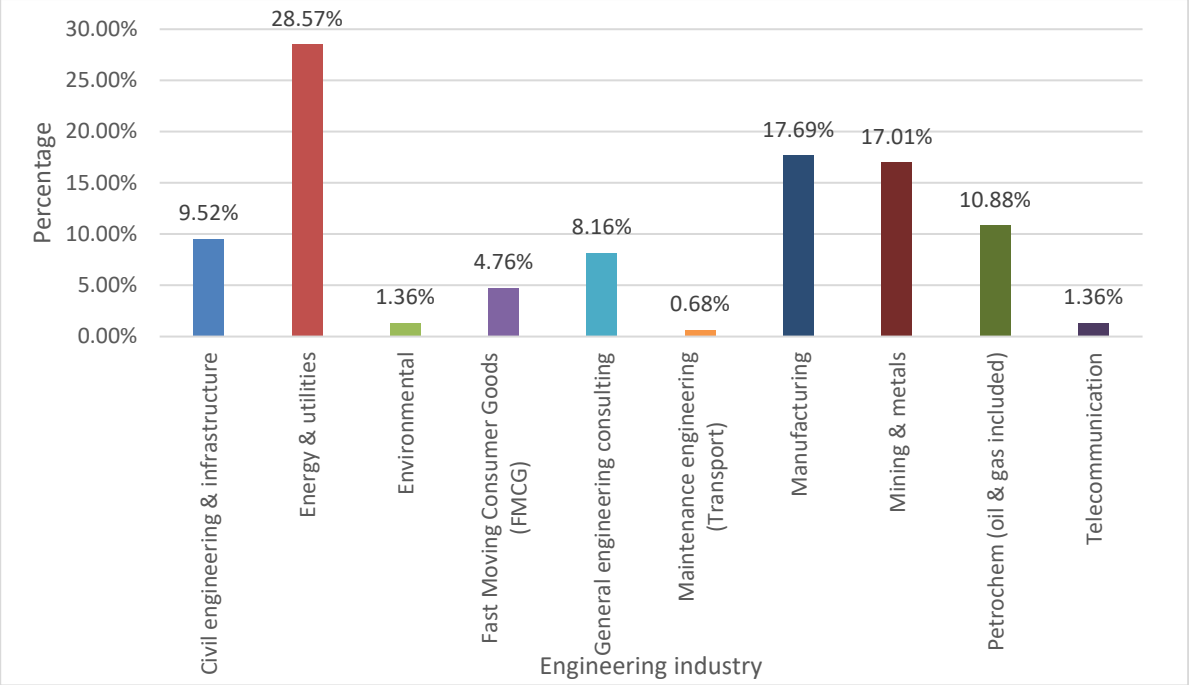


Figure 4-1: Graph of the primary engineering sector of respondents.

4.2.2 Experience of study respondents

Table 4-2 and Figure 4-2 present the research respondents' years of experience in the engineering sector. As presented in Table 4-2, 15.6% of research respondents have 2 to 5 years of experience in the engineering sector, while 24.5% have 6 to 10 years of experience. Furthermore, 4.1% of the research respondents have less than two years in engineering, and 55.8% have more than 10 years of experience.

Table 4-2: Years of experience of a participant in the engineering sector.

Years of experience	Frequency/ occurrence	Percentage	Valid Percentage	Cumulative Percentage
2 to 5 years	23	15.6	15.6	15.6
6 to 10 years	36	24.5	24.5	40.1
Less than 2 years	6	4.1	4.1	44.2
More than 10 years	82	55.8	55.8	100.0
Total	**147**	**100.0**	**100.0**	

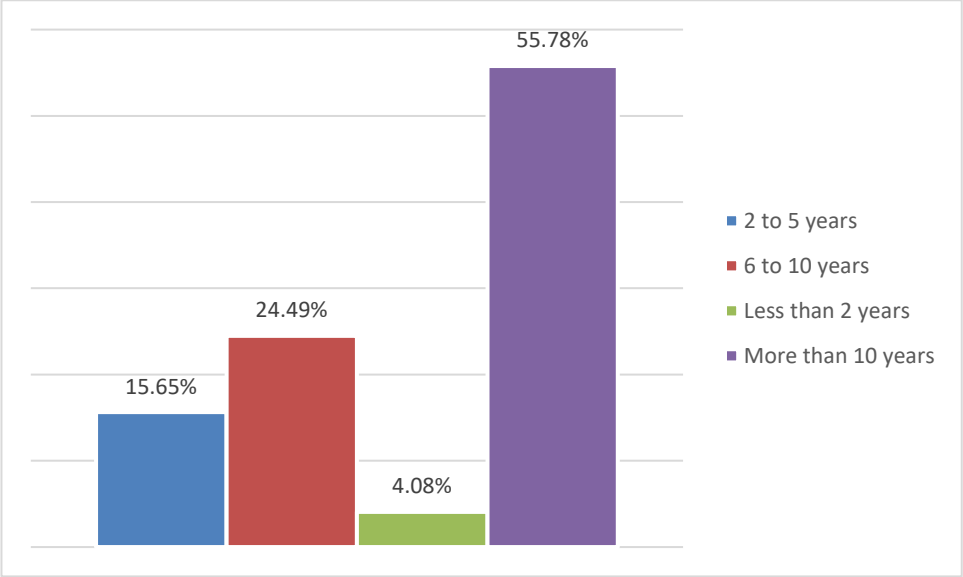


Figure 4-2: Participants' years of experience in distribution.

4.2.3 Respondents' roles

Table 4-3 and Figure 4-3 show the role of the research respondents within the organisation. As presented in Table 4-3, 1.4% of the research respondents are Chief Executive Officers, while 4.8% are directors and supervisors, respectively. In addition, 6.8% of the research respondents are draughtsmen, 51.7% are engineers, and 3.4% are estimators.

Furthermore, 19.7% of the research respondents are managers, while 2% are project planners and quality controllers. Lastly, 3.4% of the research respondents are technicians.

Table 4-3: Role of the research respondents within the organisation.

Roles within organisation	Frequency/ occurrence	Percentage	Valid Percentage	Cumulative Percentage
Chief Executive Officer	2	1.4	1.4	1.4
Director	7	4.8	4.8	6.1
Draughtsman	10	6.8	6.8	12.9
Engineer	76	51.7	51.7	64.6
Estimator	5	3.4	3.4	68.0
Manager	29	19.7	19.7	87.8
Project planner	3	2.0	2.0	89.8
Quality control	3	2.0	2.0	91.8
Supervisor	7	4.8	4.8	96.6
Technician	5	3.4	3.4	100.0
Total	**147**	**100.0**	**100.0**	

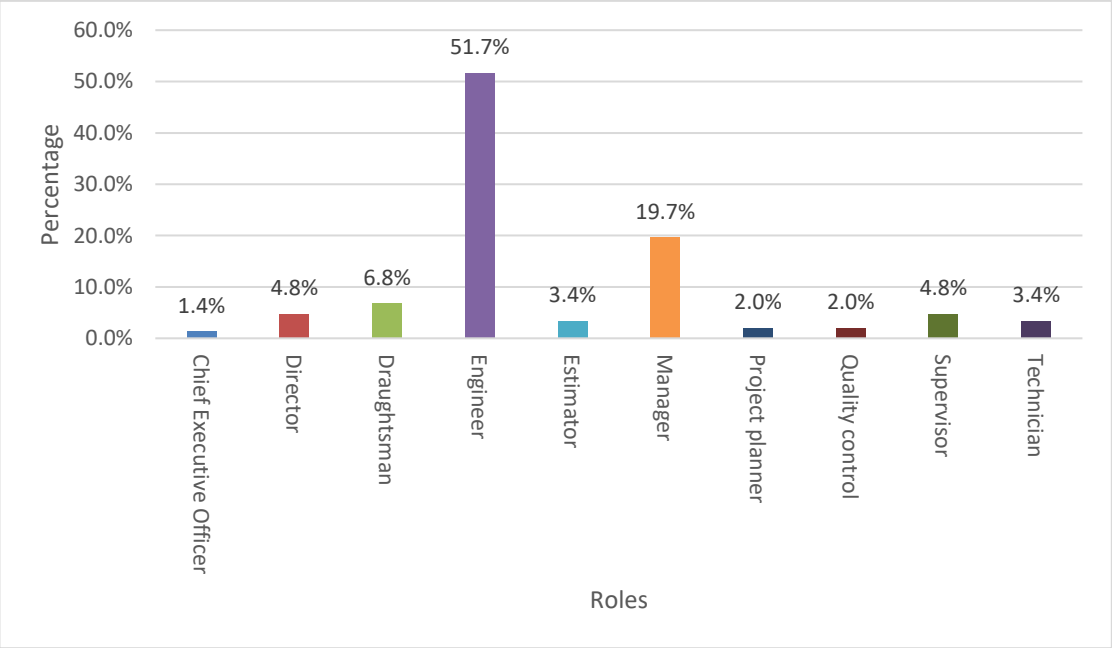


Figure 4-3: Participants role.

4.2.4 Management level

Table 4-4 and Figure 4-4 show the research respondents' current organisational management level. Data presented in Table 4-4 shows that 29.3% of the research respondents are in entry-level management, 4.1% are executives, and 42.9% are

in the middle management of their organisation. Moreover, 10.2% of respondents are at the non-management level, and 13.6% are at the senior management level.

Table 4-4: Management roles.

Management	Frequency/ occurrence	Percentage	Valid Percentage	Cumulative Percentage
Entry-level management	43	29.3	29.3	29.3
Executive	6	4.1	4.1	33.3
Middle management	63	42.9	42.9	76.2
Non-management	15	10.2	10.2	86.4
Senior management	20	13.6	13.6	100.0
Total	**147**	**100.0**	**100.0**	

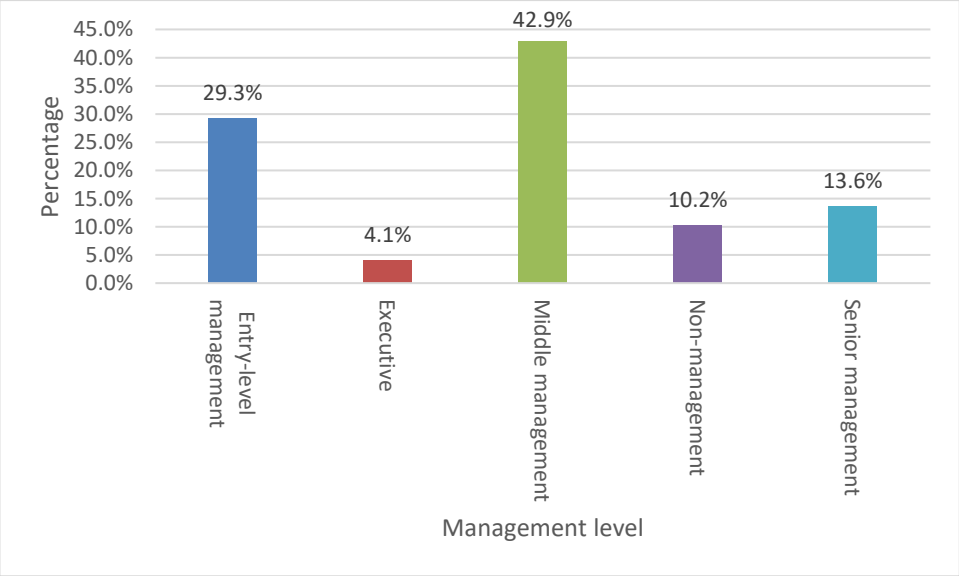


Figure 4-4: Management role distribution.

4.3 Descriptive Statistics

This section presents the results of the descriptive statistics. The research participants were requested to respond to statements on a five-point Likert scale comprising Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5).

4.3.1 Data completeness test

A case summary was performed to identify missing data from the collected responses. Table 4-5 shows that 147 respondents (N) participated in the survey. The results confirmed that all items of the questionnaires for all the model variables from the collected sample were completed, and there are no missing data.

Table 4-5: Generic case processing summary.

Summary of processed case						
Model variables	Cases detail					
	Case included		Case excluded		Total	
	N	Percentage	N	Percentage	N	Percentage
Organisational culture (OC)	147	100.0%	0	0.0%	147	100.0%
Recruitment (RC)	147	100.0%	0	0.0%	147	100.0%
Employee Retention (ER)	147	100.0%	0	0.0%	147	100.0%
Training & development (TD)	147	100.0%	0	0.0%	147	100.0%

4.3.2 Scale reliability test

Cronbach's Alpha was employed in the study to evaluate the instrument's internal consistency and reliability. Alpha values ranging between $0.7>\alpha\geq0.9$ are deemed very good, and $\alpha\geq0.9$ excellent (Hair Jr et al., 2019; Taber, 2018). Table 4-6 demonstrates that the values obtained in this study are very good and excellent.

Table 4-6: Scale reliability test.

Item #	Variable	No of item	Cronbach's Alpha
1	Organisational culture (OC)	9	0.926
2	Recruitment (RC)	7	0.774
3	Employee retention (ER)	8	0.871
4	Training and development (TD)	6	0.915

4.3.3 Organisational culture (OC)

The results of the OC variable are presented in this section. The computed Cronbach's alpha for the OC instrument is 0.93. Table 4-7 shows the frequency of Likert scale items and the mean and standard deviation of the questions under the OC construct.

Table 4-7: OC descriptive statistics.

Code	Item description	Item scale results						Statistical results	
		Scale	SD	D	N	A	SA	Mean	Std Dev
		Num. Scale	1	2	3	4	5		
OC01	"The culture in my organisation encourages employees to remain with the company".	Freq.	12	29	37	47	22	3.26	1.177
		Perc. (%)	8.2	19.7	25.2	32	15		
OC02	My organisation is like an extended family.	Freq.	18	33	48	41	7	2.90	1.09
		Perc. (%)	12.2	22.4	32.7	27.9	4.8		
OC03	My working experience is enjoyable.	Freq.	8	8	25	76	30	3.76	1.02
		Perc. (%)	5.4	5.4	17	51.7	20.4		
OC04	I am satisfied with the working environment.	Freq.	10	16	24	77	20	3.55	1.07
		Perc. (%)	6.8	10.9	16.3	52.4	13.6		
OC05	My organisation has a good working environment for developing employees.	Freq.	11	30	21	57	28	3.41	1.22
		Perc. (%)	7.5	20.4	14.3	38.8	19.0		
OC06	Training related to building a competent team is encouraged by the organisation.	Freq.	13	19	27	57	31	3.50	1.21
		Perc. (%)	8.8	12.9	18.4	38.8	21.1		
OC07	The culture in my organisation inspires me to go to work every day.	Freq.	8	27	37	56	19	3.35	1.09
		Perc. (%)	5.4	18.4	25.2	38.1	12.9		
OC08	My organisation treats	Freq.	10	28	39	55	15	3.25	1.09

	employees as valued resources.	Perc. (%)	6.8	19.0	26.5	37.4	10.2		
OC09	I would like to continue working in this organisation.	Freq.	14	16	43	49	25	3.37	1.17
		Perc. (%)	9.5	10.9	29.3	33.3	17.0		

Data presented in Table 4-7 confirms that some means are close to three (3), signifying neutralities, and some are close to four (4), suggesting agreements. Consequently, the research respondents agreed that their working experience is enjoyable and that they are satisfied with the working environment. The organisation encourages training related to building a competent team.

However, the research respondents were neutral in their belief that the culture in their organisation encourages employees to remain with the company and that their organisation is like an extended family. Their organisation has a good working environment for developing employees, and the culture in their organisation inspires them to go to work every day. Their organisation treats employees as valued resources, and they would like to continue working in their organisation.

4.3.4 Recruitment (RC)

This section presents RC results. The Cronbach's alpha computed for RC is 0.77. Table 4-8 displays the frequency of Likert scale items and the mean and standard deviation of the questions under the recruitment construct.

Table 4-8: RC descriptive statistics.

Code	Item Description	Item scale results						Statistical results	
		Scale	SD	D	N	A	SA	Mean	Std Dev
		Num. Scale	1	2	3	4	5		
RC01	"The brand value of my organisation affects the recruitment process."	Freq.	2	15	50	53	27	3.60	0.95
		Perc. (%)	1.4	10.2	34.0	36.1	18.4		
RC02	Internal hiring in my organisation helps in motivating the employees.	Freq.	12	17	30	62	26	3.50	1.15
		Perc. (%)	8.2	11.6	20.4	42.2	17.7		
RC03	My organisation clearly defines the position objectives and requirements in the recruitment process.	Freq.	10	15	23	76	23	3.59	1.08
		Perc. (%)	6.8	10.2	15.6	51.7	15.6		
RC04	"I was attracted to this organisation due to the good working culture while applying for the job post."	Freq.	10	35	44	38	20	3.16	1.14
		Perc. (%)	6.8	23.8	29.9	25.9	13.6		
RC05	The recruitment process is efficient and timely.	Freq.	14	31	29	54	19	3.22	1.20
		Perc. (%)	9.5	21.1	19.7	36.7	12.9		
RC06	"The right people are placed in the right positions in my organization."	Freq.	20	38	35	44	10	2.90	1.17
		Perc. (%)	13.6	25.9	23.8	29.9	6.8		
RC07	The process of selecting potential candidates in my organisation is fair.	Freq.	9	25	56	48	19	3.29	1.09
		Perc. (%)	6.1	17.0	31.3	32.7	12.9		

The tabulated results in Table 4-8 indicate that some of the means are close to 3, signifying neutralities, and some are close to 4, suggesting agreements. Accordingly, the research respondents agreed that the brand value of their organisation affects the recruitment process. Internal hiring in their organisation helps in motivating the employees. Their organisation clearly defines the position objectives and requirements in the recruitment process. However, the research respondents were neutral in that they were attracted to their organisation due to the good working culture while applying for the job post and that the recruitment process was efficient and timely. The right people are placed in the right positions in their organisation. The method of selecting potential candidates in their organisation is fair.

Almost all the standard deviations in Table 4-8 are closer to 1, implying that most respondents are far from the mean and that the agreement and neutrality among them are generally not high.

4.3.5 Employee retention (ER)

This section of the study presents ER results. This variable has a Cronbach's alpha of 0.87, indicating that it is a reliable research instrument (Taber, 2018). The frequency of Likert scale items and the mean and standard deviation of employee retention questions are presented in Table 4-9.

Table 4-9: Employee retention.

Code	Item Description	Item scale results						Statistical results	
		Scale	SD	D	N	A	SA	Mean	Std Dev
		Num. Scale	1	2	3	4	5		
ER01	My organisation has initiatives and programs in place aimed at retaining existing employees	Freq.	25	39	40	33	10	2.76	1.18
		Perc. (%)	17.0	26.5	27.2	22.4	6.8		
ER02	I am satisfied with my workload.	Freq.	12	33	26	57	19	3.26	1.18
		Perc. (%)	8.2	22.4	17.7	38.8	12.9		
ER03	I can reach my full potential in this organisation.	Freq.	14	27	31	46	29	3.33	1.25
		Perc. (%)	9.5	18.4	21.1	31.3	19.7		
ER04	I like coming to work every day.	Freq.	13	21	35	56	22	3.36	1.16
		Perc. (%)	8.8	14.3	23.8	38.1	15.0		
ER05	I see myself working here in the next 5 years.	Freq.	30	26	36	29	26	2.97	1.38
		Perc. (%)	20.4	17.7	24.5	19.7	17.7		
ER06	The opportunity for promotion exists in this organisation.	Freq.	19	29	38	41	20	3.10	1.24
		Perc. (%)	12.9	19.7	25.9	27.9	13.6		
ER07	Promotion in this organisation is fair.	Freq.	14	33	59	31	10	2.93	1.04
		Perc. (%)	9.5	22.4	40.1	21.1	6.8		
ER08	The remuneration and benefits of this organisation are fair.	Freq.	16	28	37	43	23	3.20	1.23
		Perc. (%)	10.9	19.0	25.2	29.3	15.6		

The results in Table 4-9 show that all the means are close to 3, signifying neutralities. Therefore, the research respondents were neutral about the fact that their organisation has initiatives and programmes aimed at retaining existing

employees and that they are satisfied with their workload. They can reach their full potential in their organisation and like coming to work every day. They see themselves working in their organisation in the next 5 years, and that the opportunity for promotion exists in their organisation. Promotion decisions in their organisation are fair, and the remuneration and benefits of their organisation are fair.

All the standard deviations in Table 4-9 are greater than 1, implying that most respondents are far from the mean and that their neutrality is generally not high.

4.3.6 Training and development (TD)

TD results are presented in this section. The computed Cronbach alpha for this variable construct is 0.92, indicating a reliable research instrument (Taber, 2018). An instrument with a Cronbach's alpha greater than 0.70 is considered reliable, as asserted by (Taber, 2018). Table 4-10 displays the frequency of Likert scale items and the mean and standard deviation of the questions under the training and development construct.

Table 4-10: Training and development.

Code	Item Description	Item scale results						Statistical results	
		Scale	SD	D	N	A	SA	Mean	Std Dev
		Num. Scale	1	2	3	4	5		
TD01	I receive adequate training to do my job better.	Freq.	11	22	28	61	25	3.46	1.16
		Perc. (%)	7.5	15.0	19.0	41.5	17.0		
TD02	I have the support to learn and do my work efficiently.	Freq.	6	18	29	67	27	3.62	1.05
		Perc. (%)	4.1	12.2	19.7	45.6	18.4		
TD03	Employees are sponsored for training to improve their skills.	Freq.	11	17	23	61	35	3.63	1.18
		Perc. (%)	7.5	11.6	15.6	41.5	23.8		
TD04	My organisation believes that developing employee skills is essential.	Freq.	10	13	30	69	25	3.59	1.08
		Perc. (%)	6.8	8.8	20.4	46.9	17.0		
TD05	The training programme given by my organisation helps improve my performance.	Freq.	11	15	30	67	24	3.53	1.11
		Perc. (%)	7.5	10.2	20.4	45.6	16.3		
TD06	My organisation offers career development programmes for employees.	Freq.	16	25	28	57	21	3.29	1.22
		Perc. (%)	10.9	17.0	19.0	38.8	14.3		

The results in Table 4-10 show that some of the means are close to 3, signifying neutralities, and some are close to 4, suggesting agreements. Consequently, the research respondents agreed that they have the support to learn and do their work efficiently and that employees are sponsored for training to improve their skills. Their organisation believes that developing employee skills is essential and that the training programme given by their organisation helps improve their performance. However, the research respondents were neutral about whether they received adequate training to do their jobs better. Their organisation offers career development programmes for employees.

All the standard deviations in Table 4-10 are greater than 1, which implies that most of the respondents are far from the mean and that the agreement and neutrality among them are generally not high.

4.3.7 Model variables descriptive statistics

The descriptive statistic results relevant to the model variables are tabulated in Table 4-11. The initial variable normalities were assessed using skewness and multivariate kurtosis as indicators. A new variable (Sk normality result) is created to test the normality of the model's dataset by dividing the Skewness number by its standard error. Similarly, Kurtosis is divided by its standard error to generate a variable (Ku normality result), as illustrated in Table 4-12.

For the dataset to be accepted as conforming to a normal distribution, the obtained value must be within the interval of -1.96 to 1.96; should the value fall outside this interval, the dataset is classified as non-normally distributed. This principle applies equally to both the Skewness and Kurtosis methodologies, and should either assessment indicate that the model data does not adhere to a normal distribution, such a conclusion is accepted without consideration of the outcomes of the alternative evaluation (Gogo, 2021).

Table 4-11: Variable descriptive statistics.

Descriptive Statistics		OC		RC		ER		TD	
		Statistic results	Std Error	Statistic results	Std Error	Statistic results	Std Error	Statistic results	Std Error
Mean		3.3741	.07379	3.3236	.05989	3.1122	.07258	3.5170	.07855
95% Confidence Interval for Mean	Lower Bound	3.2283		3.2052		2.9688		3.3618	
	Upper Bound	3.5200		3.4420		3.2557		3.6723	
5% Trimmed Mean		3.4078		3.3332		3.1187		3.5605	
Median		3.4444		3.2857		3.2500		3.6667	
Variance		.800		.527		.774		.907	
Std. Deviation		.89468		.72619		.87997		.95239	
Min		1.00		1.00		1.00		1.00	
Max		5.00		5.00		5.00		5.00	
Range		4.00		4.00		4.00		4.00	
Interquartile Range		1.11		1.00		1.38		1.00	
Skewness		-.554	.200	-.241	.200	-.150	.200	-.710	.200
Kurtosis		.019	.397	.086	.397	-.401	.397	.178	.397

4.3.8 Variables normality distribution test

Table 4-12 shows the results of the normality test. The results suggest that organisational culture (OC) and training and development (TD) variables exhibit a non-normal distribution, while recruitment (RC) and employee retention (ER) variables exhibit a normal distribution.

Table 4-12: Normally test results.

Normality test type		OC	RC	ER	TD
Statistic test	**Item description**	**Computed value**	**Computed value**	**Computed value**	**Computed value**
Skewness	Descriptive Statistic	-.554	-.241	-.150	-.710
	Standard Error	.200	.200	.200	.200
	Sk normality result	**-2.77**	**-1.205**	**-0.75**	**-3.55**
Kurtosis	Descriptive Statistic	.019	.086	-.401	.178
	Standard Error	.397	.397	.397	.397
	Ku normality result	**0.048**	**0.217**	**-1.010**	**0.448**
Normally distributed?	Skewness/Kurtosis check	**No/Yes**	**Yes/Yes**	**Yes/Yes**	**No/Yes**

Adapted from Gogo (2021).

Table 4-13: Statistical significance test for dataset normality.

Model variables	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic results	**Df**	**Sig.**	**Statistic results**	**Df**	**Sig.**
Organisational culture (OC)	.096	147	.002	.970	147	.003
Recruitment (RC)	.068	147	.089	.990	147	.423
Employee Retention (ER)	.091	147	.005	.986	147	.136
Training & Development (TD)	.132	147	.001	.945	147	.001
a. Lilliefors Significance Correction						

Furthermore, Kolmogorov-Smirnova and Shapiro-Wilk tests were performed to evaluate dataset normality distribution, as shown in Table 4-13. OC and TD variables were not statistically significant (values below 0.05); however, recruitment and employee retention are statistically significant (values greater than 0.05). The results confirm the test results presented in Table 4-12.

Figure 4-5 to Figure 4-8 display the attributes and distribution of the collected data for all the model variable constructs.

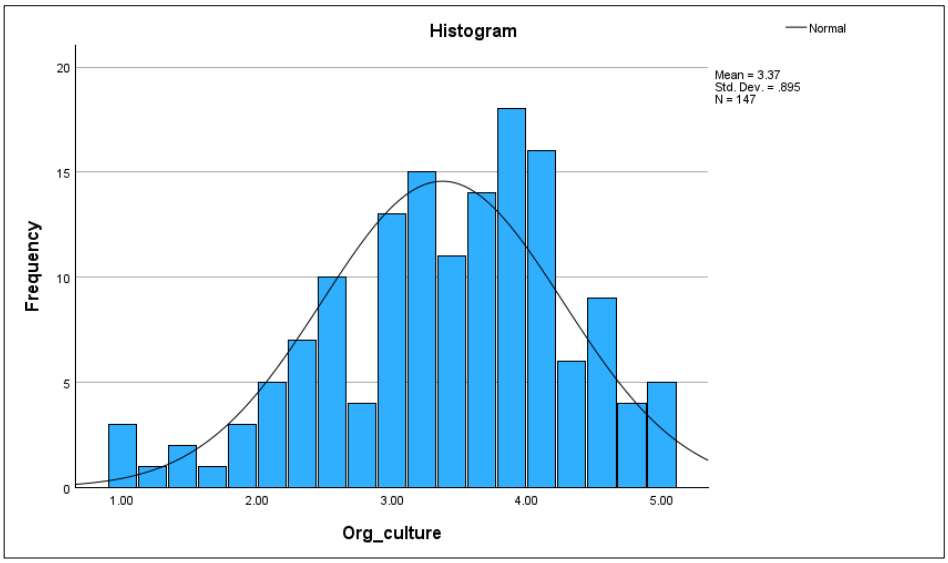


Figure 4-5: Organisation culture (OC) data distribution plot.

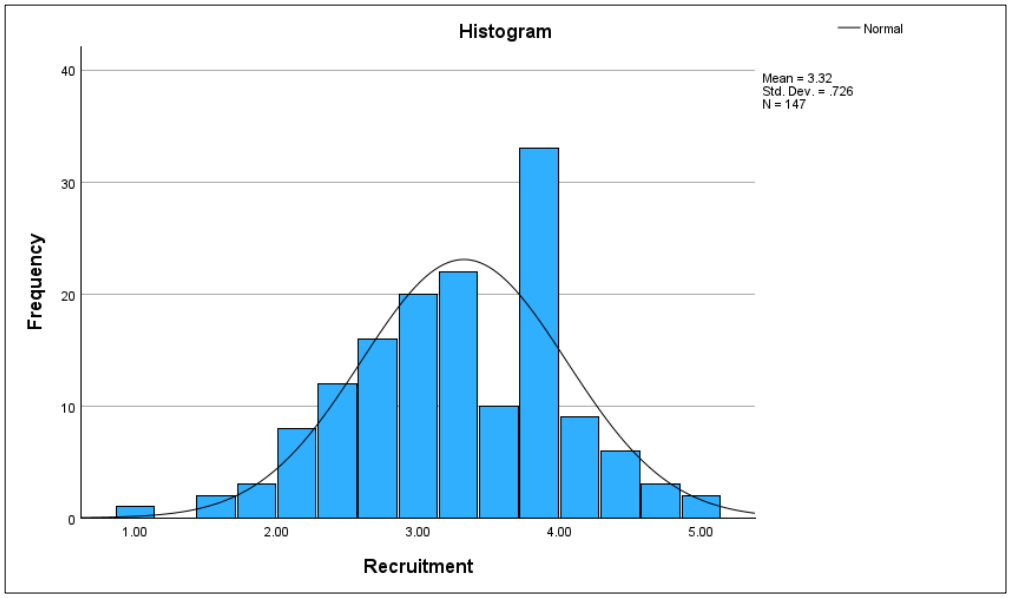


Figure 4-6: Recruitment (RC) data distribution plot.

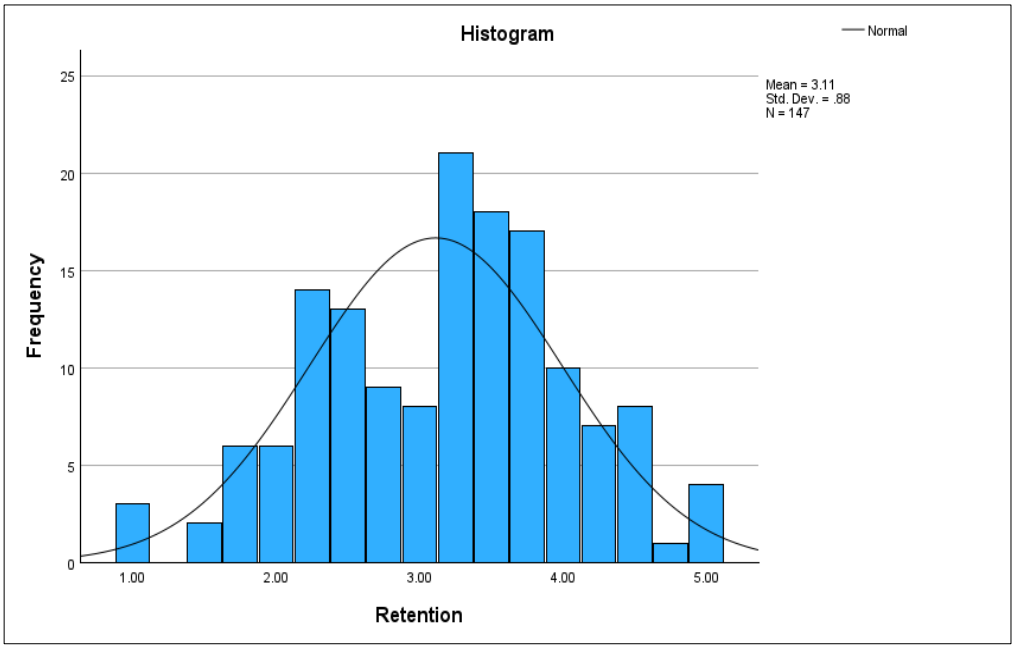


Figure 4-7: Employee retention (ER) data distribution plot.

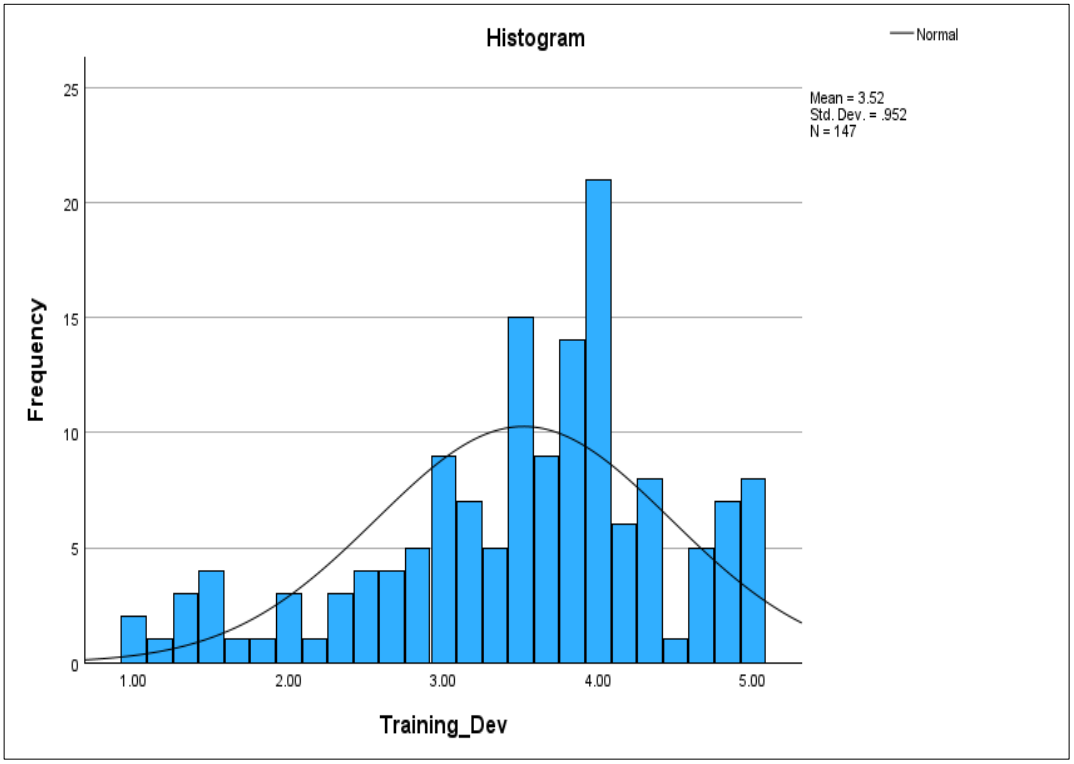


Figure 4-8: Employee retention (ER) data distribution plot.

4.4 Inferential Statistics

The results of the correlation and regression analyses are presented below.

4.4.1 Correlation analysis of variables

According to normality tests, the model data for this study did not follow a normal distribution; therefore, Spearman Rank correlation analysis was used to determine the correlation. Spearman's rank correlation evaluates the direction and strength of relationships between variable constructs for a non-normally distributed dataset (Wagner III, 2019).

Table 4-14 presents the correlation results to determine the relationship between the independent variable (OC) and the three talent management dependent variables (RC, ER, and TD).

Table 4-14: Correlation between OC and TM elements.

Model Variables	Statistical measures	Organisation culture (OC)
Recruitment (RC)	Spearman's coefficient	.712**
	Sig. (2-tailed)	<.001
Employee retention (ER)	Spearman's coefficient	.773**
	Sig. (2-tailed)	<.001
Training & development (TD)	Spearman's coefficient	.697**
	Sig. (2-tailed)	<.001
** Correlation is significant at the 0.01 level (2-tailed).		

The results presented in Table 4-14 show a strong correlation and significance between the independent variable organisational culture (OC) and dependent variables recruitment (.0712, p<.001), employee retention (.773, p<.001) and training & development (.697, p<.001).

4.4.2 Multivariate regression analysis

This subsection presents the multivariate regression results. Multivariate multiple regression models one independent variable set with multiple dependent variables (Ford, 2017; Morris et al., 2013; Okolie et al., 2021).

The multivariate regression analysis in this study was performed using Amos Version 24.0 Structural Equation Modelling (SEM).

4.4.2.1 Structural equation modelling (SEM)

SEM is a commonly used multivariate technique for assessing multivariate relationships and effects among variables in scientific studies (Collier, 2020). SEM methodologies are grounded on the basic concepts of regression. SEM demonstrates how correlations between variables can be aligned with models to improve interpretability and results (Grace & Bollen, 2005).

A multivariate regression model based on the framework presented in Chapter 2 is displayed in Figure 4-9. The model includes recruitment (RC), employee retention (ER), and training & development (TD) as the dependent variables and organisational culture (OC) as the independent or predictor variable.

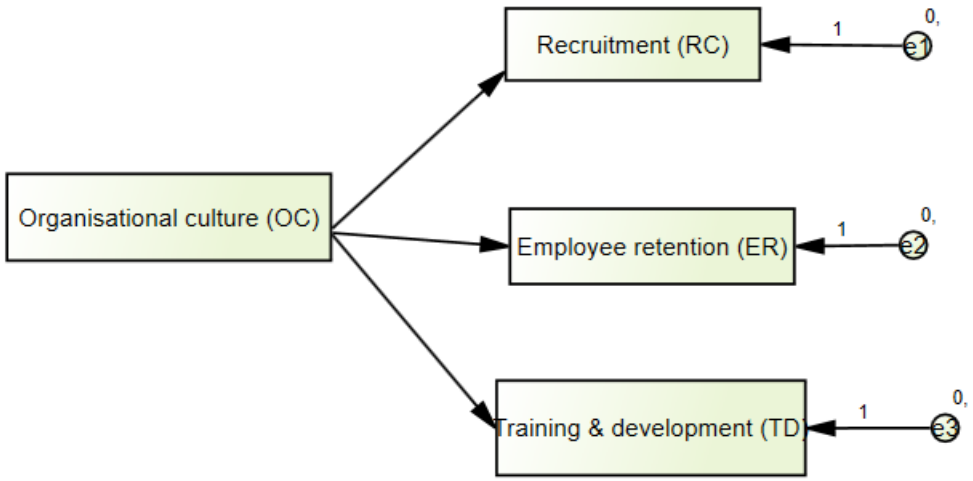


Figure 4-9: SEM path diagram.

4.4.2.2 Multivariate normality assumptions

Table 4-15 presents the output of the normality tests for all the variable constructs involved in the measurement model**.** The model is assessed using multivariate skewness, kurtosis and critical ratio tests. The results show that the regression assumptions for the multivariate regression model have been met as a critical ratio (CR) is between -1.96 and 1.96; furthermore, the Kurtosis value is between -2 and 2, indicating the normality of the data (Kline, 2023; Lei & Lomax, 2005).

The results in Table 4-15 show that all Skewness and Kurtosis values are acceptable for univariate normality. The results also show a lower CR-values than 1.96, indicating rejection of the null hypotheses for normality for recruitment (RC) and employee retention (ER). However, the CR-value above 1.96 indicates a failure to reject the null hypotheses for normality for organisational culture (OC) and training and development (TD). Therefore, only OC and TD were not normally distributed. The results in Table 4-15 confirm the normality tests performed in section 4.3.8.

Table 4-15: Multivariate normality assessment results.

Model variable	Minimum	Maximum	Skew	c.r.	Kurtosis	c.r.
Organisation culture (OC)	1.000	5.000	-.548	-2.712	-.023	-.056
Recruitment (RC)	1.000	5.000	-.238	-1.180	.042	.105
Employee Retention (ER)	1.000	5.000	-.148	-.733	-.428	-1.060
Training and development (TD)	1.000	5.000	-.703	-3.479	.131	.325
Multivariate					1.483	1.297

Although the results showed non-normality for model construct variables OC and TD, SEM analysis was performed using Bootstrapping. Bootstrapping is a technique SEM uses to analyse non-normal datasets since multivariate normality assumptions are not required. The method involves repeatedly sampling the original dataset to assess whether the estimated relationships are within the confidence intervals (Byrne, 2013; Collier, 2020; Kline, 2023).

4.4.2.3 Model summary

The direct relationships between OC and TM elements (RC, ER & TD) were tested simultaneously with bias-corrected of 1,000 resample bootstraps at a 95% confidence interval.

The multivariate regression model results shown in Table 4-16 contain the outputs for each of the response variables recruitment (RC), employee retention (ER), and training & development (TD). In each of the outputs in Table 4-16, the multiple R-squared were 0.56, 0.65, and 0.48, respectively. The results indicate that about 56%, 65%, and 48% of the variation in each univariate model is explained by the organisational culture (OC).

Furthermore, the p-values for the organisational culture (OC) coefficient in each univariate output are below 0.05. Thus, OC is a relatively good factor in predicting TM elements (recruitment, employee retention, training and development).

Table 4-16 similarly shows the coefficients results of the regression analysis including critical ratios (C.R). The analysis confirms a significant relation between RC and OC (C.R = 13.548, p = 0.004), ER and OC (C.R = 16.574, p = 0.002), TD and OC (C.R = 11.666, p = 0.003). The C.R. values exceed 1.96, while the p-values are below 0.05.

Generally, the estimated weights range from -1 to +1; a weight near 0 suggests a weak correlation, while weights near +1 or -1 suggest strong positive or negative correlations (Byrne, 2013; Fan et al., 2016). All the weights or estimates in Table 4-16 are above 0, confirming positive relationships. TD is less influenced by OC compared to RC and ER, with β = 0.696 for TD and estimates of β = 0.748 and β = 0.809 for RC and ER, respectively.

Table 4-16: Regression path weights and coefficients.

Paths	R Square	Estimates (β)	Estimate Std. Error	C.R (t values)	P (sig)	Remark
OC -- > RC	0.564	0.748	0.037	13.548	0.004***	The relationship indicated in the framework is accepted.
OC -- > ER	0.655	0.809	0.029	16.574	0.002***	The relationship indicated in the framework is accepted.
OC -- > TD	0.484	0.696	0.037	11.666	0.003***	The relationship indicated in the framework is accepted.

4.4.2.4 Path diagram

Figure 4-10 shows all direct relationships of variable estimates in the model, with estimate values rounded to two decimal places. The results are statistically significant as the computed p-values are lower than 0.05. Therefore, organisational culture (OC) significantly affects the talent management (TM) elements of recruitment (RC), employee retention (ER), and training and

development (TD) as a group of dependent variables in the multivariate regression model shown in Figure 4-10.

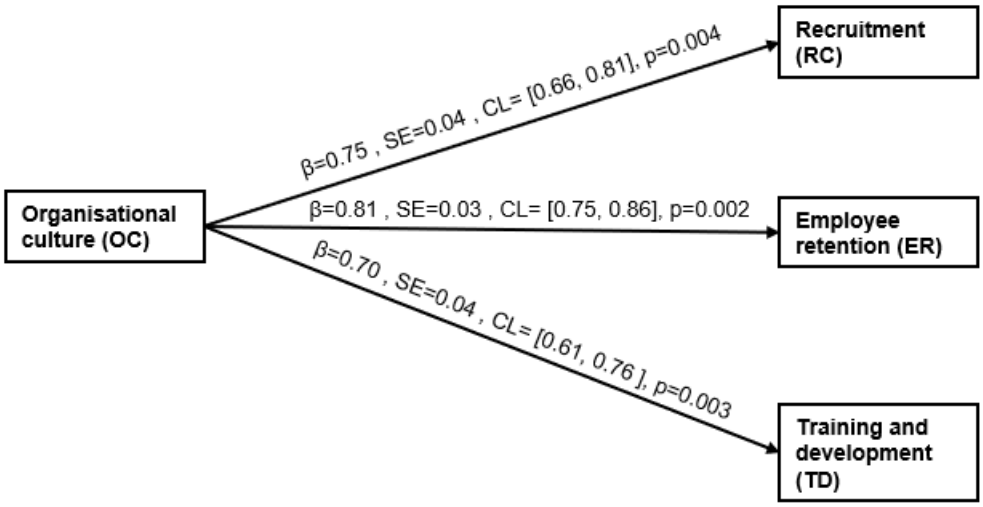


Figure 4-10: The result of SEM.

SEM results in Figure 4-10 show that an improvement in organisational culture (OC) will result in a significant improvement in recruitment (RC), employee retention (ER), and training and development (TD) in the organisation.

4.4.2.5 Confidence intervals of the SEM results

Figure 4-10 shows the confidence intervals of the SEM results. The results indicate that the confidence intervals do not include zeros (regression estimates do not cross the zero line); this means that the effect is statistically significant at the chosen confidence level of 95%. For example, OC~RC represents the path from organisational culture (OC) to recruitment (RC), as shown in Figure 4-10.

4.5 Open Ended Question Results

The open-ended question was analysed qualitatively. The results are presented in this section. In the research survey, respondents were asked to answer a semi-structured question about the general view of their respective organisations' cultures. A thematic analysis approach was adopted for data analysis based on the process described by Saldaña (2016), and Kiger and Varpio (2020).

4.5.1 Analysis approach

The text responses from the survey were coded using open coding, resulting in thirty-three codes. These codes were reviewed and grouped into twelve categories. The twelve categories were examined and further summarised into three themes: positive views of the culture by respondents, negative views of the culture by respondents, and neutral views of the culture by respondents, respectively, to address the research question.

Theme numbers depend on the researcher's discretion and the study's nature (Saldaña, 2016). While Creswell and Creswell (2023a) believe that five or six themes are considered adequate for a study, Wolcott (2008) suggested that three main themes are adequate for qualitative analysis. In support of Wolcott (2008), Saldaña (2016) indicated that the main qualitative themes should be kept at a minimum to maintain the study's coherence.

4.5.2 Respondents' negative view of culture

Survey participants were asked for their general view of the culture in their respective organisation. A summary of negative views expressed by respondents regarding cultural practices within their organisations is presented in Table 4-17, based on the analysis, including verbatim excerpts from the survey data.

Table 4-17: Research respondents' negative views of their organisations' culture.

Category	Code frequency	Code example	Verbatim excerpt sample
○ **Autocratic culture &** ○ **Bureaucratic tendencies**	6	Dictatorship culture & Bureaucracy	*"The culture is more of dictatorship "* (Respondent 2) *"There is still a tendency of defaulting to bureaucracy when attending to certain issues"* (Respondent 4) *"The culture is not conducive for growth because decisions are only made by one person" (Respondent 85)* *"* *"The experience at the company is heavily dependent on your direct manager." (Respondent 123)*
○ **Divisive culture**	6	Divisive	*"The systems implemented around people were intended for the good of the people and has people's best interests. However, these systems are abused by employees to destroy each other*." (Respondent 96)
○ **The culture does not value employees**	12	Employees are not valued	*"The culture in my organisation is not encouraging at all, the employees are treated like objects "* (Respondent 7)
○ **Poor Leadership and lack of accountability**	2	Leadership not visible & poor	*"It is not clear due to constant changes in leadership positions. There is poor leadership"* (Respondent 18) *There is a culture of non-accountability due to poor leadership and non-ownership of projects*. (Respondent 107)
○ **The culture is not good**	10	The culture is poor and deteriorating	*"Over the years it has deteriorated from good to toxic "*(Respondent 44)
○ **Lack of Inclusivity & inequality**	8	The culture is not fair	*"The company culture does not promote hardworking deserving employees however whoever has contacts and can align with management gets rewarded and promoted"* (Respondent 83)

4.5.2.1 Autocratic culture and bureaucracy

Respondents considered their organisational culture as autocratic, characterised by a tendency towards bureaucracy, where decisions are made and dependent on specific individuals, which suggests a hindrance to effective decision-making. Furthermore, this indicates that Respondents feel excluded from decision-making and may be perceived as a lack of empowerment and engagement.

One respondent noted, *"The culture is more of dictatorship"* (2:2 ¶ 2, Respondent 2). Another respondent remarked, "*There is still a tendency to revert to bureaucracy when addressing certain issues"* (4:3 ¶ 2, Respondent 4). Respondent 123 indicated *"The experience at the company heavily depends on your direct manager."* Similarly, Respondent 134, as quoted in Table 4-17, stated, *"The culture is dependent on the CEO's perceptions and preferences. Other views are rarely adopted".*

4.5.2.2 Divisive culture

Responses provided by Respondents 42 and 96 suggest there is an element of divisiveness in their respective organisations. Respondent 42 commented *"At my level, throwing people under the bus is normal in my organisation, it is the order of the day".*

Respondent 96 observed, *"The systems implemented around people were intended for the good of the people and has people best interests. However, these systems are abused by employees to destroy each other".*

The response from Respondents 96 and 42 highlights challenges within the culture in their respective organisations, specifically concerning the misuse of systems intended to support employees. As remarked by Respondent 96 systems are frequently exploited, undermining their original purpose. This issue is further emphasised by Respondent 42's comment that "throwing people under the bus" suggests a toxic work environment where betrayal has replaced collaboration.

4.5.2.3 Employees not valued

A recurring theme is a perception that employees do not feel valued by their organisation, particularly regarding support, training and development. Respondent 5 reported *“The company does not visibly/obviously value its people”.* Respondent 7 similarly stated, *“The culture in my organisation is not encouraging at all, the employees are treated like objects”.* A similar sentiment is echoed by Respondent 79 who mentioned *“My organisation does not value its employees”.* The views expressed by respondents are an indication of systemic issues with how employees are treated and prioritised.

4.5.2.4 Poor Leadership and lack of accountability

Several respondents expressed concerns regarding leadership and the level of accountability within their organisations. Respondent 18 reported poor leadership, the culture is not clear due to continuous changes in leadership and stated*, “It is not clear due to constant changes in leadership positions”* and added further that *“There is poor leadership”.* The comment by Respondent 18 suggests a lack of clarity and stability as a result of frequent leadership change.

Moreover, Respondent 107 stated *"There is a culture of non-accountability and non-ownership of projects".* This comment suggests potential issues of responsibility avoidance within the organisation, where employees do not take responsibility for their work or projects.

4.5.2.5 The culture is not good

Figure 4-11 displays an Ad hoc network extracted from Atlas ti, showing the code the culture is poor. Direct quotations reflect respondents' opinions on the culture within their organisations. The analysis shows that the dominant theme among respondents is the decline of organisational culture, with the word poor frequently mentioned. From Figure 4-11, direction quotations as commented by Respondents include:

"Poor work culture" (3:2 ¶ 2 in Respondent 3)
"Uncultured and very poor culture" (10:1 ¶ 2 in Respondent 11)
"Deteriorated from good to toxic" (37:1 ¶ 2 in Respondent 44)
"The culture has evolved from good to bad" (97:1 ¶ 2 in Respondent 112)
"It is on a downward spiral" (58:1 ¶ 2 in Respondent 67)

The general responses indicate a consensus on the negative trajectory of the organisational culture, with poor being the dominant theme, as highlighted by Respondent 3: "Poor work culture."

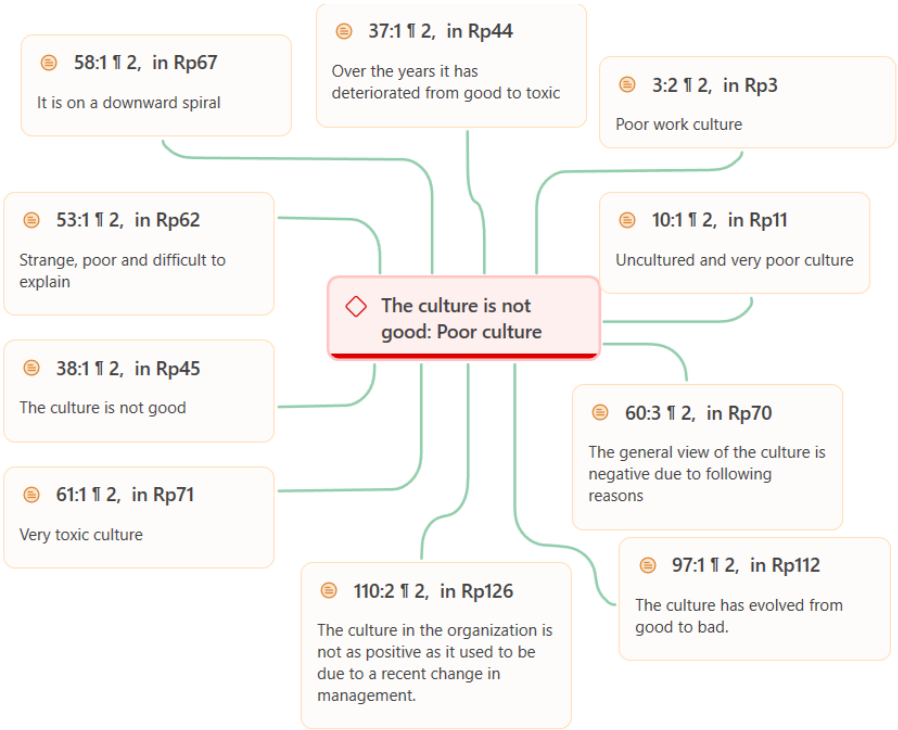


Figure 4-11: Ad hoc network diagram of poor culture code.

4.5.2.6 Lack of inclusivity and inequality

The analysis shows a common dissatisfaction with the organisational culture (OC) among the respondents, marked by perceptions of unfairness, bias, and a male-dominated environment.

Although some respondents describe their OC as flexible, however; others voice concerns about a lack of diversity; for example, Respondent 111 commented on the environment being *" Very male-dominated".* This view is equally shared by Respondent who noted "*The organization is male-dominated and although they are lenient and flexible, they mostly believe in all work and no play".*

The issue of inequality is equally prevalent, with Respondent 86 pointing *out "The culture is not fair. There is abuse of power and unfair remunerations."* Respondent 83 reported that promotions often favour connections over merit. Racial discrimination is also highlighted as a significant issue, with Respondent 98 stating that *"From racial discrimination and treatment to unfair business practices and the unfair employment. It is difficult to cultivate a progressive culture when the leaders are unqualified and racist".* The general prevailing sentiment is one of unfairness and male-dominated.

4.5.3 Respondents' positive view of culture

Table 4-18 shows the positive views of research respondents related to the culture in their organisations, including direct quotations from the survey responses.

Table 4-18: Research respondents' positive views of their organisations' culture

Category	Code frequency	Code example	Verbatim excerpt sample
○ **Caring and collaborative**	10	Accommodating and friendly	*"Caring, Friendly and open "* (Respondent 61)
○ **Good work culture**	19	The culture is good	*"The culture is good enough to create a safe and progressive*

			work environment" (Respondent 100)
○ **The culture supports and values employees**	16	Values employees	*" Each employee is valued for the work they do "* (Respondent 132)
○ **The working environment is good**	17	Good working environment	*"The culture at---is good and provides a good working environment"* (Respondent 31)

4.5.3.1 Caring and collaborative

The analysis reflects an organisational culture (OC), categorised by inclusivity, friendliness, and collaboration. Respondent 24 commented, *"The culture accommodates everyone, and it is friendly."*.
Respondent 61 describes OC as *"caring, friendly, and open."*. Respondents acknowledged the enjoyable working environment, Respondent 21 is quoted as saying *"Colleagues are caring and make the working environment enjoyable".*
While Respondent 43 stated, *"We have positive mindset and working together to reach one goal."* This collaborative spirit is further explained by Respondent 74's reference to the *"We co-create impactful engineering solutions."*

The prevailing words are friendly, caring, collaborative, and inclusivity. These descriptions highlight a supportive and engaging OC as suggested by Minbaeva and Collings (2013).

4.5.3.2 Good work culture

Figure 4-12 displays an ad hoc network of the code "The culture is good". The network shows direct quotations shows what respondents said about this emerged code and direct links to neighbour quotations.
From Figure 4-12, views expressed are positive regarding the organisational culture (OC) in respondents' work environment. Several respondents expressed satisfaction with their OC. Respondent 52 commented " *The culture is good and*

positive", and Respondent 127 is quoted in Figure 4-12 saying *" The culture is good, and continuous improvement is our middle name"*.

Furthermore, common words include "good," "very good," and "great," with Respondent 49 noting the company's focus on consistent values and HR policies.

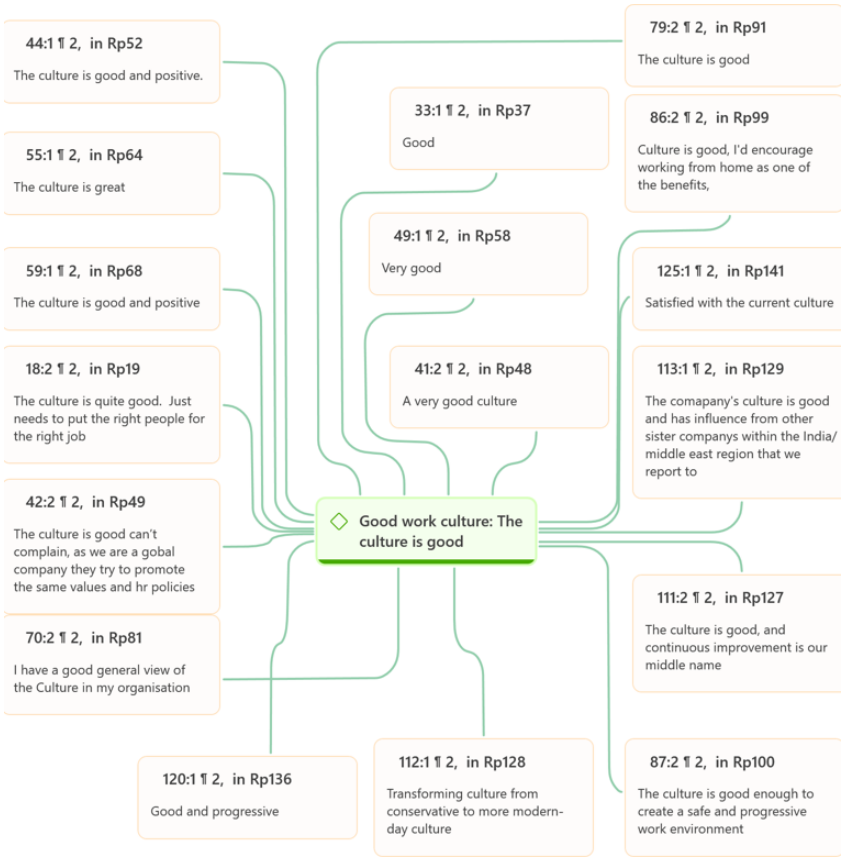


Figure 4-12: Ad hoc network diagram of the culture is good code.

4.5.3.3 The culture supports and values employees.

The analysis shows a strong sense of being valued, with many respondents showing appreciation for the employee-focused initiatives. Respondents remarked:

“I feel valued. The organization has good value propositions for the employees and aims at attracting young talent and retaining high potential employees through its initiatives” (11:3 ¶ 2 in Respondent 12).

“It is friendly, transparent and I feel valued” (63:1 ¶ 2 in Respondent 73).

Respondent 15 stated, *"I feel valued and appreciated, the organisation is employee centred".* While Respondent 23 commented that *"The organisation takes care of employees."* This care is echoed by Respondent 92, who emphasised that " *My organisation is people focused, everyone is valued for the contribution they make"*.

Furthermore, respondents commented on the organisation's commitment to development, training and growth. Respondent 32 mentioned that *"It supports employee development, training and growth"*. Opportunities for training and career advancement are recognised by Respondent 115, who highlighted fair treatment and educational opportunities. The perspective shared by respondents indicates a culture that prioritises recognition, support and growth, suggesting a solid foundation for employee engagement and satisfaction (Krishnakumar & Kavya, 2021).

4.5.3.4 The working environment is good

From the analysis, the general response from Respondents is that cultures in their organisation promote a good working environment. As quoted, Respondent 31 said, *"The culture at…is good and provides a good working environment".*

Many respondents noted enjoyable workplaces, like the friendly atmosphere and social activities such as monthly Braai's. Flexibility and trust were similarly emphasised. Respondent 82 remarked *" It's the best I've ever worked for; the work environment is quite good since I became an engineer. They trust me. My work is hybrid, so as long as it's done, they're happy"*.

Respondent 124 stated *"Good working environment and happy hardworking people"*, this statement suggests a culture that supports both productivity and employees' well-being.

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Respondent 124 noted the presence of a *"Good working environment and happy hardworking people"*, indicating a culture that supports both productivity and employees’ well-being.

4.5.4 Respondents’ neutral view of culture

The responses from respondents present a neutral view of the culture at their respective organisations. Respondents’ responses suggest a sense of balance without strong positive or negative views.

The view by respondent 145 as quoted: *“The culture at my current job is quite neutral. It's not particularly outstanding or problematic. It provides a stable environment where people can focus on their tasks without too much distraction or undue stress. There are no significant issues, but also not many standout aspects that make it exceptionally positive. Overall, it's a balanced atmosphere where work gets done effectively”.*

Respondent 145’s perspective points out a lack of significant issues while also suggesting that there are not many standout aspects that contribute to a positive culture. Respondent 25 echoed this sentiment, stating that *"The culture is fairly balanced, not bad neither good”.*

The general tone of the responses suggests a work environment that is functional but lacks distinctive qualities that would make it particularly engaging or inspiring.

4.5.5 Themes and summarised views

The Sankey diagram in Figure 4-13 was plotted using code frequency related to themes in Atlas ti. The diagram compares the thematic strength and distribution based on the survey response frequency of the three themes. The width of the arrow or flow in a Sankey diagram indicates the magnitude or connection related to a particular concept. Therefore, wider arrows signify larger quantities or stronger connections, while narrower arrows represent smaller quantities or weaker connections in connection to a concept.

From Figure 4-13, it is evident that the positive view of the OC has a wider width, followed by the negative views of OC, and lastly the neutral views. This suggests that, while most research respondents hold generally positive opinions about their organisation's culture, a significant portion express negative views. The limited width of the neutral category indicates that few respondents regard their culture as neutral, neither particularly good nor bad. Overall, the prevailing sentiment regarding OC among respondents leans toward the positive.

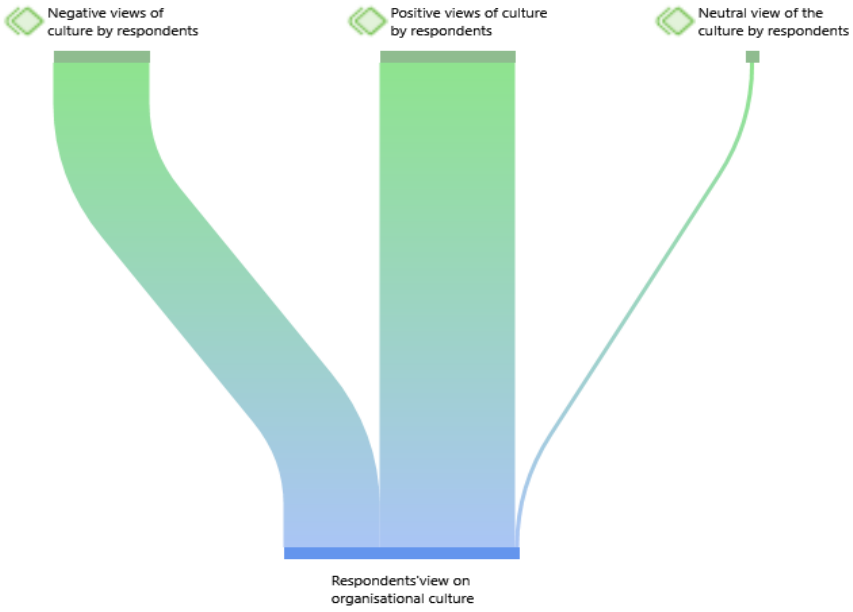


Figure 4-13: Sankey diagram of themes

4.6 Chapter Summary

The results of the data analysis were presented in this chapter. The results are discussed and compared to the research objectives in the next chapter.

CHAPTER 5 DISCUSSION OF FINDINGS

This study explored the role of organisational culture in talent management based on social exchange and human capital theories with a focus on Johannesburg engineering firms. The literature was reviewed in Chapter 2 to develop the conceptual framework, which illustrated the relationship between the model variables. The framework proposed a direct relationship between organisational culture and talent management elements, including recruitment, employee retention, and training & development.

The results of data analysis were presented in the previous chapter; this section explores the findings informed by the results and analysis performed in Chapter 4 to determine if the study objectives have been achieved and whether research questions have been answered. Furthermore, this chapter considers the consistency of the results of this study and the degree to which they are correlated with previous studies.

Specifically, the study's first objective (RO1) was to explore the relationship between organisational culture and talent management elements (recruitment, employee retention, and training & development). The second objective (RO2) was to understand the general view of employees regarding cultural practices in their organisation.

5.1 Relationship between OC and TM Elements (RO1)

This study surveyed participants based in Johannesburg, employed in diverse engineering sectors. The framework model in Figure 2-1 posited that organisational culture (OC) has an influence on talent management (TM) elements, which include recruitment (RC), employee retention (ER), and training & development (TD). RC, ER and TD are the dependent variables, while OC is the predictor or independent variable.

The relationship between OC and TM elements was assessed using a correlation test. The correlation between OC and RC, OC and ER, and OC and TD was positive and significant. The computed Spearman's Rho coefficients were 0.712 for RC, 0.773 for ER, and 0.697 for TD, with all results demonstrating statistical significance at $p < 0.001$. From the results, it can be inferred that a significant positive relationship exists between OC and TM elements (RC, ER, and TD).

Multivariate regression analysis was performed using structural modelling to test the effect between the independent variable (OC) and dependent variables (RC, ER and TD). Adjusted R-squared values computed were 0.56, 0.65, and 0.48 for dependent variables RC, ER and TD, respectively, with calculated p-values lower than the significance level of 0.05. These results indicate that the regression model significantly predicted the outcome. R-squared values suggest that the independent variable OC can explain 56%, 65%, and 48% of the variability in these TM elements.

The analysis empirically confirmed that OC is a relevant predictor for TM and positively predicted all three TM elements (RC, ER & TD). The estimates (beta) values obtained indicate that OC predicted ER among the respondents studied more than any other TM variable ($\beta = .809$); this was followed by RC ($\beta = .748$) and TD ($\beta = .696$), at a significance level of less than 0.005. From the above estimates, OC's influence on TD was slightly less than that of other variables (RC and ER).

Compared with previous studies, the relationship between OC and ER found in this study differs from the findings of Murtiningsih (2020). However, it is consistent with Adeoye and Hope (2020) and Chikumbi (2011), who empirically demonstrated that organisational culture affects employee retention. Similarly, the study by Krishnakumar and Kavya (2021) also found a positive relationship between OC & ER and OC & RC in their analysis of organisational culture's effect on talent management in India. However, Krishnakumar and Kavya (2021) found the relationship between OC and TD insignificant, suggesting that the independent variable OC does not affect the dependent variable TD.

In contrast to Krishnakumar and Kavya (2021), Chikumbi (2011), Kissack and Callahan (2011), Adewale and Anthonia (2013), Kravariti (2016), as well Omar and Mahmood (2020) in their respective studies reported a significant positive relationship between TD and OC which corroborates the findings of this study. The need for training and development is further supported by Sherman et al. (2014), who demonstrated that a learning organisation brings out the best in its employees to improve the organisation. Correspondingly, Abdul-Kareem (2016) asserted that OC impacts all aspects of talent management.

Training and development (TD) is a form of commitment by the organisation to the employees (Ndung'u & Omondi, 2015; Omar & Mahmood, 2020), which is linked to promotion prospects and succession planning; therefore, in a politicised culture where unfair practices are prevalent, only selected individuals are developed.

The relevance of organisational culture (OC) is clear, and the analysis validated the association between OC and TM elements. The process of recruiting, retaining and developing talents depends on the existing culture within the organisation.

5.2 Employee General Views on Cultural Practices in their Organisation (RO2)

In the final part of the survey, research respondents were requested to share their views on the general cultural practices within their organisations through semi-structured questions. Several themes emerged, essentially grouped into three main themes: positive and negative views of culture and neutral views.

The Sankey diagram in Figure 4-13 shows that the general view from respondents regarding their organisation's culture (OC) is optimistic, and it is evident that the cultural practices of engineering firms within Johannesburg are positive. However, the analysis similarly showed a concern among respondents.

One of the recurring themes is the autocratic and bureaucratic tendencies reported by respondents in many engineering firms in Johannesburg. Respondents feel that decision making is centralised, leading to feelings of exclusion. In an autocratic and bureaucratic environment, employees are unlikely to remain with the organisation, and consequently, their level of commitment to the organisation is negatively affected according to Nongo and Ikyanyon (2012). Goleman (2017) asserted that an autocratic environment hinders employee engagement and creativity.

Moreover, the divisive culture reported by respondents suggests a toxic environment where collaboration is undermined. Quotes such as *"throwing people under the bus is normal"* characterise an environment rampant with betrayal and mistrust, which can severely damage team cohesion and morale (Kahn, 1990; Serenko, 2023).

Another critical aspect is respondents' perception of not being valued. Many respondents expressed feelings of being treated as mere tools rather than valued team members. The importance of valuing employees can also not be ignored. Although employees are not reflected in the balance sheet of companies, they are a business's most important asset (Matlhape & Lessing, 2002). This view by Matlhape and Lessing (2002) relates to the social exchange theory. Furthermore, Shingenge and Saurombe (2022) maintained that people are not mere tools to meet business goals but valuable assets to the organisation. Therefore, the term "human capital" is utilised. People-oriented cultures are crucial for managing talent because they prevent these employees from leaving or becoming a hazard. According to Gabriela et al. (2023) and Mbayong and Placide (2021), employees who feel valued and supported are highly engaged, more productive, creative, loyal, and more likely to remain in the company. Bakker and Demerouti (2008) in their study found recognition and support to improve job satisfaction and employee retention.

Furthermore, poor leadership and lack of accountability issues were mentioned. Respondents cited constant changes in leadership as a source of lack of clarity and instability. This reflects literature by Yukl and Gardner (2018), who asserted that ineffective leadership negatively impacts OC and employee performance.

A good organisational culture provides a conducive workplace environment with cohesion and collaboration, promoting learning and human capital development (Abdul-Kareem, 2016). Chikumbi (2011) and Sadeli (2015) asserted that a good and supportive culture is a prerequisite for recruiting and retaining employees, which can unlock the potential and performance of employees, leading to growth and competitive advantage for the company. This exchange relationship can be viewed from a SET, as asserted by Ahmed et al. (2018).

In agreement with Chikumbi (2011), Krishnakumar and Kavya (2021) suggested that in the digital era, prospective candidates have a general knowledge of the cultural practices of companies through media or word-of-mouth and will join companies with a good culture. Conversely, companies with a poor and toxic culture may struggle to attract high-potential talent (Acharya, 2015; Vasiljeva, 2020).

5.3 Chapter Summary

Research findings are discussed and interpreted in this chapter. The discussion has been focused on the research objectives and how the findings concur or contrast with prior literature and findings relevant to organisational culture and talent management. The findings are generally consistent with the literature.

The next chapter presents the study's conclusions, recommendations, limitations, opportunities for future research, and contributions.

CHAPTER 6 CONCLUSION AND RECOMMENDATIONS

The previous chapter discussed the study findings concerning the research objectives. In this study, the primary objectives were to explore the relationship between organisational culture and elements of talent management (recruitment, employee retention, training & development). The study also aimed to understand employees' general view of cultural practices in their organisation, focusing on engineering firms in Johannesburg. This chapter summarises the findings, conclusions, recommendations, and suggestions for future research.

6.1 Conclusion

The assertion that organisational culture has a role in talent management served as the foundational basis of this research. The study's objectives systematically guided the literature review, resulting in the conceptual framework in section 2.5. A concurrent mixed-method research approach was adopted, using a survey to collect primary data. Random sampling technique was used as a sampling procedure to sample the survey's respondents. One hundred and forty-seven (147) responses were obtained, and all were deemed acceptable for analysis.

Statistical Program for Social Science (SPSS) Version 29, in conjunction with Amos Version 24, were used for quantitative analysis, while the qualitative data were analysed with ATLAS ti Version 24 to answer the research questions.

The research questions were as follows:

6.1.1 Research question one

i. **RQ1**: Is there a significant relationship between organisational culture and talent management elements?

Correlation and multivariate regression analysis were performed to answer research question one. Statistical analysis and theoretical findings confirmed a positive relationship between organisational culture and talent management

elements (recruitment, retention and training & development). The study confirmed a significant relation between RC and OC (β = .748), ER and OC (β = .809), TD and OC (β = .696), at a significance level of less than 0. 05. Therefore, the role of organisational culture in talent management has been tested and confirmed.

The study results confirm that research objective one (RO1) has been met and research question one (RQ1) has been answered.

6.1.2 Research question two

II. **RQ2:** What are the general views of employees regarding organisational culture practices in their organisations?

To answer research question two, responses from an open-ended question were analysed qualitatively. The analysis confirmed that the general views of employees have been positive as demonstrated using the Sankey diagram in Figure 4-13; however, some areas require improvement.

From the analysis and reviewed literature, it can be concluded that an organisation's culture needs to be conducive to implementing effective talent management practices.

The study results confirm that research objective two (RO2) has been met and research question two (RQ2) has been answered.

6.1.3 Summary

Culture defines and differentiates one organisation from the other. Culture reflects the internal environment of an organisation and is considered its personality. (Krishnakumar & Kavya, 2021). While individuals desire satisfaction, the opportunity to learn, grow, and earn a living, organisations are more concerned with competitive advantage, innovation, performance and revenue. An effective relationship between talent and organisational culture is vital for individuals and organisations to succeed. A positive culture is likely to inspire employees to achieve optimal results.

This study demonstrated that organisational culture impacts talent management elements (recruitment, retention, training, and development). The study concludes that talent management is also dependent on organisational culture. Therefore, companies need to pay attention to organisational culture as one of the strategies to improve talent management.

6.2 Recommendations

Human capital is essential to the process of value creation in an organisation. It is evident from this study that talent management is inherently intricate. Organisational culture can serve as a tool to improve talent management strategy, among other factors. Managers and leaders are therefore encouraged to look beyond remuneration and benefits and cultivate an environment conducive to all employees.

While this study approached culture from a static perspective, organisations must continuously assess their cultural practices. Cultural practices can be achieved by conducting annual employee surveys as a method of engagement. Employees can be encouraged to reflect upon the organisation's best practices, core values, work environment, growth opportunities, remuneration, and work processes.

For academics, future studies should explore alternative frameworks, considering the evolving nature of culture, rapid technological advancements and changing workforce demographics.

6.3 Study Limitations

This study investigated the role of organisational culture in talent management, with data collection confined to participants from engineering firms in Johannesburg. Therefore, the findings of this study do not apply to all engineering firms across South Africa. Talent in this study is approached from an inclusive perspective, and the reciprocal relationship between talent management and organisational culture is not evaluated in this study.

Furthermore, the researcher concedes that the analysis of respondents' perceptions of cultural practices within their organisations may result in varied interpretations, coding and themes, depending on the researcher's qualitative analysis experience and knowledge.

6.4 Future Research

As identified in the survey, leadership emerged as a factor in organisational cultural practices. A further study with leadership and performance management as additional variables are therefore recommended. Future studies could similarly explore the role of culture in managing talent across various sectors since talent management is a widespread challenge. The research should also consider participants from human resources and executives as they drive culture within the organisational setting.

6.5 Study Contribution

Prior research focused primarily on talent management practices, exploring the relationship between talent management and organisational outcomes, mainly performance. In this study, however, organisational culture was investigated as a factor influencing talent management. The findings of this study contributed to the existing knowledge of organisational culture and talent management by providing insights specific to the study's context.

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Appendix A – Participant Information Sheet (PIS)

To whom it may concern

RE: Request for participation in an academic survey

Good day,

I am Kibala Adiam, a master's student in the Business Administration program at the University of Witwatersrand, Johannesburg. My supervisor is Dr Manamela Matshabaphala. I am conducting a research study about organisational culture and talent management. The study title is “The Role of organisational culture in talent management at selected Johannesburg engineering firms”.

I am inviting you to take part in a survey. The survey will take approximately 10 to 15 minutes if you decide to participate. The survey will be conducted online at a time and place convenient for you.

With your permission, I would like to record the survey results. This data will be stored in Google Drive and iCloud and deleted after 2 years. Only the researcher will have access to the data.

The survey will be confidential and anonymous. I will not share your name or other identifying information in the study results. With your permission, different researchers may use the data collected from this study, but your name and personal information will not be used or passed on.

If you decide to participate in the study, you should do so because you want to volunteer. You do not have to participate. You can withdraw from the study at any time. Do not feel obligated to answer any questions. By participating in the research study, you will not receive any direct benefits. If you decide not to join, you will not lose any services, benefits, or rights. Furthermore, no cost or compensation is associated with participating in this study.

The risks involved in this research study are comparable to everyday experiences. However, if some of the questions asked make you sad or upset, you may opt out of the survey.

This research study will be written as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will gladly send it to you.

Please contact me or my supervisor, using the details below, with any questions about this study. If you have any concerns or complaints about the ethical procedures of this research study, In that case, you can contact the University Human Research Ethics Committee (Non-Medical) by telephone at +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za.

Yours sincerely,

Researcher: Kibala Adiam	Supervisor: Dr. Manamela Matshabaphala
E-mail: 2775135@students.wits.ac.za	Email: manamela.matshabaphala@wits.ac.za
Contact number: 073 187 2383	Contact number: 011 717 3668.

Appendix B – Survey Consent Form

Title of research project: The Role of Organisational Culture in Talent Management at Selected Johannesburg Engineering Firms.

Name of researcher: Kibala Adiam

I, ……., agree to participate in this research project.

I agree to the following:

(Please circle the relevant options below)

The research study was explained to me. I understand what this study is about.	YES / NO
I understand that I can volunteer to participate in the study and withdraw anytime without consequences.	YES / NO
I agree that the data collected will be used for academic purposes only.	YES / NO
I agree that my participation will remain anonymous (my name or other identifying data will not be used by the researcher in their research report.	YES / NO
I agree that other researchers may use the information I provide in my survey response (depending on their own ethics clearance being obtained), but my name and any personal information will not be used or passed on.	YES / NO

……. (Signature of participant)

……. (Name of participant)

……. (Date)

……. (Signature of researcher)

……. (Name of researcher)

……. (Date)

Appendix C – Data Collection Instrument

Survey Questionnaire

These survey instruments are designed to gather information to address research questions regarding organisational culture's role in talent management.

Instructions below outline the procedure for taking this survey:

i. The survey employs a 5-point Likert scale for participants to rate their level of agreement or disagreement with statements.
ii. Respondents are allowed to select only one choice per question.
iii. Open-ended questions should be completed at the end in the designated space.
iv. The questionnaire is expected to take approximately 10 minutes to complete.

Section One: Screening

This question seeks to collect data about the specific engineering sector you are employed in. Please select one response from the options provided.

1. Which option most accurately characterises your company's primary engineering sector? (Please select only one)

Engineering Industry	*(Tick the appropriate box with an "X")*
Civil engineering & infrastructure	
Energy and utilities	
Environmental	
Mining and metals	
Petrochem (oil and gas included)	
Telecommunication	
General consulting	
Other (*specify*)	

Section Two: Demographics

This section aims to gather essential details about your role in your organisation and professional background. Please select one response from the options provided.

1. How many years of experience do you have in the engineering sector? (Please select only one)

Title	*(Tick the appropriate box with an "X")*
Less than 2 years	
2 to 5 years	
6 to 10 years	
More than 10 years	

2. What role do you hold within the organisation? (Please select only one)

Title	*(Tick the appropriate box with an "X")*
Director (Managing/Operation/Technical)	
Draughtsman	
Engineer	
Estimator	
Manager (Construction/Design/drawing office/engineering/General/operation/Project)	
Quality Control	
Supervisor (Engineering/Construction)	
Technician	
Other (specify)	

3. Which of the following best describes your current management level within your organisation? (Please select only one)

Title	(Tick the appropriate box with an "X")
Executive	
Senior management	
Middle management	
Entry-level management	
Other	

Section Three: **Organisational Culture and Talent Management**

This section collects your views regarding your company's culture and its role in talent management.

Key aspect: Organisational Culture

Your opinion is required on the culture within your organisation. Please indicate your level of agreement or disagreement with the statements provided in the table below:

Survey Questionnaire – Likert Scale							
Variables/Constructs	Item code	Items	Agreement Scale				
			Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
			1	2	3	4	5
Organisational Culture (OC)	OC01	The culture in my organisation encourages employees to remain with the company.					
	OC02	My organisation is like an extended family.					
	OC03	My working experience is enjoyable.					
	OC04	I am satisfied with the working environment.					
	OC05	My organisation has a good working environment for developing employees.					
	OC06	Training related to					

		building a competent team is encouraged by the organisation.					
	OC07	The culture in my organisation inspires me to go to work every day.					
	OC08	My organisation treats employees as valued resources.					
	OC09	I would like to continue working in this organisation.					

Key aspect: Recruitment

Your opinion is required on the recruitment practices within your organisation. Please indicate your level of agreement or disagreement with the statements provided in the table below:

Survey Questionnaire – Likert Scale							
Variables/Constructs	**Item code**	**Items**	**Agreement Scale**				
			Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
			1	**2**	**3**	**4**	**5**
Recruitment (RC)	**RC01**	The brand value of my organisation affects the recruitment process.					
	RC02	Internal hiring in my organisation helps in motivating the employees.					
	RC03	My organisation clearly defines the position objectives and requirements in the recruitment process.					
	RC04	I was attracted to this organisation due to the good working culture while applying for the job post.					
	RC05	The recruitment process is efficient and timely.					
	RC06	The right people are placed in the right positions in my organisation.					
	RC07	The process of selecting potential candidates in my organisation is fair.					

Key aspect: Employee Retention

Your opinion on employee retention practices within your organisation is required. Please indicate your level of agreement or disagreement with the statements provided in the table below:

Survey Questionnaire – Likert Scale							
Variables/Constructs	**Item code**	**Items**	**Agreement Scale**				
			Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
			1	**2**	**3**	**4**	**5**
Employee Retention	**ER01**	My organisation has initiatives and programs in place aimed at retaining existing employees.					
	ER02	I am satisfied with my workload.					
	ER03	I can reach my full potential in this organisation.					
	ER04	I like coming to work every day.					
	ER05	I see myself working here in the next 5 years.					
	ER06	The opportunity for promotion exists in this organisation.					
	ER07	Promotion in this organisation is fair.					
	ER08	The remuneration and benefits of this organisation are fair.					

Key aspect: Training and Development

Your opinion on training and development practices within your organisation is required. Please indicate your level of agreement or disagreement with the statements provided in the table below:

Survey Questionnaire – Likert Scale							
Variables/Constructs	**Item code**	**Items**	**Agreement Scale**				
			Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
			1	**2**	**3**	**4**	**5**

Training and Development (TD)	**TD01**	I receive adequate training to do my job better.					
	TD02	I have the support to learn and do my work efficiently.					
	TD03	Employees are sponsored for training to improve their skills.					
	TD04	My organisation believes that developing employee skills is essential.					
	TD05	The training program given by my organisation helps improve my performance.					
	TD06	My organisation offers career development programs for employees.					

Section Four: **General Comment**

We would like to understand your view(s) regarding your company's cultural practices.

What is your general view of the culture in your organisation?

_____

_____

_____

Thank you for your valuable contribution and time.

Please do not hesitate to contact me or my supervisor if you have any questions regarding this study, either during or after its completion.

Appendix D – Permission to use Research Instrument

Dr. Sheeja Krishnakumar <sheeja.k@kristujayanti.com> 9 January 2024 at 05:59
To: Kibala Adiam <2775135@students.wits.ac.za>

Hi Kibala Adiam,

Kindly find attached the questionnaire used. You can use a five point scale to measure each item.

Regards,

[Quoted text hidden]
--
Dr.Sheeja Krishnakumar
Associate Professor,
Kristu Jayanti School of Management
Bangalore

questionnaire.docx
17K

Kibala Adiam <2775135@students.wits.ac.za> 9 January 2024 at 09:23
To: "Dr. Sheeja Krishnakumar" <sheeja.k@kristujayanti.com>

Good day, Dr. Krishnakumar.

Questionnaires received.
Thank you very much and I highly appreciate your assistance.
I will definitely look at using the five-point Likert scale.

Kind regards,
Kibala Adiam
Mobile: +27 73 187 2383

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