EFFECT OF TALENT MANAGEMENT, WORK ENGAGEMENT ON EMPLOYEE RETENTION IN KENYA'S PETROLEUM INDUSTRY

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By Florence Masai

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Approval of the Thesis

EFFECT OF TALENT MANAGEMENT, WORK ENGAGEMENT ON EMPLOYEE RETENTION IN KENYA'S PETROLEUM INDUSTRY

This Thesis by Florence Masai has been approved by the committee members below, who recommend it be accepted by the faculty of Unicaf University in Zambia in partial fulfillment of requirements for the degree of

Doctor of Philosophy (PhD) in Business

Thesis Committee:

Dr Elizabeth George Beem Beeka, supervisor

Dr Nathan Musonda, chair

Dr Hamed Ahmed, external examiner

Dr Cheyo Sichali, internal examiner

Abstract

EFFECT OF TALENT MANAGEMENT, WORK ENGAGEMENT ON EMPLOYEE RETENTION IN KENYA'S PETROLEUM INDUSTRY

Florence Masai

Unicaf University in Zambia

Petroleum firms in Kenya have been experiencing a high employee attrition rate, with their focus trained on strategies towards employee retention. This study examined the influence of talent management on employee retention in petroleum firms in Kenya while also elucidating the mediating role of work engagement. The study thus sought answers to the question, what is the effect of talent management on employee retention in petroleum firms in Kenya.

Pragmatist philosophy and explanatory sequential mixed design were adopted to source data from the targeted 946 staff from 30 Oil Marketing Companies (OMCs) in Kenya. Yamane's formula generated a sample size of 281 selected via a simple random sampling technique. Purposive sampling was adopted to select 30 depot managers from each of the 30 OMCs to source additional information. Survey questionnaires and interview guides were adopted to source data, which were further analysed based on Structural Equation Modelling and content analysis, respectively.

The finding showed that talent management had a weak positive effect on retention of staff (β =.071, C.R = .845, $p>.05$). Further, talent management's impact on the mediator, work engagement, was significant (β= .283, C.R = 3.318, $p<0.05$). Additionally, the effect of work engagement on employee retention was significant (β= .637, C.R = 7.874, $p<0.05$). Therefore, it

was concluded that work engagement moderated the talent management-employee retention nexus in OMCs in Kenya.

The findings underscore that while talent management alone has a weak direct effect on employee retention, its integration with work engagement strongly enhances employee retention. Thus, employee engagement acts as a mediating mechanism through which talent management translates into employee retention. The study contributes to theory by validating the applicability of the job embeddedness and social exchange, and resource-based view theories in explaining employee retention dynamics, while methodologically enriching the field through its mixed-method approach. Practically, the study provides a model that can guide organisational policy and strategy on talent management and engagement practices across petroleum firms. Future research should explore the moderating effects of contextual variables such as organisational culture and leadership style, as well as adopt longitudinal approaches to test the robustness of the current findings.

Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgement, the work presented is entirely my own.

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AI Acknowledgment

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Dedication

I dedicate this work to my children, Natalya, Natasha and Kayden and my parents, James Kiplagat Masai and Ann Jemeli Sambu.

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List of Abbreviations

EPRA	Energy and Petroleum Regulatory Authority
KPC	Kenya Pipeline Corporation
KNBS	Kenya National Bureau of Statistics
KRA	Kenya Revenue Authority
OMCs	Oil Marketing Companies
PWC	PricewaterhouseCoopers
RBV	Resource-Based View (Theory)
VRIN	Valuable, Rare, Inimitable, Non-substitutable (Resource attributes)
SET	Social Exchange Theory
GDP	Gross Domestic Product
USD	United States Dollar
CBK	Central Bank of Kenya
KPRL	Kenya Petroleum Refinery Limited
NACOSTI	National Commission for Science, Technology and Innovation
REAF	Research Ethics Approval Form
SPSS	Statistical Package for the Social Sciences
TM	Talent Management
EAC	East African Community
SMEs	Small and Medium Enterprises
SEM	Structural Equation Modelling
KMO	Kaiser-Meyer-Olkin (Test of Sampling Adequacy)

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CHAPTER 1: INTRODUCTION

1.1 Introduction

This chapter of the dissertation presents an overview of the study and the statement of the problem. It further provides the purpose of the study, the research aim and objectives. It discusses the nature and significance of the study and finally explains the research questions, research hypotheses and conclusion of the section.

1.2 Background of the study

Human capital is an essential resource for achieving high financial and non-financial benefits for organisations, and this has been demonstrated by various scholars (Younas & Bari, 2020). Organisations make use of several resources such as equipment, buildings, capital, technology, amongst others to achieve their goals and objectives. It is therefore crucial for organisations to give priority to their human resources. One of the strategies employed by companies for human capital is talent management, which focuses on recruiting, placing and developing the right employees, leading to high performance (Friday & Sunday, 2019).

Globalisation and technology advancement have led to increased rivalry and democratisation of labour markets, increasing employment opportunities and enabling highly educated workers to compare and contrast firms and pursue highly competitive positions that fit them. This is a disadvantage to the petroleum industry in Kenya, particularly to the novel exploration that is expanding the sector (Cui et al., 2018). Getting talent in the employment market is challenging as qualified personnel are scarce; hence companies have to deal with the ‘war of talent’. This makes talent management a challenging strategy for organisations to hire and retain their employees (Bonneton et al., 2022a).

Employees require more than just a good salary to stay in a company; therefore, their needs should be identified and addressed by the organisations' management. Conversely, employees should be developed and equipped with requisite skills to deal with the customers' and organisations' evolving needs for a win-win situation (Tetik & Halil, 2021). Companies need to increase their profits, as effective talent management involves enormous input, hence should enhance firms' performance as suggested by Bonneton et al. (2022a) and Singh (2021).

The global employment arena has changed over the years with employees having a wide a variety of employers to choose from the market. Employees are not barred by regional boundaries as mobility has since increased with the world being a global village with employers seeking to maximise on skills and minimise on cost. Due to the broadened employment opportunities, 'talent war' arose where employers scrambled for the available skilled workers in the market (Tetik & Halil, 2021; Younas & Bari, 2020). This led to the use of various strategies by employers to pit themselves and offer better packages than their counterparts in the market.

Employees, as human capital, are important because they convert other organisational resources into outputs (Baroun, 2021; Paunović, 2021; Shakir et al., 2020). Talent management facilitates the use of human capital strategically to benefit the company. This concept has been credited for creating competitive advantage and sustaining good performance when aligned with the business strategies.

Companies are using talent management as a tool to retain employees through various best practices. These include staff development, mentorship, social media engagement and sharing knowledge which are ideal for the generation Y workers (Younas & Bari, 2020). Despite this, some employees may not feel obligated to stay in the firm leading to voluntary employee turnover

(Bonneton et al., 2022a). Other workers may leave the organisation involuntarily through natural attrition such as death, retirement or termination of service. Loosing employees leads to losses to an organisation in terms of knowledge and skills. Additionally, an organisation incurs huge expenses in recruiting and inducting replacements resulting to poor performance by the company.

Most companies in the petroleum industry are yet to make the labour force a core issue in their business plans which is the root cause of the talent challenges being experienced (Dickson et al., 2020). Based on a five-year period in the US, it was noted that companies had no major change in their hiring strategies with the job postings remaining similar irrespective of the location and skill set required which is disconcerting.

They put forth upskilling of employees together with industry transformation and the use of technology as a way to diminish the layoffs in the industry which stands at 30% (Dickson et al., 2020). This position is supported by Stubbings & Sethi, (2020) adding that upskilling creates self-reliance in an uncertain environment. Additionally, there are more retirements leading to loss of knowledge, less hiring of specialists and a slight rise in hiring of graduates. Belanger et al. (2024) reports a turnover ratio of between 9 to 11% from the major Oil Companies in the world with a workforce value proposition of 3.3 to 4.1 due to poor organisational culture and leadership.

It is crucial for organisations to ensure that they develop ways of retaining their talents thereby curtailing turnover intention. Tetik (2017) notes that retention of personnel refers to the capability of a company to maintain a consistent size of employees in a particular period through focused efforts. Retention of an organisations workforce in an inclusive approach ensures that the extensive knowledge, experience and competences are retained within the organisation. Companies can accomplish their goals without spending a lot of money by using their staff. This

is through placement of employees with the right skills on the key positions and encouraging self-advancement (Tetik, 2017).

The fact that talent is fluid and frequently changes occupations in pursuit of better opportunities informs this study. As a result, firms lack the human capital necessary to manage operations effectively, boost productivity, and make the industry successful. Businesses therefore must find, nurture, and keep industry talent. Effective retention of all pertinent talent is essential to the organisation's success. Talent management therefore aids organisations to reduce employee turnover by providing conducive workplace (Amushila & Bussin, 2021).

Further, organisations have to ensure that their employees are engaged with their work so as to minimise the risk of losing them. Work engagement involves people expressing themselves physically, emotionally and cognitively when they are executing their tasks. Employees therefore invest their personal resources at work by being physically present and doing the task, being mentally alert at work and relating empathically with other employees at the workplace (Decuypere & Schaufeli, 2020). Work engagement is therefore an important element in collaboration with talent management initiatives in ensuring that employees are retained within the organisation.

In addition, when the organisation acts positively towards their employees it leads to job satisfaction. Employees reciprocate positively by using their personal resources towards the organisation (Memon et al., 2020). Besides this, Bakker and Albrecht (2018) notes that personal resources consist of the employee’s self-efficacy, positivity and resilience. What the employees believes about the workplace determines whether they will employ their personal resources or not.

Employees who use their personal resources at work have high levels of work engagement whereas those with low levels will not use their resources in the organisation.

Furthermore, employees develop organisational commitment with a high sense of obligation towards the company when they feel valued. They display positive behaviour and attitude at work and as a result stay with the firm (Memon et al., 2020). With these, the employees perform their jobs with integrity and push for achievement of results. They will not plan to leave the organisation since they view it as a vital part of their lives.

In order for employees to be devoted to the company and have the intention to stay, organisations must manage them effectively and ensure that they are adequately engaged and satisfied at the workplace. Employees possessing these components guarantees the achievement of company goals (Luna-Arocas & Lara, 2020). This research scrutinizes the use of talent management practices in Kenyan Petroleum Companies in retaining employees considering the dynamic operating environment. The study also explores the influence talent management on work engagement and subsequent effect of work engagement on employee retention. The study further sought to examine the effectiveness of talent management practices on employee satisfaction.

Kenya has one hundred and eleven (111) registered Oil Marketing Companies (OMCs) under the auspices of the regulator, Energy and Petroleum Regulatory Authority (EPRA) as per the EPRA 2022 report. The OMCs are the drivers of the downstream sector in the global petroleum value chain. They handle the supply of the petroleum products first through Kenya Pipeline Corporation (KPC) to various depots in the country then to the consumer. The OMCs have wide range of operations and employs Kenyans with some expatriates in the Multinational Companies such as VIVO Energy, TotalEnergies, Rubis amongst others (EPRA, 2022; Mutua, 2022).

The petroleum sector is a major source of energy in Kenya contributing to 22% of the total energy consumption with 68% arising from biomass, electricity 9%, wind, solar and others at 1% (Mbaka et al., 2019). It also contributes to the GDP of Kenya and accounts for over 30% of Kenya's imports bill standing at Kshs. 348.3 million a total of 6.4 million tonnes in 2021 with taxes amounting to Kshs. 226.680 billion in the Financial Year 2020 - 2021 (KNBS, 2022; KRA, 2021) hence a wealth generator for national development.

However, the industry despite being regulated, faces various challenges that hamper the delivery of services and their corporate image to the citizens of the country. Some of the challenges include conflicts with local community, environmental issues, employment matters, lack of capacity, corruption, local content amongst others (Kigwiru, 2020; Langer et al., 2019). As such, these companies must ensure that their employees are committed to them to avoid increase in operational costs, which negatively affects the organisation. The aspect of local content also plays a role as Kenya tries to mitigate on the inadequate capacity in terms of human skills by integrating locals with expatriates and enhancing trainings (Mwangoma, 2019; Obwogo et al., 2021; Petroleum Act, 2019; Wanjiru et al., 2020).

Notably, the petroleum industry is a high risk and intensive capital venture and the use of talent management assists the companies in managing their human capital. These companies need to acquire people with the right skills for their operations to run effectively and focus on retaining those employees (Niyazbekova, et al., 2021). Losing acquired skilled workers is a great loss to the organisation.

The study applies the inclusive approach where talent involves all employees in an organisation who have various strengths that are helpful to the organisation (Tetik & Halil, 2021;

Vardi & Collings, 2023). Each employee has unique characteristics that can steer the organisation towards achieving its goals. All employees have potential and they should be provided with opportunities to build the areas where they are good at (Vardi & Collings, 2023).

Exclusive approach on the other hand considers a few individuals as talented with organisations creating a talent pool. This pool consists of 'high performance high potential' employees who qualify as future leaders. This approach creates discontent amongst employees left out of the talent pool and is also a loss to the company as the 'low performers low potential' employees are still paid by the company hence a cost. Since return on investment is important for organisations, this study adopted the inclusive approach of talent management (Bonneton et al., 2022a).

The human capital is an important component in an organisation that determines its success or failure as posited by Baroun (2021). This study therefore focused on employment matters, as the employees are important in ensuring the success of the companies and alleviating internal and external challenges experienced by the petroleum companies. These companies compete for the same talent pool available in the market with other similar and dissimilar companies.

The companies also need to create a competitive edge for themselves hence it is of essence to evaluate the use of talent management in the Petroleum industry in Kenya. The oil and gas companies globally are experiencing a high turnover of employees that is negatively affecting their performance and leaders need to devise ways of retaining employees (Anderson, 2020). This study therefore looks at how the petroleum industry in Kenya is managing the situation.

1.3 Statement of the Problem

The contemporary labour market is characterised by intensified competition for employees with scarce technical, managerial and industry-specific competencies, commonly described as the "talent war" (Coulson-Thomas, 2019). This challenge is particularly consequential in the petroleum industry because petroleum operations are capital-intensive, technologically complex and highly dependent on specialised human capital.

The ability of petroleum companies to attract, develop, engage and retain competent employees therefore has implications for organisational profitability, knowledge preservation and sectoral competitiveness. The loss of experienced employees may result in the departure of tacit knowledge, increased recruitment and training costs, operational disruptions and weakened organisational capability. Consequently, strategic talent management has become an important human resource mechanism through which organisations seek to sustain a competent and committed workforce.

Despite the growing attention to talent management, employee retention remains a persistent organisational challenge. Existing studies suggest that talent management practices, including recruitment and selection, training and development, career management, performance management, compensation, recognition and succession planning, can contribute to employee retention. However, empirical evidence remains inconclusive regarding the mechanisms through which these practices translate into employees' decisions to remain with an organisation.

Recent systematic and meta-analytic evidence indicates that talent management is associated with retention allied outcomes but also demonstrates the multidimensional nature of these relationships and the need to examine intervening mechanisms rather than assuming a

uniformly direct effect on retention (Porkodi et al., 2025; Zamri & Abd Halim, 2024). More recent meta-analytic evidence further indicates that employee engagement may partially mediate the relationship between talent management practices and turnover intention (Sinisterra et al., 2026).

The problem is particularly relevant to Kenya's petroleum industry, which has strategic economic importance and continues to develop across downstream, midstream and upstream activities. Government evidence indicates that the petroleum industry is expected to support approximately 68,000 jobs between 2021 and 2040 (IEA, 2022; Ministry of Energy and Petroleum, 2025; RoK, 2021). The Petroleum Act, 2019 also emphasises local employment, training, technology transfer and the development of Kenyan skills.

However, the existence of these employment and skills-development requirements does not guarantee that petroleum companies will successfully attract, engage and retain the talent required for sustained sector development. The magnitude of the employee-retention challenge is demonstrated by empirical evidence from the Kenyan petroleum sector.

A study of the National Oil Corporation of Kenya reported an employee turnover rate of above 10%, while company records indicated that 25% of skilled and professional employees had been lost to competing organisations (Maliku, 2014). Although these figures relate to one petroleum organisation and an earlier period rather than the entire sector, they provide concrete evidence that employee turnover has constituted a substantive human-capital challenge within Kenya's petroleum industry.

The Strategic plan 2023-2027 developed by the Ministry of Energy and Petroleum (2025) notes that there is massive departure of technical staff to the Semi-Autonomous Government Agencies(SAGAs) leading to noncompliance with the 30:70 ration of technical to support staff.

The report further notes majority of the remaining technical workforce are nearing retirement age and this poses a challenge in the sector as there has been no proper succession management put in place. This demonstrates the staff retention challenge in the Kenyan petroleum sector.

The challenge is further underscored by recent research on Kenyan oil and gas companies, which identifies employee retention as an important concern, particularly among outsourced employees. Amisi et al. (2026) found that disparities in benefits, job security and organisational belonging can weaken employee motivation and increase turnover intentions among outsourced workers in the Kenyan oil and gas industry. However, their study focused specifically on strategic human-resource outsourcing motivators and outsourced employee retention, rather than examining the integrated relationship between talent management, work engagement and employee retention.

A contextual gap therefore exists in the literature. Previous Kenyan studies on talent management and employee retention have predominantly been conducted in sectors such as banking, professional services, education, hospitality, health, telecommunications and other private organisations. Although these studies provide useful evidence, their findings cannot automatically be generalised to the petroleum industry, which operates under distinctive conditions characterised by specialised technical requirements, safety-critical operations, multinational ownership structures, expatriate-local workforce dynamics, project-based employment, fluctuating international oil prices and evolving local-content requirements.

A conceptual and empirical gap is also evident. Much of the existing literature examines the direct relationship between talent management practices and employee retention, with comparatively less attention given to the psychological mechanism through which talent management influences employees' decisions to remain. Work engagement is theoretically

important because employees who perceive organisational investments in their development, career progression, recognition and rewards may reciprocate through greater psychological attachment, energy and involvement in their work.

Conversely, talent management practices perceived as ineffective, inequitable or inaccessible may fail to generate the engagement necessary to support retention. Although previous research has separately established associations between talent management, employee engagement and retention, the mediating role of work engagement in the talent management–employee retention relationship remains insufficiently examined in the Kenyan petroleum context.

The study also addresses a theoretical gap concerning how talent management translates into employee retention. The Resource-Based View (RBV) provides a foundation for understanding employees as valuable, rare and difficult-to-imitate organisational resources, thereby explaining why organisations invest in talent to achieve sustained competitive advantage (Barney et al., 2021).

However, RBV alone provides limited explanation of the psychological process through which organisational investment in employees results in their willingness to remain (Barney et al., 2021). Integrating work engagement into the talent management–retention relationship provides a more complete explanation by connecting organisational human-capital practices with employees' psychological involvement in their work.

There is also a methodological gap in the existing Kenyan literature. A substantial proportion of studies examining talent management and employee retention have adopted quantitative, cross-sectional and survey-based designs. Such studies generate useful evidence

concerning statistical associations but provide limited qualitative explanation of how employees and managers experience and interpret talent-management practices.

Conversely, qualitative studies provide deeper explanations of employee experiences but may not establish the magnitude and statistical significance of relationships among talent management, work engagement and retention. The present study addresses this limitation through a mixed sequential research design, enabling quantitative evidence on the hypothesised relationships to be complemented and explained by qualitative evidence.

The practical problem arising from these gaps is that petroleum companies may continue investing in isolated talent-management practices without sufficient evidence concerning how such practices promote employee engagement and retention. This is particularly important where the loss of specialised employees can increase replacement costs, diminish organisational knowledge and disrupt operational continuity. Moreover, Kenya's local-content framework places emphasis on developing and employing Kenyan personnel, making the retention of acquired skills strategically important for the long-term development of the petroleum industry.

Therefore, although existing literature establishes the relevance of talent management to employee retention, important contextual, conceptual, theoretical and methodological gaps remain. This study addresses these gaps by examining the effect of talent management on employee retention and specifically investigating the mediating role of work engagement using a mixed sequential research design. The study seeks to generate sector-specific empirical evidence, extend understanding of the talent management–retention relationship, and provide managers and policymakers with evidence-based strategies for retaining critical human capital in Kenya's petroleum industry.

1.4 Purpose of the Study

The purpose of this research was to ascertain talent management practices that affect retention of employees in line with work engagement in the Kenyan petroleum industry. Global technological changes and innovation have affected the level playing field of employment where employees are not restricted to a specific geographical location or industry. Employees with requisite skills can work anywhere in the world and in various fields. This study therefore gives insight into how Petroleum companies in Kenya are handling employee retention.

This study employed mixed method approach as it aimed to assess the effect of talent management (variable one), with the mediation of work engagement (variable two), on retention of employees (variable three) and job satisfaction (variable four). The study further explored the talent management styles used for successful employee retention in the petroleum companies. The data was collected mainly from 311 employees aged between 25 to 60 randomly selected from thirty petroleum companies through questionnaires (281), interviews (30). Fifteen petroleum companies were drawn from the Southern Region while the remaining fifteen hailed from Western Kenya. The questions in the two data collection tools were designed to address all the issues raised by the research questions and achieve the aim of the research.

The key intention of this study was to establish the implementation of talent management and work engagement practices that affect employment retention of employees in the Petroleum downstream sector in Kenya. The study also assessed the employee attitudes and behaviours at work that leads to intention to stay or intention to quit.

Additionally, the research aim is a summary of the aspiration that the researcher hopes to gain at the end of the study. It is a single sentence that provides the focus of the study. That is what

the researcher will be studying and should be gauged at the end of the research process (Zina, 2021). Moreover, Easterby-Smith et al. (2021) opines that clear objectives results in proper analysis of the research problem while providing steps to be taken for attainment of the aim of the study.

1.5 Research Aim

The aim of this study was to establish the talent management practices, work engagement and employee retention models in the oil and gas industry in Kenya. The best employees in the organisation stimulates growth and achievement of organisational goals and it is crucial for an organisation to preserve its employees.

1.6 Research Objectives

In a bid to obtain more clarity regarding the research problem and attain the aim of the study, the objectives listed below were developed for further analysis:

1. To determine the effect of talent management on employee retention in Kenya's petroleum industry.
2. To examine the effect of talent management on work engagement in Kenya's petroleum industry.
3. To establish the effect of work engagement on employee retention in the petroleum industry in Kenya.
4. To explore the effect of talent management on job satisfaction in Kenya's petroleum industry.
5. To assess the mediating effect of work engagement in the relationship between talent management and employee retention in Kenya's petroleum industry.

6. To examine whether work engagement mediates the relationship between talent management and job satisfaction in Kenya's petroleum industry.

1.7 Nature and Significance of the Study

This study examined the relationship between talent management, work engagement and employee retention in Kenya's petroleum industry. It was motivated by the growing importance of human capital in an industry characterised by substantial capital investment, specialised skills, technological change and intense competition for competent employees. The petroleum industry requires employees with specialised knowledge and capabilities to support operational efficiency and organisational sustainability.

High employee turnover can disrupt business processes, increase recruitment and training costs, and result in the loss of valuable organisational knowledge. Evidence from petroleum-producing countries has similarly demonstrated the challenges associated with employee turnover and retention (Abudaqa et al., 2021; Al Mansoori et al., 2020; Baroun, 2021). The study therefore focused on how effective talent management and work engagement can contribute to the retention of skilled employees in Kenya's petroleum industry.

The significance of the study arises from the strategic importance of employees to the performance and sustainability of petroleum companies (Friday & Sunday, 2019). Given the substantial investment required in petroleum operations, organisations cannot afford to lose employees who possess specialised technical knowledge and industry-specific experience.

Effective deployment of employees according to their competencies, continuous skills development and the creation of conditions that encourage employees to remain are therefore essential to organisational effectiveness (Friday & Sunday, 2019; Mehreza & Bakria, 2019). The

study consequently provides a more integrated understanding of employee retention by considering talent management and work engagement together rather than treating retention as an outcome of isolated human-resource practices.

The study contributes to theoretical knowledge by extending the application of the Resource-Based View (RBV) to employee retention in the petroleum industry. RBV considers human resources to be strategic assets that can provide organisations with a sustainable competitive advantage when they possess valuable and difficult-to-replicate capabilities. In a petroleum industry that depends heavily on specialised technical and managerial competencies, effective management and retention of such employees is particularly important. The study therefore provides an opportunity to apply RBV within the relatively under-researched context of Kenya's petroleum industry and to demonstrate how talent-management practices may contribute to the preservation of strategically valuable human capital.

The study also contributes to theoretical understanding by considering work engagement alongside talent management and employee retention. This perspective recognises that organisational investment in employees may not automatically result in retention unless employees are sufficiently engaged with their work and organisation. The findings therefore provide a basis for extending existing explanations of talent management beyond the acquisition and development of employees to include the employee experiences and attitudes that may influence their decision to remain. The study can consequently serve as a foundation for future researchers seeking to develop or test theoretical explanations of talent management and retention in emerging economies (Baroun, 2021).

The study provides practical insights for managers and human resource practitioners in Kenya's petroleum industry. Its findings can assist management in identifying and strengthening talent-management practices that contribute to employee retention. These may include appropriate talent identification and deployment, employee development, career advancement, recognition and other practices that enable organisations to attract, develop and retain employees with critical skills.

The findings can also support petroleum companies in developing practical talent-management frameworks suited to their organisational circumstances. Such frameworks may assist management in formulating policies and making operational decisions aimed at reducing unwanted employee attrition. This is particularly important in an industry where the loss of skilled employees may adversely affect organisational knowledge, productivity and continuity (Friday & Sunday, 2019; Mehreza & Bakria, 2019).

Human resource practitioners may further use the findings to design and implement talent-management strategies that enhance employee engagement and retention. By providing evidence on the relationship between talent management, work engagement and retention, the study offers practitioners a basis for moving beyond reactive responses to employee turnover towards more strategic approaches to managing critical human capital.

The study has implications for the Ministry of Energy and Petroleum and other stakeholders responsible for the development and regulation of Kenya's petroleum industry. Its findings can provide evidence to support the development of policies and capacity-building initiatives aimed at strengthening human-capital development and retention within the sector. This is particularly relevant given the specialised skills required by petroleum companies and the need

to ensure that investments in employee training and development translate into a sustainable pool of competent personnel.

The findings may also be useful to petroleum training institutions in aligning their programmes with the human capital requirements of the industry. Insights from the study can inform the development of training and capacity-building initiatives that equip employees with the skills required for current and future petroleum operations. In this way, the study contributes not only to organisational level talent management but also to broader efforts to strengthen Kenya's petroleum-sector workforce.

The study contributes to the academic literature by addressing the relative scarcity of research on talent management and employee retention within Kenya's petroleum industry. Although talent management has received considerable scholarly attention in Kenya and internationally, relatively few studies have examined its relevance within the petroleum sector. The study therefore provides sector-specific evidence that can complement findings generated from other organisational contexts.

The study also provides a basis for future research on talent management, work engagement and employee retention in Kenya and other emerging economies. Scholars can build on its findings by examining additional variables, different petroleum subsectors, other employee groups or alternative organisational contexts. The findings may also encourage comparative studies across countries and industries to establish the extent to which people management and retention relationships are context specific.

1.8 Research Questions

Research questions are formulated based on the fundamental issues that a study will focus on in a bid to answer the research problem and aim. They are normally framed in a question format as inferred by the name. The research questions narrow down the focus of the study, with each question focusing on a single concept (Saunders et al., 2019). The questions depict the research method used in a study, which in this case is the mixed method. This involves qualitative questions that seek to ask how meaning is derived from social experiences, whereas quantitative questions seek to explain the analysis of causal relationships between variables (Creswell & Creswell, 2018; Huyler & McGill, 2019).

Some researchers use research questions in place of research objectives, especially in qualitative studies, whereas quantitative studies make use of research objectives, questions and hypotheses to shape the focus of the study (Creswell & Creswell, 2018). Research questions should support and align with the problem and purpose of the study. This study employed the research questions below derived from the objectives of the study;

Q1: How does talent management affect employee retention in Kenya's petroleum industry?

Q2. Does talent management affect work engagement of employees in the petroleum industry in Kenya?

Q3. What is the effect of work engagement on employee retention in the petroleum sector in Kenya?

Q4. What is the effect of talent management on job satisfaction in Kenya's petroleum industry?

Q5. What is the mediating effect of work engagement on the relationship between talent management and employee retention in Kenya's petroleum industry?

Q6. Does work engagement mediate the relationship between talent management and job satisfaction in Kenya's petroleum industry?

1.9 Research Hypotheses

Research hypotheses are assumptions of the outcome of the study that can be measured in terms of quantity, frequency or intensity, shaping the study's aim and objectives (Creswell & Creswell, 2018). Singh (2020) adds that a hypothesis is an intelligent guess or a solution to a problem in the form of a statement that can be tested. The hypotheses are then accepted or rejected by means of statistical techniques. Inferences are then drawn from the sample population and generalised to the whole population (Pandey & Pandey, 2021).

There are two types of hypotheses: null and alternative hypotheses. The null hypothesis is a traditional tactic that assumes that there is no relationship existing amongst the variables that are independent and dependent. The independent variable is changed or controlled by the researcher, whereas the dependent variable is observed and measured. The null hypothesis is a negative statement that supports the findings of the study (Creswell & Creswell, 2018).

The alternative hypothesis, on the other hand, provides an expected outcome for the research that there is a relationship between variables of the study. It is normally popular with academic journals and provides results that are significant to the research process. It gives the statistical direction the research will adopt (Creswell & Creswell, 2018). According to Singh (2020) there are two types of alternate hypotheses that is directional and non-directional hypotheses.

Directional hypothesis shows the direction of the expected findings and at times examines relations between the variables of a study. Non-directional hypothesis on the other hand has no specific direction of the expected findings, as the researcher may not be in a position to predict from past studies. Developing hypothesis is important for research as it creates clarity, specificity and focus to the research problem therefore avoiding blind research (Pandey & Pandey, 2021). In this regard, the study sought to ascertain the following hypotheses;

H_{01}: Talent management does not significantly affect employee retention in Kenya's petroleum industry.

H_{a1}: Talent management significantly affects employee retention in Kenya's petroleum industry.

H_{02}: Talent management does not significantly affect work engagement in Kenya's petroleum industry.

H_{a2}: Talent management significantly affects work engagement in Kenya's petroleum industry.

H_{03}: Work engagement does not significantly affect employee retention in Kenya's petroleum industry.

H_{a3}: Work engagement significantly affects employee retention in Kenya's petroleum industry.

H_{04}: Talent management does not significantly affect job satisfaction in Kenya's petroleum industry.

H_{a4}: Talent management significantly affects job satisfaction in Kenya's petroleum industry.

H_{05}: Work engagement does not significantly mediate the relation between talent management and employee retention in Kenya's petroleum industry.

H_{a5}: Work engagement significantly mediates the relation between talent management and employee retention in Kenya's petroleum industry.

H_{06}: Work engagement does not significantly mediate the relation between talent management and job satisfaction in Kenya's petroleum industry.

H_{a6}: Work engagement significantly mediates the relation between talent management and job satisfaction in Kenya's petroleum industry.

1.10 Summary

Companies in the 21st century are competing for employees arising from the world being a global village, technological changes and the dynamic operating environment. Employees on the other hand are looking for the best employer anywhere in the world and this has led companies to devising ways of retaining their employees. A major strategy to retaining employees is the use of talent management which ensures that people with the right skills are recruited, placed rightly to ensure that the companies get value for their money and are able to tackle challenges they encounter. The employers further need to boost the satisfaction of employees at work to encourage them to stay. The workers need to be engaged with their work for maximum productivity and for them to attain fulfilment with their jobs.

CHAPTER 2: LITERATURE

2.0 Introduction

This chapter examines the theoretical and empirical foundations underpinning the relationships between talent management practices, work engagement, and employee retention in Kenya's petroleum sector. The review follows six core research questions established in the first chapter, providing a structured lens through which Kenya's petroleum sector is analysed.

It begins with a brief overview of the country's location, economy, and demographic characteristics, then reviews literature on social exchange theory, job embeddedness, resource-based view theory and local content policies which together form the study's theoretical and conceptual framework. The study then shifts to Kenyan petroleum industry context particularly the operations of the Oil Marketing Companies (OMCs) and lastly, the gaps in the operating environment are highlighted based on the concepts of the study.

The literature review was carried out using google, google scholar search engines, ResearchGate and ProQuest. The key words used were; Talent management, Employee Retention, Local Content, Talent management practices, Employee Turnover and Job Satisfaction in Petroleum Industry. The search constituted of peer reviewed journals, dissertations, books, government and other regulatory agencies reports regarding the petroleum industry.

2.1 Overview of Kenya

Kenya is situated in the eastern part of the Sub-Saharan African region, occupying a strategic location along the continent's east coast (See Figure 1). Kenya shares borders with five countries: Ethiopia, South Sudan, Tanzania, Uganda and Somalia as depicted (See Figure 2)

(Kenya & Uprising, 2019; Pennsylvania, 2017). This strategic geographic position makes Kenya a critical transit hub for goods destined to landlocked neighbours such as Rwanda, South Sudan, Uganda, Congo, and Burundi (KNBS, 2022), directly influencing the petroleum sector as the primary distribution gateway for oil and gas products in the East African region.

Figure 1

The Map of Africa Indicating Kenya



Note. Adapted from 'Political Map of Africa', 2023, Nations Online Project.

Figure 2

The Map of Kenya



Note. Adapted from 'Political Map of Kenya.'2021, Nations online project.

Kenya has four oil-bearing sedimentary basins covering the Lamu, Mandera, Anza and Tertiary Rift basin (Bargoria, 2021; National Oil, 2022). The discovery of commercially viable crude oil deposits in 2012 (Tertiary Rift basin) and subsequent crude oil exports (250,000 barrels

in August 2019; 173,900 barrels in September 2022) marked Kenya's evolution from a purely downstream market to an emerging upstream producer (Obere & Kataa, 2020).

This transition creates specific talent management challenges. To start with, Kenya faces severe skills mismatch that directly impacts petroleum companies' talent management strategies. The extractives sector is dominated by foreign expertise in technical, exploration and production skills, with specific challenges in vocational skills like pipe fitting, welding, drilling and operation and repair of heavy equipment (Ministry of Labour and Social Protection, 2020).

For example, most polytechnics only offer artisan welding courses, while petroleum sector welding is much more complex. This misalignment forces oil marketing companies to invest heavily on experiential training, increasing the cost of talent development and extending the time-to-productivity for new hires.

Secondly, new exploration and productions activities often compete with established oil marketing companies (OMCs) for the limited skilled personnel. Third, is the government expectation for developing Kenyan nationals capable of managing emerging upstream operations. Fourth, the sector is very dynamic owing to several factors among them, environmental concerns requiring continuous workforce upskilling and adaptation. Finally, petroleum commodities are characterised by extreme price volatility. This ultimately creates margin pressures affecting OMCs investment capacity in talent development programs (Office of the Auditor General, 2021).

On the demographic front and labour market characteristics, Kenya’s population is approximately 47,564,296 million as per the 2019 national census (KNBS, 2019) with World Bank Group (2022) putting it at 54,985,702. It comprises of over 120 ethnic communities expanding from 42 tribes recorded in 1969 (Balaton-Chrimes, 2022).

Constitutional requirements mandate that employment must be done in an equitable manner to cater for the diverse tribes and that organisational representation shall not be more than two thirds of the same gender to ensure community and cultural diversity (RoK, 2010). These legal frameworks directly shape talent acquisition and retention strategies in petroleum companies.

In addition, Kiswahili and English are the official business languages facilitating seamless communication in urban petroleum sector employment with several indigenous languages spoken by the different ethnic communities in the country (RoK, 2010). However, multilingual capabilities become assets for companies expanding retail networks into rural or marginalised regions where indigenous languages dominate.

In the governance and regulatory environment, Kenya operates as a democratic state with elections every five years. The Constitution of Kenya 2010 establishes both national and county-level governance (47 counties) (Parliament of Kenya, 2022; RoK, 2010), creating multiple regulatory touchpoints for petroleum operations. This governance structure influences talent management through the following ways: one, the decentralization of licensing and compliance requirements, two, local employment expectations at county level, and finally, political cycles affect regulatory stability and long-term workforce planning.

On the other hand, the Energy and Petroleum Regulatory Authority (EPRA) monitors competition within the sector using the Herfindahl–Hirschman Index (EPRA, 2022). This regulatory oversight influences how companies structure compensation, implement local content policies and report on workforce diversity metrics (Mutua, 2022). The contextual factors discussed combine to create a talent management environment characterised by high stakes, resource

constraints, regulatory complexity, and intense competition establishing why Kenya's OMCs presents a compelling and urgent case for examining talent management practices.

2.1.1 The Economy of Kenya

Kenya is the largest economy in East African with the Gross Domestic Product (GDP) being 7.5% in the year 2021 compared to Tanzania 4.0% and Uganda 4.7% (KNBS, 2022). The economic volatility is key to the study with the central Bank of Kenya Weekly bulletin reporting that inflation in September 2022 rose to 9.2% up from 8.5% in August. This was attributed to higher energy and food prices, which peaked to 11.7% from 8.6% and 15.5% from 15.3% respectively (CBK, 2022 a). Potentially, such volatility pushes petroleum companies to manage operational costs while remaining competitive employers.

On the other hand, depreciating Kenya Shilling against major currencies since 2022 affects multinational petroleum companies' ability to offer competitive compensation packages, particularly when competing with international postings or regional opportunities in more stable currency environments (CBK, 2022 a).

Nonetheless, the public debt has grown to Kshs. 8.5 billion as July 2022 (CBK, 2022). This constrains government investment in energy infrastructure and technical education programs that supply talent to the petroleum sector. Further, trade dynamics reveal that petroleum products rank highest among Kenya's major imports, indicating the sector's economic significance and the strategic importance of developing local talent to reduce dependency on imported expertise. Kenya therefore as a developing country has a lot to offer for study in the petroleum field.

2.2 Theoretical and Conceptual Framework

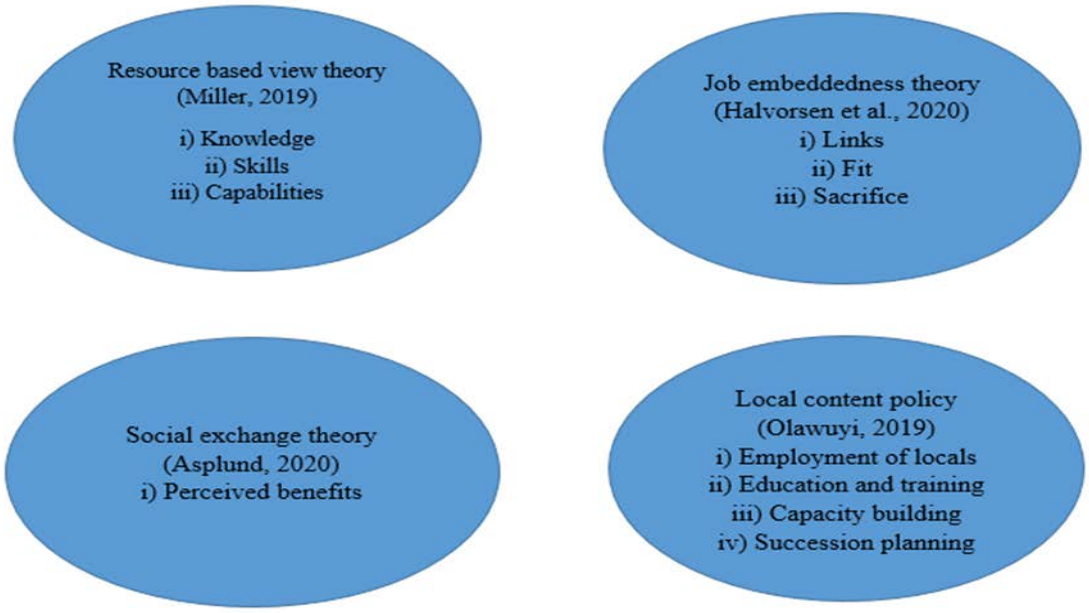
This research employed both theoretical and conceptual framework to investigate the use of talent management practices in the Kenyan oil and gas sector.

2.2.1 Theoretical Framework

This study examined the impact of talent management on workers' retention in Kenya's petroleum industry using three theories namely, the resource-based view theory, job embeddedness theory and social exchange theory. The study further incorporated the local content policy as a key industrial policy influencing the petroleum sector. The theoretical framework is presented in Figure 3 below;

Figure 3

Theoretical framework of the study



Note. Formulated from the theories and policy of the study.

Resource based view theory

The Resource-Based View (RBV) advanced by Barney in 1991, posits that organisations achieve sustainable competitive advantage through resources that are valuable, rare, inimitable, and non-substitutable (VRIN) (Assensoh-Kodua, 2019; Barney et al., 2021).

In the Kenyan context, human capital - particularly skilled petroleum professionals - meet these VRIN criteria. For instance, expertise in petroleum contributes directly to operational efficiency, safety, and profitability, making it valuable. The documented skills gap highlights the

scarcity of qualified professionals, while the development of this expertise through industry experience and tacit knowledge renders it inimitable.

Furthermore, although automation affects some functions, critical technical judgment and strategic decision-making remain fundamentally human, thus non-substitutable. Scholars such as Assensoh-Kodua (2019), Barney et al. (2021), Baroun, (2021), Grant and Phene (2022) and Shet (2020), have applied RBV in their empirical studies to demonstrate how firms leverage valuable and rare human resources to gain competitive advantage, improve firm performance, and implement effective talent retention practices. Freeman et al. (2021) also emphasize RBV's relevance in stakeholder engagement, noting ongoing refinements in its application to strategic talent management.

Critics, however, challenge RBV's operationalisation and empirical testing. Salazar (2017) notes difficulties in defining resource value and uniqueness, while Miller (2019) contends the theory's narrow neoclassical economic focus limits its evolution. Utami and Alamanos (2022), along with Salazar (2017), outline four critiques: RBV inadequately explains competitive advantage in turbulent environments; value creation is fixed and difficult to empirically verify; the theory overlooks resource efficiency dynamics over time; and it neglects external resources by focusing mainly on internal assets. Recent RBV refinements address some flaws by incorporating resource usage efficiency alongside VRIN attributes.

Despite these limitations, RBV remains a robust framework explaining why petroleum firms invest heavily in talent management. From an RBV perspective, attracting, developing, and retaining VRIN human capital enables sustained competitive advantage through capabilities competitors cannot easily replicate.

Job embeddedness theory

Job embeddedness, introduced in 2001, is both a theory and a model of employee retention by examining why individuals stay in organisations beyond traditional turnover models focused on job dissatisfaction (Halvorsen et al., 2020). It encompasses three core components, namely, links, fit, and sacrifice, which operate both within the organisation and the surrounding community, resulting in embeddedness.

Links refer to the connections an employee has with colleagues, work groups, family, and community institutions (Halvorsen et al., 2020). In Kenya's petroleum sector, links manifest through professional networks, industry associations, technical communities of practice, and familial and ethnic ties within a collectivist culture.

Fit describes an individual's perceived compatibility level with their role, organisational culture, personal values, and environment, important in aligning technical and cultural expectations (Ahmad et al., 2019). For petroleum professionals in Kenya, fit encompasses alignment between technical expertise and job requirements, congruence between personal values and corporate safety culture, compatibility with organisational approaches to diversity (given constitutional mandates), and suitability of urban living environments where most petroleum operations are based.

Sacrifice represents perceived costs of material or psychological benefits that are forfeited by departing the organisation including loss of salary, medical insurance, paid holidays, company cars, friendships and community attachments (Halvorsen et al.,2020). These costs are particularly salient where alternative employment options are scarce (Ahmad et al., 2019).

Despite its predictive strength, job embeddedness theory is not without criticism. It may inadvertently encourage employee retention without corresponding motivation or alignment, leading to disengagement and reduced organisational benefit. Additionally, misfit between employees and roles hence result in conflict and reduced performance, undermining the value of embeddedness (Halvorsen et al., 2020).

Social Exchange theory

Social exchange theory (SET) has provided insights on social interaction and societal structure as a process of negotiated or reciprocal exchanges that create mutual obligations (Chen et al., 2019). This provides a foundational framework for understanding the relation between talent management and retention of workers. This theory describes the aspects of exchange where an individual gives out something in or order to gain another thing (Chen et al., 2019).

Research demonstrates that employees give back to the organisation generously when they are designated as talents (Asplund, 2020). Job relations are therefore based on economic transactions involving staff exchanging effort with economic rewards indicated in the employment contract. SET distinguishes between transactional exchanges as short-term, economic "work for pay" and relational exchanges which involve long-term trust based obligations (Asplund, 2020). Effective talent management transforms employment from transactional to relational, fostering psychological bonds that enhance retention beyond economic considerations. Accordingly, employees give their best effort to the organisation when they are treated well (Ochieng’Ojwang, 2019).

SET is a global concern depicting how reinforcements and reciprocal actions occur in the workplace. This involves incurrence of cost and use of resources by the employer versus efforts,

identity and commitment for personal benefit by the employee. Reciprocal behaviour occurs when the employee is satisfied with the support he receives from the organisation (Arasanmi & Krishna, 2019).

Despite its utility, SET has been critiqued for vague constructs, overlapping concepts, and imprecise behavioural predictions that challenge empirical testing and replication (Cropanzano et al., 2017). Moreover, SET tends to view workers as costs, implying a primarily self-interested calculus, which does not always reflect reality. Davlembayeva and Alamanos (2022) note confusion between transactional and relational exchanges, questioning whether transactions precede relationships or vice versa.

Local Content Policy

Local Content Policies (LCPs) are regulatory frameworks mandating petroleum operations to prioritise domestic employment, utilise local suppliers, and foster national capacity development. Local content is defined as "the quantum of composite value added or created in a country through utilization of local resources and services in the petroleum industry resulting in the development of indigenous capabilities" (Mushemeza & Okiira, 2017). These policies, increasingly embedded in legislation, regulations, and industry contracts, aim to maximise national value creation by promoting in-country value addition, employment, technology transfer, and local ownership (Mushemeza & Okiira, 2017; Baluch & Rambarran, 2019).

In Kenya, local content gained prominence following the discovery of significant oil reserves, fuelling expectations for economic development and poverty reduction in marginalised regions. LCPs shape talent management by mandating minimum local workforce participation and

fostering structured training, knowledge transfer, and skills development programs (Muhongo, 2021; Nwapi, 2016; Wanjiru et al., 2020).

However, challenges include misalignment between technical training and industry needs, limited local supplier capacity, and risks of cost inflation and corruption observed in other contexts (Muhongo, 2021; Nwapi, 2016; Wanjiru et al., 2020). Kenya's Petroleum Act (2019) includes provisions for workforce training, primarily focused upstream, yet downstream sectors remain under addressed.

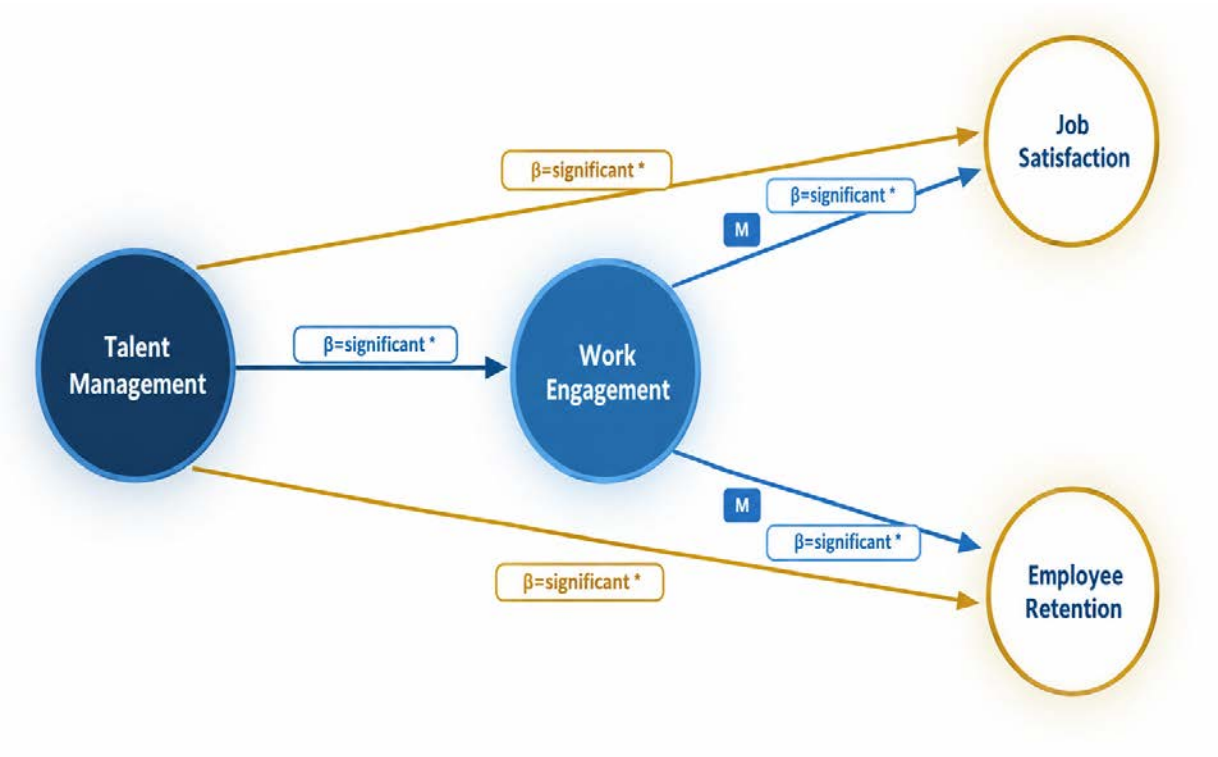
Globally, successful LCP implementation, witnessed in countries such as Norway, Brazil, and Nigeria, depend on transparent, well-designed policies tailored to national contexts, supported by active national oil companies and effective monitoring (Baluch & Rambarran, 2019; Salih, 2021). While LCPs face criticism for potentially conflicting with World Trade Organisation's (WTO) international trade rules and enabling rent-seeking, their strategic role in enhancing local economic benefits and talent development in petroleum sectors remains significant.

2.2.2 Conceptual Framework

This study's conceptual framework is diagrammatically presented in Figure 4 below.

Figure 4

Conceptual framework of the study



Note. Developed by the researcher based on the reviewed literature.

The study's main concept was employee retention which is the core goal of the OMCs in Kenya. Employee retention is affected by other factors namely talent management and work engagement. The supportive dependent variable is job satisfaction each with its own indicators.

2.3 Background of the Oil and Gas Industry

The petroleum sector or the oil and gas industry as commonly known, serves as the engine of most global economies. Petroleum, also called hydrocarbons due to its composition of hydrogen

and carbon, exists in various forms including liquid and natural gas, with unrefined extracted products termed 'crude oil' or 'fossil fuel' (Hsu & Robinson, 2019).

Humans began using oil and gas approximately 6000 BC for purposes including religious worship of gas leaks, sealing boats with asphalt, heating homes, construction, mummification, and building Egypt's pyramids. The industry's commercialisation began in 1859 with Edward Drake's oil discovery in Titusville, Pennsylvania, and has since expanded significantly in scope and technologically (Hsu & Robinson, 2019; Hunter, 2023). Oil and gas replaced coal during the industrial revolution and experienced further growth with the development of internal combustion engines, airplanes, and during World War II.

Importantly, no industry operates without the involvement of oil or gas in at least one part of their operations. In the 21st century, petroleum is equivalent to political and economic power (Hunter, 2023). Oil producing nations have developed and wields power politically as they can manipulate their subjects by refusing to supply them with the petroleum products which halts the economy of their subjects.

The key to addressing the challenges facing humanity documented in the United Nations through 17 Sustainable Development Goals (SDGs) is energy (Ben-Naceur, 2019). Energy has linkages to other sectors such as education, economy, manufacturing, health, water amongst others hence providing a multifaceted approach to solving global human problems.

Oil and gas are the major sources of energy universally with the sector being one of the largest globally. It is estimated that the industry generated five trillion USD revenue globally in 2022 (McClay, 2022). Deloitte (2022), also indicate that the US upstream companies had a healthy balance sheet for the year 2022 and a positive future attitude as the prices are up with the increasing

demand for the products. It also notes that despite the calls for low carbon fuels, there is low supply of agricultural products for generation of renewable energy.

The high oil prices in the US encouraged investors to join the downstream segment of distribution and retailing of petroleum products. The major oil producers are the 'US, Saudi Arabia, Russia, Canada and China' amongst others (McClay, 2022). The increase in demand is also driven by emerging economies such as Brazil, Russia, India and China which are highly populated. Bhutada (2021) notes that these countries are home to 20 giant oil and gas companies globally. NRGI (2015) and IEA (2020) concurs with Bhutada (2021) noting that nationally owned oil companies are the major players in the petroleum sector.

US hosts 6 (Exxon Mobil, Chevron, Conoco Phillips, Duke Energy, Southern Company & Enterprise Products), Russia 4 (Rosneft, Gazprom, Novatek & Lukoil) whereas the remaining 10 are spread in Brazil, China, Saudi Arabia and Europe (Petrobras, Petrochina, Sinopec, China National Offshore Oil Corporation, Saudi Aramco, Shell, TotalEnergies, BP & Enbridge) respectively (Bhutada, 2021). Some of these giant companies have spread their tentacles to the developing countries for instance TotalEnergies, Shell, BP, Exxon Mobil amongst others.

The players in the industry are classified into groups; the National Owned Companies (NOCs), International NOCs (INOCs), International Oil Companies (IOCs) or Majors, small multinationals or Independents and service providers (Hunter, 2023; IEA, 2020; NRGI, 2015). The national owned companies are purely government owned and are the largest in terms of production and oil reserves. They are involved in extraction, creating regulations for the industry, selling of products amongst other activities for instance Saudi Aramco, National Iranian Oil Company, Qatar

Petroleum, Rosneft, Petrobras, Nigerian National Petroleum Corporation (NNPC), Sonangol amongst others an in Kenya -National Oil Corporation of Kenya (NOCK).

Additionally, IEA (2020) notes that there are International NOCs which are similar to the NOCs but have both domestic and international operations. The foreign upstream operations are normally done in liaison with the host NOC or private companies. The products are sold into the international market by company or the host NOC and at times the product may be exported to the INOC home country for processing if it is economically practical. Examples of these companies include Petronas, Equinor, China National Petroleum Corporation among others.

Whereas, International Oil Companies (IOCs) or Majors on the other hand are private and owned individual shareholders. These companies transcend all the segments of the industry from extraction to distribution and are therefore active players in the international scene. They operate in well-established legal regimes as they are risk averse in their projects for instance Royal Dutch Shell, Exxon Mobil, Conoco Phillips, TotalEnergies, Eni and BP (IEA, 2020; NRGI, 2015).

The Independents or small multinationals possess a small percentage of the reserves in comparison to NOCs though their profits are huge and likened to GDPs of medium-size nations. They focus on assets, moderate size diminishing fields and peripheral areas where the Majors are not attracted to and they outsource services such as drilling and logistics. Some of these companies include Occidental Petroleum, Lukoil, and Apache amongst others (IEA, 2020; NRGI, 2015).

Lastly are the service provider companies which are privately owned, innovative in nature and possesses technical expertise in specific areas such as drilling. They supply specialized services for big companies for instance pipes, rigs and surveys. They are smaller than the majors

but still providing sizeable employment, have great revenue and are accustomed to the cyclical nature of capital spending (IEA, 2020).

The industry consists of multiple segments, namely the upstream, midstream and downstream. Firstly, the upstream phase involves the exploration and extraction of oil and gas through drilling of underground wells. This segment is high risk and involves huge capital investment with long periods of exploration and discovery of oil reservoirs. It is also technologically intensive and all the money goes into oil and gas production with no direct returns hence the companies are valued according to their reserves which are their future earnings. The companies have to maintain and service wells and equipment for the whole exploration and production period (McClay, 2022).

Secondly, the midstream section handles the transportation of extracted crude materials to refineries. This can be in form of shipping, pipelines, trucking and storage of the crude products. This segment has low capital risk, high regulation especially on pipeline transportation and is largely dependent on the accomplishments of the upstream companies (McClay, 2022; Mutua, 2022).

Lastly, the downstream segment deals with refining of crude extracted materials into consumable products and delivery of the same products to end users (McClay, 2022). This involves refineries where the crude materials are converted to usable products such as gasoline, kerosene, jet fuel, premium motor spirit, lubricants amongst others. Further, there are petrol and gas stations where consumers buy fuel for their vehicles and gas for their domestic or commercial consumption (Mutua, 2022).

2.3.1. Overview of Oil and Gas in Africa and Kenya

Oil operations have mostly delved in the North and Western parts of Africa, however, East Africa has now joined the African oil elites with gas discoveries in Mozambique and Tanzania, Oil in Lake Albert and Turkana in Kenya making the region attractive to investors in the extractive sector (Simbiri et al., 2022). These discoveries will have a ripple effect on the economy of these countries as multiple activities to support the industry comes up.

Further, Kenya Vision 2030 third medium term plan seeks to provide the citizen with quality life through provision of affordable and accessible energy as one of the long-term initiatives under the economic pillar. Through this initiative, the country will exploit oil and gas to expand export earnings, grow the GDP, broaden the social development, develop infrastructure and create jobs (RoK, 2018).

The upstream sector in Kenya is in its infancy stage hence will not provide much for a research study as there is insufficient information on the segment. The midstream and downstream sectors on the other hand are developed with good economic and technical operations. The downstream sector is key in supporting the activities of the upstream and midstream sector hence crucial for the socioeconomic development of the nation (Simbiri et al., 2022).

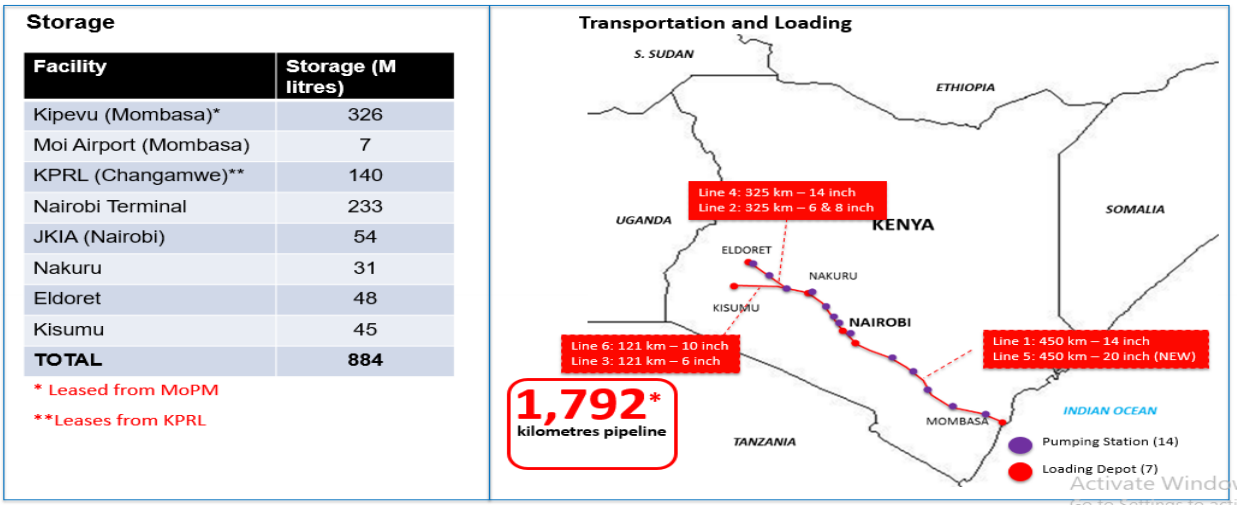
Notably, the downstream companies in Kenya consist of Kenya Pipeline Company (KPC), Kenya Petroleum Refinery Limited (KPRL) and the OMCs. This segment currently handles imported petroleum products as Kenya does not have the ability to refine its crude oil. KPRL used to refine imported crude oil in the past but it ceased its refinery operations in June 2013 due to inefficiency resulting in lower yields and rising costs. In 2017 KPRL leased its storage facilities to KPC (Barcelona et al., 2019; Maondo, 2020).

It was further reported that the refinery had obsolete equipment and lacked the capacity to refine the extracted crude oil from Lokichar. Overhaul of the refinery equipment would be costly to the country given the quantity of crude oil so far extracted (Barcelona et al., 2019). The KPRL facility was therefore used to store the crude oil extracted from Turkana from 2018 before being exported for processing in 2019. It is worth noting that Kenya was the first country to export crude oil 250,000 barrels amongst the East African countries in 2019 despite Tanzania and Uganda discovering viable deposits of oil prior to Kenya (Cannon & Mogaka, 2022; Obere & Kataa, 2020).

KPC on the other hand receives refined products imported into the country by OMCs, transports it through the pipeline that runs from Mombasa through Nairobi then to Nakuru, Kisumu and Eldoret depots. KPC through their depots store and dispense the products to the OMCs whom they charge for the transport and storage services (KPC, 2022). Figure 5 depicts the dispersion of the depots in the country and their storage capacities.

Figure 5

Images of KPC Depots in Kenya

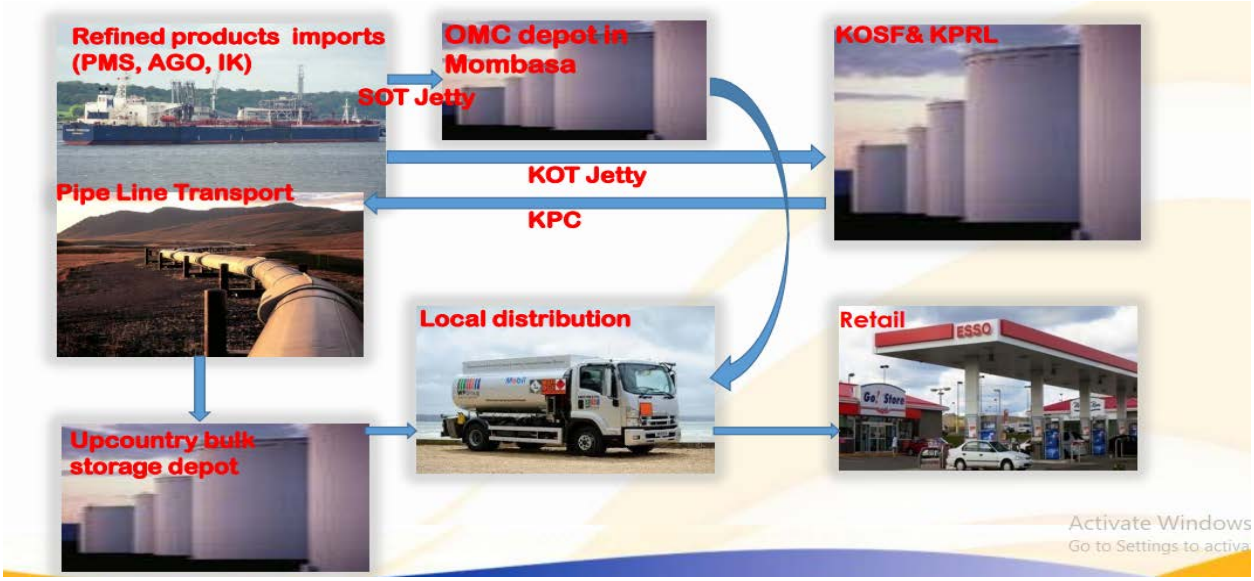


Note. Adapted from Pipeline Network and Storage. Kenya Pipeline Company.

The OMCs on the other hand collects the product from KPC depots either for local or export use (Figure 6). Products for export are transported using trucks to neighbouring countries for instance Uganda, Northern Tanzania, Burundi, Rwanda, Congo and South Sudan. Products for local use are transported to the various petrol stations for sale to local consumers (KPC, 2022).

Figure 6

Importation to delivery process

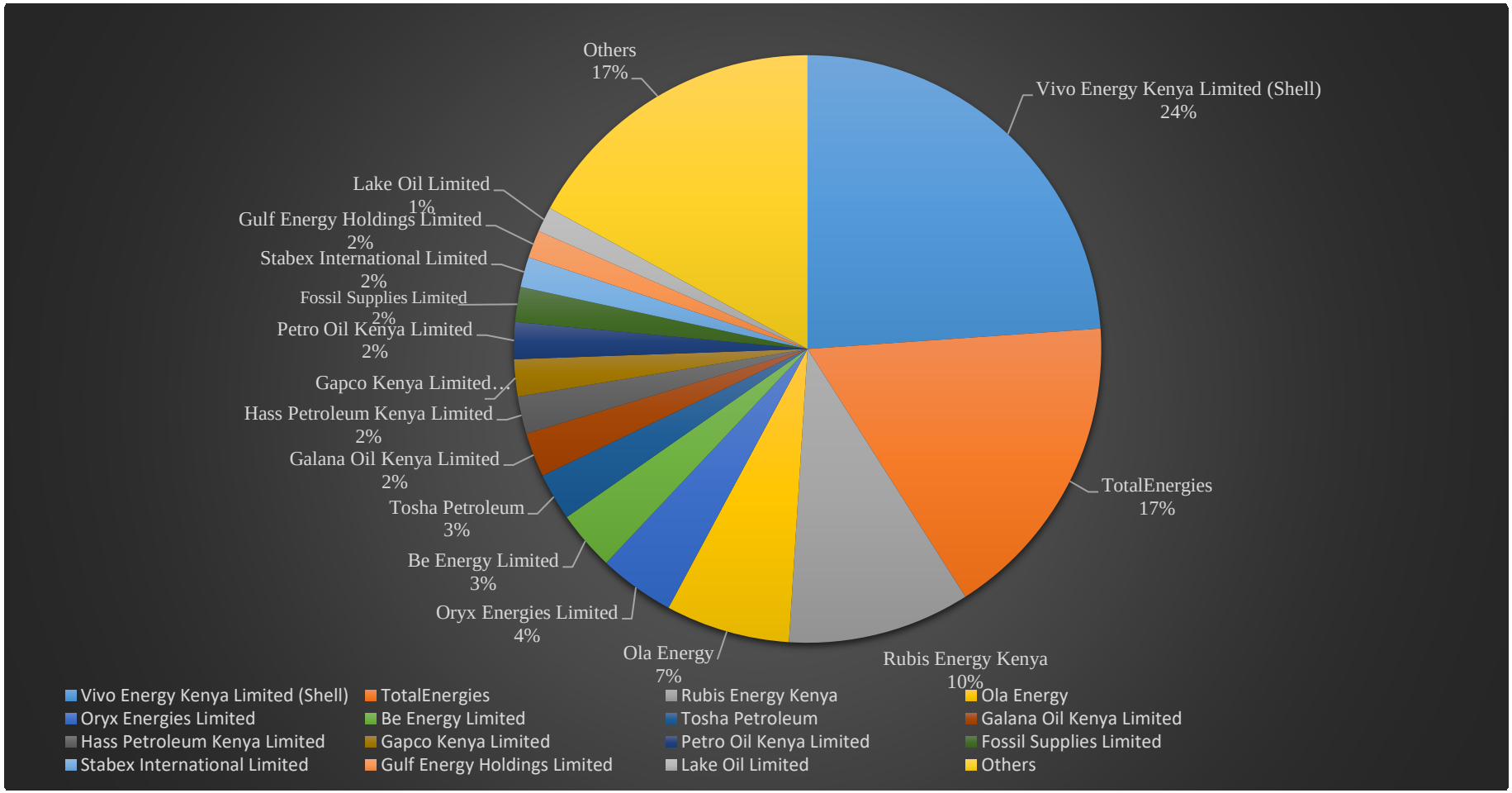


Note. Adapted from The Energy and Petroleum Statistics 2021; Key Statistics and Highlights by Mutua (2022)

The OMCs comprise of private and public companies with the private ones dominating the largest share of the market as shown in Figure 7. The Kenyan market possessed by the OMCs are based on the quantity of product they import through the open tender system and sales made locally. The open tender system (OTS) is controlled by the Ministry of Energy and Petroleum to ensure fair bidding by OMCs, proper planning of importation, equitable use of facilities and enhanced supply chain security (EPRA, 2022; Mutua, 2022).

Figure 7

Oil Marketing Companies Market share in Kenya

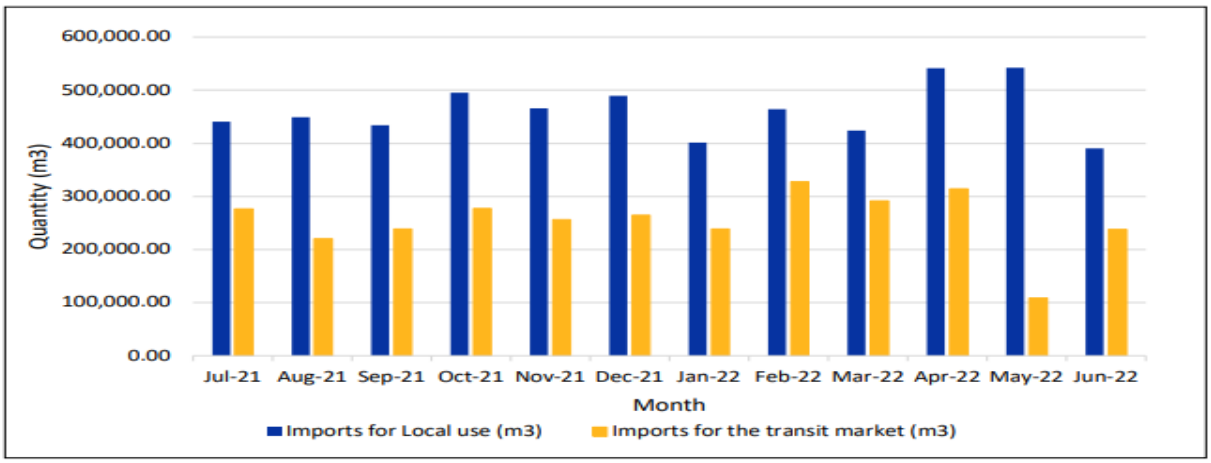


Note: Adapted from Energy and Petroleum Regulatory Authority 2022

The country imported 5,539,884 cubic meters of petroleum for local use and 3,052,312 cubic meters for transit in the financial year 2021/2022 compared to 4,994,577 cubic meters for local use and 3,739,033 for transit imported in 2020/2021 as shown in Figure 8 (EPRA, 2022). The domestic market imports rose by 4.5% due to the rise in demand for the jet fuel after Covid 19 pandemic and the travelling industry resumed. Gasoline or diesel is the highest consumed petroleum products at 2,707,077 cubic meters followed by Premium motor spirit (petrol) at 2,182,656 cubic meters as demonstrated in Figure 9.

Figure 8

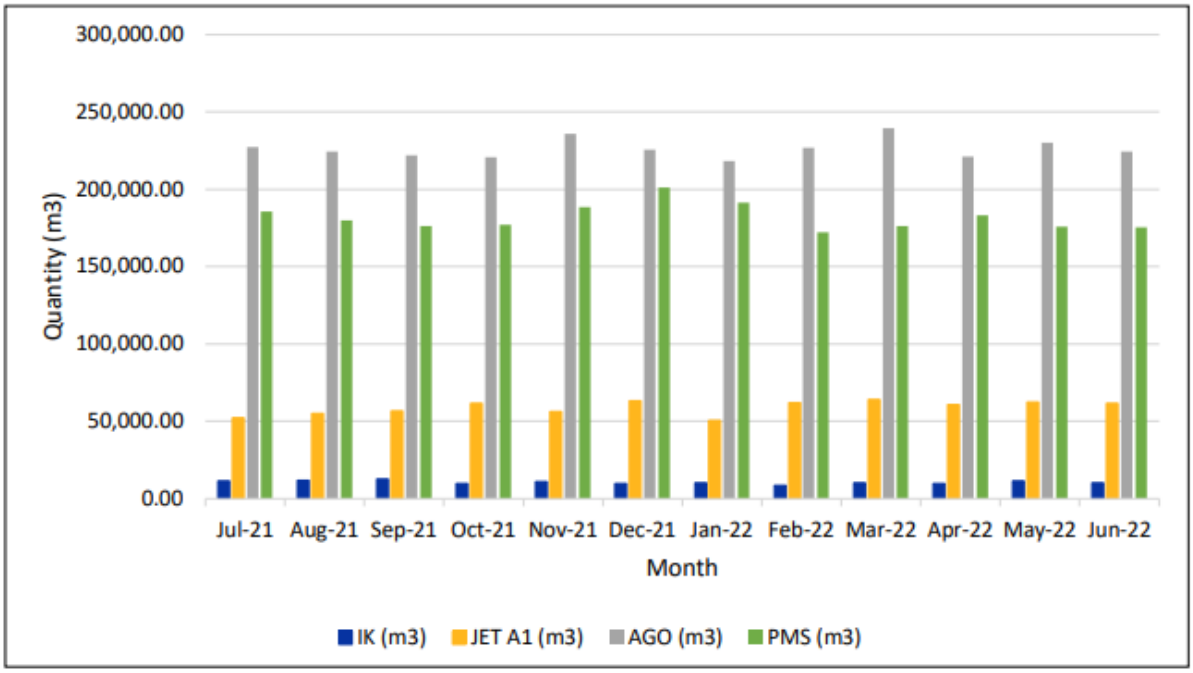
Quantity of imported local and transit products



Note. Adapted from Trend in Quantity of Petroleum imports for local use versus that meant for the transit market. Energy and Petroleum Regulatory Authority, 2022.

Figure 9

Local consumption of petroleum products



Note. Trends in Consumption of petroleum products. Energy and Petroleum Regulatory Authority, 2022.

2.3.2 The future outlook for oil and gas

The petroleum sector is a volatile industry marred with constant fluctuation of oil prices which affect the direction of the industry. Further, the cost of extracting oil varies from country to country globally hence the effects of price fluctuation is felt separately. Countries with large extraction sites and major oil companies survives the fluctuations compared to countries with few extraction points (NRGI, 2015).

However, despite the fluctuation of prices, energy efficiency and introduction of other forms of energy, the need for oil and gas globally is increasing and it is an indication that its extraction and production will continue. This can partly be attributed to the increasing world

population and transportation needs. Additionally, the oil and gas sites are located in specific regions with the Middle East having the largest portion, 48% of the global known reserves (NRGI, 2015). Political and economic stability in Africa coupled with innovation in exploration technology encouraged companies to explore the resource in Africa from early 2000 (Simbiri et al., 2022).

The demand has kept increasing despite the highs and lows in the business pointing to a good future for the industry. Some of the reserves are however difficult to access but with enhancement in technology, appropriate extraction methods such as shale fracking have been developed (IEA, 2020). Further, the upstream sector relies mostly on heavy equipment and not manpower, hence less employment but the downstream sector employs more personnel once the oil has been extracted.

The clarion call for low carbon emissions has led nations to think of alternative ways of sourcing for energy threatening the existence and use of petroleum products (IEA, 2022). The consumption of oil and gas however needs to go hand in hand with the consideration of the Paris agreement on low carbon footprint.

This calls for a balancing act between provision of affordable and reliable energy to the people as stipulated in SDG number 7 and taking care of the environment. Oil companies need to adopt carbon capture, usage or storage, energy efficiency and use of natural gas for sustainability (Ben-Naceur, 2019). Simbiri et al. (2022) adds that the world economy will continue expanding in the coming 20 years with China and India growing at the rate of 3.4% annually and the demand for oil and gas will rise.

2.3.3 The Petroleum Workforce

The workforce are the employees who run the operations in the petroleum industry. The duties vary depending on the section of employment. These employees may terminate their contract with the company and leave the Organisation at some point (Deloitte, 2022).

The International Energy Agency (2022) report opines that employment in the energy sector will soon shift to clean energy as the world transitions to low carbon energy. The sector as at 2019 had a workforce of over 65 million, translating to 2% of the global workforce. This sector was hard hit by the Covid 19 pandemic with many employees worldwide losing their jobs. However, there has been recovery with employment though not yet to pre-Covid 19 levels. This has led to major disruptions in the energy supply chain due to the gaps in hiring and the tight labour market.

The American Petroleum Institute, reports that the petroleum industry employs 9.8 million Americans, which is about 5.6% of the total US population in employment (API, 2022). It is expected that the number will increase due to the advanced exploration and drilling methods (hydraulic fracturing) used to produce shale in Texas and North Dakota.

The oil and gas division in Texas is one of the biggest in the US and provides employment to both men and women during its boom season. However, the men gain more compared to women with the blacks and Hispanic men taking the lead (Cai et al., 2019). Additionally, the industry in Texas faced gender and racial discrimination in the past where the workforce consisted of only male of white origin but this has since changed.

The Natural Resources Canada (2021) report indicates ‘Canada is the fourth largest oil producer in the world and the fifth largest gas producer in the world’. Additionally, oil and gas

industry in the country provides 593,500 jobs; 178,500 direct and 415,000 indirect jobs as at 2019. The petroleum products constituted 16% or 86 billion of the country's exports in the year 2020. The sector in general employs about 31% of women with 5% of the total employees being indigenous and 18% being from minority groups and 29% are immigrants. The women in sector mostly work in the office roles whereas the men work in the trade section (Natural Resources Canada, 2021).

Additionally, the Nigeria Extractive Industries Transparency Initiative (NEITI) submitted data from 60 petroleum companies in 2020, indicating that the Nigerian workforce comprised of 18,712 employees, out of which 15,266 (82%) were men whereas 3,446 (18%) were female. Moreover, 88% of these employees were drawn from local states, while 9% were from other states and 3% were expatriates. The report further notes that women played less conspicuous roles in the industry as of the 40 top managers, only 10 were female. Half of these employees will be retiring in the coming decade causing a major skill shortage. There is need for the sector to employ more locals and mostly women as the industry has failed to retain its female workforce (Oyedeji, 2022).

A report on skills in the energy sector in Kenya by the Ministry of Labour and Social Protection (2020) notes that there is scanty data. However, from the upstream and midstream sector, 75% of the employees were male mostly engineers. The report further notes that most of the specialised work such as research and consultancy has been provided by expatriates due to lack of locals with the requisite skills. It thus highlights that the local institutions of higher learning do not offer this kind of specialised courses.

The Energy Petroleum Regulatory Authority (EPRA) (2022) reports that the downstream segment in Kenya has registered a total of 111 Oil Marketing Companies (OMCs) under its

authority. The OMCs in total run 4373 petrol stations spread across the country with employees based on their scales of operations.

According to the Energy and Petroleum Statistics Report for the Financial Year 30th June 2022, the Kenyan oil market share was controlled by 15 major OMCs with a combined share capital of 83% followed by other small players whose combined share was 17% as earlier highlighted in Figure 7. (EPRA, 2022; Mutua, 2022). Mwangi (2020) notes that the Kenyan Oil Market is controlled by foreign owned companies. The EPRA (2022) report confirms the same trend two years later. The top three companies are foreign owned with a combined share of 55.88% with NOCK struggling and not among the top market shareholders.

2.4 Talent Management

Talent management is a multidimensional notion that organisations use to manage their employees by attracting, nurturing, compensating and keeping them in the company to handle assigned responsibilities. It is therefore linked to talent acquisition, development and retention (Al-Lozi et al., 2018). Similarly, Dessler (2020) asserts that talent management encompasses a number of human resources procedures, including recruiting, training, supervising, and paying staff members.

Notably, there is no one agreed upon definition of 'talent' as scholars have differed on whether talent management should concentrate on all the organisation employees or only the specific 'high potential and high performers' employees (Harsch & Festing, 2019). Talent is a crucial element for good organisational performance and comprises of an employee's experience, abilities, intellect, knowledge, qualification, attitude, character and their ability or drive to build their skills (Yuniati et al., 2021). Talent therefore is an innate ability of an employee to perform

assigned responsibilities effectively and attain the organisational objectives (Almohtaseb et al., 2020).

Further, Collings et al. (2019) and Tetik and Halil (2021) note that talent management consist of three mechanisms. Firstly, the hiring, developing and payment of employees. Secondly, the provision of adequate inflow and outflow of talent within the organisation in terms of succession planning. Lastly, aligning of employees' salaries according to their performance hence classifying them based on performance.

This notion is supported by Amushila and Bussin (2021) who contend that talent management comes in three aspects namely succession planning, managing talented individuals and as a personnel management term. Additionally, talent managing is reflected as the process of forecasting a company's future human capital demands and planning on how to meet them. It is the art of determining an organisation worth through proper human capital planning to meet objectives (Ali & Guha, 2018).

Talent is also seen as an inimitable resource that is crucial for a company to achieve competitive advantage over other companies in the market. Organisations therefore put in place measures to optimise their resources in attaining its goals while protecting their unique resources from being poached by other players in the market (Gallardo-Gallardo et al., 2020). This demonstrates that talent is an important aspect in organisations that cannot be overshadowed. Talent has widely been classified as positions, top potential individuals and every individual employee. The authors recommend consideration of the pluralistic approach of talent in organisations.

Therefore, talent management is crucial for the organisations human resource and is defined as an organisational practice that entails 'the attraction, selection, development and

retention of talents' (Harsch & Festing, 2019). Gallardo-Gallardo et al. (2020) agrees with these adding processes and activities in the organisation as part of talent management. They note that attraction of talent should be systematic to add value to the organisation whereas deployment of talents is the process that develop a sustainable good performance by putting the right talent in the correct position in the company.

From the various definitions available, scholars should take up the challenge of drawing inferences from other organisational parameters (Almohtaseb et al., 2020). They established that talent management comprises of various factors which are 'planning, recruitment, compensation and rewards, performance management, employee empowerment, employee engagement, and organisational culture' that positively affects the performance of companies in Egypt. These initiatives are integrated in an organisation to enhance its efficiency and effectiveness by optimising the capability of employees who are a unique resource.

2.4.1 Inception of Talent Management

The concept of talent management was born when the McKinsley team in 2001 brought out the aspect of ‘War of Talent', which focused on organisations leaders and their human resource specialists. Some aspects of talent management had begun in early 1960s with the necessity to understand 'cross-cultural issues, expatriate management, and the effectiveness of differentiated management practices' (Vaiman et al., 2021).

Chaturvedi et al. (2022) adds that talent management has since gained popularity in managerial roles and they focused their study on the Indian oil and gas sector. They state that talent management encompasses various aspects of today's human resource development such as identifying skill gaps, development of procedures and processes, succession planning, selecting,

hiring, induction, motivation, inspiring and developing ability of capable employees through series of activities.

Talent management is of great concern in the current business environment and is considered a tool for enhancing continuous competitive advantage and performance of a company. It involves 'the attraction, identification, development and maintenance of talent and ability of an organisation to address the business issues' (Tetik & Halil, 2021; Younas & Bari, 2020).

Glaister et al. (2021) state that talent management is identifying and enhancing key roles in an organisation that create competitive edge and is a solution to the lack of managerial skills in firms. The identified talented employees should fill leadership positions in future to avoid skills gap in the organisation (Kamel, 2019; Yuniati et al., 2021).

2.4.2 Importance of Talent Management

Talent management revolves around the human capital focusing on the skills, knowledge and abilities. The skills possessed by employees compete with technology, innovation and products as resources of transformation and administration of dynamic organisation necessities (Alanazi, 2022). The employees' competency and skills that cannot be imitated creates an advantage for the organisation and impacts on its performance (Abdelazim, 2021; El Dahshan et al., 2018; Kamel, 2019).

These are important strategies used by organisations to stay afloat with factors like innovation, digitisation, technology, rising global competition, changing customer interests and markets, uncertainty amongst others affecting how businesses are operated (Alhaider, 2022; Ronnie & Glaister, 2019). These factors arising from the external and internal environment are forcing companies to be agile and adopt to the unpredictable environment through restructuring,

change in leadership and internal process or face extinction (El Masri & Suliman, 2019; Harsch & Festing, 2019). Talent management therefore provides organisations with the right people and right working conditions to tackle the challenges (Gallardo-Gallardo et al., 2020).

Companies therefore require top-notch employees to ensure that they deliver and maintain reliability despite the constant pressures of unplanned demands (El Masri & Suliman, 2019). Gallardo-Gallardo et al. (2020) posits that with all these pressures, organisations should put more effort in the identification, attraction, recruitment, development and retainment of talent to increase its chances of survival and performance. It should support provision of conducive work environment, teamwork, engaging employees in making decisions, develop training programs as part of their tactical goals (El Masri & Suliman, 2019). Yuniati et al. (2021) agrees with this notion adding that it promotes the growth of employees and offering of the right goods and services to customers.

Globalisation has tilted the employment landscape and caused strained organisations in terms of cost savings, downsizing, outsourcing of employment, innovation, succession planning, new generation employees, increase in business opportunities, skills shortage amongst others. The organisations leaders' ability to use its people strategically is considered a differentiating factor that ensures the success (Dalayga & Baskaran, 2019).

Additionally, talent management through emotional acumen impacts performance of organisations and the level of engagement at work hence the need for proper coordination (Al-Qeed et al., 2018). The identification, nurturing, improvement and positioning of the correct people in the suitable position enhances the morale of the employees and by extension their level of engagement (Mensah et al., 2019).

Notably, talent management has various indicators namely; policies, leadership support, talent development, talent culture and recognition. It goes hand in hand with work engagement with several studies demonstrating a positive and significant relation in organisations (Järvi & Khoreva, 2020). Additionally, talent management is mediated by a number of factors such as employee identification with the organisation, work engagement, employee engagement, and attachment to work and colleagues (Mosong et al., 2023).

An evaluation of literature regarding the structure of managing talent in organisations conducted by Yildiz and Emer (2023) identified talent identification, acquisition, attraction, development, planning, deployment and retention as the core concepts for achievement of company objectives. The concepts influence each other and cannot be examined independently, with a mishap in one leading to failure of the whole system.

Amushila and Bussin (2021) add that planning, organisational unity, continuous management support, work life balance, organisational unity and other environmental factors have been identified as components of talent management that improve employee retention. Similarly, identifying, attracting, developing, engaging, and retainment are some of the aspects of talent management metrics that impact on worker performance and retention as mentioned by Friday and Sunday (2019).

2.4.3 Talent Management in Practice

Talent management contains seven dimensions, which are planning, rewards, compensation, recruitment, managing performance, empowering and engaging employees and lastly the culture of the organisation which when used properly results in high organisation performance (Almohtaseb et al., 2020).

Planning

The management must maximise the use of resources that an organisation possesses. In order to achieve this, there should be proper preparation of how to attract, motivate and retain talented staff in the organisation. It is also advisable for the organisation to provide incentives for their employees such as recognition, flexible working arrangement, bonuses among others to gain their commitment to the company (Almohtaseb et al., 2020).

Reward System

A reward also known as salary, remuneration or pay has been described as the amount of recompense in monetary and non-monetary given to an individual in return for their labour. Reward is a crucial element in a contractual agreement in a paid form of work as it acts as the determiner of successful or unsuccessful agreement (Mustafa & Ali, 2019; Samuel, 2021).

It is a strategy that guarantees a company's performance sustainability in harsh economic times. Organisations offer rewards for various purposes such as improving recruitment and retention through market competitive packages whereas employees may require incentives to complete particular tasks successfully and be innovative (Anku et al., 2018; Mustafa & Ali, 2019).

The reward system impacts employee performance, their behaviour, extent of work engagement and attainment of competitiveness in an organisation (Samuel, 2021). Similarly, Brown (2021) reports a positive correlation between rewards and corporate strategy in general.

Additionally, Svensson (2019) highlights that a reward system should align with the employees' self-interests and the goals of the organisation. The benefits should be informative, motivational, grant management control and people centred. Incentives ought to gain employees

interest while also providing contemporary information to the supervisors. Positive employee perception of the reward scheme affects their attitude toward the organisation (Anku et al., 2018).

Recruitment and Selection

Further, recruitment and selection of the right candidates with the requisite skills for the right role is essential for the talent management in an organisation (Almohtaseb et al., 2020; Chaturvedi et al., 2022). The recruited employees should be evaluated on their performance to ensure that there is return on investment.

Job Rotation

Job rotation ensures that employees in companies have holistic skills. This is achieved by redeploying employees through various sections to avoid monotony and creation of silos at the workplace. Job rotation is a key aspect in the development of employees' position based on their capabilities as assessed by the organisations management (Zin et al., 2021).

Organisations must adapt to change arising from external and internal environment that affects their operations by giving their staff sufficient exposure. Companies are under pressure from various internal and external stakeholders to produce good results while satisfying their diverse needs. Few studies have however been conducted regarding job rotation despite its growing effect on employee and organisational outcome (Zin et al., 2021).

An inquiry to analyse the effects of job rotation as a talent managing strategy on organisational productivity was executed by Damei (2020). The research examined employee retention in three Somali telecoms companies and employed a survey questionnaire to assess three aspects of talent management that is training job instruction, job rotation, coaching and mentoring. A descriptive examination of the data from 150 employees showed that work rotation strategy and

staff retention were significantly correlated with job instruction. Additionally, job rotation strategy had a positive relation with employee retention as well as between coaching and mentorship.

In a related study, Hee et al. (2019) analysed the interaction between employee and talents management strategies in the Southern Malaysia property segment. They used quantitative cross-sectional technique to investigate the consequence of career planning programs, mentoring and coaching, and job rotation as independent variables on employee retention. Online survey was used to collect data from 397 participants. The outcomes disclosed a noteworthy association between employees' retention and career planning programs, coaching and mentoring, and job rotation. The scholars note that the use of talent management help companies to appreciate the career needs of their staff and devise strategies to retain them.

Similarly, Kponee (2020) used a cross-sectional survey to find out how job rotation affected employee turnover in Nigeria's food and beverage sector. 1120 participants were chosen using the Taro Yamane algorithm, and data was gathered using a questionnaire with a five rating Likert scale. The hypotheses were verified through Pearson's Product Moment correlation coefficient in the SPSS. The outcomes showed that job rotation and both voluntary and involuntary employee turnover in the organisations have a substantial association. Companies operating in the industry were advised to implement job rotation in a sustainable way based on the employees' needs.

Coaching and Mentoring

Coaching has been described as a development and progression process where an employee or teams of employees are guided to understand the organisations procedures and how their roles affect achievement of goals (Stokes et al., 2021). Most organisations have adopted coaching to

build staff abilities, boost confidence and change ineffective behavioural actions. Mentoring on the other hand refers to the transfer of specific talents to other employees such as initiatives aimed at improving employee retention.

The distinction between coaching and mentoring is however blurry and the terms are frequently used synonymously in businesses. Garvey and Stokes (2021) states that coaching is mostly used as an all phrase for diverse workplace interventions including mentoring, training, counselling and consulting. Consequently, coaching and mentoring are often mixed and called hybrid methods.

Additionally, within the business world, talent coaching is a talent management program that pertains to one-on-one assistance intended to help talented individuals at different seniority levels advance their careers and enhance their leadership skills (Stokes et al., 2021). Research on workplace coaching highlights its benefits for performance improvement, employee engagement, and leadership development at the individual and organisational levels (Bickerich & Michel, 2022; Mangion-Thornley, 2020).

Coaching and mentoring make it easier for new employees to adopt to new ways of thinking through interactions with long serving employees, enabling them to overcome organisational challenges (Zhang et al., 2020). In a study to ascertain Generation Z's retention rate, it was determined that the purpose of mentoring and coaching potential talents in succession management is to guarantee that they possess the requisite skills and knowledge. Additionally, workers who receive appropriate coaching and mentoring are more likely to stay employed by the organisation (Achmad et al., 2023; Collins, 2020).

In accordance with the social exchange theory, Mangion-Thornley (2020) investigated the application of coaching in talent administration programs in the banking industry using a single

case qualitative analysis. 30 employees were interviewed revealing that coaching is crucial for talent management programs. It is a social reward where employees benefit by having the talent status and developmental progression therefore strengthening the link between the employer and employee.

Talent Development

Talent development is concerned with giving workers the knowledge needed to work efficiently. This involves formal education, on job training, experience while at the workplace, relationships and assessment of personality (Friday & Sunday, 2019). These activities influence the commitment of workers to stay in the company, as they see the organisation investing in their skill development. Alanazi (2022) supports that an organisation should ensure that their employees continuously acquire knowledge, skills and competencies through learning as these influence employees' attitudes and behaviour at the workplace.

Talent development is termed as a wide framework that transforms employees into a sustainable resource. It involves selecting, training, planning, putting in place initiatives to build employees to ensure the company has the talent it requires (Achmad et al., 2023). Talent development must be aligned with the company's talent management strategies. This concept enhances job satisfaction, career progression and employee engagement resulting to employee retention.

Organisations in developing nations have appreciated the importance of developing employees as retention mechanism. This can be achieved through provision of growth opportunities such as training, career development programs amongst others. Investing in employees is cheaper than replacing them at an estimated cost of one and half times the salary of

the departing employee (Agarwal, 2019). Lerotholi (2021) adds that talent management strategies in an organisation should put more emphasis on employee's development through initiatives aimed at broadening their capabilities and skills.

Talent development is pointed as crucial for retaining employees in organisations but has been overlooked as it is meshed with talent management. Consequently, Dalayga and Baskaran (2019) evaluated the consequence of talent development practices in enhancing retention of employees in healthcare organisations in Malaysia. They further note the issue of talent shortage in the Malaysian Healthcare industry as the old generation, which requires more medical attention is on the rise with the workforce dwindling. They established training and career development as incentives of retaining employees in the organisation. They note that talent development should be customised to fit individual employees needs.

Training

Training is considered an element of talent management that aids in empowerment of staff, retention and enhances performance of the organisation (Lerotholi, 2021). Similarly, Elsafty and Oraby (2022) report that training is crucial for high organisational performance and retention of employees. They however point out that some managers consider training as a costly risk.

The scholars evaluated the link between training, performance, work satisfaction, operational communication and retention of private sector employees in Egypt. Information was gathered using surveys, and multiple regression analysis used to evaluate the results. It was revealed that training, work satisfaction positively influences work performance with no effect on employee retention (Elsafty &Oraby, 2022).

In a qualitative inquiry to explore retaining strategies in consulting firms in South Africa, Mabaso et al. (2021) employed an interpretivist approach that drew experiences from twelve participants from the consultancy industry. The participants were selected purposively being those with more than five years' experience of the ages between 25 and 60 years. The findings revealed that training has been termed a behavioural and action changer due to the skills and competence that employees gained which led to career growth, as employees were able to handle new level of responsibilities.

Personalised training enhances employees' abilities and their perception of the organisation, their sense of belonging and work engagement (Ishiyama, 2022). Employees should be made aware of the companies training procedures as per the business strategy. Amushila and Bussin (2021) adds that training minimises turnover of employees.

Career Progression

An inquiry to assess the protean career influence on employee retention was conducted by Redondo et al. (2021). The study examined the relationship among 306 skilled workers in Mexican multinational corporations between their intention to leave, organisational commitment, job satisfaction, and their flexible career orientation. Proteanism referred to cases where employees sought to build their careers without relying on organisational assistance. The study indicated that proteanism is prevalent amongst talented employees and there was need to study the concept, as it might be a threat to staff retention. The outcomes of the research exhibited employees who were protean demonstrated high levels of job satisfaction and loyalty besides decreased rates of leaving the company.

When employees experience job growth they stay in the organisation and if they are stuck in one grade for long they leave. Job growth therefore enhances retention and commitment to the company whereas its lack diminishes employees' intention to stay (Mabaso et al., 2021). Ishiyama (2022) adds that in an inclusive talent management approach, companies should develop personalised employees' profiles which guides the enhancement of each employee based on their strengths.

Performance Management

Performance management is the setting of clear targets for workers, providing them with the necessary tools and measuring their performance at the end of a given period. This separates the high performers from poor performers thus a tool used for identifying and rewarding potential employees in companies (Almohtaseb et al., 2020; Chaturvedi et al., 2022).

Organisations exist due to the profits and the goals they want to achieve. For this reason, employees are the drivers for achieving the goals hence they need to deliver as per their employment terms. The management puts in place mechanisms to gear talent management towards sustainable performance for the organisation in comparison to business rivals. The inclusion of performance management in the organisation builds a strong workforce and an organisation with a competitive edge (Lerotholi, 2021).

The motive of talent management is to improve a company's achievements through performance of the talents which is measured at individual levels. Management should understand the employees' profiles when carrying out performance evaluation and staff wellbeing (Ishiyama, 2022). Additionally, companies expect consistent performance that determines the employee as talent. From performance evaluations, management are able to determine the support that

employees require such as training or other capacity building mechanisms. The scholar further notes that work engagement influences motivation of how employees perform their tasks.

Line Manager Support

The management of an organisation is responsible for establishing, carrying out, and fostering effective execution of talent management. Management runs with the programs, provides required resources, ensure the systems are fool proof and aligned with the business goals. Their commitment and support ensures successful implementation of the strategies (Lerotholi, 2021).

Additionally, Kravariti et al. (2023) executed an exploratory study in Bahrain to evaluate the outcome of line manager support on employees' performance and talent management in the public service. They noted that within the public sphere, talent management procedures are typically immature, inadequately applied, unplanned, disorganised, and reactive which presents implementation issues for line managers. As the public sector lacks the resources to hire outside talent, line managers must cultivate talent in-house to help address the skills gap. Similarly, Peterson et al., (2022) reports that line managers in the public sector encounter difficulties in coordinating talent management procedures with corporate strategy and culture.

In an inclusive talent management strategy, it was found that the relationship between staff safety for task performance and talent management methods was mediated by managerial support. Individual talent performance and talent management had a significant indirect association at low organisational support levels. The study emphasized the duty that managers play in successfully executing talent management initiatives (Kravariti et al., 2023).

Similarly, Kehoe and Han (2020) reports that organisations should develop flexible and accountable leaders under the increasing environmental pressures as the key deliverers of talent

management practices. Further, Gallardo-Gallardo et al. (2020) terms the line managers as tie pin between the intended policies and practice. They make crucial decisions regarding the human capital under them. The effectiveness of talent management implementation therefore lies with the line managers who have been reported as lacking softer skills.

Exclusive talent approach on the contrary raises tensions due to the differential treatment given to employees as talent and non-talent. In this regard, line supervisors ought to be incorporated in crafting of talent management practices for the organisation as they have a broad perspective of the people (Boselie et al., 2021).

Organisational Performance

The moderating outcome of managing performance and the consequence of talent management on company performance in the Jordanian health sector was assessed by Almohtaseb et al. (2020). SEM and AMOS statistical analysis tools were used to analyse data from 430 respondents from 30 public hospitals. The significance of managing performance in modulating the relation between organisational performance and talent managing was demonstrated by the study. Performance systems can be employed to identify employees with talent, align leadership and employees' relation to enhance performance of the organisation.

The influence of talent management on personnel performance with the intervening effects of satisfaction and employees' engagement was investigated in a study of petroleum businesses in Abu Dhabi by Alhamadi et al. (2022). The research model was validated using PLS-SEM, and talent management was evaluated in terms of tactics and mindset. It was determined from the data gathered from 321 employees that the attitude and tactics surrounding talent management significantly impacted the relationship with engagement, performance, and satisfaction.

Furthermore, job performance was positively impacted by satisfaction and engagement, which also mediated the relationship between employees' performance and their mentality and strategy in the petroleum business.

In addition, Amushila and Bussin (2021) conducted a qualitative study on 39 administrative staff in Namibia University of Science & Technology to test the efficacy of talent management on workers' retention. They identified a strong correlation of talent management procedures and personnel retention and suggested that for efficacious talent management, line managers and human resource staff ought to promote practices like knowledge management, employee engagement, and health and safety standards. They posit that employee turnover is expensive for an organisation hence the need for the concerted effort from HR and line managers.

To determine the impression of managing talent loyalty in 10 oil and gas enterprises, a study was carried out in Nigeria (Friday & Sunday, 2019). The respondents consisted of 125 managers and supervisors who were chosen at random. The investigation found a favourable link between talent management and personnel dedication. Employee engagement in the industry was upgraded by talent management as measured by acquiring talent, advancement, and retention. In light of this, leadership at the oil and gas firms should do everything in their control to adopt the talent management procedures necessary to retain qualified workers in the industry, as this will strengthen their commitment to achieving organisational objectives (Friday & Sunday, 2019).

With the purpose of measuring the effect of global talent administration on employees' intention to remain with the company, a study was carried out in Europe. Manager interviews, written materials, and 141 questionnaires completed by a talent and control group were used to get the data. The study found that, from a global perspective, talent management strategies majorly impact on employees' professional development and intention to stay. For multinational

companies, it is consequently a critical success factor that contributes to rapid sales and large profits (Bonneton et al., 2022a). Career development also affects personnel retention and talent management initiatives. As a result, career management is crucial for both employers and employees.

The McKinsey & Company report cited in Bonneton et al. (2022b) indicated that finding the right talent is a growing challenge hence the need for investing in talent management programs. Multinational companies face numerous challenges when filling strategic positions with the global competition and local labour challenges. The scholars also noted that discussions of talent management in multinational companies has revolved around the US with little return on investment done as well as scarce talent.

A qualitative review of talent management by Mitosis et al. (2021) identified attraction, work climate, programming, preservation, assessment of performance, culture, development and leadership as critical components of sustainable healthcare systems. Organisations should ensure that work conditions are conducive and sensitive to employees' health.

The scholars recommend adoption of a broad-based talent management techniques and an in-depth evaluation of an individual needs for personalised support (Mitosis et al., 2021). The scholars further demonstrated that the leadership of the organisation motivates employees to achieve the goals and promote execution of talent management techniques for success of the healthcare system.

Despite the worth of the oil and gas industry to the economy, studies on inventive strategies such as talent management in the sector is limited especially in India, which Chaturvedi et al. (2022) focuses on. The research aimed at validating the relations of talent management, innovation and development of competence in an organisation particularly the Indian oil and gas sector. Using

a sample of 598 leaders from five oil and gas companies they established a positive effect of innovation and competence on talent management.

The main talent management practices adopted were hiring candidates with potential talent, use of performance management to measure the abilities of the employees, developing the skills of the employees, proper planning of succession roles to avoid managerial gaps and lastly putting in place measures to retain the talent (Chaturvedi et al., 2022).

Similarly, Alanazi (2022) investigated how talent management affected workers commitment and satisfaction in the oil and gas field in Saudi Arabia. According to the researcher, managers can improve commitment and satisfaction by implementing the talent management idea. 417 workers from significant oil and gas firms participated in a cross-sectional online survey. It revealed poor levels of satisfaction, a lack of dedication among young workers, an excessive reliance on talent outsourcing, and a lack of management assistance. The study therefore proposed use of transformation leadership approaches to identify talents, lack of development opportunities and support a conducive environment for talent development and retention.

In UAE, lack of local workforce led to the use of foreigners by the oil and gas firms (Al Hammadi et al., 2019). Their study therefore sought to examine the use of strategic talent management in improving organisational performance amongst the local employees in a bid to promote 'Emiratization'.

They established five strategic management practices mainly used by companies in UAE to enhance job performance, which are developing careers, hiring, staffing, attracting talent, coaching and mentoring. The authors found a substantial impact of strategic talent management practices on job performance, employee motivation and retainment (Al Hammadi et al., 2019). In a similar study on 321 employees of the Abu Dhabi National Company, Alhamadi et al. (2022)

established that engaging employees, job satisfaction and performance are major tenets of talent management in an organisation.

Notably, Kamel (2019) highlights the fact that the oil and gas division will be experiencing challenges in hiring and retaining employees with talent, which in turn will affect their performance. Narayanan et al. (2019) additionally state that talent management directly alters the advancement and retention of workers in a company. Organisations have realised that talent is a key asset in enhancing performance however there is a challenge in retaining these talents given the current operating environment. The world now has a 'global workforce' that is mobile with companies competing to hire them.

In an inquiry in the education sector, Asplund (2020) examined the influence of professionalism in shaping workers' reaction to talent management decision using questionnaires from 598 teachers. The study focused on the relation of rating of talents, obligation to the organisation and organisational citizenship behaviour of teachers.

Analysis revealed that traditional talent management strategies are less effective in enhancing favourable attitudes and behaviour of employees in a professionalised environment. Employees perceive differently the conventional talent management offered such as structured career development programs based on their identification with the profession and its related values. The research recommends application of tailored talent administration strategies to attract and retain professionals (Asplund, 2020).

Notably, the organisational structure is important in implementation of company strategies as it affects the work environment as stated by Yabarow and Muathe (2020). Companies that had bureaucracy consisting of centralised decision making with top down management levels gave rise to toxic culture, confusion among expatriates and middle level managers, withholding of

information, favouring greed rather than ethics and lack of urgent addressing of issues in a dynamic environment.

Further, petroleum companies that reduced their levels of management and communication channels experienced efficient decision-making process and high levels of competitiveness. El Masri and Suliman (2019) agrees that an organisation should develop talent management system that is in tandem with its structure as it touches on the employees' commitment, engagement and performance therefore affecting the position of the company in the market.

Research on talent management has been minimal in the Middle East countries hence its effects are unknown and the study by Glaister et al. (2021) sought to fill this gap. Their research concentrated on the perception of localization policies 'Omanization' by 26 managers in Oman Banking and Petroleum industry using their talent management.

They employed a layered institutional lens approach where organisations tackle its complexity and the relations between the government, market and society's demands. They note that 'Omanization' process where 90% of employees in organisations were expected to be locals was causing loss of expatriates and corporate memory skills and recommended the use of talent management strategies in mitigating this loss (Glaister et al., 2021).

Strategic Talent Management

With the evolving business environment, companies have changed from just managing talent to managing it strategically for optimum outcomes. Shet (2020) opines that talent and organisation depend on each other for existence and success. Further, organisations with robust strategic talent management approaches have managed to withstand the global disruptions as their leaders are able to execute approaches faster than their counterparts in the industry to survive.

Dalayga and Baskaran (2019) supports the use of strategic talent management as a differentiating factor.

Further, Shet (2020) posits that organisations are moving from the traditional talent management to strategic talent management (STM) where capable employees are considered to be 400% more effective than average ones. This has led organisations to employ young talents paying them better than existing employees who have worked for long in the organisations creating a dilemma. In addition, STM depends on a country's political environment, culture, local institutions amongst others. Organisations therefore have to merge the local aspects of talent management into the global aspects for success.

The STM faces various challenges arising from multifaceted organisational structures, practices and competing interests which future studies should focus on. He brings out questions that the field fails to answer due to the constant changing business models such as merging the various disciplines STM draws from to create value for business. How to house local and global competing dynamics into talent management architecture and finally the specific focus of TM in form of 'talent for what?' (Shet, 2020).

Organisational Change

A study to analyse the outcome of human capital development on organisational change in the Kenyan petroleum companies was conducted by Abdow et al. (2018). They established a significant meaningful relation between the organisation change and human capital development. They suggest that petroleum companies should focus on human capital development that enhances skills, knowledge and abilities of employees in a long-term basis. This enhances the performance of employees and builds their capability to deal with uncertainties.

According to the PwC 23rd Annual CEO Survey, it is critical for an organisation to build skills of its employees to enhance their confidence about their current and future abilities. It was established that 74% of CEOs highlighted lack of adequate skills from the employment pool a drop from 79% in the year 2019, which is a great concern (Stubbings & Sethi, 2020). Further, 38% of the CEOs agreed that upskilling enhances confidence of employees hence the need for relevant programmes. In addition, 41% of the CEOs noted that upskilling delivers more than skills as it creates a strong organisational culture and enhances employee engagement.

Lastly, 18% of the CEOs stated that upskilling is more than action therefore their programmes included a combination of 'soft, technical and digital skills' to create all rounded employees. Programs to serve this purpose should be developed anticipating changes that may occur in future hence building the capability of employees and the companies to survive (Stubbings & Sethi, 2020). The current operating environment necessitates strategic implementation of talent management practices that are aligned with organisational objectives and responsive to both internal and external environmental factors.

2.5 Work Engagement

Work engagement is described as the procedure incorporating workforces at all levels in the organisations decision making process. This enhances employees' affinity to their workplace and their sense of belonging. Further, it strengthens accountability for decisions and actions taken thereby promoting cohesion at work. In accordance with Zahari and Kaliannan (2023), a number of terminology pertaining to work engagement like 'employee engagement' and 'job engagement' are interchangeable in literary works.

Kahn highlighted this concept in 1990 as a behaviour displayed by employees within an organisation. He pointed out that employees' desire purpose in their jobs and will put in more

effort if their working conditions are favourable. Positive organisational outcomes, including minimal staff turnover, profitability, customer loyalty, absenteeism, and adherence to safety protocols, are a direct effect of positive work engagement behaviour. Generally, the reverse of burnout (Bakker et al., 2023). Therefore, the employees' behaviour, physical presence, cognitive abilities, and emotional states all serve as means for individuals to express themselves when performing their duties (Martinez et al., 2021).

Engagement at work is a notion consisting of three components; these are the behavioural, emotional and cognitive components. The behavioural refers to the energetic component or vigour, the emotional part refers to the dedication of an employee whereas the cognitive component refers to absorption at work (Decuypere & Schaufeli, 2020).

Further, vigour reflects high energy levels and the mental resilience of a worker to put in more effort in their task and overcome challenges. Likewise, dedication displays a nous of importance, pride, motivation and enthusiasm of an employee getting more involved in their work. Absorption on the other hand describes being happily immersed in work mostly seen as an unescapable state where time flies and an employee finds it difficult detaching themselves from work (Decuypere & Schaufeli, 2020).

Employee engagement is another crucial constituent of talent management as the capacity building of workers to improve their skills and ability to perform at work by giving them opportunities to perform higher roles through delegation. This enhances an employee performance and creates a sense of belonging or high affinity to the organisation (Almohtaseb et al., 2020). Yuniati et al. (2021) further reports that employee engagement positively intervenes the relation regarding talent management and organisational performance.

Moreover, El Masri and Suliman (2019) states that employee engagement is the utmost willingness of an individual to achieve the organisational objectives through discipline, personal drive, flexibility and persistence in staying the course. This dimension creates emotional motivation amongst employees and reduces job fatigue and absenteeism (Yuniati et al., 2021). Employee engagement also involves management giving employees opportunity to contribute in the decision making process. These brings out wholesome ideas, which are owned by every employee in the organisation resulting in successful implementation (Almohtaseb et al., 2020).

For organisations to maintain high productivity and operational efficiency, their human capital must be dedicated to their work and ensure that tasks are completed (Bakker et al., 2023). In this context, the notion of job engagement is used to gauge how much a worker is mentally present or absent at work.

It also expresses how employees connect to their work and others at the workplace and how they actively perform their roles. High engagement workers exhibit active performance because they are completely invested in their jobs on a physical, mental, and emotional level. Employees who are disengaged with their jobs, on the other hand, behave defensively and withdrawn (Bakker et al., 2023).

Work engagement has consequences favourable to the organisation in terms of motivation and job-related outcomes. Regarding motivation, engaged employees are willing to explore other experiences hence more innovative and willing to learn. On the job front, work engagement positively affects tasks performance either directly or as a mediating factor. It also enhances extra role performance where employees take on more duties and are willing to assist others, as they are able to free resources and use their energy to work efficiently. Additionally, job satisfaction and commitment are also outcomes of work engagement (Bakker et al., 2023; Mazzetti et al., 2023).

Sustained organisational performance and enhanced employee commitment are attained due to implementation of work engagement (Dessler, 2020). Work engagement can serve as a strategic resource that enhances a firm's competitive edge through its unique human capital. Organisations achieve this edge by fostering multiple employee engagements, which in turn improve performance and increase employees' affinity for work. This affinity motivates behaviours such as proposing ideas, remaining with the organisation, and maintaining strong work drive. Employee commitment to the company and high performance will be encouraged by these beneficial behaviours.

Work engagement has received prominence lately as management realised that the well-being of the employee is crucial for productivity. Schaufeli et al. (2002) defines it as a state where an employee feels fulfilled and motivated to keep working for the organisation in their capacity. This concept contains three elements; namely vigour, absorption and dedication.

An employee being energetic, resilient, persisting in challenges and putting in extra effort in their tasks demonstrates vigour. Dedication refers to an employee being actively involved in their tasks where they feel important, enthusiastic and inspired to work. Lastly, absorption is described as a situation where the employee is devoted to their work and concentrates on the tasks that they do not notice time going by quickly. Employees therefore struggle to separate themselves from the tasks they are performing (Nerstad et al., 2019; Schaufeli et al., 2002). Organisations currently require employees to be accountable for their performance and behaviour at work.

Work engagement is therefore key in developing employees and checking their well-being hence adding value to the organisation (Carmona-Halty et al., 2019). Numerous research have shown a beneficial relationship between work engagement and organisational resources such as autonomy, social and managerial support, management feedback, and task variety. The company

expects a return on investment from these resources, therefore workers must be "absorbed, dedicated, and energetic" in their tasks for high engagement.

Furthermore, Schaufeli and Bakker (2022) notes that engaged workers' pay attention, collaborate, participate, and complete jobs precisely. They establish tangible relationships with their co-workers and put their best effort into tasks. Moreover, the employees are prepared to devote the same amount of energy to their work as they do their level of engagement. Therefore, to achieve optimal productivity, businesses should have high levels of work engagement.

Three psychological dynamics contributes to work engagement as suggested by Nagele et al. (2018). Firstly, psychological safety is the provision of a secure and dependable environment where employees can express themselves freely without fear of being punished. Secondly, psychological availability is where the employee has the ability to handle situations at work diligently with mental, emotional and physical acumen (Bakker et al., 2023).

Lastly, psychological meaningfulness is the employee's perception of the returns they get for the physical, cognitive and emotional investment that they incur while carrying out their work. Employees therefore experience meaningfulness when they view their work as valuable (Borst et al., 2020; Nagele et al., 2018).

An employee who is highly engaged in their work is completely absorbed; feel passionate and energized about the task. They perform more actively and well, showing higher levels of personal presence, which is cognitive, emotional, and physical (Kim et al, 2019). When employees are motivated, they work hard and are connected to their assigned tasks.

Most literature on work engagement terms it an affirmative, rewarding state of mind connected to an individual's work normally characterised by vitality, dedication and immersion (Rayton et al., 2019). Vitality points to an employee having a lot of energy, being mentally tough

and having the ability to put in a lot of effort in his work which at times is referred to as vigour. A dedicated employee on the other hand will find inspiration, purpose and a feeling of excitement in the work they do. Additionally, immersion occurs when an employee is enthusiastic and completely focused on their task (Kim et al, 2019).

Further, an employee's own resources, work place resources and the demands of the job determine work engagement. Employee 'own' resources are their personal positive resilience and ability to control their surroundings. These includes self-worth, optimism, self-efficacy and endurance (Bakker et al., 2023).

Organisations resources on the other hand include autonomy, feedback on performance, support from colleagues, supervisors, and available training opportunities (Nagele et al., 2018). Demands of the job include the requirement for employees to put in efforts and coping mechanisms at the workplace (Bakker et al., 2023; Kaiser et al., 2021). When all the resources are adequately available, employees in the company will hold high intensities of work engagement, commitment and motivation with low job demands (Kaiser et al., 2021).

Additionally, job engagement affects organisational outcomes including employee commitment, productivity, low recruitment and retainment costs, and organisational stability; for these reasons, it has drawn interest from both scholars and practitioners (Kim et al, 2019; Schaufeli & Bakker, 2022). The organisations and the employee both benefit from implementation of work engagement at the workplace (Seppälä, et al., 2023).

Moreover, job engagement is an antecedent of intention to depart from an organisation by employees (Abraham et al., 2022) and leads to job satisfaction (Rayton et al., 2019). Workers who are passionate about their jobs are more devoted to their employers and are less likely to leave. It

is therefore important to consider provision of support by the supervisor, organisations policies and procedures that must be fair and challenging tasks to employees (Abraham et al., 2022).

Further, research has shown that work engagement functions as a mediation variable with other characteristics. As per Agarwal et al. (2019), work engagement modulates the negative connection between leadership and intent to quit. The relation between work characteristics and turnover desire is further intermediated by job engagement (Agarwal & Gupta, 2018); job satisfaction and intention to turnover are negatively correlated with work engagement as per Memon et al. (2021).

Moreover, Memon et al. (2018) reviewed how job engagement affected turnover intention and person-organisation fit, as well as its mediating function, in a cross-sectional study of 422 oil and gas businesses. Snowballing was used to nominate study participants, and an online survey used to collect information. The suggested research model was verified using the partial least squares structural equation system by Smart.

Work engagement, turnover intention, and person-organisation fit were found to be significantly correlated. Additionally, job engagement was a mediator in the affiliation between turnover intention and person-organisation fit. In order to improve job engagement and decrease voluntary turnover, the study recommended oil and gas businesses to concentrate more on person-organisation fit (Memon et al., 2018).

The effect of performance appraisal satisfaction and turnover intention with work engagement as the mediating factor was assessed (Memon et al., 2020). The study utilised two surveys to gather data from 295 participants from twelve petroleum companies in Malaysia. The research hypotheses were tested using partial least squares and the findings reveal a significant causal link between the three variables of the study. Notably, performance appraisal satisfaction

is an indicator of work engagement and adversely affects turnover desire of employees. Additionally, the interaction of satisfaction with performance appraisal and desire to leave was mediated by work engagement.

Organisations with elevated degree of job engagement make personnel feel that they belong hence are less likely to leave. These employees are physically engrossed with their tasks whether alone or in a team, are alert, focused and emotionally attached to their customers (Crawford, 2019). Engaged employees influence other employees to become more involved in their work hence spreading positive emotions and feelings. Similarly, Memon et al. (2021) report that employee work attitudes and behaviours are influenced by the emotional links developed at the workplace.

Within the oil and gas field, work engagement has become a key organisational concern as companies recover from the global recession. Onyeka and Onuoha (2021) studied the outcome of organisational support techniques on staff engagement in Nigerian oil and gas servicing companies. A sample of 322 participants determined using Krejcie and Morgan table were given questionnaires with 283 valid responses being received. The findings proved that employee engagement is affected by company's support strategies. Consequently, it was proposed that management should concentrate on both internal and external support in an effort to enhance employees' motivation for effective participation at work.

Work engagement mediating role has been established in several studies posing its significance in organisations. It mediates on talent management and organisational commitment (Abazeed, 2018), creative performance (Michel et al., 2019), performance appraisal satisfaction and intention to leave (Memon et al., 2020).

Equally, high levels of work engagement and employee retention are considered crucial aspects in a company (Abazeed 2018). Zahari and Kaliannan (2023) postulates that staff who have high engagement levels are committed and dedicated towards attaining the organisational goals. Work engagement has antecedents from the job design, individual and organisational factors namely perceived leadership support, the psychological states of staff, job related experiences, organisational or team factors (development programs and trainings). Conversely, negative work engagement antecedents emanate from job demands such as heavy workload, abusive line managers, bureaucracy amongst others.

Abazeed (2018) notes that organisations should align their employees' roles to the vision of the organisation. The association of employees and their supervisors is crucial and employees should be allowed to give their ideas and opinions on issues affecting their roles. The culture of trust should be embraced in organisation to bring in a bond of connection and enrich in the firm.

Consequently, workers who have a strong emotional bond with the company tend to stay with it for extended periods. Furthermore, according to Chopra et al. (2023), employee involvement and turnover intent are adversely correlated. Asbari (2020) notes that organisations use work engagement concept to achieve satisfaction, commitment and positive behaviour from employees.

2.6 Employee Retention

Employee retention denotes the strategic actions organisations implement to motivate personnel to remain with them for longer durations (Al Kurdi et al., 2021; Amushila & Bussin, 2021). El Sayed et al. (2021) defines retention of employees as the strategy put forth by a company to retain its employees, sustain its level of productivity and attain the business objectives. It represents a critical outcome variable that prevents employee departure and ensures return on

investment whilst securing talent that fosters competitive advantage (Bonneton et al., 2022a; Amushila & Bussin, 2021).

Organisations aim to achieve their vision through the laid down strategies that are implemented by employees who are crucial for the existence, sustenance and performance of the company (Prakash, 2022; Singh, 2019). Retention factors are broadly classified as involuntary (organisation-initiated) or voluntary (employee-initiated) (Allen & Vardaman, 2021).

When organisations lose employees, they incur costs equivalent to 1-2.5 times the departing employee's salary, alongside decreased production, diminished employee engagement, increased training costs, and reputational damage (Agarwal, 2018).

Furthermore, employee turnover results in loss of corporate memory, loyalty, experience, and workflow disruptions (El Sayed et al., 2021). As a result, there will be slow growth and success of the organisation. Consequently, organisations must develop comprehensive retention strategies to protect their talent from competitive recruitment (Amushila & Bussin, 2021). Competitors may exploit the skills, values and culture set that employees take with them when they leave, and replacing these workers is expensive (Soomro & Shah, 2019).

Employee retention is recognised as a skill development obstacle in organisations given that some employees leave before completing a significant amount of time with the company (Amushila & Bussin, 2021). It is therefore imperative for organisations to retain their workers and utilise them to attain their objectives while fulfilling the needs of the employees. Employee or talent retention has therefore become a crucial element of talent management in organisations.

2.6.1 Determinants of Employee Retention

Multiple factors influence retention decisions in a company. Turnover stems from availability of better paying jobs, strained relationship with the supervisor, moving for family reasons or going back to school. Besides, workplace discontentment, inadequate remuneration, job security, strained relationship with coworkers, unfavourable working conditions, lack of opportunities for career development, lack of job autonomy are the reasons why employees leave their organisations (Al Kurdi et al., 2021; Amushila & Bussin, 2021).

Consequently, employees intending to leave display withdrawn behaviour and diminished engagement whilst actively searching for alternative opportunities (Haque et al., 2019). Both organisational and personal factors require consideration when analysing retention. Personal factors encompass age, education level, projected leadership abilities, learning style, and seniority, whilst organisational influences include pressure to perform, incentive, and acknowledgement (Chopra et al., 2023).

Non-monetary elements such as job contentment, training, work environment, and flexible work schedules significantly influence retention decisions beyond monetary considerations (Shakil & Butt, 2023). Davis (2018) supports that staff retention influences staff behaviour, professional engagement, job happiness and economies of scale in organisations. He also notes the link between employee retention and job happiness.

Consequently, reduction of employee turnover intention is a financial advantage that saves the organisation the cost of investing in another human capital loss caused by staff turnover.

2.6.2 Retention Practices

The association between company branding and staff retention, considering the part that employee engagement plays as a mediator, was evaluated by Chopra et al. (2023). According to data gathered from 397 IT professionals, employee engagement raises the value that employers provide to workers, which in turn increases employee retainment.

Additionally, the results demonstrated that the link between employer branding and staff retention is somewhat mediated by employee engagement. Through career advancement and training, they promote the adoption of employer branding as a tactic to draw in and keep workers. By using its brand to satisfy employee demands, the company increases retention and loyalty (Chopra et al., 2023). Similarly, Barathi Dasan (2022) notes that high levels of dedication, performance, retention, work satisfaction, loyalty, attraction, and internalization of company values have all been connected to employee branding.

Agarwal investigated how talent management strategies and company performance affect retainment of employees on IT companies in India. It was proven that talent management had a significant relation to retention of workers whereas organisational performance on its own had no effect. However, organisational performance linked with talent management practices had an influence on retention of employees (Agarwal, 2018).

Moreover, Bonneton et al. (2022b) recommends that international jobs should be organised for employees, job shadowing, personal mentoring, coaching, job rotation, career success, objective assessment and other developmental activities should be implemented to strengthen talent levels in an organisation and lower employee turnover. It is also important to ensure that talent management programs developed to enhance employee retention are sustainable for

continued organisational performance (Bonneton et al., 2022b). The employee responds by displaying positive attitude and behaviour at work as the social exchange theory suggests (Bonneton et al., 2022a).

In another study, Kireru (2019) sought to explore how assimilated talent management created competitive edge in telecommunication corporations based in Nairobi. He focused on examining the role played by talents; acquisition, development, compensation and retention processes with transformation leadership. It was established that integrated talent management procedures result in competitive gain for telecommunication. In addition, it enhances organisational efficiency, effectiveness and innovation. Ochieng'Ojwang (2019) agrees that talent management results in competitive advantage. This is in contrast with Akande (2020) who fronts the use of transactional leadership style in organisations.

Businesses that can retain talented employees gain an advantage in rivalry and operational efficiency (Amushila & Bussin, 2021). By retaining employees for long in the organisations, corporate memory is enhanced, proper succession planning implemented, loyalty and commitment is promoted (Agarwal, 2018).

Retaining talent in the organisation is crucial as employee turnover can be disastrous to the organisation as it leads to loss of loyalty, loss of experience, delays in workflow processes and increase in organisational cost in terms of recruitment and training (El Sayed et al., 2021). Retention of employees in an organisation helps in securing talent, which fosters organisational attainment of its goals and creates competitive advantage since talent is an inimitable resource.

Additionally, Al-Ali et al. (2019) examined the facilitating role of job happiness or mental well-being on relations concerning job satisfaction, performance of employees and turnover intention of the oil and gas sector employees in United Arabs Emirates (UAE). The findings reveal

that job satisfaction had positive relation with employee performance and job happiness but adverse relation with intention to stay.

Further, both work satisfaction and job happiness had an adverse influence on the workers' turnover intention despite work happiness mediating between job satisfaction, performance and turnover intention. The researchers recommend development of recruitment strategies that will create and sustain employees' happiness, satisfaction and therefore enhance their retention in the companies (Al-Ali et al., 2019). The use of recruitment as a strategy to retain employees is also fronted in other industries (El Sayed et al., 2021; Ochieng'Ojwang, 2019; Muriithi, 2020).

A study was undertaken by Ebrahim et al. (2020) to explore how talent management practices and retainment of workforce in Malaysia Government Linked Companies (GLC) are related. The study tested five talent management tactics: performance in recruitment, training, development, performance management, succession planning and finally rewards and compensations.

The results indicated that performance management and recruitment only had a positive influence on employee retainment. They recommend inclusion of identification and development of talent together with culture as part of talent management practices (Ebrahim et al. 2020). Similarly, Muriithi (2020) reports a significant positive relation concerning recruitment, career development and succession planning with strategic employee retainment in the Kenyan banking sector.

Learning opportunities enable employees to discover strengths, develop capabilities, and maintain organisational commitment. Kyndt et al. (2018) supports provision of learning opportunities as a means of improving employee retention. Through learning, employees build themselves and are motivated to stay in the organisation.

Talent development has been found to have an effect on employee retention in various organisations (Amushila & Bussin, 2021; Ebrahim et al., 2020). Contrarily, Al Aina and Atan (2020) explored talent development in relation with organisational performance and revealed that there was no effect. Other scholars have looked at this aspect as 'training and development' (Mehreza & Bakria, 2019; Oduntan, 2020) while some have termed it career development (Muriithi, 2020; Kehr, 2020; Ochieng'Ojwang, 2019; Sikawa, 2020; Yeswa & Ombui, 2019).

On the other hand, Dzimbiri and Molefi (2021) note that Malawi has experienced enormous attrition of registered nurses leading to acute shortage that management of public hospitals should no longer ignore. They therefore conducted a research to analyse the influence of talent management on job satisfaction of nurses in Malawi public hospitals. They focused on job satisfaction as a determiner of employees wanting to stay in the organisation. It was revealed that staffing, talent deployment and talent development were more effective in determining job satisfaction of registered nurses than other practices like talent review process, performance management and talent retainment. There is notable problematic implementation of talent management initiatives in public hospitals countrywide.

In a similar vein, Al Aina and Atan (2020) also established that talent attraction and talent retainment had no influence on consistent performance of real estate firms in the United Arabs Emirates. However, development and learning and management of careers had positive effect on sustainable organisational performance. The firms concentrated on developing and implementing coaching, training programs and job rotations that led to the positive impact.

On the other hand, Ochieng'Ojwang (2019) explored the effect of talent management strategies on turnover intention amongst research scientists in the National Museum of Kenya. It

was established that the organisation had high levels of engagement that significantly influenced on employee retention.

Out of the six variables of the study notably; recruitment and selection, learning and development, performance management, compensation, career management and employee engagement, only employee engagement had substantial effect on turnover intention. The participants understood how their performance evaluation was done but could not link this to their pay and benefits (Ochieng'Ojwang, 2019).

Further, there were opportunities for learning and growth, which were not fairly distributed to employees. Also, identification of training needs was not systematic. The researcher submits that National Museum of Kenya should advance retention strategies encompassing financial and non-financial factors to ensure that research scientists remain committed to the company (Ochieng'Ojwang, 2019).

Regarding performance management, Abdulazeez (2020) probed the perception of talent management initiatives and retainment of Chi Farms Ltd employees in Nigeria. The research established that talent management tactics that is 'performance management, compensation and employee engagement' contributed to employee retainment. Further, female employees' perception of employee retention differed from their male counterparts.

The study was however not specific on the differences highlighted but attributed this to the different roles males and females play in their families which in turn affect their commitment to the organisation (Abdulazeez, 2020). From similar studies on talent management practices, Ebrahim et al. (2020) approve performance management, recruitment, training and development and succession planning as practices that affect employee retention.

Moreover, El Sayed et al. (2021) deliberated the influence of talent management factors (planning, recruitment, compensation and rewards, performance management, staff empowerment, engagement and organisational culture) on Egypt public and private commercial banks retention of employees. They note that talent management had a positive outcome on retainment of employees in agreement with the main contributors of talent management concept.

Multiple studies confirm career developments' positive impact on retention across diverse sectors. Muriithi (2020) reports a significant positive relation concerning recruitment, career development and succession planning with strategic employee retainment in the Kenyan banking sector. Ebrahim et al. (2020) and Sikawa (2020) also supports the fact that succession planning affects employee retention whilst career progression affects employee retention (Kehr, 2020; Ochieng'Ojwang, 2019; Sikawa, 2020).

The impact of workers' retention tactics on the competitiveness of private hospitals in Nairobi, Kenya was investigated by Yeswa and Ombui (2019). They majorly looked at career development plans and employee retention. They anchored their study on Maslow hierarchy of needs, Two factor, Expectancy and Equity theories. They established that career progression, recognition, compensation and conducive environment clearly influenced competitiveness positively.

They agree with Nyaema and Wambua (2019) that despite attracting talent to the organisation the companies will need to put in place strategies, for example, career development plans, compensation plans as well providing a structured job design and good working environment to retain employees and get maximum productivity. Sikawa (2020) similarly established that the following talent management tactics: career development, working conditions,

succession planning and rewards practices positively affected the retention of secondary school teachers in rural public in Mkuranga District, Tanzania.

In a Delphi study, Kehr (2020) set to identify workplace factors that drives employee retention notes that the human factor is crucial in an organisation as it manages and guides the operational force used to achieve outcomes. It established that workplace communication and culture wheels' employee retention. The communication should provide clarity on the organisations mission, vision and purpose. It should further be clear on employee's career development, promote a sense of inclusivity, increase motivation and team building amongst employees.

Several initiatives have been put forth as contributors to enhancing employee retention. These include adequate pay, learning opportunities, merit alignment, work autonomy, security, benefits and visible career growth, sufficient resources (Soomro & Shah, 2019), employing qualified workers, fostering a diverse workforce, providing training and advancement opportunities and effective communication (Mina-Riera & Voyer, 2020). These supports the notion that retention of current employees is cheaper than hiring of new employees.

The association of talent management to employees' commitment in ten oil and gas servicing companies in Nigeria was studied by Friday and Sunday (2019). They established that talent (attraction, development and retention) were the components that enhanced workers' commitment. Further, the scholars encourage management of companies to use compensation mechanisms to retain employees and drive their commitment towards achieving organisational objectives which is reinforced by (Amushila & Bussin, 2021; Kireru, 2019; Mehreza & Bakria, 2019; Ochieng'Ojwang, 2019).

The impact of balancing work and life, the job environment, compensation and reward on retention of staff in the service sector in Malaysia was explored by Zainal et al. (2022). The conclusion of the study showed that balancing life and work together with the job environment had an affirmative impact on retainment of employees. However, compensation and reward had more influence on retention of employees.

From the above studies on talent management practices, Abdulazeez (2020), Zainal et al. (2022) and Ebrahim et al. (2020) agree that reward and compensation have an influence on retention of workers. Zainal et al. (2022) adds work-life stability and job environment to the factors affecting employee retention.

Remuneration may attract talent but is not an assurance to retain the employees. Olayisade and Awolusi (2021) observe that repetitive use of remuneration to motivate employees ends up being an entitlement therefore failing to act as an incentive to stay in the company. Further, employee commitment improves and staff motivation to remain with the firm is significantly impacted by compensation in the form of financial rewards.

By using effective retention strategies, the personnel are kept on board. Employee motivation is enhanced through recognition and reward systems. These can involve both monetary and non-monetary actions, such giving a worker a day off, gift cards, or a promotion, among other things. Employees should believe that the rewards they receive from the company are commensurate with the amount of effort they put out at work (Amushila & Bussin, 2021). Moreover, organisations should respect, recognize and reward employees in order to maintain productive workers and high levels of satisfaction (Ali & Ali, 2021).

Additionally, the organisations competence to retain its personnel and improve performance is greatly influenced by strategies like rewards, compensation, scheduling flexibility,

training, and advancement prospects (Irshad et al., 2021). El Sayed et al. (2021) adds organisational culture as positively affecting retention in Egyptian banks. Kehr (2020) established that workplace communication and culture drive retention when communication clarifies organisational mission, vision, and purpose whilst promoting career development clarity, inclusivity, motivation, and team cohesion.

Working conditions constitute a crucial retention factor (Clem, 2021; Mehreza & Bakria, 2019; Saxena et al., 2020; Sikawa, 2020). Saxena et al. (2020) while examining relation spirituality and stress and spirituality in the workplace amongst offshore and onshore workers of the Oil and Natural Gas Corporation in India established that six concepts of the workplace spirituality were adversely linked to stress for onshore workers. The concepts of spirituality looked at included: swadharma (allocation of work as per employee's inherent abilities), orientation of others, sense of community, authenticity, gratitude and karma capital (employees perform their best without looking at the profit or loss).

The sense of gratitude and community were insignificantly related to stress for the offshore worker. The scholars observed that the demanding offshore working conditions and specialization required did not accord the employees time to appreciate the community and act of gratefulness at the workplace. The onshore normal working conditions gave opportunity to the onshore employees to perceive workplace spirituality and allow it to influence the level of their stress. The experienced level of stress by employees affects their decision on staying or leaving the organisation hence the management should look into ways of alleviating employees stress at the workplace (Saxena et al., 2020).

The relation concerning talent management and employee retainment with the mediation of organisational justice in the hospital of District Dera Ismail Khan, Pakistan was considered by

Gohar & Qureshi (2021). The participants were doctors who provided the data that was analysed statistically. The findings reveal an affirmative relation regarding talent management and retention of employees. The results further verified positive mediating role of organisational justice to talent management and employee retainment.

Moreover, leadership style affects retention outcomes substantially. Akande (2020) observes that the leadership style adapted by an organisation affects its employee retention. He notes that transactional leadership style used by the Nigerian oil and gas sector has enhanced employee retention. This is in contrast with Kireru (2019) and Al-Ghazali (2020) who bring out the aspect of transformational leadership.

Mehreza and Bakria (2019) opines that high turnover of employees affects productivity of an organisation, the standard of its goods and services and the profits. These scholars examined the outcome of human resource strategies on job satisfaction and intent to remain by high-ranking government employees in Qatar.

The study examined the following human resource strategies: compensation and benefits, managers' support, employee's services, salary scales, training and development, appraisal of performance, working conditions, job security, employee empowerment, job design and analysis. It was established that there is positive relation amongst the human resource strategies, job satisfaction and commitment to the company resulting in intention to stay (Mehreza & Bakria, 2019). Further, Akande (2020) backs the manager support practice stating that transactional leadership style enhances employee retention.

Notably, Li Qi and Jia Qi (2021) sought to understand the means that talent management strategies influenced the workforce engagement in GLCs in Malaysia. They also noted that employee retention had a favourable impact on employee engagement. They recommend

advancement of employees' job satisfaction to retain talent using Maslow's Hierarchy of needs. Further, organisations should obtain the right talent and retain them to alleviate shortage of talent, which hampers organisational performance (Amushila & Bussin, 2021; El Sayed et al., 2021; Ochieng'Ojwang, 2019).

Additionally, El Sayed et al. (2021) confirmed that employee engagement, alongside empowerment, positively impacts retention in banking sectors. Regular employee engagement helps management identify and solve employee requirements, and the employer-employee relationship should be robust and continuously monitored to maintain alignment of the company values with demands from the employees (Amushila & Bussin, 2021).

Organisations should implement mentorship initiatives that assist new hires in comprehending the workings of the company. Through seasoned staff members who can offer one-on-one advice, this effort aids in the development of personnel (Amushila & Bussin, 2021).

Human resource techniques have a substantial influence on retainment of employees (Al Habsi et al., 2021). Management of oil companies in Oman support human resources practices such as hiring based on merit, trainings, equal treatment, mentorship and performance evaluation and retention strategies in their companies. These researchers recommend oil and gas companies to employ the mentioned practices to enhance employee retention in their organisations.

Further, retention strategies such as remuneration, working conditions, job enrichment and education to the employees have been used for librarians and may also be applicable to the retention of library para-professions (Clem, 2021). This study focused on paraprofessionals librarians who have been overlooked by various studies despite the challenges they experience in embedding into their libraries and communities. The attachments created through embedding results in paraprofessionals wanting to stay in the organisation.

Accordingly, Mina-Riera and Voyer (2020) state that these challenges can be resolved through effective communication approach, which will help an organisation to retain its members of staff. The leaders must possess the ability to communicate effectively on an interpersonal, group, organisational, and intercultural level in order to preserve a positive workplace culture.

On specific sectors, Qureshi (2019) states that the oil and gas industry in the Gulf Cooperation Council region is volatile, competitive, and operates under several political, economic, social, environmental and legal concepts that the organisations cannot control to ensure its sustainability. The organisations however are able to motivate their employees, gain commitment and retain them through implementation of the high performance system. This system is a practice lauded for enhancing employees' performance, commitment and satisfaction leading to improved organisational performance.

Moreover, Oduntan (2020) posits that organisational practices; training and development, benefits and recognition, job progression, health and safety utilised by Shell Oil Company in Nigeria had an impact on its retention rate. Al-Ali et al. (2019) examined the facilitating role of job happiness or mental well-being on relations concerning job satisfaction, performance of employees and turnover intention of the oil and gas sector employees in United Arabs Emirates.

Similarly, Dzimbiri and Molefi (2021) revealed that staffing, talent deployment, and development more effectively determine job satisfaction and consequently retention of nurses in Malawi public hospitals than talent review processes, performance management, or explicit retention initiatives. Further, Gohar and Qureshi (2021) established that organisational justice positively mediated the relations of talent management and doctors' retention in Pakistani hospital.

From the Kenyan banking sector, Muriithi (2020) reported significant positive relationships between recruitment, career development, succession planning, and strategic

employee retention, confirming talent management practices' substantial retention impact. Applying the resource-based view of talent management, Shet (2020) submits that the unique talents of an organisation are made and 'not bought'. Organisations should therefore identify high potential individuals at the early stages of their careers, engage and reward them adequately in order to retain their services.

On a predictive approach, a study was conducted to identify initiatives that maintained employee motivation and retention through machine learning algorithm by Mehta & Modi (2021). There are no set procedures for keeping workers and fostering their loyalty to the company but forecasting turnover assists employers to place varying degrees of importance on various factors based on what works best for their setup.

However, identifying talented employees was noted as the first step in building a dedicated workforce, the challenge is keeping them on board. Organisations are able to meet their operational costs while maintaining an efficient workforce through employee retention strategies such as pay, benefits, administration, organisational development, motivation, communication, performance management and training. They recommend the use of machine learning algorithm to handle retention challenges (Mehta & Modi, 2021).

On contemporary concerns, Amushila and Bussin (2021) notes that workers were obliged to remain in positions they would have quit due to low pay, hard hours, and unappreciative management as a result of the present economic downturn. This situation might shift as economic conditions improve and more workers search for open positions. Further, the Covid-19 pandemic highlighted the importance of employer-employee mutual processes in retention dynamics (Zainal et al., 2022).

Hence, it is crucial for organisations to communicate and get feedback from their employees through ongoing engagement in order to address difficulties. Granting employees' feedback increases organisational engagement and retention while also demonstrating management support. Conducting exit interviews with departing employees helps organisations determine the employees' pain points and create suitable change initiatives (Amushila & Bussin, 2021).

One of the most significant issues that managers face is employee retention, which affects most businesses significantly. Considering its long-term effects on behaviour and productivity, all managers must consider employee retention while making plans (Pareek & Mohanty, 2019). Davis (2018) supports that staff retention influences staff behaviour, professional engagement, job happiness and economies of scale in organisations.

Employee retention represents a critical organisational capability requiring comprehensive, sustainable strategies that integrate multiple talent management practices aligned with organisational objectives. Successful retention approaches balance monetary and non-monetary considerations whilst addressing individual and organisational factors. Organisations that implement robust retention strategies encompassing career development, competitive compensation, positive work environments, effective leadership, and meaningful engagement gain competitive advantages through sustained talent preservation.

2.7 Job satisfaction

Job satisfaction denotes an optimistic emotional state of mind arising from an employees' appraisal of their work and the experiences surrounding it (Riyanto et al., 2021). This state of happiness involves environmental and psychological factors around the work that results in satisfaction from tasks completion. The feeling of job satisfaction oscillates during work based on

emotions and mood that an employee experiences. The level of work contentment that an employee possesses affect the success of the organisation. While low job happiness causes poor performance, high job satisfaction leads to better performance (Alsenani & Afaneh, 2022; Redondo et al., 2021).

Furthermore, a pleasant emotion arising from an assessment of an employees work and experiences culminates to job satisfaction. The employee may have a preference for the work itself or for the experiences that go along with it. It consists of both affective and cognitive responses to an employee's assessment of how adequately their expectations and actual job returns align. It is also an employee's expressive emotional reaction to their job, including whether they enjoy it or not (Redondo et al. 2021). Given that employees who have a positive outlook toward their work are less likely to resign, job satisfaction is a predictor of intent to exit.

Moreover, satisfaction at work for all employees is a strategic way of managing an organisation by making the work desirable. The organisation creates a conducive job environment for the employees based on their needs who equally adjusts their actions towards what the organisation requires for success (Asbari, 2020).

The scholar further contends that talents management influences satisfaction at work and retention of staff through training, development, job enrichment and performance evaluation (Asbari, 2020). Conversely, job contentment is influenced by the relation that a staff has with the workmates and line managers, fairness on opportunities, job security, compensation and the working environment (Alsenani & Afaneh, 2022).

Riyanto et al. (2021) performed an inquiry to evaluate the impacts of job satisfaction and work motivation on workers' performance, with staff engagement serving as a mediating factor for information technology workers in Indonesia. A sample of 103 system developers from an

ongoing project was taken, and PLS using SMART PLS software was used to analyse the data. They found that whereas work happiness was independent and had no effect on employee performance, motivation had a major effect. Furthermore, aside from the mediation of motivation and job happiness, staff involvement had little direct impact on employee performance.

Work satisfaction augments employees desire to remain in the company due to factors such as choosing the right career, learning, treating employees fairly and development opportunities. It leads to high productivity, work becomes enjoyable to employees, active employee participation, controlling work environment, feeling part of the organisation, survival of recruited employees in the organisation, low absenteeism, customer satisfaction, quality services and financial performance (Riyanto et al., 2021).

However, high satisfaction may result in addiction to work. The study therefore advocates for enhancing employee engagement, innovative employee motivation, facilitating desired results, feedback, performance improvement plans that advances employees' skills (Riyanto et al., 2021).

Satisfaction of employees is an outcome of talent management implementation that enhances the level of staff contentment as demonstrated by Alanazi (2022). The study established that work environment together with talent management practices like career growth, continuous learning, upgrade, salary, recognition and opportunities availed affected satisfaction levels of staff in the Saudi Arabia petroleum companies.

In addition, job satisfaction leads to retention of specialized skilled employees, influences employee's perception of achievement, fulfillment and their growth in the organisation. Satisfied employees aligns their personal goals with those of the organisation leading to high performance and productivity (Alanazi, 2022).

It has been demonstrated that job happiness and employees' mental and emotional health are directly correlated (Jain & Sharma, 2022). They observe that employee behaviour at work, and consequently the organisation's culture, employee turnover intention, and operations, are influenced by job satisfaction. Employee satisfaction can be heightened by offering welfare services, safe working conditions, and a steady job.

Employee turnover has become a critical performance indicator for many organisations in their quest to retain exceptional workers. Chiedu and Long (2022) examined the relation between employees' intention to leave, job happiness and commitment in Unilever Nigeria. A survey was administered to 117 employees and their responses analysed using multiple regression and Pearson correlation.

The results disclosed that organisational commitment and work satisfaction both negatively affect employee turnover intentions. Turnover intention degraded the performance of the organisation compelling the leadership to devise strategies for onboarding and retaining key staff. They go on to say that an employee's sentiments, attitudes, beliefs, and conduct toward their work are all part of their job satisfaction. It is an attitude adopted in order to gain particular rewards (Chiedu & Long, 2022).

In the United Arab Emirates, Al-Ali et al. (2019) assessed work satisfaction as a mediating factor between staff performance and turnover intentions in the energy sector. Respondents were given questionnaires, and the relations examined using the structural equation modelling approach. It was determined that while job satisfaction significantly improved work performance, it had a minor negative correlation with employee intention to leave.

Additionally, job satisfaction acted as a mediator regarding staff performance and intent to leave (Al-Ali et al., 2019). According to the researchers, dissatisfied workers will not perform

impeding a company's growth. Low levels of satisfaction lead to high absenteeism, non-commitment, and high staff turnover rates. These results were essential in helping the administration of the UAE petroleum to execute successful strategies.

Additionally, Goujani et al. (2019) analysed how host employees' allegiance to an Iranian gas company was impacted by job satisfaction. Using stratified sampling, 212 employees were chosen to participate in the survey giving their opinions on employee loyalty and job satisfaction. Data analysis using the structural equation model showed that host employees' job happiness had no bearing on their loyalty. To enhance job satisfaction and sustain the high degree of employee loyalty, the study advises companies to first identify organisational and human factors and impediments and then put measures into action. To increase employee loyalty and satisfaction, they also suggest moving staff members from the host group to the apostle category.

Nguyen (2020) researched on the connection between young workers' retention and job satisfaction in Vietnam using quantitative methodology. To investigate the hypotheses based on information obtained from 351 questionnaires, the study used multiple linear regression. The results indicated some significant relations between job happiness and the retainment of young employees.

The study is important since it is one of the first to address the problem of young workers' retention in Vietnamese companies. It proves that young workers' retention in Vietnamese companies is positively and directly impacted by job satisfaction. Furthermore, this study offers a model that can help scholars and practitioners comprehend how young workers are retained in Vietnamese businesses (Nguyen, 2020).

Job fulfilment is the result of an employee's cognitive and affective reactions to how much their expectations and the advantages they actually receive from their work overlap. Satisfaction

at work is a predictor of staff desire to quit as various studies indicate that when workers have a positive attitude towards their jobs, they are less likely to quit (Redondo et al., 2021).

The connection between work satisfaction and dedication in the telecom industry in Saudi was evaluated by Alsenani & Afaneh (2022). They point out that the two ideas help organisations' management identify and address sources of pain. In particular, job satisfaction aids in determining how individuals perceive different aspects of their professions.

On the other hand, loyalty to the company improves customer happiness, service quality, and motivation. The organisation suffers from low organisational commitment when it comes to the high expense of hiring and training new entrants. As a result, management should encourage dedication from their staff members, since doing so will decrease the possibility of them choosing to exit the organisation (Alsenani & Afaneh, 2022).

A study which assessed the consequences of company social responsibility (CSR) on staff engagement, retainment, and satisfaction among workers in cement manufacturers in Pakistan was conducted by Ali & Ali (2021). Convenience sampling was used to choose 300 participants from both the managerial and non-managerial levels. Questionnaires with a Likert rating range of 1 to 5 were used to gather the data. After three weeks, the questionnaires were collected, and data analysed through SPSS.

Accordingly, staff engagement, satisfaction, and retainment were all positively associated with CSR (Ali & Ali, 2021). Given that how a firm handles its internal and external stakeholders has an impact on employee happiness, this study advises organisations to take into account the demands of the communities in which they operate. Employee dedication to the company is essential to the effective execution of CSR initiatives.

In the quantitative study by Achmad et al. (2023), among Generation Z professionals in Indonesia's Bekasi Regency industries, higher job satisfaction benefits engagement of employees, retention, talent growth, and intent to remain. They define satisfaction as the sense of fulfilment coming from an individual's work, mostly from the activities performed and the work environment. A favourable work environment results in increased levels of job satisfaction since this fulfilment touches on the needs, traits, and values of the individual.

2.8 Development of Hypotheses

The talent management concept has been extensively researched since the early 1990's. The notion must be thoroughly understood because it has a big influence on employee attitudes and behaviours at work. This study aimed to further augment its comprehension as suggested by Dayeh & Farmanesh (2021). This study investigated the consequence of talents management and work engagement on employee outcomes, namely employee retainment and job satisfaction within the Kenyan petroleum sector.

Numerous studies have demonstrated that talent managing is expressively linked to employee outcomes, including job happiness as well as organisational outcomes such as performance (Abazeed, 2018). This study utilizes six hypotheses to investigate the application of talent administration in Kenya's petroleum sector, drawing on supporting research.

2.8.1 Talent management and employee retention

Companies employ talents management initiatives to retain employees and achieve their goals. Staff exposed to these methods remain with the organisation longer, contributing to its success through their expertise and experience (Antony et al., 2024; Madurani & Pasaribu, 2022). A position reinforced by Aljbour et al. (2022) who adds that it is an effective strategy of managing

employees in a company. It acts as a retention strategy that reduces employee turnover in organisations (Madurani & Pasaribu, 2022).

Ekhsan et al. (2020) in their study established that managing talent is an ideal approach for companies to achieve its goals and hold its workers. This was depicted by increase in employee retention where there were more talent management initiatives in place. Redondo et al. (2021) demonstrated that employee turnover affects organisational performance and increases the operational costs where the organisation has to recruit and train replacement employees.

A study conducted on the National Museum of Kenya (NMK) scientists by Ochieng'Ojwang (2019) assessed how talent management strategies influenced intention to turnover. Data was gathered from 128 scientists at the facility using a questionnaire. The inquiry concentrated on the recruitment, engagement, performance, compensation, continuous learning and management of career as talent management elements contributing to intention to leave by employees.

The insights revealed that only employee engagement had a significance influence on scientists' turnover hence an important factor at NMK. The study puts forth robust retention techniques for engaging and earning commitment from the employees. Additionally, the scholar proposed an enhanced reward system with more non-financial aspects, career growth, customised learning development programs, and harmonisation of work and personal life (Ochieng'Ojwang, 2019).

Organisations have put in talent management strategies to assist in achieving of the organisations goal and nurturing of employees in their roles. The strategies should be flexible to accommodate different views, values, attitude to work and the generation gap in employees. Some of these strategies include; succession management, coaching, creative assignments, talent

development, communication, feedback, exit interviews amongst others (Amushila & Bussin, 2021). When these talent management strategies are used, employees are more pleased with their roles and remain longer with the company.

Importantly, talent management assists organisations to address challenges such as dynamic job roles, retention, shortage of skills and non-recognition of talent (Aljbour et al., 2022). The authors took a multifaceted approach to examine how determinants of talent administration influenced the practices and in turn the outcome of the process at the individual and organisational scope with the moderating effect of gender. Structural level moderators and mediators were also introduced into the framework with a robust empirical support. The determinants included various talent management perspectives; inclusive or exclusive, object against subject, input and output, innate or acquired amongst others.

The talent management practices included planning, retention, engagement, acquisition, development and performance management. The outcomes of the process on the other hand involved profits and turnover at the organisational level, performance and effectiveness of teams at group level and employee performance and turnover intention at the employee level. The scholars recommend development of positive organisational culture regarding integrated talent management with a hybrid perspective for enriched outcomes (Aljbour et al., 2022).

Additionally, there are five components that make up talent management, which is a human capital practice namely recruitment, development, acquisitions, retainment and engagement of personnel (Antony et al., 2024). The authors explored the association between organisational commitment, talents management, and plans to quit in South India, as well as the mediating effects of experience and gender.

The study's conclusions showed that while recruitment efforts had a negative predictive impact on intention to turnover, they had a favourable impact on organisational commitment. However, the two moderators; experience and gender had an impact on the relations between company commitment and turnover plans and also between talents management and organisational commitment (Antony et al., 2024).

The personnel skills, knowledge and experience makes them the most prized resource in the company and retaining them is a form of value for money for the company. With these, employees establish a competitive edge for the organisation amongst its peers. Further, the labour market majorly consists of the millennials who are innovative, energetic and efficient hence the organisation is driven in the right direction (Madurani & Pasaribu, 2022).

However, their needs at the job market vary from the preceding generations as they consider their wellbeing more important than monetary gains. They are considered active job seekers hence organisations need to anchor them through talent management (Madurani & Pasaribu, 2022).

Furthermore, when employees leave an organisation, it leads to incurrence of huge cost as the employees have to be replaced through recruitment and training which are costly. In this regard, organisations should strive to keep their staff in order to stay on track and relevant in the business world. Employee retention has a substantial affect on the performance of staff and the organisations economic relevance. Consequently, organisations must develop integrative retention policies to address employee turnover (Madurani & Pasaribu, 2022).

It is imperative that organisations invest in recruiting and developing its employees to ensure that all remain within the company for it to earn return on investment. Employees remain committed to the company if they perceive that the organisation is concerned about them, they

have clear job descriptions, are given constructive feedback and work as per their abilities (Rotich, 2020). Additionally, rewards, compensation and flexi-work time also help in enhancing motivation levels of employees consequently they remain working for the organisation hence knowledge and skills are retained within.

Similarly, Bibi (2019) notes that talent management has positive outcomes like talent growth, career management, work performance and enhanced work life stability that in the long term improves the wellbeing of an employee in the firm. Sopiah et al. (2020) posits that talent management has four main factors, these are leadership support, culture, development, and recognition. These are demonstrated through opportunities for development and education, pay and benefits, the workplace culture, procedures, and, finally, managerial assistance.

It is worth noting that various companies apply different talent management strategies depending on their needs, industry and corporate culture. Some of these strategies include competency management, attracting talent, workforce planning, retaining employees, succession planning, and managing performance of employees, development of talent, training and leadership building amongst others. These strategies all aim at assisting organisations to retain their employees in the dynamic business environment (Rotich, 2020).

Kafetzopoulos et al. (2022) and Yildiz and Esmer (2023) supports this view adding that retention of employees in organisations should be sustained by practices like talent nurturing, employee engagement, career growth and development programs to encourage staff grow together with the business. These activities when adapted by employers result in good performance and long-term retainment of personnel.

Furthermore, Obeng et al. (2025) investigated how a company's politics can influence employees' intention to leave Ghana's public hospital, using staff's overall well-being as a mediator

and managing work and personal obligations as a moderator. PLS-SEM, CFA, coefficient, and bootstrapping were used to analyse information acquired from 363 conveniently sampled participants. Politics was found to have a substantial bearing on employees' well-being and plans to leave. Additionally, as employees learn coping mechanisms, the level of their well-being had a favourable impact on their intention to leave.

Talent management's implications for staff retention in the IT businesses was explored by Kumar (2022). It was established that staff stay in companies that gives them opportunities to grow, develop their career and pay them well. The scholar recommends companies to plan and execute retention strategies. Further, Kiragu & Marwa (2022), observed that Kenyan bank's staff retention rate was positively correlated with strategic HR practices. The tactics included hiring new employees, providing training, and managing career advancement, which encouraged workers to consider their future with the organisation.

Similarly, Golicha et al. (2022) in an inquiry of referral hospitals in Kenya, noted that workers' retention and talent management strategies were positively and significantly related. They concluded that improving talent management led to improved employee retention with coaching and mentorship being the key need in the hospitals.

Further, Afridi et al. (2019) reports that several talent management techniques were used by organisations to enhance retention of workers among the lower and middle level managers in plastic manufacturing companies. These include; recruitment of highly skilled people, conducive work environment, engagement, career growth, positive feedback, cooperation, performance, leadership support and branding.

Equally, in a case study of shell Nigeria, Oduntan (2020) explored the implication of HR planning on employee retention rate. The HR planning main elements were benefits and

recognition, training and development, health and safety and job advancement. The results illustrated that, when combined, the four tenets of HR planning had a favourable effect on employee retention. The report suggests using HR planning to get a competitive advantage.

Similarly, Chizoba & Olechukwu (2025) rated the implications of STM on retaining staff in River State energy companies in Nigeria. Loyalty and dedication from staff were key components of retention, which was based on the RBV and human capital theories. The researchers employed a sample of 310 employees who handed in questionnaires, and then performed regression and correlation tests on the data. Their evidence highlighted the need of coordinated hiring, promotion, training, and succession strategies in strengthening workers' stability in the specialised industry. These improve performance, lower employee turnover, and raise workers' commitment and devotion to the company.

According to reports, talent is the labour market's game changer, with retention serving as its fulcrum. Despite receiving less attention in studies since it is associated with talent management, talent management strategies, in particular talent development, is crucial for staff retention (Dalayga & Baskaran, 2019). For this reason, the scholars studied 287 Malaysian healthcare professionals to find out how talent development affected their desire to remain with the company. The results disclosed a favourable correlation of healthcare staff retention and development strategies. The investigation also found that educating employees to advance their careers and skill sets is essential to keeping them on board.

Notably, efficient HR management increases the organisation's efficiency and employee loyalty. The World Trade Organisation required Oman to prove its position in the global market, thus businesses had to switch from conventional models to modern working circumstances (Al Habsi et al., 2021). The HRM employed by Omani oil and gas corporations to retain their

employees was investigated revealing a substantial connection between worker retention and HR practices.

Sikawa (2020) evaluated the impacts of techniques to manage talent on teacher retention in the rural Tanzania. Specifically, these strategies covered reward management, work conditions, succession planning, and career promotion. Questionnaires, journals, and reports were used to collect data from 280 teachers who were chosen both purposefully and at random. The analysis showed that employee retention and talent management were strongly associated. Teacher retention was strongly affected by all the three talent management tenets. The report recommended that in order to improve working circumstances, staff housing and better offices be provided.

Additionally, Zainal et al. (2022) executed a study that explored the significance of job life balance, rewards, and compensation on retaining staff in Malaysia's service sector during the COVID-19 pandemic. Research findings showed that employee retention was considerably affected by work environment and work life balance, with rewards and salary having a substantially greater impact. They point out that successful retention efforts determine the organisation's success.

Despite the above studies positive link between talent management and employee retention, some studies results depict the contrary. These include an inquiry on green HRM with staff retention by Al-Hajri (2020) which found no substantial correlation between the two ideas in the Omani pharmaceutical industry. Nonetheless, a strong correlation between work engagement and green HRM was ascertained. Based on the aforementioned, research has shown that a company's staff turnover rate is low when it has elaborate talent management systems (Madurani & Pasaribu, 2022; Yildiz & Esmer, 2023). Consequently, the first hypothesis was formulated; H_{O1}*: Talent management does not significantly affect employee retention.*

2.8.2 Talent management and work engagement

The implication of managing talent on employees' engagement is important as demonstrated by numerous research findings. Majority of studies have indicated a significant correlation between talent management initiatives and elevated levels of employee engagement (Sousa et al. 2023; Zahari & Kaliannan, 2023). Effective talents management techniques promote employee engagement by cultivating intrinsic motivation, enhancing perceived organisational support, and creating a favourable work atmosphere (Zahari & Kaliannan, 2023).

Stubbings and Sethi (2020) posits that upskilling of personnel skills boosts both talents and work engagement edges in a company as employees are able to adapt to uncertainties in the industry. Moreover, AjibayoAdeyeye et al. (2025) established that management of talent greatly affected workers' engagement in a bottling firm in Nigeria. Talent attraction also influenced employee engagement. The scholars recommend companies to have a monitoring and evaluation tool to check engagement levels.

In agreement with Zahari and Kaliannan (2023), Sousa et al. (2023) analysed 43 studies and found that talent management techniques consisting of training and development, performance management, recognition and rewards, are positively related with workers' engagement. The review also emphasized that personal factors, like work centrality and customer orientation, can moderate this relation, enhancing the outcome of managing talent on engagement.

Managing talent has emerged as a challenge for most companies worldwide. Companies must provide alluring packages because they contend for the same talent pool and devise strategies to engage and maintain the employees for achievement of their goals (Sopiah et al., 2020). This

practice has been credited for creating sustainable competitive advantage through inimitable resources, which is their employees who possess distinctive skills.

These skills enable the employees to perform exceptionally in their roles hence high productivity. The organisation in turn puts in place favourable mechanisms, policies and practices to retain the employees for instance growth opportunities, better pay, reward and recognition amongst others. This results in gaining commitment from employees' hence high levels of work engagement amongst all employees leading to low rates of exit from the organisation (Sopiah et al., 2020).

An enquiry was undertaken in Guateng, South Africa to review the significance of managing talent, job engagement and retainment of nurses (Lerotholi, 2021). It was proven that talent administration practices significantly influenced engagement of the nurses at work. Similarly, Ishiyama (2022) established that talents management techniques significantly affect work engagement in Japanese firms. However, this study utilised the exclusive approach of talent management where specific individuals are considered as talents.

An analysis of the effects of work engagement and talent management on the quality of service from helpdesk staff in the Indonesian hospitality industry was undertaken by Harahapa and Julvirta (2020). Of the 360 employees who were targeted, 232 responded. Results showed that management of talent has a major implication on staff engagement at work. Additionally, frontline staff performance in terms of quality of service was greatly impacted by talent management.

The beneficial effects of managing talent on high-quality performance were enhanced by employees' engagement at work. They add that engaged staff put in extra effort to ensure their teams and the organisation achieve its goals. Disengaged employees on the other hand will exhibit

negative work behaviour such as lateness, absenteeism and intent to quit their job (Harahapa & Julvirta, 2020).

Further, work engagement is affected by the working conditions, personal characteristics of an employee and the behavioural strategies put in place by an organisation hence the level of engagement will differ amongst different employees in an organisation. Also, a particular employee will have different levels of engagement based on the time, talent management techniques and situation they are exposed to (Bakker & Albrecht, 2018).

Additionally, Decuypere & Schaufeli (2020) notes that work engagements involve employees having high energy levels to tackle any challenges at the work. Additionally, they derive pride in their roles and the company hence they are involved in multiple tasks such as involvement in decision-making, helping colleagues amongst others. Further, the staff are greatly engrossed in their task and finds it hard to disengage themselves as they are happy being at work. This enables staff to bear responsibility and ownership hence remain working for the organisation.

Similarly, top leadership styles such as transformational style influence employee work engagement through motivation, affective, cognitive, practical and behavioural means. Leaders in an organisation can positively influence work engagement by changing the working conditions, connecting, inspiring and strengthening the employees through their actions (Decuypere & Schaufeli, 2020).

The scholars further propose a progressive work engagement in an organisation through continuous update of work policies and practices to reflect the dynamic work environment hence ensure employees wellbeing is catered for. This view is supported by Bakker & Albrecht (2018) who add that contemporary leaders take cognizance of organisational culture that is flexible, agile and responsive to the environmental needs hence boosting work engagement in their companies.

An examination by Yuniati et al. (2021) in Indonesian private hospitals appraised the beneficial outcome of talents management on organisational performance through employee engagement as a mediating factor. Data was collected from 200 midwives-using questionnaires with the results indicating that management of talent was crucial for enhanced work engagement. The author's further note that implementation of talent strategies also leads to positive organisational performance and satisfaction of employees in a firm. Employee engagement supported achievement of high organisational performance by talented midwives that is safe deliveries.

As one of their alternative hypotheses, Alhamadi et al. (2022) examined how talent management techniques significantly affected employee engagement. They pointed out that extensive inquiries confirm that implementing talent management programs upgrades employee engagement, lowers employee turnover and contributes to positive organisational performance.

In order to determine how human resource management (HRM) techniques affect employee happiness and involvement at work, Memon et al. (2020) undertook research in the Malaysian petroleum market. The HRM practices in focus were performance appraisal, training and pay whereas job engagement acted as the mediating factor of employee happiness, HRM strategies and intention to leave. From the 442 valid surveys, it was established that training and performance appraisal satisfaction affected employee engagement. Moreover, employees' intentions to leave their jobs were negatively impacted by their level of involvement at work. Additionally, it acted as a mediator in the relations between turnover intentions and HRM tactics and satisfaction.

The use of talent and engagement in Trust Bank, Ilorin Nigeria was examined using surveys (Kadiri & Jimoh, 2021). 178 employees from both supervisory and non-supervisory were

randomly nominated to participate in the inquiry. Collected data was analysed using SPSS and Pearson Correlation. The scholars noted that engaged employees were happy to support the organisations success. Employee engagement is derived from job satisfaction and career management leading to low employee turnover. The results indicated that employee engagement and talent management (career management) were positively related. Further, staff engagement and workforce turnover had significant correlation.

Several investigations have highlighted that HRM systems and practices are significantly linked with employee engagement. The scholar breaks it down further to indicate that caring HRM strategies leads to a caring organisational climate and concern for employees who will then care for the organisation with high levels of engagement. The caring HRM strategies include job design, flexi work arrangements, training and advancement, work and life balance, decision-making, career growth amongst others (Saks, 2022).

The association between transformational leadership, workplace engagement, and managing talent amongst vehicle artisans in South Africa was evaluated by Smit et al. (2021). The study utilised a sample size of 609 artisans chosen using non-probability sampling. The investigation used surveys to gather quantitative information, which was analysed using structural equation modelling. According to the results, talent management had a mediating role between job engagement and transformational leadership.

Additionally, it had a favourable relation with job engagement. However, transformational leadership and engagement at work had no relation. The talent administration practices focused specifically on performance management, career development and motivation of the artisans. Further, Alhajaj and Ahmad (2024) established that work engagement in the UAE government was impacted by staff's views of talent management methods such empowerment, communication,

and pay satisfaction, a position endorsed by Alhamadi et al. (2022). Gitonga et al. (2024) notes that career development an element of talent management affected engagement of talent in TVET institutions in Kenya.

While most research (Alhamadi et al., 2022; Ishiyama,2022; Kadiri & Jimoh, 2021; Lerotholi, 2021; Memon et al., 2020; Saks, 2022; Sopiah et al., 2020; Sousa et al. 2023; Zahari & Kaliannan, 2023) illustrates that talent management and work engagement are positively correlated, some studies show the opposite.

Mugizi et al. (2022) for example, examined implications of talent administration methods used by colleges on the work engagement of non-teaching employees at public institutions. 201 non-teaching personnel made up the sample for the correlational study. They verified that work engagement and talent attraction had a negative and statistically negligible relationship. The review came to the conclusion that improving job engagement in non-teaching staff requires both talent development strategies like performance evaluation, training, and promotion as well as successful talent attraction strategies, primarily selective recruiting and selection.

From the foregoing, it is obligatory for organisations to employ talent management considering that it relates with work engagement. Inquiries by Harahapa and Julvirta (2020) and Sopiah et al. (2020) verified that management of talent has enhanced work engagement guiding the formulation of the second hypothesis; *H_{O2}: Talent management does not significantly affect work engagement.*

2.8.3 Work engagement and Employee Retention

The decreasing number of workers has forced organisation to devise new ways to attract, and retain the workforce they need. Employee retention is therefore important for organisation but

the management have a hard task carrying out retention due to various challenges preventing employee commitment such as few openings for self-development, formation of a feeling of community and goals that prevent development of deeper meaning of the employment relationship (Ali, 2021).

Employees can be retained through reward, recognition and respect (3 r's) which improves efficiency, lowers the rate of absenteeism, enhances good work atmosphere and increases employees' earnings. This makes employees to consider themselves as eternal part of the organisation (Amadi et al, 2021).

Scholars have established that elevated level of work involvement lead to high retention rate. The workers in an organisation can make a difference if they stay long in the organisation. Memon et al. (2020) reveal that job involvement has a detrimental ramification on employees' intentions to leave their jobs. Further, Lerotholi (2021) in her study revealed that engaging nurses at work significantly influenced their retention noting that job security based on the years of experience contributed to retention. Perceived poor work environment alternatively results to quitting.

A quantitative inquiry was conducted in Egypt by Ghazawy et al. (2021) to assess the affect of work involvement on performance and intention to quit by nurses in three hospitals in Minia. The study revealed high work engagement levels amongst the nurses mostly in the dedication dimension. Work engagement significantly influenced performance of tasks and the desire to leave the job. The study employed three predictors in their model that is job resources, characteristics and demographics to test the regression of the variables.

Job characteristics were taken as the precursors of engagement at work. Resources such as skills, autonomy and feedback on performance positively affected work engagement hence with

more resources the nurses were highly engaged. Work characteristics namely role clarity enhanced the nurses' engagement magnitude leading to enhanced commitment and high performance (Ghazawy et al., 2021).

Work engagement involves people expressing themselves physically, emotionally and cognitively when they are executing their tasks. Employees therefore invest their personal resources at work by being physically present and doing the task, being mentally alert at work and relating empathically with other employees at the workplace (Decuypere & Schaufeli, 2020).

The organisation on the other hand carries out positive action towards the employees such as good salary package. The staff are then compelled to return the favour positively by employing their personal resources towards the organisation. They tend to feel obligated and valued by the organisation hence they exhibit positive behaviour and attitude at work. This generates a symbiotic relation between the organisation and the staff resulting in achievement of organisations' goals (Memon et al., 2017).

Consequently, motivated staff are more creative and perform better on the job, organisational citizenship and constructive behaviours that enhance client satisfaction due to their dedication and focus to their tasks. Organisations should therefore ensure that employees are actively engaged for achievement of goals (Bakker & Albrecht, 2018). The different components of work that enable tasks be accomplished, reduce job expectations, and encourage employee development are known as job resources. These can be physical (equipment), psychological (being part of decision making), social (receiving support from colleagues or supervisor) and organisational (flexi working time).

Personal resources on the other hand consist of self-efficacy, positivity and resilience. The employee beliefs about the work environment determines whether they will use their own

resources. Those who are able to use their personal resources at work have high work engagement. Importantly, the utilisation of both personal and job resources have an affirmative bearing on employees' engagement and organisational performance. It also enables employees to handle challenging work situations (Bakker and Albrecht, 2018).

Work engagement deals with the employees' attitude towards their work, which is a short-term effect and a strategy to lower employee turnover in organisations. Organisations with high rate of work engagement have low magnitude of staff exits as established by Memon et al. (2017). It is termed as a popular predictor of staff, team and company wellbeing and efficiency (Bakker & Albrecht, 2018).

Employees have the capacity to change their work engagement levels based on how they perceive their jobs and the organisation. Consequently, management should inculcate work engagement in their policies and procedures through socialization, identification of employees, managing performance, training and advancement amongst others (Bakker & Albrecht, 2018).

Equally, an inquiry was conducted by OchiengÓjwang (2019) to gauge the outcome of talent management techniques on the retaining of scientists at the NMK. He established that elevated levels of engagement had an affirmative implication on the scientists plan to remain in the organisation. Highly engaged employees make extra effort to ensure that their teams and the organisation attain their goals as they have an enormous sense of belonging and are motivated.

In addition, employees who are highly engaged act as role models and extend the positive emotions to other workmates hence they enjoy their work. With this, the workers get a high a feeling of inclusion to the organisation. No employee will therefore want to voluntarily leave the organisation and loose the social connection with fellow colleagues (Decuypere & Schaufeli, 2020).

Moreover, Al-Hajri (2020) employed a sample of 526 participants who completed questionnaires in an inquiry into workers retainment, green HRM techniques, and the intervention of engagement at work. The 349 valid replies obtained were analysed through SPSS version 23. It was determined that a slight but favourable link between workers retainment and green HRM exists. It is noteworthy that there is an affirmative correlation amid green HRM tenets, retention of staff and job engagement. Engagement at work mediated the interaction between green HRM and employees' sustenance.

A study by Sepahvand and Khodashahri (2021) explored how work engagement mediated the outcome of strategic HRM (SHRM) on workers' retention in an Iranian vocational training organisation. The intent of the study was to promote job engagement and staff retention. 189 managers and staff members made up the sample size, determined using Cochran's formula.

The findings reveal that while job engagement mediates the relations between SHRM (apart from performance appraisal) and employee retention, SHRM practices themselves have a favourable affect on retention of employees. The three facets of job involvement were vigour, devotion, and absorption. The study outlined the ways in which employee retention increases by job engagement (Sepahvand & Khodashahri, 2021).

It was determined that work participation had a negative bearing on staff intent to quit in the Malaysian petroleum industry (Memon et al., 2020). High work engagement rates led to low voluntary exits. This is because work engagement experiences improve work related outcomes such as a positive perception of the employer, which increases their dedication to the company.

Almohtaseb et al. (2020) evaluated the outcome of talent management on organisational performance with moderation of performance evaluation system in Jordan public health. As part of managing talent, employee engagement had a significant outcome on the performance of staff.

This was done through facilitation of employees to carry out more responsibilities. Further, for a year, 535 nurses from three hospitals in Egypt participated in a research that examined how job engagement affected their job outcomes.

Questionnaires based on performance, job resources, employee turnover, and work engagement were used to gather the facts. Evaluations detailed that job performance and turnover intention variance significantly increased due to work engagement (Ghazawy et al., 2021). They observed that in order for nurses to feel fulfilled in their roles and, consequently, lower turnover intention, they needed enough resources, a conducive workplace, and performance review.

An investigation of talent managing and its consequence on staff retention and engagement was carried out on a Madiun City company (Srimulyani, 2020). Based on data from 69 workers, it emerged that engagement at work substantially affected employee retention in a positive manner.

Similarly, Fulmore et al. (2023) notes that employee retention and work engagement are central components of human resources. Employee retention, productivity, and staff morale are all correlated with job engagement, which is fundamental to an organisation's success (Clack, 2021). Organisational losses due to high staff exits, absenteeism and minimal productivity, are caused by low levels of job engagement.

Ashraf & Siddiqui (2020) also undertook a study of 200 workers from various firms in Pakistan to measure the role of employee engagement on staff retainment, work satisfaction aligned with control at work and general wellbeing. Questionnaires were used to acquire data that was analysed through SEM and confirmatory factor analysis. The inquiry established that employee job engagement affects employee retention. This position was reiterated by Schaufeli (2021) who opined that engaged leaders in an organisation improve work engagement through their behaviour of connecting, strengthening and inspiring employees.

More importantly, in the current working environment, traditional methods of luring and keeping workers with compensation and other incentives are no longer sufficient. To engage their staff and retain them for an extended time, organisations must incorporate the following; company culture, supportive leadership, a stimulating and challenging work environment, motivation, learning and growth opportunities, reward systems, human resource strategies, and company philosophy (Aburub, 2020).

A research was undertaken by Arubayi (2022) to inspect the effect of engagement initiatives (business branding, meritocracy, succession plans) on employee retainment in Nigeria. The study findings obtained from 300 staff reveal that meritocracy was highly ranked in affecting employee retention. Accordingly, succession planning and employer branding significantly affected employee retention. The study recommended adoption of the three engagement initiatives, communication of the succession-planning framework to the employees and rewarding of staff based on their contributions to the company.

Businesses require the assistance of their skilled employees in order to succeed. When given the chance, untalented and dissatisfied employees leave the organisation (Zionia & Sathyapriya, 2019). Therefore, a study was conducted to show how crucial employee engagement is to staff retention. 116 respondents were chosen at random for the inquiry, and statistical tools were used to process the data they submitted. It was determined that relations exist between staff retention and engagement. In order to retain employees, the scholars recommended implementing programs or activities including flexible work schedules, career planning, community service, onboarding new hires, and effective communication, among others.

Turnover of staff is an enormous issue in the knowledge-based field, according to Ahmad et al. (2019). Thus, using job embeddedness as a mediator, they carried out a study that tested

implications of organisational socialisation strategies and work attributes on employee turnover. The results show that staff turnover intentions were negatively affected by job embeddedness, work characteristics, and organisational social techniques.

According to the investigation, socialisation strategies including new hire orientation, feedback and mentoring help employees become more integrated into the business hence less likely to leave. Furthermore, well-designed work features that promote autonomy, identity, and task relevance improve job embeddedness and reduce employee turnover. Socialisation strategies and work-related traits both establish strong bonds and fits that keep workers engaged and committed to the organisation decreasing the possibility that they will depart (Ahmad et al., 2019).

Conversely, an exploration of the impacts of job engagement on millennial staff intent to stay in Kenya's insurance market was conducted in response to the requirement for businesses to strike a balance between the younger and older generations (Gichuhi & Mbithuka, 2018). It was determined that millennial involvement significantly related with availability of growth opportunities and work environment.

Thus, there was a positive but statistically insignificant correlation between millennial retention, pay and work-life balance. Through training, career advancement, and demanding tasks for long-term work, the authors recommended that insurance businesses offer millennials the best opportunity for skill development (Gichuhi & Mbithuka, 2018).

On the contrary, it has been proven that work engagement precedes employee turnover. Employees with high work engagement are cheerful and actively engrossed in their jobs, which frees them from negative and contemplative thoughts like quitting. Prior research identified a negative correlation between intention to resign and work engagement (Parent-Lamarche, 2022).

Meanwhile, Alrianti & Ekshan (2024) examined how staff engagement and talents

management affected employee retainment in a company in Cikarang industrial area, with job happiness as the mediating element. They used a sample of 90 randomly chosen participants who responded to questions via a Google Form. Since it has been determined that employee engagement has no bearing on retention, a rise in engagement does not equate to a growth in retention.

This is reinforced by Hido (2021), who notably discovered that staff engagement had a minor but not statistically significant impact on staff retention. Several studies have affirmed that work engagement is negatively allied with employees' retention (Memon et al., 2017) hence the third hypothesis of this study; H_{O3}*: Work engagement does not significantly affect employee retention.*

2.8.4 Talent management and job satisfaction

An investigation into the influence of talent managing and its outcomes was carried out in the petroleum market in Saudi Arabia by Alanazi (2022). Employee loyalty to the organisation and job satisfaction were the outcomes under consideration. 417 respondents from the major oil and gas firms completed an online survey.

The study's conclusions showed that the younger workforce was uncommitted and had low levels of satisfaction. This suggested that ineffective people management strategies in the Saudi hydrocarbons sector should be addressed through transformational leadership with the goal to foster positive work environment for both talent development and retention. Additionally, there is scarcity of development possibilities in the talent managing field and the necessity of using appropriate talent identification strategies (Alanazi, 2022).

Similarly, based on an empirical appraisal of talents management effects on Saudi oil and gas multinational corporations, Alshehri et al. (2024) argue that matters with talent progress and retainment must be addressed because they make it more difficult for the companies to build a labour force capable of handling the ever-evolving requirements of the industry. MNCs find it difficult to formulate an effective personnel management strategy. To help create a workforce that can adjust to the changing needs of the sector, the scholars advise offering strong training, development opportunities, and performance evaluation as valuable practices.

In addition, using talent management as the mediating variable, Azmy (2021) assessed the outcome of job happiness and employee involvement on workforce agility in the public transportation industry. One hundred individuals were purposively chosen for the study, and partial least square analysis was utilised to analyse the data.

It was demonstrated that task agility is affected by employee engagement and work satisfaction. Employees' abilities to tackle industrial difficulties is improved by talent management initiatives. The three concepts increase workers' flexibility, reactivity, and inventiveness, which improves company performance and plan execution. Therefore, businesses should strengthen their people capital in a holistic way (Azmy, 2021). Further, talent management tactics increase competitive advantage, employee engagement, and dedication to the company (Hongal & Kinange, 2020).

In order to assess the outcome of human resource techniques (pay, development, training, performance reviews, job descriptions, and employee involvement, among others) on work satisfaction and intention to stay, a survey of 250 high-level Qatari government employees was undertaken. The study's variables were correlationally examined with results showing that work satisfaction, and intention to stay were positively correlated with the eleven HR practices. By

offering a long-term competitive advantage, the authors highlight the importance of HR components as a game changer (Mehreza & Bakria, 2019).

In a similar inquiry by Alhamadi et al. (2022), it was reported that talent management strategies positively affect employees satisfaction and by extension performance at work. This inquiry further employed the SET which reinforce reciprocity between employees and employers. The employees reciprocate through positive job performance when the organisation focuses on talent development.

Besides, the result of managing talent on the work satisfaction levels was examined by Gül et al. (2023) in Çanakkale using a sample of 626 nurses. The study determined that talents administration positively impacted job happiness (both intrinsic and extrinsic) and dedication to the company (normative, continuance and affective). Consequently, employment of talents management techniques enhanced nurses' work satisfaction and dedication levels. Also, job happiness intermediated the relation concerning talent managing and commitment to the firm.

A study by Friday & Sunday (2019) analysed the link between organisational dedication and talent managing in Nigeria. The researchers used 95 individuals from 10 oil and gas companies, and 74 questionnaires were satisfactorily completed and returned. The results demonstrated that talents management augmented commitment to the petroleum companies. They add that total job happiness indicated corporate dedication from employees.

Furthermore, Nguyen et al. (2021) explored how work-related factors affected staff satisfaction and commitment in Vietnamese universities. As the study sample, 316 staff members from public and private universities participated. Following testing of the hypotheses, a strong and favourable correlation between organisational commitment and work satisfaction was found. Job satisfaction was considerably affected by the work-related characteristics.

A conceptual model on the function of strategic talents management (STM), in refining work performance, in UAE petroleum industry was developed by Al Hammadi et al. (2019). The researchers point out that in order to encourage "Emiratization" and the development of skills and knowledge for good work performance, localized strategic human resource management is necessary. The study included four constructs: job performance, job motivation, job retention, and STM. Motivation at work is imperative as it enables employees to learn and boost physical and mental welfare of the workforce. In the petroleum sector, low job motivation can lead to safety concerns.

Additionally, retention of employees in the oil industry is a challenge considering the severe locations of oil sites, dangerous working conditions, offers from government for early retirements, projects in neighbouring countries that poaches talented employees. Consequently, this sector realized the importance of a committed work force as key for organisational sustainable success (Ayari & AlHamaqi, 2019).

When job happiness was factored, Redondo et al. (2021) evaluated the influence of a protean career both directly and indirectly on the intention to leave (talent retention). 306 skilled staff of 17 multinational firms in Mexico and Spain made up the study's sample size. It was presumed that a threat to the advancement and retention of high-value staff stemmed from the prevalence of protean orientation among talented workers. It was determined that the highly skilled workers had low levels of intent to quit and high job satisfaction. It was demonstrated that work happiness negates the thoughts of leaving.

It is worth noting that organisations that paid competitive wages and listened to complaints provided its employees a sense of security and loyalty. As a result, the staff members were contented and loyal to the organisation (Al Habsi et al., 2021).

In Bali Indonesia, Saputra and Riana (2021) conducted a study with 40 participants from a mobile shop to evaluate the bearing of job happiness on organisational dedication and citizenship. Warp PLS was utilised in testing the gathered information, which revealed that job satisfaction significantly affected company citizenship and commitment.

The significance of job happiness on correctional officers' decision to leave Prague was examined. The relation between the supervisor and the correctional officers in terms of work satisfaction was not validated, but the linkage between the two concepts was. Further, the least likely to leave were workers with short tenure (Botek, 2019).

This study therefore reinforces the outcome by Alsenani and Afaneh (2022), who revealed a substantial correlation between commitment to company and work satisfaction among 243 employees of a Saudi telecommunications company. Aspects of company commitment like the work itself, its security, progression and growth, pay and benefits, and the supervision process, were also strongly associated with job satisfaction.

Additionally, in the hotel industry, Almohtesab et al. (2020) evaluated the connection between company commitment and talent management and performance enhancement. To increase personnel commitment (affective, normative and continuity) to the company and boost performance, talent tenets such as attraction, development, and retention programs were essential.

The findings indicate that high levels of commitment were a result of talent management components, and this enhanced the organisation's performance. The study shows that the commitment that develops in talents is what propels company success. The relation between managing talent and performance was intervened by normative commitment and continuity (Almohtesab et al., 2020).

According to Shahzad et al. (2024), when implemented properly, strategic human resource strategies including training, incentives, and talent development raise employees' intentions to stick with the organisation. These principles also increase workers' job happiness and engagement which lowers turnover. Additionally, they employed psychological empowerment as a mediator between HR techniques and talent retention, noting that employees who believe they possess the freedom and ability to undertake their responsibilities ultimately find job satisfaction and are loyal to their organisation.

On the other side, Arasanmi & Krishna (2019) assessed the implication of perceived organisational support and branding on employee retention in the Malaysian service industry, as well as the usage of organisational commitment as a mediator. Robust employer branding, they observe, boosts employee attachment and identification with the company. Furthermore, a positive work atmosphere that fosters a sense of support from the organisation increases employee happiness and loyalty. All of these components use positive organisational practices to lower employee turnover.

Due to paucity of inquiries on sustainable talents management, Alparslan and Saner (2020) investigated its impact on employee commitment and job happiness, and the mediating function of in-service training. 575 workers from Turkey's manufacturing sector made up the study's sample size. Participants completed questionnaires, and SmartPLS 3 data analysis was done using PLS-SEM/multi-group analysis. The results demonstrated that employee dedication to the organisation and work happiness are both significantly impacted by talent management.

An investigation into the implication of talents management on nurses' satisfaction, was carried out in Malawi public health facilities by Dzimbiri & Molefi (2021). Data from 834 nurses from four public hospitals were gathered using a quantitative approach, and 580 valid replies were

obtained. Regression analysis showed that only four of the nine indicators- attraction, deployment, staffing and advancement were effective, indicating that talent supervision had no effect on work contentment. The study emphasizes the difficulties in application of talent management in Malawi's state hospitals, pointing out that management ought to recognize that subpar procedures reduce workers' job satisfaction.

A study conducted in Amman Jordan, examined the connection between managing talent and organisational and employee outcomes, particularly commitment and turnover intentions (Dayeh & Farmanesh, 2021). To supply the raw data for the study, 510 workers were chosen at random from different banks. Talent managing has been shown to improve commitment and intention to exit, which is consistent with prior research. The authors advised bank management to use talent management techniques to address the needs of their staff and organisational objectives. From the above discussion, hypotheses four was formulated; H_{O4}*: Talent management does not affect job satisfaction.*

2.8.5 The mediating role of work engagement on the association between talent management, employee retention, and job satisfaction

Engagement at work has been linked with several organisational and employee outcomes in many studies. Ali and Ali (2021) notes that several studies have reported significant relation between job contentment and commitment with the mediating effect of job engagement. Employees derive pride and self-confidence in working for a socially responsible organisation hence they find it meaningful to remain engaged with their work.

Additionally, staff are engaged and dedicated to the company processes when they perceive that their organisation support stakeholders and the environment. When stakeholders praise their

company, employees develop a good sense and positive energy enabling them to achieve organisational goals by going beyond the call of duty. The energy in turn makes employees satisfied and improves the employee-organisational relationship, which determines how employees bring their real selves to work.

The notion of retaining employees is a contemporary dilemma faced by businesses in the modern economy. Management of talent is a tool used by businesses to retain employees and enhance organisational commitment (Ekhsan et al., 2020). A review was done to ascertain the significance of talent administration through organisation commitment to employee retention in Cikirang Indonesia agricultural technology using a sample size of 83 participants. Analysis was done using PLS-SEM and it was revealed that retention of employees requires adequate management of talent and organisational commitment from the leadership.

Additionally, Yandi and Havidz (2022) explored an employee model where work engagement interacted with work satisfaction and company commitment. The scholar reviewed existing works and concluded that job involvement had an impact on staff job satisfaction. Secondly, work engagement had influence on organisational commitment. Thirdly, work involvement impacted the performance of staff. Fourthly, job satisfaction affected staff performance, whereas organisational commitment affected staff performance. Lastly, work engagement via organisational commitment had an influence on employee performance.

Moreover, Al-refaei et al. (2023) investigated employees' perception of their jobs and organisations. They explored ways of improving service quality of education through job involvement, satisfaction and commitment to employers in developing nations. They stated that work satisfaction had a major effect on organisational commitment and quality of service.

Organisational commitment also affected service quality and mediated the relation between

job happiness and service quality. Work involvement further moderated the relation of satisfaction at work and company commitment with quality of service. Engaged employees demonstrate high magnitude of energy, immersion and dedication at the work place. When employees are provided with support and identify with the organisation, they will not leave the company (Ali & Ali, 2021).

2.8.5.1 Talent management, work engagement and employee retention

Several scholars have investigated how talent management relates to different organisational components. Organisations adopt and use components of talent management based on their context or industry environment hence the different implementation by organisations (Gallardo-Gallardo et al., 2020). Organisations based on what they want to achieve will therefore tailor make their own talent management strategies (Lerotholi, 2021).

Various studies on engagement have proven that engagement at work mediates numerous antecedents and outcome variables. Memon et al. (2017) looked at how pay satisfaction and turnover desire were mediated by work engagement. Further, job engagement had a significant mediating part between talent management and workers' performance in companies (Al-Hussaini et al., 2019).

Similarly, an investigation was conducted to gauge the link to management of talent, staff engagement and their maintenance in SMEs in Malaysia. 55 respondents were nominated randomly to fill the survey questionnaire. SPSS was adopted for data processing, which showed that talent supervision has a useful implication on job engagement and retention of staff resulting to high productivity in the SMEs (Ismail et al., 2021).

Employees desire to move out of the company arises from employees' negative attitudes namely poor satisfaction and allegiance. Setiawan and Prasojo (2021) examined the implication

of talent managing and job engagement on intent to exit with the mediation of staff retention in Yamada Plant Factory, Indonesia. Using a sample of 71 employees, the data was processed through SmartPLS.

The conclusion reveals that talent supervision significantly, and negatively affects staff plans to leave. Conversely, staff engagement affected turnover intent while retention of workforce affected turnover plans. Furthermore, employee engagement determined talent management and retention of staff. Lastly, the affiliation between staff turnover and management of talent was intervened by employee engagements (Setiawan & Prasojo, 2021).

A systematic review of 43 papers to evaluate the relation of managing talent, staff engagement and intention to leave depending on the input from the organisation and outcomes was conducted by Sinisterra et al. (2024). They note that there is confusion on the description and measurement of talents management. They found that talent management enhances engagement of staff and reduces exit plans. The change occurred when effective talent management practices were in place. The relationship between planned turnover and management of talents was mediated by job engagement. Age and duration of employment were significant control factors in the framework indicated.

In another investigation, Bonneton et al. (2022a) scrutinized management and retention of talent with the mediating function of career orientation in multinational companies. They established that talents management strategies had implications on employees' plans to stay while career aspects were key in retention of employees globally.

In the same vein, Ekhsan et al. (2023) sought to explore the implication of digital talent on staff retainment with the mediation of employee engagement. 170 respondents selected randomly filled an online survey. Data analysis was conducted using SmartPLS software and it

was discovered that employees with elevated levels of digital skills may possibly stay with the company for long. Staff relations with line manager, coworkers and their involvement with work and the company can enhance employee retention, employee welfare and promote the expansion of digital industries. Additionally, engagement of staff mediated the tie regarding digital talent and workers.

In another study, 189 employees' perception at a vocational training institution in Iran were examined and it was found that job engagement moderates the relations between SHRM elements and workers retainment (Sepahvand & Khodashahri, 2021). However, engagement at work was unable to moderate the relations between intention to quit and pay gratification. According to their theory, employees base their work engagement on their perceptions of training and performance reviews.

Similarly, Srimulyani (2020) determined that involvement had a partial mediating act between talents management and retainment of personnel in XYX Company in Indonesia. Talent management focused on leadership support, workers career management, rewards and recognition. They noted that employees view on management of talent and work engagement was high whereas personnel retention was very high.

Furthermore, Memon et al. (2021) observed that the relationship between workers' gratification with HR procedures (performance reviews and training) and their intentions to leave was mediated by engagement at work. Identically, Elhaddad et al. (2020) looked into how nurses perceived talent management and how it related to retention and engagement at work. A substantial correlation was found between nurses' perceptions of retention, job engagement, and talent management. Majority of the nurses had little intention of remaining with the companies, more than half had low levels of work engagement, and they had an adverse opinion of managing talents.

A research was undertaken in UAE to determine the significance of HRM procedures on turnover intention by staff, with the mediating factor of work engagement and self-efficacy (Alhajaj & Ahmad, 2024). 283 respondents' filled questionnaires and the data was analysed using PLS-SEM. The results showed that turnover intent is adversely impacted by job engagement. Additionally, it mediated the link between turnover intentions and employees' perceptions of HR strategies. Further, satisfaction with the pay, empowerment, communication and staff participation were key contributors to work engagement. Self-efficacy contrariwise failed to mediate the linkage between engagement at work and turnover plans.

Barkhuizen & Kasera (2021) interrogated the connection between talents management, job involvement and voluntary attrition in a Financial Institution-Namibia. A sample of 91 employees filled the questionnaires. It was established that the staff were rightly aligned to the job roles based on their skills. The staff were proud of their institutional brand and the performance feedback they received. The staff also indicated moderate to high levels of job engagement however, part of them had the intention to quit their jobs. The study therefore concluded that voluntary attrition, job engagement, and talents management were significantly correlated.

Alternatively, Al-Hajri (2020) assessed the GHRM link to retention of staff together with engagement at work in Oman pharmaceutical sector. Questionnaires were distributed to 506 respondents' randomly selected and 349 valid questionnaires collected. The data was analysed using SmartPLS and SEM and it was revealed that there was a positive insignificant tie between GHRM procedures and retainment of workforce. GHRM also had a favourable and noteworthy implication on work engagement. Additionally, the association involving GHRM and employee relations was mediated by job engagement.

Furthermore, Sopiah et al. (2020) documented that high talent management improved employee performance and work engagement among Indonesian nurses. Additionally, work engagement is affected by talent administration strategies such as unfair compensation, bureaucracy and high turnover of talented employees. They suggest that companies should enhance the employee engagement levels by having a clear company structure with defined roles and job description to avoid bureaucracy (Li Qi & Jia Qi, 2021).

Consequently, this hypothesis was formulated; *H_{O5}: Work engagement has no significant mediating effect on the relation between talent management and employee retention.*

2.8.5.2 Talent management, work engagement and job satisfaction

A research done by Hakro et al. (2022) explored the interplay between job fulfilment, performance of staff, engagement among workers, and talent management in Pakistani non-governmental organisations. The participants of the inquiry were conveniently selected from the officer role for filling of questionnaires that had seven related questions. SPSS and PLS-SEM was used to analyse data which illustrated that staff involvement mediates the link concerning talents management and work satisfaction as it tested positive.

Additionally, management of talent positively affected engagement of staff, job satisfaction and performance of workforce. Moreover, workers' engagement also positively affected job fulfilment apart from its mediating role. The scholars recommended that their model be expanded with other new variables for use in other sectors (Hakro et al., 2022).

Similarly, Khairina et al. (2022) assessed how talent management affected staff performance through happiness at work and engagement as indicators on PT Bank employees in Negara Indonesia. The study purposively selected 303 respondents who supplied information that

was analysed using SmartPLS. The outcome indicated that both directly and indirectly through employee involvement, talent management significantly affected work satisfaction. Conversely, authentic leadership did not significantly affect job satisfaction, either directly or indirectly, through employee involvement as a mediator.

Another study was undertaken by Goestjahjanti et al. (2020) on the implication of authentic leadership and talent managing on work satisfaction among employees with the mediation function of employee engagement in the South East Asia. 391 employees were randomly selected to provide data by filling the questionnaires and 215 valid questionnaires were received. SEM and SmartPLS 3.0 was employed in processing data and it was established that directly as well as indirectly, over the mediating influence of employees' engagement, talent management significantly and favourably impacted work satisfaction. Further, reliable leadership had no relation directly with work satisfaction and indirectly with staff engagement as the mediating factor.

Asbari (2020) conducted a related study using similar data analysis tools and a sample of 351 participants from the automotive industry in Tangerang Indonesia. From 221 valid questionnaires, the inquiry found that, with employee engagement acting as a mediating element, talent management significantly impacted job satisfaction both directly and indirectly.

Job engagement is a critical talent management factor that enhances employee satisfaction thereby reducing employee turnover intention hence its use should be enhanced in organisations (Bhatt & Sharma, 2019). Talent management is key in attaining organisational sustainability as indicated by Qurratu'aini, & Fahriani, 2022). The organisational stability was examined in three forms, which are the social, environmental and economic. Moreover, engagement and fulfilment have a direct and mediating act on talent management and organisational sustainability.

Most studies on management focuses on the behavioural aspects of employees without aligning with innovative technology (Shahzad et al., 2024). They conducted an inquiry in Pakistan to assess the effect of strategic HR approaches on retaining staff by work happiness and involvement in the Universities. The research further evaluated the mediating aspect of i) psychological enablement on work happiness and; ii) job engagement on retainment of talent and how this influenced performance of the Universities. 332 employees answered the questionnaires and data was analysed using PLS-SEM.

It was revealed that strategic HR approaches positively affects workers' retention in Pakistan universities. Additionally, work involvement and satisfaction mediated the relation of strategic HR practices and employee retention. In addition, emotional enablement positively moderated the affiliation between employee work satisfaction and work engagements towards staff retention. The study therefore concluded that human resource practices builds an organisational culture that enhances sustainability, employee retention and organisational values (Shahzad et al., 2024).

Hido et al. (2021) revealed that job happiness had a bearing on retention of personnel. Employee engagement had a partial effect (positive but insignificant) on employee retention. However, the two aspects that is job satisfaction and staff engagement together had a favourable effect on workforce retention. The outcomes further indicated that employees emotionally felt proud of their company's brand whereas in terms of loyalty indicators, the employees perceived that remaining loyal to the company was not ideal. Most of the employees in the company were satisfied with working for more hours as they received overtime allowance.

Equally, Çankır and Arikan (2019) performed a study to investigate employee attitude to work and its outcomes. The study focused on the linkage between satisfaction and work

involvement to employee output and intent to exit. The compiled data was analysed through Sobet tests, simple and multiple linear regression.

It was established that job engagement and satisfaction are related concepts. However, work satisfaction was a strong predictor to intention to quitting compared to engagement at work. Additionally, it acted as a mediator between plans to leave and engagement. However, job engagement served as an intermediary of work satisfaction and performance and was a strong predictor of staff performance than satisfaction at work (Çankır & Arikan, 2019).

In the industrial region of Southeast Asia, an inquiry was undertaken to explore the function of work satisfaction and staff engagements as mediating factors on the liaison between talent growth and plans to remain by Gen Z workers (Achmad et al., 2023).

The study employed 342 respondents purposively selected with the outcomes revealing a positive effect of talent development on intents to stay. Further, job contentment had a major mediating outcome on talent development and intent to remain than employees' engagement. They posit that workers' retention makes use of the available strategies in an organisation (Achmad et al., 2023). As earlier noted from Asbari (2020), employee engagement positively affects job fulfilment together with management of talent.

An inquiry was undertaken to examine the influence of staff engagement, work satisfaction and staff agility with talent management as a mediator in public transport companies (Azmy, 2021). 100 respondents were purposively chosen to provide the required data, which was analysed using PLS method. The analysis determined that worker engagement and productivity satisfaction had a major effect on staff agility. Additionally, talent management mediation affected workforce agility hence organisations must implement talent management, staff engagement and job happiness initiatives to enhance employees' agility and responsive nature to business challenges.

Conversely, Mathur & Srivastava (2024) researched the bearing of talent managing on staff retainment in addition to the mediation of work satisfaction on talent management approaches in Jaipur banks. The investigation sought to bring clarity on leveraging of talent administration to enhance retention in organisations. 200 members of staff randomly selected from six banks filled self-administered questionnaire. SEM was employed in data analysis where it was concluded that talents management practices have a great implication on workers' purpose to remain in the company. Moreover, satisfaction at work mediated the interaction between retaining workers and the administration of talent.

Workers are crucial for sustainable human resource management (SHRM) which takes into consideration the views, perspective and individual needs of employees. Sypniewska et al. (2023) examined SHRM issues in relation to staff job engagement and satisfaction levels on 1051 employees in Poland. The study focused on well-being at work, staff development, retaining workers, job engagement and staff satisfaction as SHRM elements mediated by employee engagement.

The findings revealed that high rate of employee well-being at work, development and retention were linked to enhanced satisfaction levels. Further, staff engagement mediated the relation amid wellbeing at work, development, retention and job satisfaction. The inquiry illustrate the job satisfaction and engagement are great contributors to SHRM. Organisations should enhance work place factors to enhance staff satisfaction and engagement (Sypniewska et al., 2023).

In addition, Memon et al. (2021) observed that the connection between workers' contentment with HRM activities (satisfaction with trainings and performance reviews) and their intention to quit was mediated by the rate of involvement at work. In light of the aforementioned,

arose hypothesis H_{06}: *Work engagement has no significant mediating effect on the relation between talent management and job satisfaction.*

2.10 Knowledge Gap

From the above reviewed literature on talent management and employee retention, it has been established that extensive research has been conducted globally in various fields (Al Aina & Atan, 2020; Alhaider, 2022; Collings et al., 2019; El Sayed et al., 2021; Qureshi, 2019, Shet, 2020) including oil and gas sector (Al Hammadi et al., 2019; Chaturvedi et al., 2021; Kamel, 2019; Ronnie & Glaister, 2019).

In Kenya, extensive research has been carried out in different fields regarding talent management for example the banking industry (Muriithi, 2020; Nyaema & Wambua, 2019), National Museum of Kenya (Ochieng'Ojwang, 2019), telecommunication industry (Kireru, 2019), health industry (Yeswa & Ombui, 2019) amongst others.

However, minimal research has been conducted on talent management and workers' retention in the oil and gas industry in Kenya compared to other African rich oil countries such as Nigeria. Studies in Kenya features local content framework in the petroleum sector (Mwangoma, 2019; Odhiambo, 2021; Wanjiru et al., 2020), oil exports (Obere & Kataa, 2020), organisational structure changes (Abdow et al., 2018) and supply chain challenges in the oil industry (Maondo, 2020). Conversely in Nigeria, specific studies on the association between talent management and staff commitment to petroleum companies in Nigeria has been extensively researched (Friday & Sunday, 2019; Oduntan, 2020).

The current global petroleum industry operating environment is volatile and risky hence more studies should be carried out on the field in Kenya especially on retention of employees which is a major challenge. To this end, there exists a knowledge gap that this research sets to fill

and contribute to in terms of talent management and its implication on employee retention, job satisfaction with the mediation of work engagement in the Oil and Gas Industry in Kenya which has been overlooked.

2.11 Summary

Human capital has become the most highly regarded resource in modern organisational conversations, as it is the primary means by which organisational goals are eventually achieved and maintained. The workforce is the primary source of skills, knowledge, and intellectual property that needs to be handled methodically to guarantee long-term market viability and organisational profitability. Companies in a variety of industries have had to adjust multifaceted strategies to recruit, train, and retain top talent that reflect their distinct operational environments and organisational cultures as globalization increases competitive pressures and technological advancement speeds up organisational change.

Beyond structural elements of talent management, the qualitative nature of employees' workplace experiences fundamentally shapes their engagement levels and performance contributions. The contemporary workplace must provide environments that are simultaneously intellectually stimulating and professionally challenging, ensuring employees remain cognitively and emotionally absorbed in their tasks. Organisations that successfully cultivate engaging work environments enable their employees to develop requisite vigour, energy, and enthusiasm necessary for sustained high-level performance without experiencing deleterious effects of excessive pressure.

Employers who consistently increase the duties of their staff members promote both individual development and organisational capabilities. When organisational circumstances are favourable, workers inherently experience higher levels of engagement, which are typified by

immersion in purposeful work, commitment to the success of the organisation, and zeal in task completion. Significant organisational benefits, such as greater performance, increased work satisfaction, and noticeably higher retention rates, are produced by these states of increased engagement.

Temporary training needs for replacements also lead to considerable revenue losses because consumers used to long-standing service relationships may receive lower-quality service during transitional periods. Employee turnover poses additional dangers from the standpoint of competitive strategy since rivals may deliberately hire former workers who are well-versed in the organisation's strategic initiatives, limitations, and strengths. Therefore, comprehensive retention methods that encourage employees to sustain long-term organisational connection must be given top priority by organisational leadership.

A fundamental psychological condition that essentially influences workplace attitudes and behaviours with significant organisational ramifications is employee job satisfaction. Employee satisfaction is a strong indicator of increased motivation to carry out tasks with sincere zeal. Their psychological commitment is demonstrated by their preference for organisational goals over personal gain, which makes it easier to accomplish group objectives. Because contented workers are more likely to stick with their employers for longer periods of time and put forth discretionary effort without constant supervision, job happiness has a positive association with organisational loyalty.

The culmination of effective human capital management is employee loyalty to hiring companies, which has a significant impact on retention rates and productivity levels. Particularly strong performance outcomes are produced by affective commitment, which is defined by employees' emotional attachment and identification with the company values. These workers see

themselves as essential members of the organisation and so devote themselves to advancing its well-being. Employees' acceptance of responsibility for organisational decisions and results is one way that this psychological ownership shows up.

Critically, these conceptual domains do not operate in isolation but rather function as interconnected elements within integrated human capital management systems. Effective organisational performance and optimal employee outcomes emerge from synergy interactions among these concepts. Consequently, organisations must identify which integration models align optimally with their available resources, capabilities, and strategic imperatives. The development of comprehensive implementation plans represents a critical success factor, requiring concrete action steps, clear responsibilities, temporal milestones, and mechanisms for ongoing monitoring and periodic review.

Further, the oil and gas industry exemplifies a sector wherein effective human capital management assumes particular strategic importance due to its reliance on highly specialized technical workforces combined with operations in challenging geographical and environmental contexts. The technical complexity demands employees possessing specialized competencies requiring substantial developmental investments that cannot be readily replaced. Furthermore, operational presence in remote, harsh, and sometimes hazardous environments creates unique challenges for maintaining workforce engagement and retention, underscoring the imperative for industry-specific talent management strategies.

In conclusion, the contemporary business environment demands that organisations adopt holistic, integrated approaches to human capital management recognising complex interrelationships among talent management practices, work engagement, retention tactics, job and satisfaction. Organisations that successfully implement contextually appropriate, well-resourced,

and systematically evaluated human capital strategies position themselves advantageously for sustained competitive success.

CHAPTER 3: RESEARCH METHOD

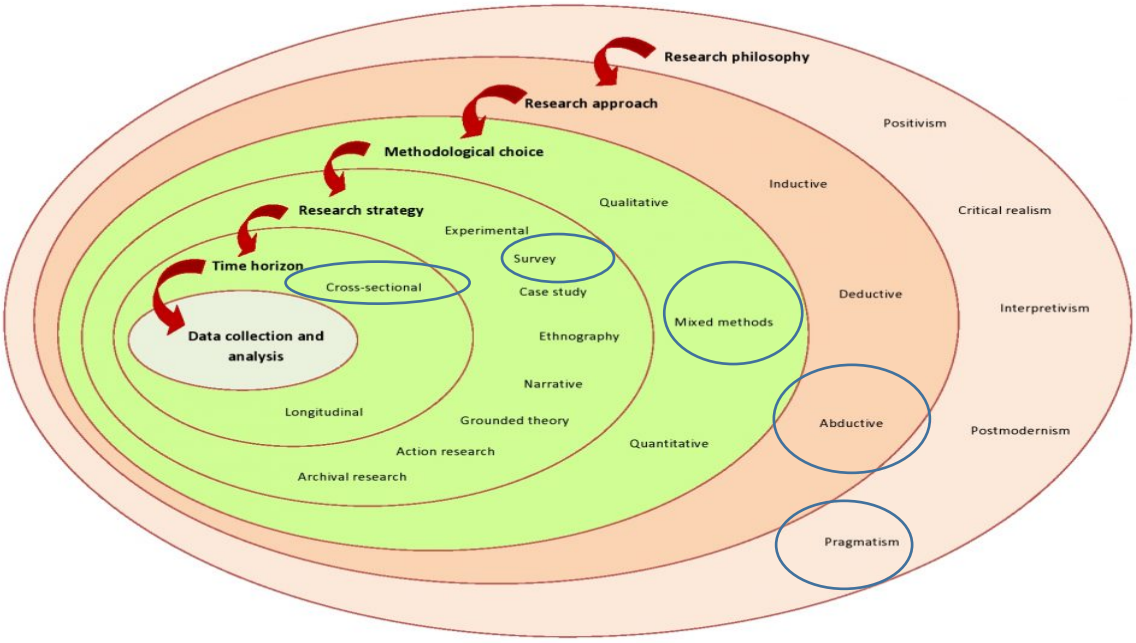
3.0 Introduction

The oil and gas industry in Kenya operates in a dynamic and competitive environment where attracting, developing, engaging, and retaining talented employees is essential for organisational effectiveness and sustainability. Despite the growing recognition of talent management as an important organisational strategy, employee retention remains a concern, with employee turnover potentially increasing recruitment and training costs and resulting in the loss of valuable skills and knowledge. Although previous studies have established relationships between talent management, work engagement, and employee retention (Ebrahim et al., 2020; Muriithi, 2020; Soud, 2020), limited empirical attention has focused on these relationships within Kenya's oil and gas industry.

The purpose of this study was to investigate the effect of implementing talent management techniques on employee retention through work engagement in the oil and gas industry in Kenya. A mixed-methods research approach was adopted to provide comprehensive evidence addressing the research objectives and questions. This chapter presents the methodology used in the study. It covers the research philosophy and approach, research design, target population, sampling procedures, data collection methods and instruments, validity and reliability, data collection procedures, ethical considerations, and data analysis techniques. The methodological choices are guided by the research onion framework proposed by Saunders et al. (2019) as shown in Figure 10 below;

Figure 10

The Research Onion



Note. Adopted from Saunders, Lewis & Thornhill (2019).

3.1 Philosophical worldview

Research philosophy addresses the 'development' and 'nature' of the knowledge in a study (Saunders et al., 2019). It is the first layer of the research onion as depicted in Figure 10 above. It is concerned with knowledge generation and consists of positivism, interpretivism, critical realism, pragmatism and post modernism ideologies (Saunders et al., 2019). This study adopted pragmatism philosophy, which purports that ideas are important only in instances where they 'support action' (Muhaise et al., 2020). This study endeavoured to resolve the issue of employee turnover in the Kenyan petroleum industry using appropriate talent management practices. The industry being a high capital-intensive sector requires practical action.

In addition, research ideas, theories, concepts, hypotheses and research findings are crucial for leading to practical action in specific contexts. Pragmatists consider reality as practical successful solutions arising from knowledge (Low, 2019; Muhaise et al., 2020). This study employed three theories to bring forth ideas applicable to retaining employees in the oil and gas sector given the volatile operating environment.

Ontologically, this philosophy presumes that the world consists of rich multiple realities based in several contexts (Muhaise et al., 2020). Implementation of talent management and work engagement initiatives in an organisation bring about multiple perceptions of the work environment by the employees as the social actors. The reality for the organisational employees is the resources put forth by the employer and what they are able to provide in return to the organisation.

Epistemologically, pragmatism has the practical meaning of knowledge in specific contexts with authentic theories and knowledge enabling successful action (Muhaise et al., 2020). This was considered ideal for the employee retention problem in the oil and gas sector in Kenya which requires practical solution. Further, pragmatism focuses on the research problem, its relevance and seeks to solve it.

This philosophy calls for the use of any approach and theory that best answers the research question leading to the use of both positivism and interpretivism within one study. It contributes to knowledge by solving the problem and informing future action (Creswell & Creswell, 2018; Muhaise et al., 2020). This stance allowed the researcher to address the research problem comprehensively combining strength of solutions from the positivism and interpretivism stances. Further, Tashakkori and Teddlie (2021) terms pragmatism as highly intuitive and reflexive as the

researcher does not engage in unnecessary debates on elements of reality and truth but instead considers what brings value in answering the research questions.

To understand the research problem and tackle the research questions, the researcher adopted mixed method research (Saunders et al., 2019). This involved multiple worldviews, assumptions and various methods of collecting and analysing data to achieve new understandings (Creswell & Creswell, 2018; Creswell & Guetterman, 2019). Further, this allows development of practical or positive solutions and outcomes (Muhaise et al., 2020).

The assumptions made in a study are anchored on three philosophical elements; the established knowledge (epistemology), reality and its nature (ontology) and the value or ethical system (axiology). These affect the research process by determining the research methods and strategies (Muhaise et al., 2020; Saunders et al., 2019; Tamminen & Pouchez, 2020). Research philosophy therefore affected the whole research process.

Positivism stance on the other hand considers what is ‘posited’ or given as important though it cannot be taken as the absolute truth in studies dealing with human behaviours (Muhaise et al. (2020). It consists of empirical observation, testing of research hypotheses and evaluation of causal relations using quantitative data. This paradigm is utilised when large data collection is required with surveys or questionnaires as the research tools. The results arising from the sample of study is extrapolated to the whole population (Creswell & Creswell, 2018).

This stance is partly important to the current study as it considers the highlighted problem of employee retention as crucial. It also brings out the issues causing the problem and relates employee retention to the other variables of the study, that is talent management, work engagement and job satisfaction using statistical data. This stance is also ideal in terms of large sample size and adoption of survey questionnaires for data collection (Creswell & Creswell, 2018). Despite

the mentioned importance of this philosophy, the stance could not be used as the standing point as the study also brings out the employees' perception of retention which cannot be explained by numbers.

Similarly, thecritical realism philosophy is all inclusive consisting of the positivist and social constructivist stances hence providing extensively on ontology and epistemology **(**Lawani, 2021). This stance though containing the positivist stance which is useful for the study was not considered ideal for the study. This is because the study does not lean on the social constructivist stance which deals more with social interaction with the study focusing on employee's perception of their work in relation to talent management practices and job satisfaction and turnover.

Interpretivism philosophy considers individuals as different from the environment as they create varied meanings for situations. These meanings and perceptions are in terms of hermeneutics, symbolic interactions and phenomenology (Muhaise et al., 2020). This study utilised this stance in its second phase to build quantitative data through the employee's perceptions of their work environment hence adding richness to the study. It could however not be used on its own as it does not explain relations between variables in a study and is not appropriate in studies involving large number of participants.

Post modernism philosophy on the other hand supports the use of linguistic and power structures in challenging normalised way of thinking and provides voice to marginalised ways (Muhaise et al., 2020). Consequently, this paradigm was not utilised as the study was not seeking to identify power structures nor give a voice to the voiceless.

3.2 Research Approach

The research approach is termed as the general plan of a study that determines the procedures, the philosophical underpinnings, data collections techniques, data analysis process

and interpretation of the findings (Creswell and Creswell, 2018). It consists of three features which are testing, building or modifying a theory. Additionally, the use of a theory either explicitly or implicitly determines the approach and research design to be employed in a study (Saunders et al., 2019).

The research approaches are abductive, deductive and inductive reasoning (Saunders et al., 2019). Abductive process was considered favourable for this study as it involved back and forth from data to theory and theory to data to develop knowledge (Saunders et al., 2019). It also allowed definition and expansion of the research variables, developed both hypotheses and theories which allowed the study to delve into retainment of employees in the petroleum sector in Kenya.

Deductive approach on the other hand applies research theories to specific contexts and the development of an inquiry tool to test the hypotheses whereas inductive reasoning develops theories from the data analysed in a study (Saunders et al., 2019). Deductive and inductive reasoning were not considered ideal for this study as they do not independently bring out comprehensive data to resolve the research problem.

The research philosophy as earlier indicated determines the research approach adopted in a study for theory generation and perception of the results. This study employed abductive approach in line with the adopted pragmatism philosophy (Bougie & Sekaran, 2019; Saunders et al., 2019). The three approaches are further discussed below;

3.2.1 Inductive Approach

Inductive approach involves collection, analysis of the data and subsequent theory development with an interpretivism philosophical alignment (Saunders et al., 2019). Logically, the

researcher develops concepts to create untested conclusions. The premise of the study begins from specific to general hence the findings cannot be generalised.

It adopts a less structured methodology which tends to provide explanations to the research problem. It is concerned with the context where the events occur therefore a small sample size suffices (Creswell & Creswell, 2018; Saunders et al., 2019). This approach goes hand in hand with qualitative method that seeks to understand the meaning individuals place on their interaction, complexity and challenges (Creswell & Creswell, 2018).

This approach despite its use in various studies on talent management studies (McCaig et al., 2022) was not considered ideal solely for this study. This is due to the fact inductive approach focuses on describing meanings and utilises a small sample size hence the results cannot be representative of the oil and gas sector employees in Kenya. It also does not provide explanation on the relation between variables of the study hence considered as a narrow approach.

3.2.2 Deductive approach

This approach involved advancing of an existing theory by developing hypothesis and creating a technique to collect quantitative data to test the hypotheses. This affirms or rejects the relation between variables in a study while guarding against bias. Further, it follows the reductionism principle where problems are easily understood when they are broken down to smaller elements. The premises therefore begin from the general and narrows down to the specifics of a concept (Creswell & Creswell, 2018; Saunders et al., 2019).

This approach is applicable when the research questions seek to describe what is occurring. It utilises a structured methodology that can be replicated by others hence increasing reliability of the study. This therefore means that the approach utilises numeric data and positivism

philosophical underpinning in quantitative research (Creswell & Creswell, 2018; Saunders et al., 2019). The findings can be generalised to other situations and populations where the theory is applicable hence sufficient samples should be used for proper representation (Creswell & Creswell, 2018).

The study however did not utilise deductive approach singularly as it was not considered ideal despite its extensive use in talent management field (Bibi, 2019; Bonneton et al., 2022a; Lerotholi, 2021). This approach fails to capture the perception of the respondents on talent management, task engagement, satisfaction which sheds more light on staff turnover in the petroleum industry.

3.2.3 Abductive approach

This study adopted an abductive research approach, which was appropriate because the research problem involved both established theoretical relationships and contextual evidence that required further explanation. Unlike a purely deductive approach, which begins with existing theory and tests predetermined hypotheses, or a purely inductive approach, which develops explanations primarily from empirical observations, abduction facilitates movement between theory and empirical evidence (Creswell & Creswell, 2018).

It therefore combines the strengths of deductive and inductive reasoning and is particularly suitable for mixed-method studies grounded in pragmatism (Creswell & Creswell, 2018). Bamberger (2019) similarly observes that abduction is appropriate for investigating patterns that may challenge, extend or leave aspects of existing knowledge incomplete.

The choice of abduction was particularly justified by the complexity of employee retention in the petroleum industry. Although existing theories provide explanations for talent management,

employee engagement and employee retention, they do not necessarily provide a complete explanation of how these constructs interact within Kenya's petroleum industry.

The study therefore required an approach that could begin with established theoretical premises, examine them against empirical evidence, identify unexpected or incomplete findings, and subsequently refine the explanations. Abductive reasoning accommodates this iterative movement between specific observations and broader theoretical explanations, while allowing creativity and theoretical insight in interpreting complex phenomena (Creswell & Creswell, 2018; Saunders et al., 2019).

The abductive approach also aligned with the study's mixed-method research design. In the initial stage, empirical evidence could be used to explore and identify patterns and themes, while subsequent analysis could examine theoretically derived relationships through quantitative evidence. Conversely, quantitative findings could generate issues requiring deeper qualitative explanation. This iterative movement between data and theory enabled the researcher to develop more plausible explanations of talent management, work engagement and employee retention than would have been possible through reliance on a single reasoning approach (Saunders et al., 2019).

Abduction was further appropriate because the study sought not only to test existing theoretical propositions but also to determine whether those propositions adequately explained the Kenyan petroleum-industry context. The approach permits existing theoretical explanations to be modified or combined when empirical findings reveal relationships that are not fully explained by the initial theoretical assumptions. The resulting explanations can subsequently be examined using additional empirical evidence, thereby contributing to theoretical development and knowledge generation (Creswell & Creswell, 2018; Saunders et al., 2019).

The approach was also consistent with the integration of qualitative and quantitative evidence. Mixed-method research involves collecting, analysing and integrating both forms of data to obtain a more comprehensive understanding of a research problem (Creswell & Creswell, 2018). This study adopted an explanation approach to integration, whereby findings from one strand informed the interpretation of findings from the other. Such integration enhanced understanding of the factors influencing talent management, work engagement and employee retention in the petroleum industry.

Although abduction offers these advantages, mixed-method studies generally require more time and resources than single-method studies (Creswell & Creswell, 2018). The researcher addressed this challenge through advance planning, scheduling of field activities and prior communication with participating organisations. Nevertheless, additional time was required to complete data collection across different locations.

Overall, the abductive approach was selected because it provided the flexibility required to move iteratively between theory and empirical evidence, test established propositions, investigate unexpected findings and refine theoretical explanations. It was therefore particularly appropriate for addressing the study's six research questions and for examining the complex relationships among talent management, work engagement and employee retention. The iterative interaction between data and theory also provided a basis for refining the Resource-Based View, Social Exchange Theory and Job Embeddedness Theory in explaining workforce management, engagement and retention (Alaydi, 2021; Creswell & Guetterman, 2019).

3.3 Methodological choice

The research methodology is a logical way of resolving a research problem encompassing the systematic steps undertaken and the rationale (Dubey & Kothari, 2022). The research process consists of three major designs namely: qualitative, quantitative and mixed methods.

Qualitative method involves in depth inquiry about an existing phenomenon and is normally subjective in nature. The quantitative method on the other hand involves examining association between the variables in a study in an objective manner. Data collection is done to test the relation between the study and theory (Bell et al., 2022).

This study employed mixed method research in line with the pragmatic philosophy and abductive reasoning. This involved collection of quantitative data to test the set hypotheses and further collection of qualitative information to back the notions highlighted by the quantitative data (Bell et al., 2022). The three research methods are further elaborated below.

3.3.1 Qualitative research

This method seeks to develop theories and create understanding of the phenomenon being investigated. The researcher actively engages in the study in its natural setting hence the results are subjective adopting an interpretive point of view. This method prioritises the voice of the participants portraying their lived experiences. Its research strategies namely observation, interviews and document analysis are developed to create understanding of the meanings people place on situations and their thought process on the matter (Taherdoost, 2022).

This technique provides thick descriptive data on the research problem originating from the natural setting and being the views of those facing the issue first-hand. The scholars' interaction with the participant is valued prior to outcomes of the study (Taherdoost, 2022). Despite the

aforementioned advantages of qualitative research, it is labourious and time consuming due to the exigencies of its strategies. This research method was used as a complementary to the quantitative method and could not be used exclusively to address the research questions. It sought to handle research question one, two, three and four. This method was used in phase two of the research to build more on the collected quantitative data.

3.3.2 Quantitative research

This method aims at testing theories used in a study, examining association between variables in a study and envisages the outcomes of a study. This approach ensures objectivity, generalisation and reliability of the findings (Saunders et al., 2019). It employs probability sampling, allowing selection of participants randomly giving a chance to all participants to be selected.

It uses a structured questionnaire to collect data and statistical techniques to test hypotheses and examine relations between the variables in a study, in this case all six hypotheses. The researchers' role is objective and external hence they do not influence the study (Creswell & Creswell, 2018). This method was however not adopted solely as it would not provide the employees perspectives of talent management and employee retention. This method was given more weight and used in the first phase of the research and therefore acted as a complementary method to qualitative research.

3.3.3 Mixed method research

Creswell & Creswell (2018) states that this research method involves the 'mixing' or combining quantitative and qualitative research methods. This consists of the multiple philosophical worldviews, research approaches, methodological choice and concepts in one study.

It consists of gathering and analysing both sets of data in the same study. The two sets of data are integrated, mixed or related in the research process. Mixed method research therefore is viewed as complementary method to either quantitative or qualitative method and goes beyond the quest of which method is better by providing a rational alternative (Tashakkori & Teddlie, 2021). This study used quantitative method to handle all the six (1- 6) research objectives whereas qualitative method supported four (1- 4) research objectives. This provided the numerical data to elaborate on the research problem and the experiences of the employees regarding implementation of the concepts of the study.

The purpose for mixing the data is that no single method is sufficient to present all the details and trends of a phenomena on its own. This method utilises abduction reasoning which relies on the explanation to findings of an inquiry (Guetterman, 2019). It offers a broad view of the research problem leading to proper understanding and improvement of human conditions in their environments.

Additionally, the use of cross-validation and combination of two or more theories and sources of data enhances comprehension of the research problem and the results complement each other promoting trustworthiness. Further, combining the number of participants from the quantitative and qualitative parts enlarges the number of participants in a study hence enhancing reliability and validity (Guetterman, 2019).

3.4 Research design

The research design is the procedure of choosing the technique to use in a study including the methods of inquiry (Muhaise et al., 2020). Creswell and Creswell (2018) on the other hand notes that apart from selecting qualitative, quantitative and mixed methods to use in a study, a researcher needs to identify the type of study to conduct within the three methods. They term

research designs as ‘types of inquiry within qualitative, quantitative and mixed method approaches that provide specific direction for procedures in a research study.’

Additionally, it consists of three rings; the methodological choice, research strategy and time horizon depicting the general blueprint of the study (Saunders et al., 2019). There are various research designs classed under each research method as illustrated below.

3.4.1 Qualitative Research Designs

This method seeks to address naturalistic and interpretive phenomenon in various contexts. The strategies include case study, narratives and experiences that describes challenges people go through. This is depicted through deeper meaning which can be best described through words, texts or visual representation such as pictures (Creswell & Guetterman, 2019; Taherdoost, 2022).

This study utilised the case study design, which is an inquiry into programs, contexts, events, problems experienced by an individual or organisation with the aim of gaining detailed information. Varied techniques of data collection can be used and the findings aligned with appropriate theories (Taherdoost, 2022). This design was considered suitable for this inquiry as it examined a particular industry that is the petroleum sector in Kenya. It also utilises various data collection instruments, which bring out rich information on the research problem in this case interviews.

Grounded theory design scrutinises individuals with the same experience by performing similar activities, interaction or practice that provides explanations. The explanations are grounded in the views of the participants creating predictive assertions about each person's experiences (Creswell & Guetterman, 2019). A theory is then developed from the gathered data with a visual

model illustrating the explanations. This design was not employed as the study was anchored on three existing theories.

Ethnography design on the other hand evaluates and interprets the societal culture of a cluster of individuals over time in their natural context. The ethnographer examines and characterises problems that arise from interactions as they collect information firsthand and present a comprehensive image of the culture-sharing community. This design is effective for studies that examine a single group of people in their environment, analysing their interactions, work, and way of life (Creswell & Creswell, 2018; Creswell & Guetterman, 2019). This design was not considered ideal for this study as the aspect of culture was not the aim of the study.

Narrative design describes the lives of individuals or events through story telling (Creswell & Guetterman, 2019). Information is collected on individuals lives, work experiences or other activities through stories. This design was not taken into consideration in this study as the mode of data collection would not bring out the relation between variables of the study and is not appropriate for collection of data from a large group of population.

Action research design focuses on systematic processes that addresses practical problems in the society or organisations. The design is ideal for studies whose aim is to improve the situation through change, empower or emancipate individuals in a particular context (Creswell & Guetterman, 2019). The researcher engages the communities or organisations under study through collaboration and participation hence this design was not considered ideal for this study.

3.4.2 Quantitative Research Designs

Quantitative research can be classified into various strategies such as survey, experimental, causal comparative, correlational and descriptive research (Taherdoost, 2022). This study

employed the survey research design which uses a sample of the targeted population with the goal of extrapolating results from the sample to the entire population (Creswell & Creswell, 2018; Creswell & Guetterman, 2019).

This design offers numerical description of peoples' inclinations, opinions, behaviours, attitudes and characteristics through the questions of what, who, where, how much and how many. This procedure is ideal for inquiries that seek to characterise trends in a large population as intended in the current study (Creswell & Guetterman, 2019). This technique was therefore adopted for the first phase of the inquiry.

Descriptive research on the other hand is a systematic inquiry about an issue that aims at determining the relationship between phenomenon through observation. It describes occurrences and the participants' attitude in a study (Creswell & Creswell, 2018; Taherdoost, 2022). The current study did not utilise this design as observation was not a key research instrument.

Experimental design seeks to ascertain if a particular treatment has an effect on the subject of study. This design seeks to determine whether a certain practice, action, or material can have an impact on people's lives. The independent variable is manipulated with changes arising from the dependent variable showing the cause-and-effect relations in the study (Creswell & Creswell, 2018; Creswell & Guetterman, 2019). The current study did not utilise this design as it was not focused on ascertaining the effect of a situation on peoples' lives rather on talent management practices effect on employee's retention together with work engagement, and job satisfaction.

Correlation design is a quantitative procedure that describes the level of association between two or more variables or a set of scores measured using correlational statistics (Creswell & Creswell, 2018; Creswell & Guetterman, 2019). The current study utilised this design partly to portray numerically the relation between the four variables of the study.

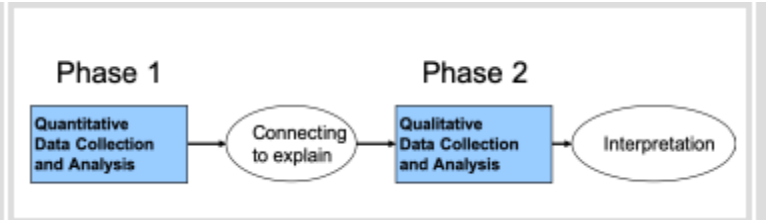
Causal comparative research is a non-experimental design that equates two or more groups to a cause that has occurred. It therefore brings out the influence of independent variable on dependent variable retrospectively or prospectively (Creswell & Creswell, 2018). Retrospectively, the researcher should highlight the antecedents leading to the cause whereas prospectively focuses on the cause to bring out the effects of a problem (Taherdoost, 2022). The current study utilised this design prospectively to explain the bearing of talent management practices on staff retention in the petroleum sector.

3.4.3 Mixed Method Research Designs

This method has three core research designs namely; sequential, embedded and convergent (Guetterman, 2019) with this study adopting the sequential design. Firstly, the sequential design consists of explanatory sequential, exploratory sequential and transformative sequential designs and entails data collection and analysis in two phases (Guetterman, 2019). This study adopted the explanatory sequential design where collection and analysis of quantitative data was conducted in phase one. Similarly, gathering and analysis of qualitative data was carried out in phase two as shown in Figure 11 below.

Figure 11

Explanatory sequential design



Note. Adopted from Guetterman (2019)

The quantitative results assist in planning for the second phase of collecting qualitative data in terms of questions to be asked and participants to be selected purposively (Guetterman, 2019; Taherdoost, 2022). Quantitative data was given more weight and further explained by the qualitative data. This design was considered ideal for the study as it sought to build quantitative data using qualitative data (Creswell & Creswell, 2018). The statistical data collected from employees was enhanced by the perceptions qualitatively gathered from the depot managers and their assistants on the influence of talent management practices used in their firms.

The explanatory sequential design used embraced the pragmatic pluralism. In an abductive quest for the solution to the research problem, it views inductive qualitative insights and deductive quantitative patterns as cooperating realities that brings out practical solutions (Creswell & Creswell, 2018).

In addition, the explanatory sequential design was consistent with the study's mixed-methods methodology because it enabled the qualitative findings to be informed by, and subsequently elaborate on, the quantitative results (Taherdoost, 2022). In particular, findings that were statistically significant, unexpected or insufficiently explained in the quantitative phase could be explored further during the qualitative phase. This sequential connection strengthened the interpretation of the findings and enhanced the overall explanatory power of the study.

The other alternative designs exploratory sequential involves gathering and analysis of qualitative data in the first phase and subsequent gathering and analysis of quantitative facts in the phase two (Creswell & Creswell, 2018; Taherdoost, 2022). This design is employed when little is known about the subject or population of study therefore this design was not used in the study since talent management is a widely known subject.

The sequential transformative design on the other hand consists of two phases together with a theoretical stance on race, gender, inequalities and other social science theories bringing out the voices of the study's participants. The change in events or phenomena are also described (Creswell & Creswell, 2018; Taherdoost, 2022). The current study did not explore areas of inequalities with the aim of bringing change hence this design was not considered appropriate.

Secondly, the concurrent design involves data gathering and analysis of both qualitative and quantitative simultaneously then the different sets of data is compared (Taherdoost, 2022). This design comprises of embedded, transformative and concurrent triangulation designs. The current study was not focused on comparison of data but rather on explaining and describing utilisation of talent management strategies in the petroleum industry. In this regard, concurrent design was not utilised in the study.

Thirdly, the convergent design combines qualitative and quantitative information with the data being gathered and analysed separately. The results are then compared for confirmation or disconfirmation of data in one phase. This design presumes that each approach provides different information, that is detailed opinions from qualitative data and scores from quantitative data. Additionally, both sets of data should provide the same results (Creswell & Creswell, 2018). However, this design was not adopted for this inquiry, as its focus was not comparison of results.

Considering the above discussion of research design and as earlier indicated, this study adopted the explanatory sequential design. This design was considered appropriate because the study sought not only to test the hypothesised relationships among the study variables but also to understand the underlying organisational experiences and contextual factors that could explain the observed quantitative results. The integration of the two phases therefore provided a more

comprehensive understanding of the phenomenon than either approach could provide independently (Creswell & Plano Clark, 2018).

3.5 Population and Sample of the Study

Study population can be individuals, groups or organisations that provide information to answer the research questions and hypotheses of an inquiry. The specific sample size of the population and an ideal site of the study has to be identified as it affects efficacy of information yielded (Creswell & Guetterman, 2019).

The level of participants in an inquiry is determined by the set research questions; hypotheses and the problem being investigated (Creswell & Guetterman, 2019). This study therefore utilised one level of unit analysis that is the organisation represented by the OMCs. The employees of these companies provided information used to measure and assess the independent, dependent and mediating variables of the inquiry.

3.5.1 Population of the study

Population is described as the aggregate of subjects with similar characteristics that a researcher intends to examine (Cooper & Schindler, 2019). In this case, study's population comprised of employees of the OMCs in Kenya who have experience in the use of talent management practices, employee engagement and its effect on retention of staff. A manageable population should be selected from the available individuals also known as the target population.

It is noteworthy, that the study had a target population of 946 employees from various cadres (lower cadre, middle management and top management) drawn from 30 OMCs, that is 15 companies from the Southern Region (SR) and another 15 OMCs from Western Region (WR) in Kenya. These employees were considered suitable to provide information and insights about talent

management practices and employee outcomes in the companies they worked for. Out of the 946 employees, 651 were drawn from the SR and 295 from the WR. The participants were from both gender that is female and male from the age of 25 years to 60 years who were willing to give consent and take part in the study.

The 30 OMCs were selected from the registered 111 companies due to their significant shares of the Kenyan petroleum market and the location of their operations that is WR and SR. 15 oil and gas companies from each region were selected for representativeness. The two regions SR and WR were selected since they carry the bulk of the employees in the industry and also handles the importation process, clearance and exit process. SR handles the bulk importation process, clearance of petroleum products for local use within the region and some for export. Similarly, the WR handles clearance of the products for local use and transit process for products destined to neighbouring countries (KPC, 2022; Mutua, 2022).

These processes provide the employees and management of the petroleum companies in these regions various skills and knowledge in managing talent, work engagement and retention of staff. The selected companies present the picture of the industry due to their scale of operations in the country. This therefore provided a basis for choosing the participants as displayed in Table 1 below.

Table 1

Distribution of the study population

Region	No. of Companies	No. of Employees
Western Kenya Region	15	295
Southern Kenya Region	15	651
TOTAL	30	946

Note. Based on the researcher's analysis of field data.

3.5.2 Sample size

Nonetheless, it is challenging for a researcher to use all individuals in the target population in research due to the large number and the geographical area to be covered. In this case the population of 946 employees spanning from Mombasa, Eldoret and Kisumu hence it would be challenging to conduct a study of such magnitude. This therefore calls for identification and selection of a sample that represents the target population therefore permitting generalisation of the results (Saunders et al., 2019).

From the population, the sample size was 311 comprising 281 staff for the surveys and 30 depot managers or their assistants for the interviews. Identification of the sample size is influenced by factors such as the research design, target population amongst others. Therefore, samples are selected using various techniques to avoid bias and ensure that an adequate number of participants is attained for accurate results (Cooper & Schindler, 2019; Creswell & Guetterman, 2019).

Sampling is the identification and choosing of objects from a population based on the research desired demographic subset (Creswell, 2021). The sampling technique on the other hand, is the process of choosing the sample size and site of the study. The selected participants must possess the characteristics borne by the population and the conclusions achieved using this sample is applicable to the entire population as earlier mentioned.

Sampling techniques

This study utilised simple random sampling technique (probability) and purposive sampling technique (non-probability) to select representative samples for the research for the quantitative survey and in-depth interviews respectively and as described below.

a) Probability sampling

Probability sampling is a rigorous technique that involves selection of participants who are representative of the whole population (Creswell & Guetterman, 2019). Since the participants have similar characteristics with the population, the findings can be generalised to the whole population. There are numerous probability sampling procedures such as simple random sampling, stratified sampling, systematic sampling, cluster sampling and lastly multiphase sampling that a researcher can choose.

Notably, this study employed simple random sampling procedure, where the researcher randomly choses respondents from the population hence giving all members an equal chance to be selected as sample (Creswell, 2021). Since the researcher could not use the whole population, sampling was done to select an adequate sample size for the quantitative part of this study using Taro Yamane's formula (Creswell & Guetterman, 2019; Chaokromthong & Sintao, 2021) to calculate the number of participants as follows;

n = N / (1 + Ne^2)

Where: n = sample size N = population size e = level of precision as a decimal.

Therefore, the sample size for the population of 946 was;

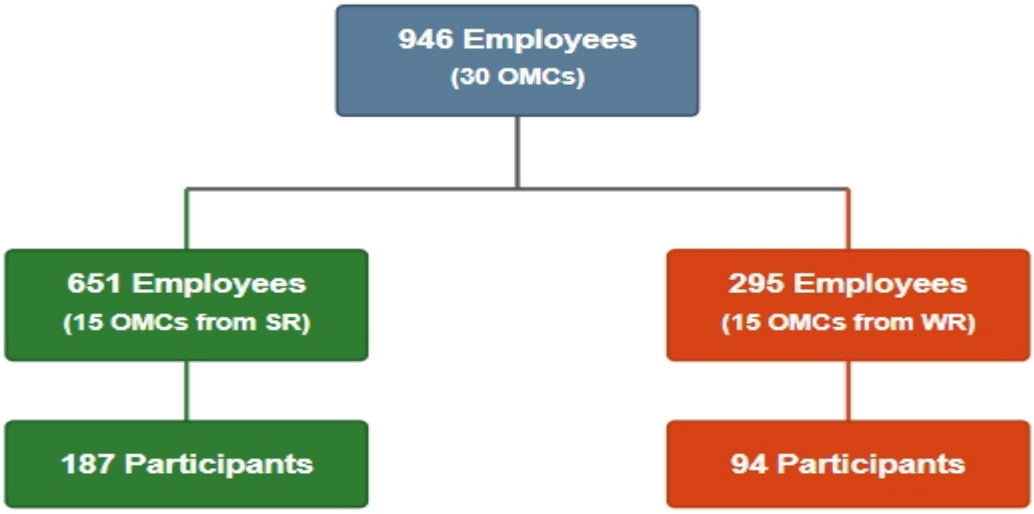
n = 946 / (1 + 946(0.05)^2) n = 946 / (1 + 946(0.0025)) n = 946 / (1 + 2.365) n ≈ 946 / 3.365 n ≈ 281.13

The sample size of this inquiry was approximately 281 for the population of 946 employees, with a 0.05 level of precision. After determination of the sample size, participants were selected using simple random sampling, a probabilistic sampling technique that distributes the bias

amongst the chosen participants. An excel was used to randomly generate the required 281 participants from the 946 employees. From the 281 participants, 187 were drawn from SR and 94 from WR in a ratio of 2:1 as demonstrated in Figure 12 below. Consequently, 281 participants were given questionnaires to fill.

Figure 12

Participants of the study per region



Note. Created by researcher

b) Non-probability sampling

Non-probability sampling involves choosing of members from the population since they are readily available and possess characteristics that a researcher anticipates to explore (Creswell & Guetterman, 2019). There are various strategies under non-probability sampling such as purposive sampling, convenience sampling, snowball sampling, quota sampling and dimensional sampling.

For the qualitative component where interviews were used, the participants were selected purposively to provide key information to support data from the quantitative analysis. Purposive sampling was considered ideal for this study as the participants were knowledgeable in talent management, work engagement, employee retention and job satisfaction. This technique further allows the researcher to change the selection process to obtain the correct sample (Creswell & Guetterman, 2019).

In this regard, approximately 30 participants; 15 from WR and 15 from SR were selected purposively to provide further clarification on the specific issues regarding talent management, employee retention and work engagement through interviews (Kumar, 2019). The interviews were however conducted till saturation was attained.

The selection of an accurate sample which in this study were the depot managers including their deputies provided detailed insights on the phenomenon under study thereby creating a superior understanding. Qualitative research tends to have smaller sample size and is keen on gaining adequate information from its sample on the problem under study for credibility. The selected sample should provide data saturation, which is crucial in a situation where the researcher is no longer getting new information from more respondents (Creswell, 2021; Mthuli et al., 2022).

For interviews to be successful, the researcher should ensure that the location and setting for the interview is comfortable for the discussion to take place. Various forms of interviews can be conducted such as the telephone, online or physical interview. Telephone and online interviews are appropriate where there are geographical challenges whereas physical allows the creation of rapport and observation between the researcher and the participant (Creswell & Guetterman, 2019; Harris & Brown, 2019). The participants in this study were given the opportunity to choose an appropriate time and location of the physical interviews to avoid inconveniencing them.

Other types of non-probability sampling are snowballing and quota sampling. Snowballing involves identifying a participant to be in the sample of the study and requesting them to introduce or refer other prospective participants to be part of the sample. Snowballing is considered an alternative method to convenience sampling (Creswell & Guetterman, 2019).

This sampling method allows recruitment of high number of participants however, the sample may not accurately represent the population and the researcher may not know what participants were part of the sample. It is also difficult to identify participants that do not return their questionnaire (Creswell & Guetterman, 2019). The study utilised this technique to identify the major gate keepers (government clearing agency) in the selected locations who negotiated access to the OMCs for the researcher starting from Eldoret to Kisumu and finally Mombasa. These agencies filled the gatekeeper letters (see Appendix H). This technique was used following the failure of the intended gate keeper (Supplycor) to support the researcher.

Quota sampling on the other hand involves classifying the population into groups according to certain characteristics then selecting participants from each of the groups (Creswell & Guetterman, 2019)

In sum, this study used a sample size of 311 participants working in 30 petroleum companies in Western and Southern Kenya aged between 25 and 60 years who provided information about talent management within their companies and how this influenced their choice to remain with their present employer as shown in Table 2. This sample was considered adequate to provide the required insights considering that the target population is 946.

Table 2

Sample of the study

Region	No. Companies	No. of Employees	Questionnaires sample	Interviews sample
Western Kenya Region	15	295	94	15
Southern Kenya Region	15	651	187	15
TOTAL	30	946	281	30

Note. Author

3.5.3 Constructs measure

The variables of the study should be evaluated accurately using measures that depicts the theoretical ideas it represents hence attaining construct validity. Construct validity reflects the underlying phenomena in context of talent management, work engagement and employee outcomes tested using factor analysis. Additionally, the research instrument must be able to measure the concepts consistently or precisely for the study to be reliable (Adeniran, 2019). Saunders et al. (2019) terms it as the level in which data collection and analysis process results in dependable findings.

Validity and reliability are closely related terms used in research; however, a tool cannot be valid if it is unreliable. Conversely, an instrument reliability is not dependent on validity (Saunders et al., 2019). In this regard, an instrument reliability can be measured using Cronbach's alpha with a standard range of '0.70 and 0.90' (Adeniran, 2019; Barbera et al., 2020). The following constructs were measured;

Talent Management: metrics evaluating training, career development, employee development programs and performance management systems were used (Bonneton et al., 2022a). Checks were carried out to ensure that the items were loading onto the anticipated variables, factor

analyses and comparisons of the assessments with accepted frameworks and theories were used in the study.

Work engagement: Vitality and devotion were measured using the Utrecht Work Engagement Scale (UWES) (Ishiyama, 2022; Schaufeli et al., 2002). This was connected to job satisfaction as demonstrated by Redondo et al. (2021).

Employee retention: indicators that capture intention to quit and intention to stay were used (Chopra et al., 2023). The criteria demonstrating relationship between employee retention metrics and outcomes of job gratification and plans to leave the company are discussed. Construct validity therefore support or reject the hypothesized relationship between the concepts of talent management practices, work engagement, job satisfaction, and workers' retention.

3.6 Materials/Instrumentation of Research Tools

A research instrument refers to as a systematic and logical tool developed to gather, measure and analyse appropriate information on the research problem (Oben, 2021). The research instrument selected should align with the selected research method be it qualitative, quantitative or mixed method study. Instrumentation on the other hand is the procedure of developing the research instruments that are used to gather information (Mukherjee, 2019; Osuagwu, 2020).

Collection of data is characterised into two, that is primary and secondary data collection methods. Firstly, primary data is collected first hand from the participants as the source of information. This data can be collected using several strategies for instance observations, questionnaires, focus group discussions, interviews and surveys (Creswell & Creswell, 2018; Mukherjee, 2019; Saunders et al., 2019).

The study employed two research instruments to collect the primary data mainly a structured survey questionnaire and semi-structured interview guide which are further explained

in section 3.6.1 and 3.6.2 below. The use of complementary instruments enabled the study to examine relationships among talent management, work engagement, and employee retention while also obtaining deeper insights into participants' experiences and perceptions (Creswell & Creswell, 2018; Saunders et al., 2019).

Secondary data on the other hand include both published material and raw data from studies by other scholars for different purposes. Information from other scholars was customises for this study and formed the literature review and discussion of findings (Bougie & Sekaran, 2019). Secondary data saves on money and time required for the data collection exercise.

3.6.1 Survey questionnaire

A structured questionnaire was used to collect quantitative data during the first phase of the study from 281 participants. The study having adopted an explanatory sequential design, the questionnaires were appropriate as they facilitated standardised collection of data from relatively large number of respondents (Creswell & Creswell, 2018; Saunders et al., 2019).

Additionally, the standardised format of answering questions made analysis simpler and less time consuming. The statistical analysis enabled examination of relationships among variables in an easier manner (Bougie & Sekaran, 2019). The questions were measured using a Likert scale of '1 (extremely small extent), 2 (very small extent), 3 (small extent), 4 (moderate extent), 5 (large extent), 6(very large extent) to 7 (extremely large extent).'

The questionnaire contained a cover letter introducing the researcher and the goal of the research to the participants and four other sections. Section A was the demographic part with eight items seeking to ascertain the age, educational level and experience of the participants. This provided an understanding of the participants and acted as pointers to variables of the study.

Secondly, section B had questions adapted from Bonneton, et al. (2022a) scrutinizing implementation of the talent management tenets in the organisation. These practices included training, development, mentorship/coaching, leadership support, performance management and career progression. Thirdly, section C investigated the extent of employees work engagement indicated by vigour, and dedication at the workplace with items adapted from Schaufeli et al. (2002). These highlighted the organisational and employee resources at play during task performance.

Lastly, section D sought to answer questions regarding employee attitudes and behaviours drawn from Redondo et al. (2021) for job satisfaction and Chopra et al. (2023) for employee retention. The questions were mixed so as not to lead the participants. This provided a synopsis of the employee's attitudes and behaviours at the workplace that led to job happiness, and intention to leave or stay in the organisation.

The questions having been widely used by other scholars supported validity and reliability of the tool. Validity of the questionnaire is demonstrated by its ability to provide data that it claims to avail or measuring what it claims to measure (Creswell & Guetterman, 2019; Sürücü & Maslakci, 2020). Reliability on the other hand is described as the ability of the process to give accurate results despite other factors (Creswell & Guetterman, 2019). The same questionnaire when used after time should provide the same results hence free from errors of measurement which is demonstrated by this study.

Further, authorisation to use the instruments in this study was sought from the relevant scholars. The Supervisor also reviewed the questionnaire and provided feedback on improvement of the participant information sheet which was included on the instrument. The Unicaf Research Ethics Committee (UREC) also reviewed the tool before deployment.

Administration of the Questionnaire

There questionnaires are administered in two different ways that is self-administration or interviewer administration (Saunders at al., 2019). Self-administered questionnaires involve mail or postal, online and physical delivery of the questionnaires. This study utilised self-administered questionnaire through physical delivery. This means was considered appropriate due to nature of petroleum operations and the geographical location of the respondents. The printed questionnaires (see Appendix I) were given to the respondents with guidance from the depot managers.

The questionnaires were left with the respondents for them to fill at their own time. They were encouraged to drop off the questionnaires at the depot manager's office for collection later on by the researcher. This type of administering questionnaires is quicker and allows high response rate with the support from the depot managers.

The questionnaires were distributed to companies first in WR (94) then SR (187) based on the number of employees they had. For WR, ten companies in Eldoret were given 6 questionnaires each, in Kisumu four companies received 6 questionnaires each and the last company took 10 coming to a total of 94 questionnaires. For SR, thirteen companies were given 12 questionnaires each, one company took 15 questionnaires and the final one took 16 questionnaires totalling to 187 as indicated in Table 3.

Table 3

Distribution of questionnaires

Region	**Companies**	**No. of Questionnaires**	**Total**
Western	Eldoret:		
	10	6	60
	Kisumu		
	4	6	24
	1	10	10
			94

Southern	Mombasa		
	13	12	156
	1	15	15
	1	16	16
			187
Total			**281**

Note. Author

The questionnaires were later collected in WR then SR respectively in approximately four weeks. Conversely, the interviewer-administered questionnaires consist of telephone questionnaires or structured interviews where the interviewer physically meets up with the respondent face to face and asks the questions. This method was not adapted for this study due to the large number of respondents.

3.6.2 Interviews

The second phase of the study utilised semi-structured interviews to collect data which elaborated more on the quantitative data obtained in phase one (Creswell & Guetterman, 2019). This instrument is flexible and allowed the researcher to probe participants' responses and obtain detailed accounts of their experiences and perceptions (Creswell & Guetterman, 2019; Saunders et al., 2019). This tool was appropriate for exploring participants' views on talent management practices, work engagement, job satisfaction, and employee retention.

An interview guide (see Appendix J) was developed based on the quantitative data analysed. The interview questions were designed specifically to complement and explain the quantitative findings. The instrument contained three sections; the introductory section presented the researcher, purpose of the study and sought participants' consent. Section B collected participants' profile information, including gender, age, educational qualifications and work

experience. Lastly, section C addressed the perception of talent management, employee retention, work engagement, and job satisfaction.

Approximately 30 participants, comprising of depot managers, 15 from WR and 15 from SR were targeted for the interviews until data saturation was achieved (Low, 2019). The depot managers or their assistants were selected as key informants due to their experience and knowledge on application of talent management and other practices in the industry.

The interviews were preplanned with the interviewee regarding appropriate time, site and whether in person or online. The researcher suggested the participant's office as the site for conducting physical interviews for the comfort of the interviewee. For online, the interviews were administered via telephone, zoom or google meet as agreeable to the interviewee. The intended participants provided their consent for participation and approved audio recording of the interview session prior to progression which took approximately 30 minutes.

Participants were assured of confidentiality and anonymity, and no identifying information was included in the notes, audio recordings or findings. Further, the information would solely be used for educational purposes and stored securely both in soft and hard copy. The researcher was impartial and acted as a neutral party throughout the interview sessions (Saunders et al., 2019; Roberts, 2020).

The credibility and trustworthiness of the qualitative data was enhanced through member checking, detailed documentation of the research procedures, thick description and peer review. These procedures helped to strengthen the credibility, dependability, and transferability of the qualitative findings (Stahl & King, 2020; Tisdell et al., 2025).

Although semi-structured interviews provide rich and contextual information, they may be affected by interviewer bias, social desirability, and limited generalisability due to the relatively

small number of participants and the personal interaction (Harris & Brown, 2019; Roberts, 2020). The interviewer can mislead the interviewee during probing towards a particular view. The participants on the other hand may respond to questions in a socially desirable way distorting the results (Roberts, 2020).

These limitations were mitigated by maintaining neutrality during the interviews, using a consistent interview guide, and integrating the qualitative findings with the quantitative results obtained during the first phase.

3.6.3 Pilot study

The questionnaire and the interview guide were piloted with employees of the OMCs in Nairobi Region (NR) to test their ability to provide intended data. The responses received from ten employees in the pilot study demonstrated that the questions in the questionnaire were simple and understandable to the employees. The Likert scale used was also clear.

The interview responses from two interviewees indicated a good understanding of the interview guide questions. The pilot study provided the researcher with a glimpse of how to conduct the distribution of the questionnaires, introducing the participants to the study using the participant information sheet and conducting the interviews based on the timings appropriate for the participants.

3.7 Operational Definition of Variables of the Study

Research seeks to clarify the difference or variance in several issues in the world highlighted through the research problem (Abiodun-Oyebanji, 2017). Variable is a distinctive element in a person or an organisation under study that a researcher can observe, measure and record (Creswell & Guetterman, 2019).

The measuring of variables enables the scholar to understand the concepts in a study. The variance is elaborated by development of hypothesis, which contain measurable variables in quantitative studies (Creswell & Guetterman, 2019). The current study utilised mixed method research, which is part quantitative hence operationalisation of the variables of the study.

Quantitative research involves the use of theories to deduce hypothesis of the study that are empirically examined (Bell et al., 2022). The hypothesis contains two or more variables which requires conversion to realistic indicators that can be measured. This represent the key focus of quantitative research linking conceptualisation and the findings of the study. Quantitative research examines causes of variation in observed concepts in the units of analysis and correlation. Variables are therefore an important concept in quantitative research synonymous with intents and purpose of conceptualisation (Mukherjee, 2019).

Consequently, variable is defined as something that can take diverse values from people and time. It is an indicator that can alter in a scientific inquiry for instance age or country. Variables are concepts that can be measured, controlled or manipulated in a study for results to occur. Additionally, they have observable values linked to the theoretical concepts through operational definitions that measures the concepts (Saunders et al., 2019).

Additionally, some variables cannot be directly observed hence the need for operationalisation, which is a process of describing the variables in precise terms that allows measurement to be undertaken (Wagner et al., 2018). It is in this vein that this study operationalised four variables to enable measurement. The variables include talent management, work engagement, employee retention and job satisfaction.

The definitions are based on commonly acceptable and valid theories. Operational definition allows the researcher to put meaning to a construct by specifying activities or operations

to measure it (Abiodun-Oyebanji, 2017). This study borrows operationalisation and definition of variables from other scholars who have carried out similar studies. Saunders et al. (2019) notes that after the definition, the variables are manipulated and classified by researchers according to the aim of the study.

There are various types of variables such as the independent, dependent, mediating, moderator, control, intervening, extraneous, confounding, control, composite variables amongst others. It is noteworthy that variables in a study are interrelated with the researcher determining which variable should be used and to which category they fall into (Saunders et al., 2019). The study therefore focused on independent as talent management, mediating variable as work engagement and dependent variables as employee retention and job satisfaction supporting the achievement organisational goals.

The variables of the study are measured to ascertain their effect and this is linked to operationalisation of variables. It is described as assigning of numbers to events or objects as per the rules that allows the representation of their characteristics numerically (Wagner et al., 2018). Variables are measured using different scales that permit their assessment such as ordinal scales, nominal scales, ratio scales and interval scales (Abiodun-Oyebanji, 2017; Wagner et al., 2018). Nominal scales classify variables into two or more categories with no particular order such as gender - male and female or independent and dependent.

Ordinal scales on the other hand allow classification and ranking of items based on which has less and which has more of the quality represented by the variable without indicating how much more or how much it is between the ranks. Interval scales quantifies, compares sizes between differences and ranks in order, variables characteristics that are being measured with an arbitrary

minimum and maximum point for instance a zero and ten (Abiodun-Oyebanji, 2017; Wagner et al., 2018). The variables of the study are described below;

3.7.1 Talent Management

Talent management construct is the independent variable of the study. It is operationally defined as the strategies (talent attraction, training and development, coaching and mentorship, leadership support, performance management and career progression) that a company develops and implements to ensure that employees remain in the organisation for extended periods of time (Bonneton et al., 2022a).

Its measurements together with the questions were adopted from Bonneton et al. (2022a). The instrument contained items which sought to measure or establish the views of participants on various talent management practices. A 7-point Likert scale was employed to measure the intensity of the items starting from 1 (extremely small extent) to 7 (extremely large extent) which is an ordinal scale.

The responses from 1 to 3 indicate that the participants are minimally exposed to talent management practices whereas those falling between 4 to 7 indicated that they are highly exposed to talent management practices and they appreciate its implementation as employed by Bonneton et al. (2022a). Noteworthy, talent management has been majorly, measured quantitatively centering on talent attraction, development and retention. The items were worded neutrally to avoid inclining the participants to a certain direction.

In Bonneton's study, the practices were pooled into an additive index with the items reinforcing each other though not equally important. The additive index did not decrease to zero when a single entity was missing from a scheme nor did it interfere with distribution properties

(Bonneton et al., 2022a). Reliability analysis resulted in a cronbach's alpha of .81 therefore satisfactory.

The items were dummy coded and rated from 1 to 3 substituted with 0 (not enjoying the practice) and 4 to 7 substitute with 1 (enjoy the practice). The calculated mean resulting in an index range of 0 to 1. The nearer to 0 a person was, the less the person appreciated the practice and the closer a person was to 1, the more they appreciated the practice. The index represented the strength to which one was exposed to talent management practices.

Talent management as the independent variable is stable and is not affected by other variables in the study that are being measured. It manipulates other variables such as work engagement, job satisfaction and employee retention to attain certain results. Talent management was presumed as the cause of employee turnover based on the measurements. The talent management practices implemented by an organisation affects the level of employees' engagement and their intent to stay or leave the organisation.

3.7.2 Work Engagement

Work engagement in the study was taken as the level of involvement in terms of (vigour and dedication) work that an employee portrays while in the company (Schaufeli et al., 2002). This was the mediating variable of the study and influenced the association between talent management and retention of employees and similarly with job satisfaction.

The variable was measured using employee related items borrowed from Schaufeli et al. (2002) that sought to determine the employees' involvement while at work based on two factors which are vigour and dedication. This measurement was formulated by Schaufeli et al. (2002)

using the tool known as the Utrecht Work Engagement Scale (UWES). Most studies involving work engagement have used UWES scale though in different contexts (Zahari & Kaliannan, 2023).

The scale has been widely used and validated in industries and organisational settings in many countries and has been validated psychometrically (Carmona-Haltyet al., 2019). The 7-point scale was used by Schaufeli et al. (2002) ranged from 0 (never) to 6 (always) however, the current study used a 7-point Likert scale; 1 (strongly disagree) to 7 (strongly agree) for uniformity of the measuring scale with the other study variables. Various scholars have used this tool to identify its effect as a mediating variable of talent management and employee retention such as Sopiah et al. (2020), Ishiyama (2022) and Kiragu (2021) amongst others.

3.7.3 Employee Retention

Employee retention in the study is the capability of an organisation to make their employees remain longer in the organisation in order to achieve return on investment. This was evaluated using two indicators; intention to stay and plans to leave the company (Chopra et al., 2023).

This construct was the dependent variable of the study and relied on other factors to affect it such as talent management and work engagement. These variable changes based on the manipulation done by the independent and mediating variables hence it was the ‘presumed effect’ of talent management and work engagement (Wagner et al., 2018). This variable contained items measured via a 7 rating Likert scale from 1 (Slightly Disagree) to 7 (Strongly Agree). These indicators have been employed in other studies such as Madurani & Pasaribu (2022) and Kiragu (2021).

Chopra et al. (2023) used the term ‘talent retention’ and employed items including among others ‘I intend to change job within this firm in foreseeable future’, ‘I intend to seek IT-related

work at another firm in the foreseeable future'. The items had a 5 rating scale starting from 1 (Strongly disagree) to 5 (strongly agree) with a Cronbach's alpha of 0.91.

The current study adopted a 7-point Likert scale in order for this construct to be aligned with job satisfaction. This item questions were lumped together with the questions regarding job satisfaction under employee attitudes and behaviour section in the questionnaire. The questions were mixed together in no particular order to avoid leading the participants. The word 'IT' was replaced with 'organisation' representing the OMCs s in the current study.

Similarly, Madurani & Pasaribu (2022) adopted a related instrument, however they used eleven indicators measured using 5-point Likert Scale. Kiragu (2021) used the same eleven items with the same measurement. Redondo et al. (2021) used the concept 'intention to quit' with 3 items such as 'I am actively looking for other jobs' with a 0.86 Cronbach's alpha.

On the other hand, Bonneton et al. (2022a) measured employees' intention to stay with three items using a 7 point Likert scale; 1(strongly disagree) to 7 (strongly agree) for instance 'I intend to remain in the organisation for the near future'. The items were reverse coded to decipher participants' views with the unidimensional exploratory factor analysis resulting in alpha coefficient of .86. This item was adapted in the study though this study unlike Bonneton et al. (2022a) did not have a controlled sample. The study examined whether the talent management practices implemented by the organisation supported employee retention.

3.7.4 Job Satisfaction

Job satisfaction was taken as the overlap between the expectation of employees and the benefits they get from their jobs and as an emotional response from employees on whether they like their current jobs (Redondo et al., 2021). Job satisfaction was an additional dependent variable

enriching the study. This variable was affected by manipulation of work engagement and talent management to determine how happy an employee is at the workplace.

This variable was measured using items adopted from Redondo et al. (2021) that sought to identify the general satisfaction of employees at the work place. A seven-point Likert scale rating was used to quantify the employees level of satisfaction going from 1 (Strongly disagree) to 7 (strongly agree). The items used by Redondo et al. (2021) had a scale reliability of 0.90 which is satisfactory and included among others, 'I am very satisfied with my job'. The operationalisation of the variables of this study is sampled in the Table 4 below;

Table 4

Variables of study

Variable: Sources	Measures	Questions
Talent management – (Bonneton et al., 2022a)	Training and development Attraction Leadership support Performance management Career progression	B: 6, 7 1, 2, 3 11, 12,13,14 4, 5 8, 9, 10
Work engagement – (Schaufeli et al., 2002)	Vigour Dedication	C: 1,3,10, 7, 9 2, 4, 5, 6, 8,
Employee retention – (Chopra et al., 2023)	Intent to stay Intent to leave	D:2, 6, 10, 14 8, 11, 12
Job satisfaction – (Redondo et al., 2021)	Satisfaction	D:1,3,4,5,7,9,13

Note. Drafted by researcher

Ultimately, the measures discussed above, have been evaluated by several authors who employed similar operationalisation of the variables.

3.8 Validity and Reliability of the study

In this study, validity and reliability was implemented using various means in the quantitative phase of the inquiry. It is necessary that research meets high-quality criteria for the

results to be credible through validity and reliability of the research instruments (Saunders et al., 2019).

3.8.1 Validity

Validity is crucial in research and involves development of sufficient evidence to demonstrate that the intended test interpretation matches the proposed test. This means the research tool essentially assesses what it was designed to measure. The evidence consists of the research procedures, relation of variables and the outcome of the tests (Creswell & Guetterman, 2019; Sürücü & Maslakci, 2020).

For quantitative research, there are two categories of validity, namely external and internal validity. External validity examines the capacity of the findings to be transferred to similar contexts. This is the capability to generalise outcomes of a study to other similar studies in different contexts (Sürücü & Maslakci, 2020). It consists of construct validity, face and content validity, concurrent and predictive validity hence a multidimensional model (Sürücü & Maslakci, 2020).

Construct validity uses statistical procedures to establish validity of an instrument that examines the input of each variable to the total variance in a study (Taherdoost, 2022). This study employed communalities to check how the indicators were contributing to the construct (Sürücü & Maslakci, 2020). All indicators with a value of below 0.4 were dropped from further analysis. In addition, the questionnaire was adopted from other scholars who conducted similar studies in various contexts hence boosting the validity of the instrument.

Face validity on the other hand involves aligning of research objectives, questions with the items on the research instrument. The study also conducted a pilot study which guided the researcher on change of a few words in the questionnaire.

Additionally, content validity is the assessment of the items in a research tool to ensure a balanced representation of the constructs (Taherdoost, 2022). The supervisor and UREC committee reviewed the instruments before it was used in the field.

Further, concurrent validity is based on how well an instrument compares with another evaluation simultaneously conducted whereas predictive validity refers to an instruments ability to predict an outcome (Sürücü & Maslakci, 2020).

Internal validity assesses the relations of various items in an instrument relate and work towards the construct. The conclusion of the was evaluated study throughout the data analysis stage (Sürücü & Maslakci, 2020).

3.8.2 Reliability

Reliability consist of individual scores from an instrument producing repeated results when used in another study. It should also be consistent and free from errors (Creswell & Guetterman, 2019). A research tool should be stable and accurate for it to be reliable. It is ‘the degree of accuracy or precision in the measurements made by a research instrument. The lower the degree of error, the higher the reliability’ (Sürücü & Maslakci, 2020).

Reliability of an instrument is akin to several factors for instance linguistic make of the questions, natural setting, the respondents ‘or interviewers’ state of mind, the mode of interaction, the instrument amongst others (Sürücü & Maslakci, 2020). Reliability of an instrument is ascertained through external and internal consistency.

Cronbach Alpha was employed to test the reliability of the questionnaire on all the four constructs (Sürücü & Maslakci, 2020). All the constructs; talent management, employee retention,

work engagement and job satisfaction attained a Cronbach Alpha of above 0.70 hence were considered reliable hence no construct was dropped.

The study developed clear research questions and hypotheses aligned with the items on the research instruments (Coleman, 2022). The hypotheses of the study were tested to define the relation of the variables of the study. Additionally, a pilot study was carried out with ten employees from OMCs in Nairobi Region, a site not used in the study. The research tools were discussed with the Supervisor and the wordings on some questions were amended to suit the petroleum industry. Moreover, the use of self-administered questionnaire was identified as ideal due to the demanding nature of work in the industry.

3.9 Trustworthiness of the data

Using human beings as participants in qualitative studies pose a challenge as other factors may not be under the purview of the researcher. Therefore, for qualitative studies, the aspect of validity and reliability are difficult to establish compared to quantitative research. In this, regard the use of trustworthiness and authenticity are applicable. Trustworthiness is demonstrated by transferability (external validity), confirmability (objectivity), dependability (reliability) and credibility (internal validity) as opined by Rose & Johnson (2020).

Qualitative research occupies an important role in the academic and societal worlds hence its findings should be credible for use (Dubey & Kothari, 2022). Trustworthiness deals with the quality of data that a researcher gathers from the field. It should be dependable for conclusive decisions to be made regarding the research problem.

The researcher was therefore cognisant of the need to ensure that the findings were trustworthy for inferences to be drawn. This was achieved through adherence to four elements that

provided robust findings namely; credibility, transferability, dependability and confirmability as discussed below;

a) Credibility

It is important for a researcher to ensure credibility or verisimilitude of data collected in qualitative studies. This is key for qualitative data where the researcher can use various methods to ensure its adherence (Creswell & Plano Clark, 2018). This concept is similar to internal validity applicable to quantitative studies (Sürücü & Maslakci, 2020).

The study having employed mixed methodology derived the interview guide from the quantitative data. The interviews used probing questions to get more clarifications from participants as indicated by Saunders et al. (2019). This contributes to achievement of methodological fit in the study.

The interviews were undertaken among 30 depot managers from 15 OMCs in SR and 15 from WR in Kenya. The use of the two regions and several companies provided varied views on the problem under study enabling the researcher to make conclusions based on different opinions and perspectives.

In cases where depot managers or their deputies were unavailable, they provided a reliable colleague to be interviewed. The interviews and associated qualitative data were adopted to help in enhancing quantitative data sourced through survey questionnaires. Throughout the data analysis phase, the researcher alternated between data to theories with an open mind hence avoiding biased conclusions and developed a considerable theoretical perspective.

Use of two methods (triangulation)

The study utilised two data collection instruments these are; the questionnaires (see Appendix I) and interviews (see Appendix J) to gather data on management of talent, job

engagement and workers' retentivity in Kenyan petroleum firms. The researcher undertook a comprehensive review of the study indicators which yielded the secondary data and questions used in the research tool. These questions in turn informed the creation of the interview guide. The use of different sources of data ensured that credible themes for qualitative part of the study were developed (Creswell, 2021).

The data was also analysed using both statistical and thematic means to bring out an enhanced insight on the research problem. The data was further linked to the three theories applied in the study, namely the resource-based view, job embeddedness and social exchange. The various concepts of the inquiry were connected together and existence of positive and negative relations were established and an appropriate research model for the industry was developed.

Consequently, the use of multiple methods, analysis, theories and materials assisted the researcher in overcoming the weakness and biasness that comes with using one method or one theory. It brought out different perspectives creating a true picture of the research problem. It also acted as a verification process where information from different sources support each other also known as data triangulation.

Data triangulation was also employed with the use of 269 employees (166 Males and103 Females) from various grades across 30 OMCs who answered questionnaires. In addition, 16 depot managers (10 Males and 6 Females) or their assistant depot managers participated in interviews. Further, the qualitative data from the interviews provided more information on the quantitative data.

Method triangulation was also achieved with using a combination of quantitative and qualitative methods in the inquiry (Creswell, 2021). The triangulation of data and methods in this study provided broad and in-depth information on talent management, job satisfaction, employee

retention and work engagement in the hydrocarbon industry in Kenya. Besides this, the researcher drew inferences from three sources, two of which provided first-hand information with the third one providing secondary data.

The research instruments used checked by the supervisor

The data collection tools are key in the research process hence should be validated by experts on the subject. Consequently, the researcher adopted questions from other scholars namely (Bonneton et al., 2022a; Chopra et al., 2023; Redondo et al., 2021; Schaufeli et al., 2002). The developed questionnaire was and the interview guide were reviewed by the Supervisor and the UREC Committee before the data collection process began. A few words were amended to capture the petroleum industry in general.

Thick description

The inquiry used thick description to report the qualitative findings enhancing the trustworthiness of the data (Creswell, 2021; Kakar et al., 2023). The participants, context and the themes of the study are described richly. Verbatim quotes have been used in the analysis of findings to bring out the real experiences of participants in their setting design (Saunders at al., 2019; Kakar et al., 2023).

The study further provides sufficient information on how it was conducted detailing its theoretical and conceptual framework together with the concepts of the study. This allows other researchers with the same interest to use a similar or modify the plan to conduct their studies.

Peer debriefing

A colleague with a PhD and experience in talent management was asked to peer-review the research process in order to boost the findings' credibility, in line with Creswell and Plano

Clark's (2018) recommendation that participants, researchers, and readers all contribute to the credibility of qualitative data.

Additionally, from the initial stage to the end of the study, the supervisor provided direction to the researcher. The supervisor's advice helped the researcher avoid bias and develop conclusive study.

Member checking

By verifying their opinions, study participants may assist a researcher validate data and increase its credibility (Creswell & Plano Clark, 2018). In the qualitative part of the investigation, member checking was employed as suggested by Sankofa (2023).

Following the transcription of the interviews, the researcher created a summary of the interactions and asked participants to verify whether the information accurately represented their opinions. Participants who requested for the study's results were given a summary report and granted the opportunity to offer additional comments (Creswell, 2021).

Clarify Bias

The inquiry delivers a vibrant account of how the data interpretation process was conducted for the quantitative and qualitative data based on the researchers' worldview. This makes the role of the researcher in the study and any biases that may have occurred clear. This allow future researchers to make use of this study and avoid any biases found (Gorard, 2024; Kakar et al., 2023).

Negative findings or discrepant information

Researchers should report both positive and negative findings without bias (Gorard, 2024). This study presented the information gathered from the field as it was. Information contrary to the

study’s expectation or information that was not anticipated have been reported and recommended for further research.

b) Transferability

Transferability denotes the applicability of results of the study to similar contexts, settings and people (Onwuegbuzie & Hitchcock, 2022). It is the capability to reflect outcomes of a study to other similar studies in different contexts. It is similar to external validity employed in quantitative studies to check the capacity of transferring findings to other similar contexts (Sürücü & Maslakci, 2020).

The use of mixed method allowed the study’s findings to be generalised to similar populations. The results of the study are therefore transferable as various perspectives and opinions was gained from thirty companies across the Southern and Western part of Kenya. This enhanced the robustness of information, as there was replication of findings hence creating consistency of data.

From the 281 participants from SR and WR, 269 valid responses were received hence the results can be generalised to the whole industry. When a large population is able to understand and share the same experience as the participants of a study, then the qualitative study is applicable to other situations.

Furthermore, a detailed explanation of the research findings was created to help the reader comprehend the issue being investigated (Kakar et al., 2023). Additionally, the study's three-theory theoretical framework is strong and offers a variety of viewpoints on the phenomenon, which contributes to the findings' generalisability.

c) Confirmability

Further, the qualitative information obtained through in-depth interviews were transcribed from the voice notes into typed words. The interview transcripts were coded as A1, A2, A3 to A16. The themes derived through content analysis were then used to align this data with the quantitative data.

Before coding could begin, the data collected from the survey questionnaire was verified to be complete. Each region's surveys were given unique codes, and the data was recorded into an excel sheet according to the questionnaire's different sections. Talent management indicators were measured using a seven-point Likert scale that ranged from extremely small to large extent. Employee attitudes and behaviours toward their occupations were assessed from strongly disagree to agree, while work engagement indicators were scored from never to always.

The "statistical package for social sciences" (SPSS) software version 25 was used to import the data from the excel sheet. After that, the data was cleansed to prevent errors and missing data from influencing the outcomes. After that, the data was properly coded using SPSS's variable view. For ease of comprehension, the study used codes based on acronyms or abbreviations of the variable names. For example, the variable talent management indicators were coded as TM1 and TM2 in that order.

Conversely, in cases where the section table in a questionnaire spread across two pages, the Likert scale portion was not displayed. Due to their inability to recall which section was 1 and which was 7, several responders had to specify it for themselves. A few respondents also expressed dissatisfaction with the excessive amount of papers and suggested that an online survey would be preferable since it could be completed at any time and from any location. Bihu (2021) notes that respondents can complete an online questionnaire whenever it is convenient for them hence flexible.

However, the questionnaire was considered appropriate for the study due to the nature of operations in the industry. The respondents would be able to fill the questionnaire at their own pace and time. Unlike the online questionnaire, the respondents would not have to incur the cost of purchasing data bundles. Edwards and Perkins (2024) reports a higher response rate in using postal questionnaires. They add that a physical self-administered questionnaire is the only financially viable option when dealing with a large, geographically dispersed population.

The questionnaires in some cases were dropped off at the Depot managers' office where the researcher later picked them. This may have influenced the participants' responses to questions in favour of their companies. To mitigate this, the consent forms were clipped to the questionnaire, and the questionnaire had no identifiers. The participants after completing the consent forms and the questionnaires dropped them separately.

d) Dependability

Another trustworthiness criteria is dependability also known as consistency. It refers to the uniformity of data in several similar contexts when repeated, the findings are considered dependable (Kakar et al., 2023). Reliability is the capacity of research collection instrument and analysis procedure to yield consistent findings in other situations by other researchers. Additionally, there should be transparency in how the raw data was interpreted (Creswell, 2021).

The study documented all the procedures adopted and the rationalisations for their use. The research design adopted was described in detail. The methods for data collection were transparent and replicable. The study used survey questionnaire and interview schedule for data collection. The instruments were made available before data collection begun and are usable in future studies for the purpose of verification and replication.

The study also examined the reliability and validity of the data acquisition tools before the research was undertaken. The survey questionnaires were self-administered where questionnaires were printed and distributed with assistance from the OMCs management. The interview guides were semi-structured in nature and they reinforced the quantitative data by expounding on the concepts of the study.

The study utilised an ideal sample which was representative of the whole population hence had high levels of reliability (Pandey & Pandey, 2021). The researcher used a questionnaire used by other researchers to check validity of the tool. Pilot research was carried out in the Nairobi region using ten OMCs workers and the outcomes aligned with earlier studies.

In addition, the accuracy of the data was checked when the questionnaires information was being entered in the excel. 2 questionnaires that were partly filled and 1 that numbers were written instead of ticking were not used as part of the data. After filling in the data, it was reviewed by a peer to ensure its correctness. The researcher ensured that the transcripts developed after the interviews, were read severally concurrently with the recordings to avoid mistakes during transcriptions (Creswell, 2021). Further, the codes developed in the study were recorded and constantly checked to ensure that there was no change of representation as the study progressed.

3.10 Study Procedures and Ethical Assurances

The research was carried out in an orderly and ethical manner in order to improve its credibility and replicability by other researchers. The study procedures followed and the ethical assurances adhered to are discussed below.

3.10.1 Study procedures

Prior to commencement of the study, the researcher sought Provisional University Research Ethics Committee (UREC) approval and the same was obtained in March 2022. The application for final UREC approval was done on 27th January 2024 with UREC giving their views on the application on 17th February 2024. The application had supporting documents that is the informed consent form (see Appendix E), the Gatekeeper letter, the instruments that is the questionnaire and the interview and the participant information sheet.

The UREC views were included in the document and resubmitted on 5th March 2024 with the final approval being granted on 12th March 2024 (see Appendix D). The researcher also obtained an introductory letter (see Appendix G) from the University for use in application of the research permit in Kenya. Application for the research license from the local body, National Commission for Science, Technology and Innovation (NACOSTI) was done on 29th April 2024 and the approval was received on 14th May 2024 (see Appendix B).

This study utilised primary and secondary data, with the primary data being collected using two instruments namely; questionnaires (see Appendix I) and interviews (see Appendix J). The study involved 311 employees of OMCs as the participants. 281 were used to provide quantitative data via questionnaires whereas 30 availed qualitative data via interviews. These participants were between the ages of twenty-five (25) and sixty (60) and they were requested to participate voluntary in the study.

The OMCs were to be contacted through Supplycor for provision of participants. However, this did not occur hence a government agency was approached to introduce the researcher to the OMCs who are their day-to-day customers.

The respondents were also provided with a summary of the nature and purpose of the study. The participants had access to a participant information sheet that provided an overview of the investigation. In order to confirm their involvement voluntarily in the study, they were also provided an informed consent form (see Appendix E), which they signed. This confirmed their voluntary participation and permitted the researcher to proceed with the inquiry.

The participants were informed by the researcher that there was no financial benefit to taking part in the study, but that their contribution would greatly improve the implementation of talent management techniques to reduce employee attrition.

The study utilised explanatory sequential design hence involved two phases; quantitative data gathering and analysis as in phase and collection and analysis of qualitative data in the second phase. Phase one consisted of 281 employees filling self-administered questionnaires (see Appendix I) at their convenient time. The exercise was undertaken between the month of May and June 2024 after getting the research license from NACOSTI.

The questionnaires were left with the participants for them to fill at their convenience. The researcher began in WR and while that region participants were filling the questionnaires, the researcher travelled to SR and distributed questionnaires. The participants were encouraged to drop their filled questionnaire at their depot manager office for ease of collection. After one week, the researcher travelled back to WR to collect the questionnaires then travelled back to SR. The information collected were the views of the participants on talent management, work engagement, employee retention and job satisfaction implementation in their organisations.

The second stage involved qualitative data collection with approximately 30 depot managers scheduled to participate in the interview process. The researcher and the interviewees agreed on the appropriate time and location for the interviews. In order to ensure participant

comfort and minimise work schedule disruption, in-person interviews were conducted in the participants' offices. The interviews were conducted and audio recorded with the participants' consent following a negotiated agreement. This exercise was held between July to September 2024.

The interviews were guided by the interview guide which had introduction, eight questions on demographic details and ten questions regarding; talent management, work engagement, job satisfaction and employee retention. The researcher asked question as per the interview guide but probed further on issues to get more details. The probing questions were not in the interview guide but arose from the responses provided by the interviewees during the session.

The researcher employed ethical interview practices during process to enhance the integrity of the study (Creswell & Guetterman, 2019). Further, the researcher collaborated well with the participants of the study and those who were contacted in one way or another during the study. The researcher also respected the research site by observing the rules and regulations of the areas and having minimum disruption of the participant’s work schedule.

Further on, the study adhered to the ethical principles of research that is confidentiality and anonymity amongst others as described below.

Confidentiality: Martin et al. (2019) posits that the identity of the participants should be confidential and their names should be protected. The researcher should not use any statement that can be linked to particular participants. Consequently, the study removed any identifiers and instead used pseudonyms to avoid situations where data could be linked to a particular company or person (Stadnick, 2021). The informed consent forms were separated from the questionnaires and stored separately to avoid linking of information to particular employees and companies.

The information gathered from the participants was stored in a computer with a password to restrict access. A backup of the information was uploaded to a flash disk that is password protected and kept in a lockable cabinet (Stadnick, 2021). Additionally, the hard copies were kept in a lockable cabinet with only the researcher having the key. The data cannot be released to any other parties without explicit authorisation.

Anonymity is where the researcher does not know the participant however in this study the participants were known (Martin et al., 2019). The study kept the names of the respondents and any other identifying information from the public to maintain the participants' privacy.

Regarding risk, Martin et al. (2019) notes that potential risks in a study should be eliminated, isolated and minimised. Additionally, Stadnick (2021) proposes that researchers should identify and inform participants of any potential risk the study may face and the mitigation plans put in place such as safety assessment, reporting an observed risk to a senior person, training amongst others.

This study did not pose any physical, psychological, emotional, mental, reputational danger or resource loss such as time loss to the participants, community, researcher and Unicaf University. This was highlighted during the ethics application process. Notably, the researcher had consensual arrangement with the participants on the appropriate time for dropping, picking the questionnaires and the time to conduct interviews. This was done to avoid interfering with the respondents and interviewees work schedules.

Secondary data was collected from textbooks, scholarly journals, government reports, company websites amongst others. This data was collected during review of literature and analysis of data stages. The researcher read the works and made notes on talent management, work engagement, employee retention and job satisfaction. These notes were compiled as the research

literature and as part of interpretation of data report. The work that the researcher borrowed was cited appropriately to avoid plagiarism.

Additionally, the researcher adopted questionnaires from other scholars for the study variables. In adherence to the ethics principles, the researcher wrote mails to the authors requesting for permission to use their research tools which was granted as per attached appendix A.

3.10.2 Ethical Assurances

Adherence to ethical rules and principles is crucial while conducting research involving human subjects. Ethics is a field of inquiry that provides guidelines on researchers' suitable behaviours when conducting research (Clark et al., 2021). These research guidelines are anchored on codes of ethical behaviour established by different research bodies (Clark et al., 2021). Bougie and Sekaran (2019) notes that the behaviour relates to the subject of the study and those who would be affected by the study. Further, research ethics involves what is right and wrong in the conduct of research from the start to the end (Kushwaha & Dube, 2023).

These codes of ethics consist of several principles that should be adhered to by researchers such as research integrity, anonymity, informed consent, privacy, confidentiality amongst others (Drolet & Girad, 2020). Despite the codes being in place, there have been cases of unethical practices reported such as plagiarism, falsification of data, conflict of interest, lack of respect to the participants amongst others. These malpractices undercut the credibility of research and have detrimental consequences to the researchers and the consumers of the results (Drolet & Girad, 2020).

Drolet et al. (2023) attributes the rise of unethical cases to the competitive environment in higher institutions of learning that drives productivity resulting in less thorough studies.

Additionally, researchers are not provided with adequate research funds hence encouraging misconduct and ethical distress.

Consequently, research institutions and Universities are keen to ensure that their researchers observe ethical considerations, pursue true knowledge and information while avoiding errors and biasness in their studies (Drolet et al., 2023). With this, the researcher was conscious of the potential ethical concerns that could arise in the study and the need to prevent them.

This study utilised the mixed method research (MMR) hence the focus was on ethical issues relating both qualitative and quantitative methods. In qualitative part for instance there was interaction between the researcher and participant leading to a clear link of data to particular participants. Similarly, in quantitative method, the researcher may manipulate settings of the study hence the need for protection of the research participant (Fetters, 2019). This notion is supported by Cameron and Hurrmann (2023) who implores the need for ethical consideration in the entire research procedure due to the interplay of ethical issues between quantitative and qualitative collection of data in MMR.

Additionally, participants who contribute in both quantitative and qualitative provision of information bear a bigger burden compared to those who provide information for one method (Fetters, 2019; Stadnick et al., 2019). In this study, the depot managers were engaged during introduction of the researcher to their companies, assisting in providing participants and during the interviews as participants. They however benefited from being able to tell their experiences about the subject and contributed to knowledge on implementation of talent management practices in companies to enhance employee retention.

There have been various suggestions on what researchers employing MMR should consider as the ethical issues. Poth (2018) suggests three principles which are; respect for participants, their

welfare and maintaining justice. Cameron and Hurrmann (2023) on the other hand reports the following ethical codes; ‘informed consent, privacy, confidentiality, anonymity, minimising any possibility of deception and any risk of harm to research participants.’

According to Poth, respect involves the researcher having an agreed arrangement with the participant on the conduct of the study. Secondly, the aspect of welfare is in regards to maintaining confidentiality and privacy of information gathered, use of incentives to encourage participation and use of dialogue in the conduct of research. Lastly, the issue of justice relates to appropriate sampling, sampling criteria and recruitment of participants (Poth, 2018).

The ethical consideration for the research put forth by Cameron and Hurrmann (2023) are described below;

Research integrity: This deals with conducting a study while considering the acceptable standards. The researcher should neither alter the collected data, falsify it in anyway nor withhold any information regarding the study (Clark et al., 2021). This study adhered to research integrity with constant checks and supervision of the research progress by the supervisor. Further, data was presented as obtained without any manipulation.

Privacy and confidentiality: The use of MMR results in participants giving out identifiers as the researcher may want to follow up with them during the phase two of the study in this case during the interviews (Fetters, 2019). The researcher therefore ensured that the information gathered was handled and stored carefully. During data analysis the identifiers were removed and codes used for anonymity as submitted by Martin et al. (2019) and Saunders et al. (2019). This ensured that data cannot be traced to any particular participant.

Informed consent: The use of MMR makes obtaining of informed consent forms from the participant more laborious and complicated. The researcher should therefore ensure that the

participant understands the benefit of using qualitative and quantitative research collection methods to the body of knowledge (Fetters, 2019). The consent forms from both quantitative and qualitative phase were handled well from distribution, collection and storage to prevent access by other parties.

Human participants in a research should be informed of what the study is all about and their contribution to it (Martin et al., 2019). The researcher prepared a participant information sheet which provided an overall view of the study. This was attached to the questionnaire together with the consent form which also explained the purpose of the study to the participants.

In order to obtain data, the researcher requested for consent from willing participants. The participants signed the consent form after being briefed about the purpose and nature of the study (Drolet et al., 2023). Participants were informed that they had the right to access the data they submitted and that they could withdraw from the study at any time they wanted (Martin et al., 2019).

Conflict of interest: These occurs when the researcher's varied interests conflict with the study's objectives. According to Drolet et al. (2023) and Martin et al. (2019), the researchers' impartiality and independence may be impacted by conflicts arising from personal relationships with participants, financial aid, academic pursuits, and financial interests. This study's credibility was unaffected as the researcher did not prioritize their own interests over the study's. Additionally, there was no conflict during the research procedure and the participant's and the researcher's rights and interests were respected.

Respect for research participant: Human subjects in studies should be treated with the utmost respect throughout the research interaction process (Bougie & Sekaran, 2019). By prioritizing their interests, the researcher honoured the participants' rights. The researcher made

sure the participants were comfortable throughout the study and their safety and welfare were taken care of.

Drolet et al. (2023) adds that when conducting research, there should be an ongoing informed consent, respect to the well-being of the participants and their safety. Further, the participants should be treated in a socially acceptable way and should not be exploited in any manner. The researcher accorded respect to every participant and anyone contacted during the research process. Last but not least, the researcher made sure that the subjects suffered no physical, psychological, or other harm by adhering to all other ethical guidelines during the research process

Ethical Approvals: The study adhered to the ethical requirements by the University and Kenya as the country of study. This was done by applying for the ethical approval from the University Research Ethics Committee before beginning the study using the prescribed REAF DS form (see Appendix F) which was counterchecked by the Supervisor.

The application for provisional approval was done during Dissertation stage one and approval obtained in March 2022 (see Appendix C). During Dissertation stage 3, the final approval was applied and granted in March 2024 (see Appendix D). The researcher then applied for the research license as required in Kenya from the NACOSTI and this was granted in May 2024 (see Appendix B). After this, the researcher informed the Governors, County Commissioners and County Education Officers in Uasin Gishu, Kisumu and Mombasa of the intention to carry out research in their areas of jurisdiction.

Data Management: The collected information was protected by being kept in a computer with a two-level password for safe custody. The participants were also informed that data will be retained for five years and thereafter destroyed as prescribed by the University's guidelines. Further, the linking of quantitative and qualitative information was done in an efficient manner

(Stadnick et al., 2021). The researcher also used the information collected for academic purposes only.

Debriefing of participants: The goal of study was explained to the respondents at the beginning of the inquiry. They were also debriefed and given a summary of the results at the end of the study (Fetters, 2019). Further, the participants were encouraged to go through what the researcher had recorded to confirm its accuracy. This assist in lessening the burden on the participant of the study as suggested by Stadnick et al. (2021).

Risks of the study: There is need to communicate the risks involved in a study to the participants as the researcher has an obligation for their safety and wellbeing. They should be informed of the risk minimisation strategies put in place by the researcher hence helping them to make informed judgement on whether or not to take part in the research (Kaewkungwal & Adams, 2019).

The participants were provided with sufficient resources such as the informed consent form and participant information sheet for their reference and decision making (Stadnick et al., 2019). The study did not pose any risk to the participants however the contact person and the research supervisor details were provided for ease of reach in case of any issue.

Timelines: Drolet et al. (2023) notes that university research is performance based with a dynamic environment which may lead to lose of research integrity through unethical practices. The researcher in this case sought for extension of submission dates as there was delay in receiving the research license hence hampering completion of the by the provided deadline.

Plagiarism: The work borrowed from other scholars were cited appropriately to avoid plagiarism and enhance research integrity. Further, permission to adopt the research questions used from other scholars were obtained and put as appendices at the end of the dissertation (See

Appendix A). The findings of the study were also disseminated in a transparent manner (Stadnick et al., 2021).

3.11 Data Collection and Analysis

This is the innermost ring of the research onion and involves data gathering and analysis to make sense of the data gathered.

3.11.1 Data collection

Collection of data is a crucial step in the research process hence the researcher needs to gather and measure adequate information (Dubey & Kothari, 2022). The data should be accurate for rich data analysis translating to credible results and enhancement of research integrity. This calls for the use of appropriate data collection instruments, guidelines and allocation of sufficient time for data collection hence eliminating the occurrence of errors (Taherdoost, 2021). The gathered information should be handled carefully, checked for accuracy and completeness before analysis.

Types of data

The research employed primary and secondary data. Consequently, the primary data was gathered firsthand from employees with experience on talent management practices on employee retention for provision of authentic information. Secondary data on the other hand was collected from existing literature on the subject such as books, journals, records amongst others (Taherdoost, 2021).

a) Primary Data

This is first-hand information gathered by the researcher from the natural setting about a specific research problem. The sources include experiments, interviews, surveys, questionnaires, observation amongst others. This study utilised primary data to answer the six research questions which the study sought to address the research problem (Creswell & Guetterman, 2019; Dubey & Kothari, 2022). However, primary data can be limited making it difficult to obtain information as the study population may be scarce or the respondents may fail to cooperate with the researcher (Dubey & Kothari, 2022).

Moreover, the data obtained from the respondents may be incomplete or inaccurate if the data collection instrument is complex. Hence the tool should be simplified and explained to the respondents. The current study utilised participant information sheet which provided explanation regarding the study to the participants. The questionnaire and the interview schedule also contained simple questions. For the questionnaire, the respondents were only required to tick their preferred answers.

Primary data originates from the source hence it is authentic and provides practical solutions to the problem. The researcher is also able to adequately manage issues of confidentiality and anonymity as they collect and analyse data (Creswell & Guetterman, 2019). However, this process entails a lot of time and is expensive hence this may be a limiting factor in studies that require to be concluded within a specific time. This study developed a research plan on how the study would be conducted from the topic to submission of the dissertation.

There are several tools of primary data collection which the researcher can choose from depending on the type of information required. The tools in this study were the questionnaires and

interviews which are also ideal for collecting data in a wide geographical area in a timely manner (Creswell & Guetterman, 2019). This study which covered two expansive regions in Kenya hence the chosen tools were ideal in terms of saving cost and time.

Quantitative data is in numerical form and is analysed statistically to provide insights. The hypotheses of the study were tested in order to draw inference. This type of data measures variables of the study using scales such as nominal, ordinal, ratio or interval. These data seek to tackles the what of the research problem (Dubey & Kothari, 2022).

Quantitative data was collected using survey questionnaire which is a rigorous standardised method. It is a structured list containing close ended questions with predetermined answers ideal for many situations. The questions are simple therefore participants are encouraged to fill them. The categorised answers can be presented in a numerical format hence results can be easily summarised, compared and generalised to the whole population (Dubey & Kothari, 2022).

Questionnaires were used as it attracts high responses as participants provide their information while remaining anonymous (Ceccato et al., 2024; Dubey & Kothari, 2022; Taherdoost, 2021). Additionally, collection of quantitative data is cheaper and less time consuming as many participants can be easily reached. The questionnaires were printed for physical distribution to the participants. The questionnaires were self-administered hence the researcher left them with the participants and latter collected the completed questionnaires (Dubey & Kothari, 2022).

Conversely, qualitative data is obtained in terms of words, texts, narration or sentences, photographs amongst other non-numeric forms through interviews, observations and focus group discussions. This data tackles the how and why of the problem under study (Dubey & Kothari, 2022).

This data was collected using interviews that were conducted physically or via telephone or online as agreeable to the participants. The researcher was neutral and asked questions listed in the interview guide with the interviewee answering them. All interviewees were asked the same questions as listed in the interview guide. These discussions were recorded and notes taken for analysis (Taherdoost, 2021).

It is worth noting that interviews permit flexibility as the researcher can probe further on an issue that is not clear for more clarification. It also allows the interviewer to observe nonverbal cues and provides standardised information. Interviews can be used with another research instrument to enhance trustworthiness and credibility of the findings which in this study is the questionnaires (Creswell & Guetterman, 2021; Taherdoost, 2021).

Qualitative data aids in understanding people's perception about a phenomenon in particular contexts. It also enhances the quality of quantitative findings arising from surveys either by evaluating hypotheses, strengthening the survey questionnaires, expanding or clarifying quantitative results (Dubey & Kothari, 2022). However, the information gathered is not generalisable to the whole population but provides a pattern that may be applicable to similar research problems. In addition, collection of qualitative data is time consuming and requires systematically gathering and recording of information using field notes, photos amongst others (Brinkmann, 2022).

b) Secondary data

Review of existing information on a subject is recommended as the initial step in the data gathering process. Secondary data is sourced from books, journals, government documents, petroleum industry records, policy papers amongst others. These sources have been already

published by other scholars who explored the same research problem in the past (Dubey & Kothari, 2022).

Consequently, this study utilised secondary data obtained from the websites of Kenya Pipeline Company, Kenya National Bureau of Statistics, Ministry of Energy and Petroleum, Energy and Petroleum Regulatory Authority, Ministry of Labour and Social Protection, Petroleum Institute of East Africa, government policies, Vision 2030 and other data obtained from the OMCs websites.

It is beneficial to use secondary data as it is readily available, however its reliability and validity cannot be ascertained. Moreover, errors may occur during the transfer of information from original sources to notes hence caution must be employed to ensure accurate data is captured. Further, some information may not be available in secondary data hence limiting the study. This was however supplemented in the current study by collection of primary data (Bougie & Sekaran, 2019; Dubey & Kothari, 2022)

Additionally, secondary data comes in handy for studies that primary data is difficult to obtain. This requires no background search work as it has already been conducted with the data containing a pre-existing validity and reliability. This type of data is also less costly, less time consuming, and saves the researcher the struggles that come with collection of data. The information in some cases may not fit the current study, the reliability and validity may not be ascertained (Dubey & Kothari, 2022).

Therefore, the viability of the research tools was conducted to ensure that the tools attained the goal of the study. The data collection process was continuously monitored and necessary changes made when required such as adjusting available resources or other changes that were not anticipated and its implications on the study mitigated (Taherdoost, 2021). The use of secondary

data in this study leaned on its beneficial aspects and sought to mitigate its limitation with collection of primary data.

3.11.2 Data Analysis

Once the data collection is completed, the raw information should be analysed to create sense. The procedure for data analysis is influenced by the research questions, hypotheses, research method, type of data, software employed, quality of data and the researcher's abilities and skills. This research employed quantitative and qualitative data analysis since it was mixed method research as well as describing how the qualitative data plugs into the quantitative data (Dubey & Kothari, 2022).

Firstly, the statistical package for social sciences software (SPSS) was utilised in analysing quantitative data. Therefore, the data gathered from the questionnaires was prepared, organised, examined and cleaned to ensure they all meet the threshold of accuracy with all the questions answered with the questionnaires that are not answered being set aside. These minimised errors and ensured that the end result was credible as inconsistencies and omissions in data were eliminated (Dubey & Kothari, 2022).

The questionnaires were then assigned participant identification code based on the region of data collection. The data from the questionnaires were then be entered into a Microsoft excel sheet per the categories that is demographic details, talent management, work engagement and employee outcomes together with the scores of each response in the questionnaire. The single item score was employed as it provided analysis of each participants' responses (Creswell & Guetterman, 2019).

The data was cleaned to safeguard missing data and errors from affecting the results of the study either by omitting missing data or substituting it with a value using SPSS (Creswell & Guetterman, 2019; Bougie & Sekaran, 2019). The data was then fed into SPSS and AMOS software which processed the information and revealed analysis in two fronts that is descriptively and inferentially (Creswell & Guetterman, 2019).

The software analysis availed results firstly, in form of mean, mode, median, averages, percentiles, standard deviation, range, frequencies as per the patterns revealed by the analysis (Bell et al., 2022; Bougie & Sekaran, 2019). This information was presented in a summarised format using graphical visualisations such as pictograms, histograms, bar chart, tables amongst others (Bougie & Sekaran, 2019; Dubey & Kothari, 2022).

This study also utilised regression analysis of variance and presented the analysis in tables, figures, scatter plots, line graphs amongst others (Bougie & Sekaran, 2019; Creswell & Guetterman, 2019). The results also endorsed or rejected the hypotheses of the inquiry and determined accuracy of inferences made which is applicable to the whole population (Bougie & Sekaran, 2019).

Secondly, qualitative data sourced from interviews was evaluated through content analysis. The analysis focused on the discussion between the interviewer and interviewee looking at what the interviewees said, the consistency of their views, contradictions, frequency, intensity of their comments to identify emerging themes and patterns. This therefore, involved reducing the large amount of data gathered from interviews into relevant themes or patterns as per the research questions and issues raised after quantitative data analysis (Creswell & Guetterman, 2019).

Importantly, content analysis entailed transcribing the audio recordings into notes. The transcribed notes were assigned pseudo names for anonymity purposes. The transcribed data was

reviewed to ensure the notes were accurately captured. The researcher read and reread the transcribed notes or field notes to gain understanding. The researcher also made notes of the first impression of the research problems highlighted by the transcription (Tisdell et al., 2025).

The researcher then labelled or coded relevant concepts and any other details, ideas, opinions that appeared consistently in the transcription manually (Brinkmann, 2022). After this, researcher chose codes based on the research questions and classified them into categories. The relevant categories were then labelled as themes and the association between them demonstrated. A summary of the results was then presented.

This method has the risk of bias with the researcher's subjective interpretation of data which may lead to false results. This was mitigated by giving the participants transcription of their notes for them to review and ascertain that their comments were captured accurately. Lastly, after the analysis of the data, a summary report was provided to participants (Creswell & Guetterman, 2019). The qualitative analysed data was then inculcated into quantitative data to provide further explanation.

Further, scrutiny of the secondary data was carried done in tandem with the qualitative and quantitative data as applicable to the current study (Bell et al., 2022).

3.12 Strength and Limitation of the study

All research studies have their inherent strengths and weaknesses which cannot be eluded. The strengths provide the key points that make the study stand out whereas the weaknesses portray issues that the researcher was not able to contain and which future researchers can avoid to enhance their studies credibility (Ruppar, 2025).

3.12.1 Strengths

This study's strength lies on the use of mixed methodology that produces enriched data and provides practical solutions to research problems in line with pragmatism worldview (Creswell & Guetterman, 2019). Questionnaires were answered and interviews conducted with depot managers who have experience in implementing talent management practices hence indepth knowledge was gathered. Consequently, the use of mixed methodology provided solutions that were used to resolve the issue of staff turnover in the petroleum sector. These solutions can also be applied in other industries.

Further, the use of SR and WR as the sites of study provided a good outlook of the major supply chain segments of the oil and gas industry in Kenya. Additionally, this research also is among the few conducted on talent management practices in the petroleum sector in Kenya and therefore brings in new insights in the field.

3.12.2 Limitations

This study was conducted within a limited cross-sectional timeframe despite employing mixed methodology research that is time consuming and rigorous (Dawadi et al., 2021). The study also faced budgetary constraints in terms of funds for travelling to the regions and printing questionnaires as the researcher was funding the study from personal savings that were limited. The study also experienced challenges in accessing the population of study with the non-response from Supplycor who were to act as the gatekeepers.

Further, some respondents failed to answer all the items in the questionnaire which hampered the number of respondents. The contact of depot managers in distribution and collection of the questionnaires may have affected the responses provided by the employees due to fear of

reprisal in case the manager goes through the handed over questionnaire. Some depot managers seemed tired with the study as it involved both the questionnaires and interviews considering the nature of their work in a volatile industry hence may have not provided adequate information as anticipated.

3.13 Summary

This chapter detailed the methodological framework of the study using the research onion. The research onion outlines the layout of this study using six layers (Saunders et al., 2019). First layer, is pragmatism philosophy adopted by the study which advocates for both quantitative and qualitative method as it answers the research question adequately (Creswell & Creswell, 2018; Muhaise et al., 2020).

Next is the research approach, the general plan of a study with features that build, modify or test a theory. It consists of inductive, deductive and abductive approaches with the study utilising abductive research approach due to its rigorous nature of solving a research problem (Creswell & Creswell, 2018; Saunders et al., 2019).

Regarding methodological choice, the study employed mixed method research which is a blend of quantitative and qualitative research (Creswell & Creswell, 2018; Creswell & Guetterman, 2019). This study utilised explanatory sequential research design which involved sourcing of data in two parts. Phase one involved collecting quantitative data using a survey questionnaire. The gathered quantitative data was analysed using statistical means and the results used applied in the qualitative evaluation in phase two.

Interviews were then used to gather qualitative data that was categorically analysed and the results used to provide further explanations to the quantitative data which had more weight in the study (Creswell & Creswell, 2018; Taheerdost, 2022). The study employed cross-sectional time

horizon that looked at the petroleum industry in a specific period as stipulated by the University guidelines.

The study comprised of 311 participants out of a population of 946 employees drawn from thirty OMCs in Kenya between the ages of 25 to 60. This consisted of 281 participants who filled the questionnaires and 30 participants for the interviews. The 281 were selected using simple random sampling while the 30 interview participants were purposively selected (Chaokromthong et al., 2019; Creswell, 2021).

On ethical assurances, the researcher sought the required institutional ethical clearances from the Unicaf University Research Ethics Committee and the local research license in Kenya granted. Additionally, the participants of the study were respected and were not harmed or put in any form of danger. Anonymity and confidentiality of information given was observed. The data provided was stored securely and will be retained for five years then it will be destroyed (Drolet et al., 2023; Fetters, 2019; Stadnick et al., 2021).

In conclusion, the study adopted pragmatic philosophy, abductive approach, mixed method research, explanatory sequential design, questionnaire and interviews for data collection, statistical and content analysis of data.

CHAPTER 4: FINDINGS

4.0 Introduction

This chapter begins by describing trustworthiness of the data collected in terms of it dependability, transferability, credibility and confirmability. Results of the investigation are presented as per the six research questions that assessed the implication of talent management and work engagement on employee outcomes in the petroleum sector in Kenya. The data analysis is then presented in terms of quantitative and qualitative information derived from the research questions and lastly the summary of the chapter.

4.1 Trustworthiness of the findings

The study implemented a wider aspect of trustworthiness of data to ensure that the qualitative data was credible. This was done through transferability, credibility, dependability and confirmability for the qualitative part of the study.

To enhance credibility, the study gathered information from the top thirty petroleum firms licenced by EPRA. These companies were operating legally and adhering to the sector regulations in Kenya. Further, the respondents were permanent employees who were working in the selected petroleum firms at either management or non-management level. This provided rich insights from various levels of employees in the companies and a wide berth of information on the research problem.

The information collected from the interviews is presented verbatim in the study. This allows the reader to understand the research problem from the petroleum setting and gain similar experience. This information can be transferred by other scholars to different contexts using a similar design. This provides sufficient information to the end user for informed decision making on similar and dissimilar situations.

Further, a colleague who had a PhD and experience in talent management reviewed the research process through which the initial coding scheme was amended prior to analysis. The review revealed as an instance where initial codes confused two distinct participant experiences. This approach ensured that the themes presented in the study reflected the interviews perspective and not the researcher's assumptions.

The study having being conducted in two regions, different perspectives was gained on the research problem. Consequently, the findings of this investigation can be applied to the whole petroleum industry in Kenya and other non-petroleum firms as talent management, engagement and workforce outcomes are part of the managerial roles in general. It is worth noting that the specific individuals who participated in the interviews are also members of the larger society, which is the petroleum industry.

4.2 Reliability and Validity of Findings

The inquiry addressed reliability and validity of data to improve the trustworthiness of the results. This was key for the quantitative part of the study where external standards for instance statistical analysis and past studies were employed (Creswell & Plano Clark, 2018).

4.2.1 Validity of Findings

To attain internal validity, the researcher was cognisant of how the results would turn out at the data analysis phase. The study ensured that it associated the objectives with the research questions and the specific questions to the questionnaire and interview guide hence face validity was achieved. Additionally, the questionnaire was assessed to ensure that the items adequately represented the research variables hence achieving content validity. The study further utilised instruments from other scholars hence observing concurrent validity. The questionnaire employed

in the research was able to predict outcomes and relations between the variables of the study (Sürücü & Maslakci, 2020).

Several methods were used to examine construct validity including factor analysis. The study examined construct validity based on communalities which show the extraction of elements forming the construct. The communalities extraction ranges from 0 -1 with values above 0.4 showing a strong contribution of indicators towards explaining the underlying construct (Sürücü & Maslakci, 2020). The Tables [4-8] presents the construct validity tests undertaken. All the extraction based on communalities for talent management measures were greater than 0.4 hence construct validity was established.

Table 5

Communalities for Talent Management

Talent Management		Extraction
TM1	'To what extent did you perceive the organisation as the best employer when you applied'	.674
TM2	'To what extent do you feel that you went through a highly selective process when you were recruited'	.723
TM3	'To what extent do or did you feel recognized as part of a talent pool at your Organisation'	.655
TM4	'To what extent have your potential and performance been continuously assessed'	.628
TM5	To what extent has the feedback on your performance improved your daily job deliverables	.600
TM6	To what extent has your Organisation put in effort in organizing training that supports your daily job	.576
TM7	To what extent have your training needs been continuously assessed	.601
TM8	'To what extent have you received individual and personalised career development plans'	.641
TM9	'To what extent have you changed job or responsibilities, for example through job rotations, cross-functional assignments, or internal transfers'	.449
TM10	To what extent has your organisation internal career development benefited you	.625
TM11	'To what extent have you been working in multicultural teams'	.555

TM12	To what extent has your Organisations coaching or mentoring program enhance your job skills	.709
TM13	'To what extent have you received senior management's attention'	.628
TM14	'To what extent has your Organisation put in place work-life balance practices, such as flexible work arrangements that suits your schedule'	.455

Note. Measurement statements adapted from Bonneton et al. (2022a). Extraction communalities are based on the researcher's analysis of field data.

The extraction for attraction component of talent management as presented in Table 6 ranged from .455 to .723 thus the data collection tool showed construct validity as far as attraction was concerned given most of the values were above 0.4. The extraction for performance component of talent management was .600 and .628 hence the data collection tool had construct validity as far as performance is concerned. Further, the extraction for training component of talent management was .576 and .601 meaning that the data collection was valid as far as training was concerned.

Further, the extraction for career development component of talent management ranged from .449 to .641 thus the data collection showed good construct validity in terms of professional development. The extraction for leadership support component of talent management ranged from .455 to .709 thus the questionnaire had good construct validity with regard to leadership support. All the extraction based on communalities for talent management measures were greater than 0.4 hence they explained the underlying construct thus construct validity was established.

Table 6

Communalities for Work Engagement

Work Engagement		Extraction
WE1	'At my work, I feel busting with energy'	.413
WE2	'At my job, I feel strong and vigorous'	.538
WE3	'I can continue working for very long periods at a time'	.464

WE4	'At my job, I am very resilient, mentally'	.554
WE5	'When I get up in the morning, I feel like going to work'	.611
WE6	'I am proud of the work that I do'	.633
WE7	My work presents a significant challenge to me	.928
WE8	'My job inspires me'	.572
WE9	'I find the work that I do full of meaning and purpose'	.627
W10	'I am enthusiastic about my job'	.602

Note. Measurement statements adapted from Schaufeli et al. (2002). Extraction communalities are based on the researcher's analysis of field data.

The extraction for vigour component of work engagement as presented in Table 6 varied between .413 to .633 thus the data collection tool showed good construct validity, as the value was above 0.4. The extraction dedication component of talent management ranged from .572 to .928 hence the data collection tool had good construct validity as far as dedication was concerned. All the extraction based on communalities for work engagement measures were greater than 0.4 hence they explained the underlying construct thus construct validity was established.

The extraction for Job satisfaction ranged from .151 to .675 thus the data collection tool showed good construct validity for job satisfaction as five items out of seven had value greater than 0.4. The values lower than 0.4 were thus dropped to enhance the construct validity of Job satisfaction component of the questionnaire as presented in Table 7 below.

Table 7

Communalities for Job Satisfaction

Job satisfaction		Extraction
JS1	'I am very satisfied with my job'	.608
JS2	I would recommend this job to a friend	.494
JS3	This job measures to my expectations	.675
JS4	'Overall, I am satisfied with my job'	.628
JS5	I would prefer another job, more ideal job	.151
JS6	'I am satisfied with the important aspects of my job'	.407
JS7	I would take the same job again	.398

Note. Measurement statements adapted from Redondo et al. (2021). Extraction communalities are based on the researcher's analysis of field data.

The extraction for employee retention ranged from .524 to .742 thus the data collection tool showed good construct validity for employee retention with all the extraction values being higher than 0.4 as demonstrated in Table 8 below.

Table 8

Communalities for Employee Retention

Employee Retention		Extraction
ER1	'If it were up to me, I will definitely be working for this organisation for the next five years'	.524
ER2	'Within this organisation my work gives me satisfaction'	.670
ER3	'The work I'm doing is very important to me'	.608
ER4	'I see a future for myself within this organisation'	.622
ER5	'If I received an attractive job offer from another organisation, I would take the job'	.578
ER6	'I have checked out a job in another organisation previously'	.658
ER7	'I'm planning on working for another organisation within a period of three years'	.742

Note. Measurement statements adapted from Chopra et al. (2023) Extraction communalities are based on the researcher's analysis of field data.

4.2.2 Reliability of Findings

A research tool that has low degree of error has high reliability levels. Cronbach Alpha was used in the research to assess reliability of the questionnaire. Table 9 below illustrates that Cronbach Alpha values of 0.7 and higher indicate excellent reliability of the construct.

Table 9

Reliability Test Based on Cronbach Alpha

Construct	Cronbach Alpha	Conclusion
Talent management	.927	Reliable
Work engagement	.868	Reliable
Job satisfaction	.789	Reliable
Employee retention	.759	Reliable

Note. Based on the researcher's analysis of field data

The Cronbach alpha for talent management was higher than 0.7 (0.927), similarly for work engagement was higher than 0.7 (0.868). The Cronbach alpha for work satisfaction was 0.789, while staff retention was 0.759. The study established that all the constructs were reliable given every single Cronbach alpha value was above 0.7. The study thus concluded that the questionnaire used in data collection was reliable.

4.3 Results

This consists of presentation of the data gathered from the participants in form of questionnaires and interviews. The research questions serve as an outline for the presentation.

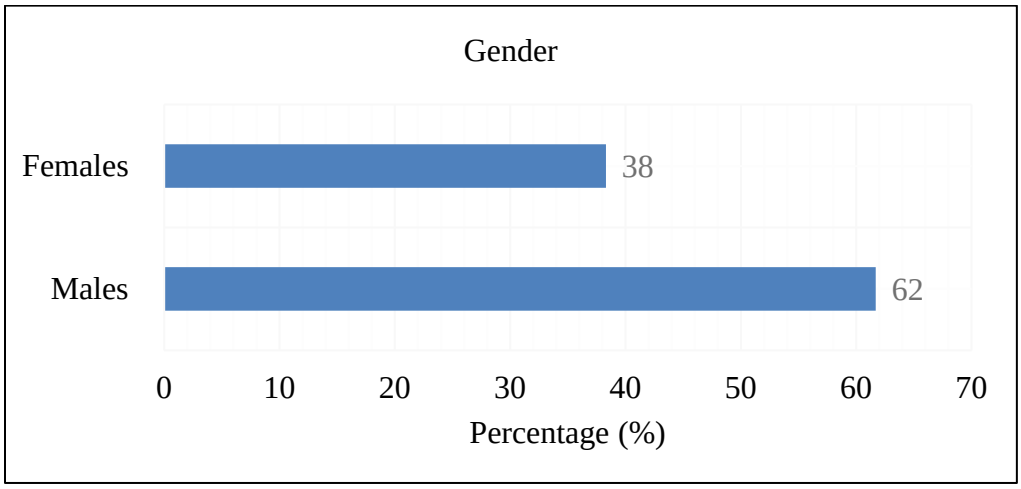
4.3.1 Demographic Information

The study examined the demographics among respondents in form of age, gender, Home County, education level, experience, rank, reporting and span of management. The demographics were examined based on frequency distribution and percentages. The gender demographic variable was categorised into males and females with the findings in Figure 13 showing that 166 (62%) were males while 103 (38%) were females.

Even though more male respondents took part in the study, females were also fairly represented. Therefore, the perception of males and females as regards the interaction between talents management and employees' attitudes and behaviour were fairly represented in the data.

Figure 13

Gender of the Participants



Note. Based on the researcher's analysis of field data

The age distributions of the subjects were examined in four categories including 20 - 29, 30 - 39, 40 - 49, 50 - 59 and 60 years or above. The findings in Table 10 showed that majority of those surveyed 70.7 percent were in the age band of 20-39 years. The remaining 29.3 percent were aged above 40 years. This demonstrates a relatively youthful workforce in the industry.

Table 10

Age of Respondents

Demographic Variable	Category	Frequency	Percent
Age	20 - 29	79	29.4
	30 - 39	111	41.3
	40 - 49	64	23.8
	50 - 59	15	5.6
	Total	269	100.0

Note. Based on the researcher's analysis of field data

The study examined the distribution of the respondents in regards to whether they were working in their home county in Kenya. The findings in Table 11 revealed that 155 (57.6%) of the respondents in the survey were working in their home county with the rest working in other counties away from their home. Working in home county or otherwise was linked to employee comfort of being around home.

Table 11

County of Work of the respondents

Demographic Variable	Category	Frequency	Percent
County of Work of the respondents	No	114	42.4
	Yes	155	57.6
	Total	269	100.0

Note. Based on the researcher's analysis of field data

The highest education level of the respondents was evaluated with study categorising education level into six categories. The information presented in Table 12 depict that 92.6% of the participants in the survey held Certificate, Diploma, Bachelors' Degree and Masters' Degree while only 7.4% were high school leavers. The findings show that the respondents in the survey tended to hold a professional training relevant for their work area.

Table 12

Level of Education of the Respondents

Demographic Variable	Category	Frequency	Percent
Highest education	High School	20	7.4
	Certificates	29	10.8
	Diplomas	61	22.7
	Bachelor Degrees	124	46.1
	Masters Degrees	35	13.0
	Total	269	100.0

Note. Based on the researcher's analysis of field data

The experience of the respondents in the survey was evaluated and categorised into five. The study outcomes presented in Table 13 revealed that 66.9 percent of the respondents had 6 years and above with only 33.1 percent being 5 years and below. The findings show that a larger group of the respondents were well experienced and were able to associate between talent management and employee attitudes and behaviour.

Table 13

Experience of the Respondents

Demographic Variable	Category in years	Frequency	Percent
Experience	5 and below	89	33.1
	6 - 10	79	29.4
	11 - 15	52	19.3
	16 - 20	32	11.9
	20 and above	17	6.3
	Total	269	100.0

Note. Based on the researcher's analysis of field data

The study examined the distribution of the respondents according to their rank. The rank was categorised into in lower cadre, middle management and top management. The findings presented in Table 14 specify that amongst the respondents 61.3% were in management rank with the remaining 38.7% being in lower cadre. Therefore, majority of the survey were undertaken among management level employees who were aware of the association constructs of the study.

Table 14

Rank of the Respondents

Demographic Variable	Category	Frequency	Percent
Rank of the respondents	Lower Cadre	104	38.7
	Middle management	147	54.6
	Top Management	18	6.7
	Total	269	100.0

Note. Based on the researcher's analysis of field data

In addition to the rank of the respondents, the inquiry sought to determine whether there were employees reporting to the respondents. The study established in Table 15 that 44.2% of the respondents had employees reporting to them with 55.8 percent reporting otherwise. This point out that a slightly more than half of the respondents did not have any employee reporting to them.

Table 15

Employees Reporting to Respondents

Demographic Variable	*Category*	*Frequency*	*Percent*
Employees Reporting to respondent	No	150	55.8
	Yes	119	44.2
	Total	269	100.0

Note. Based on the researcher's analysis of field data

4.3.2 Confirmatory Factor Analysis

Leveraging on Confirmatory Factor Analysis (CFA) and the Analysis of Moment Structures (AMOS) software, the investigation evaluated the proposed relationships between variables. First, CFA was used to confirm the degree to which the chosen indicators accurately reflected their latent constructs. The final Structural Equation Modelling (SEM) stage only included the indicators that showed a significant contribution (Hair et al., 2019).

To maintain the integrity of the structural model extraction, the investigation followed known psychometric thresholds of 0.5 regarding the precise strength of these associations (Ximénez et al. 2022). The analysis's factor loadings all above this threshold, demonstrating appropriateness of the measurement model.

The results presented in Table 16 confirm that the indicators selected for this study accurately represent their corresponding latent constructs. Analysis of the standardised beta estimates reveals that all factor loadings had statistical significance ($p < 0.05$), validating the

effective grouping of these items. Moreover, every indicator returned a critical ratio exceeding the 1.96 threshold at the 5% significance level. These robust regression weights provide empirical evidence of a strong relationship between the observed indicators and their latent variables, thereby establishing convergent validity. Consequently, all retained indicators were deemed suitable for the subsequent SEM phase.

Table 16

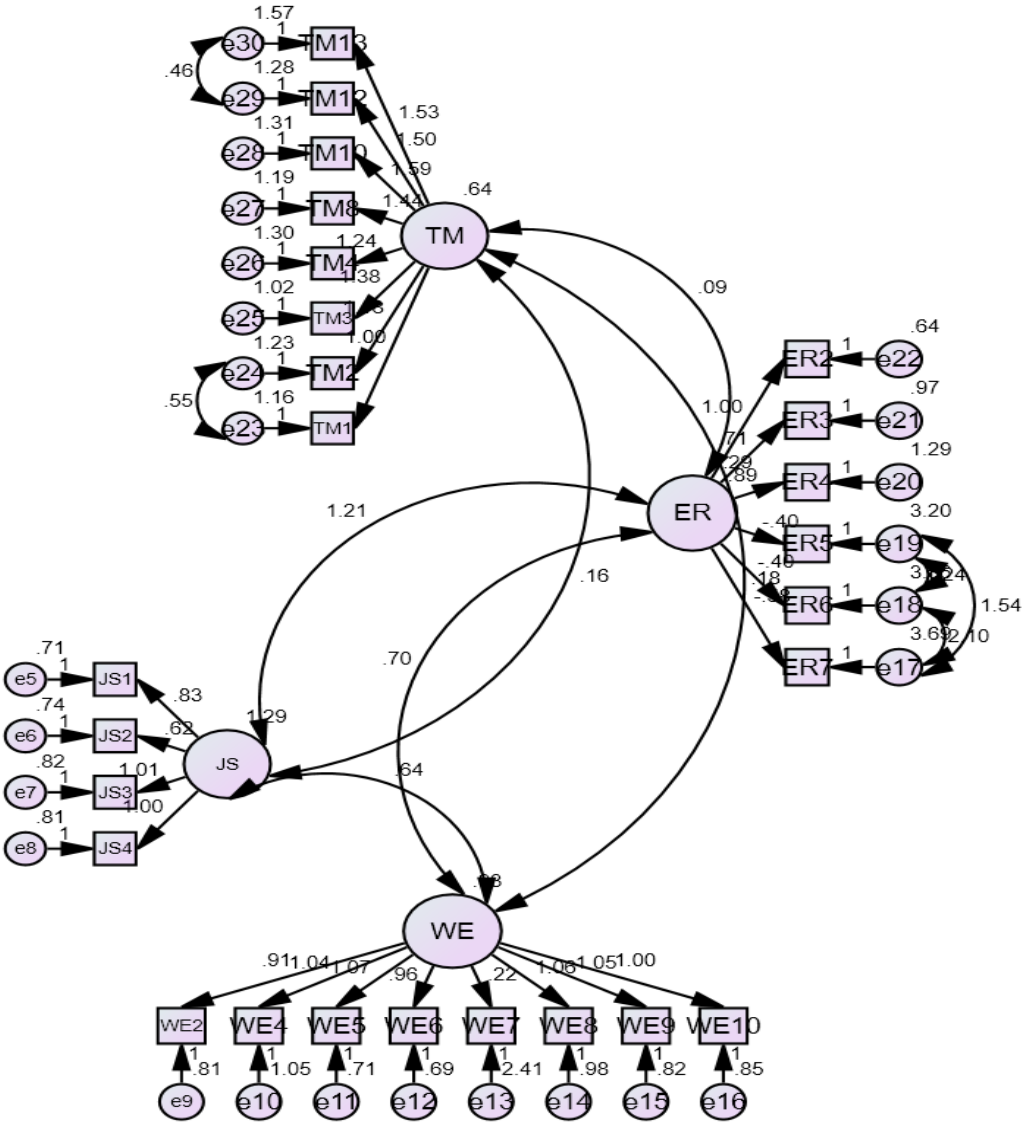
Standard Regression Weights for the Measurement Model

			Estimate	S.E.	C.R.	P
TM1	<---	TM	1.000			
TM2	<---	TM	1.177	.102	11.486	***
TM3	<---	TM	1.376	.150	9.162	***
TM4	<---	TM	1.246	.147	8.495	***
TM8	<---	TM	1.444	.159	9.088	***
TM10	<---	TM	1.596	.173	9.233	***
TM12	<---	TM	1.509	.166	9.080	***
TM13	<---	TM	1.528	.174	8.795	***
WE10	<---	WE	1.000			
WE9	<---	WE	1.045	.090	11.609	***
WE8	<---	WE	1.052	.094	11.177	***
WE7	<---	WE	.222	.105	2.119	.034
WE6	<---	WE	.960	.083	11.630	***
WE5	<---	WE	1.067	.088	12.085	***
ER2	<---	ER	1.000			
ER3	<---	ER	.744	.070	10.556	***
ER4	<---	ER	.987	.083	11.881	***
ER5	<---	ER	-.455	.108	-4.213	***
ER6	<---	ER	-.422	.118	-3.562	***
ER7	<---	ER	-.628	.118	-5.316	***
WE4	<---	WE	1.044	.095	10.950	***
WE2	<---	WE	.910	.083	10.927	***
JS4	<---	JS	1.000			
JS3	<---	JS	1.066	.076	13.988	***
JS2	<---	JS	.629	.060	10.454	***
JS1	<---	JS	.821	.067	12.255	***

Note. Based on the researcher's analysis of field data

Figure 14

1st Order Confirmatory Factor Analysis Model



Note. Based on the researcher's analysis of field data

Only indications exhibiting significant statistical importance were incorporated into the final SEM procedure, as shown in Figure 14. All of the indicators that were kept for the analysis

had factor loadings greater than 0.5, hence suitable for structural model extraction. The correctness of the measurement model was thoroughly validated via CFA before the formal structural models were developed. A thorough assessment of model fit was part of this initial stage.

A variety of model fit tests were used to evaluate the relevance of the pathways shown in the path map as well as the overall model's suitability for fitting the data. The measuring model's fitness was verified using adjusted Chi-Square (CMIN), Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), and Root Mean Square Error (RMSEA). These model fit statistics were used to assess how well the data fit the measurement model (Ximénez et al. 2022).

Table 17

Model Fit Indices for First-Order Confirmatory Factor Analysis

Model	CMIN	DF	P	CMIN/DF	GFI	CFI	NFI	RMSEA
Default model	780.771	389	.000	2.007	.932	.957	.901	.021

Note. Based on the researcher's analysis of field data

The first-order CFA model (Table 17) demonstrates good overall fit to the data, as evidenced by high incremental and absolute fit indices (CFI, NFI, GFI > 0.90) and a very low RMSEA (< 0.05). Although the chi-square statistic is significant, this is expected given its sensitivity to sample size that does not detract from the overall model adequacy.

The results of the first-order CFA indicate that the model fits the data. The normed chi-square (CMIN/DF = 2.007) is within the permissible limit of less than 3, suggesting a good fit. The goodness-of-fit index (GFI = 0.932), comparative fit index (CFI = 0.957), and normed fit index (NFI = 0.901) all exceed the commended threshold of 0.90, indicating excellent model fit. Besides, the root mean square error of approximation (RMSEA = 0.021) is well below the 0.05 threshold, signifying a close fit of the model to the data. Although the chi-square statistic is

significant ($p < 0.001$), this is attributed to its sensitivity to sample size and does not undermine the model suitability. Overall, the measurement model demonstrates strong construct validity and is suitable for further structural analysis.

4.3.3 Talent Management and Employee Retention

This inquiry pursued to evaluate the association concerning management of talent and workforce retention. The study adopted descriptive and inferential statistics in examining this relationship.

4.3.3.1 Descriptive Analysis

The descriptive analysis was based on 7-point Likert scale in which participants were required rate the magnitude in which talent managements was undertaken in the petroleum industry in Kenya (Table 18). For the purpose of interpretation of findings, extremely small extent, very small extent and small extent were grouped into small extent while large extent, very large extent and extremely large extent were grouped into large extent.

Table 18

Descriptive Analysis of Talent Management

Statements N=269	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	6 (%)	7 (%)	Mean
'To what extent did you perceive the organisation as the best employer when you applied'	2.2	1.9	3.3	17.8	32.7	21.9	20.1	5.23
'To what extent do you feel that you went through a highly selective process when you were recruited'	2.6	2.6	6.3	13.4	27.9	24.9	22.3	5.25
To what extent do or did you feel recognized as part of a talent pool at your organisation	3	3.3	7.1	15.6	25.7	26	19.3	5.13

‘To what extent have your potential and performance been continuously assessed’	3	3	8.2	12.6	22.3	29.7	21.2	5.22
‘To what extent has the feedback on your performance improved your daily job deliverables’	3	1.5	3.7	14.1	23.4	30.5	23.8	5.4
To what extent has your organisation put in effort in organizing training that supports your daily job	3.7	3.3	10.4	15.6	20.4	23.4	23	5.08
To what extent have your training needs been continuously assessed	4.5	1.9	9.7	19.7	21.2	21.9	21.2	5.02
‘To what extent have you received individual and personalised career development plans’	5.6	7.1	11.2	26	23.8	15.6	10.8	4.45
‘To what extent have you changed job or responsibilities, for example through job rotations, cross-functional assignments, or internal transfers’	7.8	4.1	5.9	20.1	26	20.4	15.6	4.76
To what extent has your organisation internal career development benefited you	5.9	5.6	7.8	14.5	24.5	21.2	20.4	4.91
‘To what extent have you been working in multicultural teams’	4.1	3	11.9	17.1	16.7	22.7	24.5	5.06
To what extent has your Organisations coaching or mentoring program enhance your job skills	5.9	3.3	7.1	16.4	21.2	27.1	19	5.01
‘To what extent have you received senior management’s attention’	4.8	6.3	8.2	14.5	20.1	19.7	26.4	5.03
‘To what extent has your organisation put in place work-life balance practices, such as flexible work arrangements that suits your schedule’	4.8	4.1	10.4	26.4	19.3	16.4	18.6	4.75
Aggregate mean score								5.02

Note. Based on the researcher's analysis of field data

As regards talent management, Table 18 above shows the majority of (70.5%) the respondents noted to a large extent that the Organisation was the best employer when they applied for a position (μ =5.23). The findings exposed that 75.1 percent of the respondents in the survey

perceived to a large extent that they underwent a highly selective process during recruitment (μ=5.2). Most of the informants (71%) perceived to a large extent that they were part of the company's talent pool (μ=5.13). The results showed that 73.2% of the participants noted to a large extent that their potential and performance have been continuously assessed (μ=5.22).

Further, the feedback on respondents' performance improved their daily job deliverables to a large extent as evidenced by 77.7 % who noted so (μ=5.4). Most (66.8%) of the respondents in the survey perceived to a large extent that their Organisation put in effort in planning training that supports their daily job (μ= 5.08). High proportion of the respondents (64.3%) noted to a large extent that their training needs have continuously been assessed (μ= 5.02). A half of (50.25) those who participated in the survey noted to a large extent that they received individual and personalised career development plans (μ= 4.45).

Moreover, 62% of the survey respondents reported to a large extent that they changed jobs or responsibilities either via work rotations, cross-functional assignments, or transfers (μ =4.76). The results also illustrated that 66.1% of the survey respondents noted to a large extent that the internal career development benefited them (μ=4.91). Majority of the survey respondents (63.9%) noted to a large extent that they have been working in multicultural teams (μ=5.06). Most of the respondents (67.3%) in the survey revealed that their Organisations coaching or mentoring program enhances their job skills to a large extent (μ=5.01).

Additionally, 66.2 % of the informants noted to a large extent that they had received senior management's attention (μ=5.03). Finally, a slight majority (54.3%) noted to a large extent that their firm put in place work-life balance practices, for instance flexi work arrangements that suits their schedule (μ =4.75). Generally, majority of respondents perceived to a large extent that talents

management was undertaken in the petroleum industry as evidenced by aggregate mean score of 5.02.

Further on, the study undertook interviews with 16 respondents to ascertain talent management practices among petroleum firms in Kenya, identify the challenges being experienced and the purpose of the interviewees in the talent management procedure in their specific firms. The findings demonstrate that there were **several talent management practices** in place in the firms with most mentioning the **training, coaching mentorship, resource provision, managing performance and development of staff**. For instance, Interviewee A1 noted:

"… We discuss with the staff to see the gaps in terms of the training needs and this now forms the basis of the coming year training programs…",

Further Interviewee A3 Said:

"We have job training for new entrants where we take them through what they are expected to do..."

It was thus evident that training and development was a prominent talent management practice in most petroleum firms in Kenya. Others reported that talent management practices included;

providing employees with sufficient resources – Interviewee A9 noted "…By providing them sufficient enough materials for the working…";

having teamwork – Interviewee A11 reported, "In our company we insist on having teamwork…";

undertaking annual final reviews – A1 noted "we have annual final reviews done at the end of the year…";

motivating employees - Interviewee A4 noted:

"...You get employed for a specific role and you are expected to do that job well and you get a salary increment based on how you perform….";

Succession planning – interviewee A13 noted "…and also include them in succession planning…."

Additionally, the interviews revealed that the interviewees who were in decision making capacity undertook several roles in the talent management function. Critical roles included **overseeing training** -

Interviewee A3 noted; "My role is to train new staff who are deployed to the Logistics and Planning Department….";

leadership role – Interviewee A11 reported:

"I, playing the role of encouraging teamwork from all members of staff where there is pulling together physically and mentally…."

Training and development planning- Interviewee A12 noted, "I am responsible for preparing training curriculum and selecting trainer of trainers.";

performance review – Interviewee A16 noted:

"I specifically handle performance management reviews and check ins with the manger to help employees build their strengths..."

Additionally, the interviews revealed that petroleum firms were facing varied challenges in undertaking talent management practices. Major challenges included: **high cost of training and insufficient funds –** interviewee A16 noted,

"Yes we do have the challenges of high cost of training staff."
Interviewee A1 added, "the main one (challenge) is the availability of funds...";

time constrain for training and work load – Interviewee A1 Said,

"…Then of course there is also availability of time, when you have planned for those trainings, you find that there are other upcoming events, which of course given precedence..."

Interviewee A2 added:

"…One is because of the workload. Sometimes it's difficult to get somebody out of their usual work locations to go and job shadow. So, there's an element of the time and the opportunity to do it…."

Bureaucracies on decisions – interviewee A3 said:

"…most high-level decisions are made in Asia and at times the contexts are different. There is also the issue of time waiting for decisions to be made…."

Low managerial motivation – Interviewee A4: reported, "…I also feel that the salary I get is not commensurate with the work…"; **controlling large number of employees** – Interviewee A3 stated:
"There is also the issue of controlling staff who are far and wide, with different time zones. It's quite a challenge at times…"

Rigid employees who are not open minded – Interviewee A6 noted: "...Rigidness of employees. Lack of implementation of what has been learned from the training…"

Interviewee A8 added:

"And then also another challenge is encouraging passion and also letting people be open minded. Being open minded is also a challenge…"

And **erratic work schedules** – interviewee A9 reported,

"…The field we are working, sometimes it is congested, sometimes there is no work, you know, while you give them off, it becomes congested. And then you become short with the staff…."

The descriptive analysis for employee retention was linked to a 7-point Likert scale such that participants rated statements describing employee retention (Table 19). Similarly, to talent management, for interpretation of findings, the scales were lumped as disagree (1-3) and agree (5-7).

Table 19

Descriptive Analysis of Employee Retention

Statements N =269	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	6 (%)	7 (%)	M
'If it were up to me, I will definitely be working for this organisation for the next five years'	1.1	0.7	3.7	14.1	13.4	37.9	29	5.68
'Within this organisation my work gives me satisfaction'	0.7	3.3	7.4	16	19	33.5	20.1	5.3
'The work I'm doing is very important to me'	0.7	1.9	3.3	9.7	16	34.6	33.8	5.77
'I see a future for myself within this organisation'	2.6	3	3.7	13	19	23	35.7	5.55
'If I received an attractive job offer from another organisation, I would take the job'	23.8	20.1	22.7	12.3	4.1	10.8	6.3	4.9
'I have checked out a job in another organisation previously'	17.8	18.6	17.1	14.1	7.1	13	12.3	4.38
'I'm planning on working for another organisation within a period of three years'	15.2	11.5	13.8	18.2	10.8	13.8	16.7	3.94
Aggregate mean score								5.07

Note. Based on the researcher's analysis of field data

As regards employee retention, Table 19 shows that high number of the respondents (80.3%) agreed that if given a choice, they would serve their organisation for the next five years (μ =5.68). Most of the respondents (72.6%) in the survey agreed that their work gave them satisfaction (μ =5.3). Further, 84.4% agreed that the work they were doing was very important to them (μ =5.77). Majority of the respondents (77.7%) agreed that they could see a future for themselves within their respective organisations (μ=5.55).

Further on, only 21.2% of the respondents agreed that if they got a better job offer from another organisation, they would take it (μ=4.9). A few respondents (32.4%) agreed that they had previously checked out jobs in other organisations. Finally, a few of the respondents (41.3%)

reported that they were planning to work for other organisations in the next three years. The aggregate mean score was 5.07, thus most respondents in the survey would stay longer in their respective companies.

The study also undertook interviews to source data on the level of employee retention and strategies the petroleum firms were putting in place to ensure employee retention. Based on the responses, the level of employee retention was categorised into three ranks including low, moderate and high. The results showed that majority (9 out of 16) of interviewees reported that their firm had **high level of employee retention**. For instance, interviewee A2 noted:

"I have not gone through those numbers. But you will see. I am confident. So, the retention is good. We are at almost 98%..."

Interviewee A3 added:

"I'd say the retention levels is high. For instance, at the management level, I have stayed for 17 years, and another manager is also clocking 20 years. Most of the junior employees are clocking about 5 years…"

Further, interviewee A10 reported:

"It's good. We have like, workers who have been there for ten years. Yeah, 15 years. So they've been there for a while..."

Additionally, a few (4 out of 16) interviewees noted **moderate employee retention** –

Interview A5 noted, "It's moderate."
Interviewee A6 added, "It may be fairly moderate since the jobs at most match the skills of the employees."

Finally, the remaining 3 failed to report on the level of employee retention on their firms. It was evident that the level of employee retention among most petroleum firms operating in Kenya was high. The high level of employee motivation was linked to **improving job hygiene factors**. For instance, interviewee A3 noted:

“The company tries its best to give employees comfort. What I would call a family feeling. They provide for us personal things such as a vehicle, fuel and pay for our medical expenses.”

Staff appraisal-

Interviewee A3 added, “timely appraisals where staff are able to know the areas where they need to improve”

better remuneration –

Interviewee A7 noted “...Good remuneration, conducive work environment. I think those are the two major ones….”;

Promotion – Interviewee A9 reported,

“You know, the employees, when they start from the ground, we promote them. Most of the time we promote them. They progress. So, they see the progress, so they stay.”

Employee engagement - Interviewee A11 noted,

“Respecting one another is paramount and also, we listen to our employees anytime they have an issue or a suggestion. We operate on an open-door policy.”

Training – Interviewee A15 noted, “…we have trainings…”

4.3.3.2 Diagnostic Tests

Linearity Assumption Test

The testing for linearity in regression is a critical step in validating assumptions of linear regression models. The linearity assumption indicates a direct relation between the predictors and the outcome. Linearity assumption is core in Ordinary Least Squares regression as it ensures that the effect of an alteration in the predictor variable is constant through the variety of the independent variables (James et al., 2023). Violation of linearity assumption shows that the relation regarding the predictors and outcome is not linear resulting to biased and misleading coefficients. Thus, non-linearity could make the model underfit thus failing to capture critical patterns in the data (Montgomery et al., 2021). The linearity assumption may be tested based on variety of methods

including coefficient of determination, Pearson correlation coefficient, Component plus Residual Plots among other methods (Montgomery et al., 2021).

In order to determine whether employee talent management and retention had a linear relation, the investigation used the Pearson correlation coefficient. In order to indicate how strong, the linear association is, r must have a value between 0 and 1. A linear relationship is assumed perfect when the value is 1, whereas none exists when the value is 0. According to Gupta and Kapoor (2020), values between 0.10 and 0.39 indicate a weak linear association, 0.40 to 0.59 a moderate linear relation, and 0.60 to 0.99 a strong linear link. The results displayed in Table 20 indicated that R was .204, suggesting a positive and linear association between talent management and retainment of workers.

Table 20

Test for Linearity Model for Employee Retention

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.204[a]	.042	.038	.73006

Note. Based on the researcher's analysis of field data

a. Predictors: (Constant), Talent Management
b. Dependent Variable: Employee Retention

Normality Assumption Test

The normality assumption in regression analysis posts that errors terms in regression model should be normally distributed. The validity hypothesis tests and the confidence intervals connected to the regression coefficients depend on the assumption test (James et al., 2023). The normality of residuals ensures that the regression coefficients are unbiased, and the statistical tests for significance such as t-tests for coefficients are valid. Consequently, if the regression model's residuals are not regularly distributed, then the parameter estimates and t statistics associated with

the coefficients may be unreliable or misleading especially for small sample sizes (Montgomery et al., 2021).

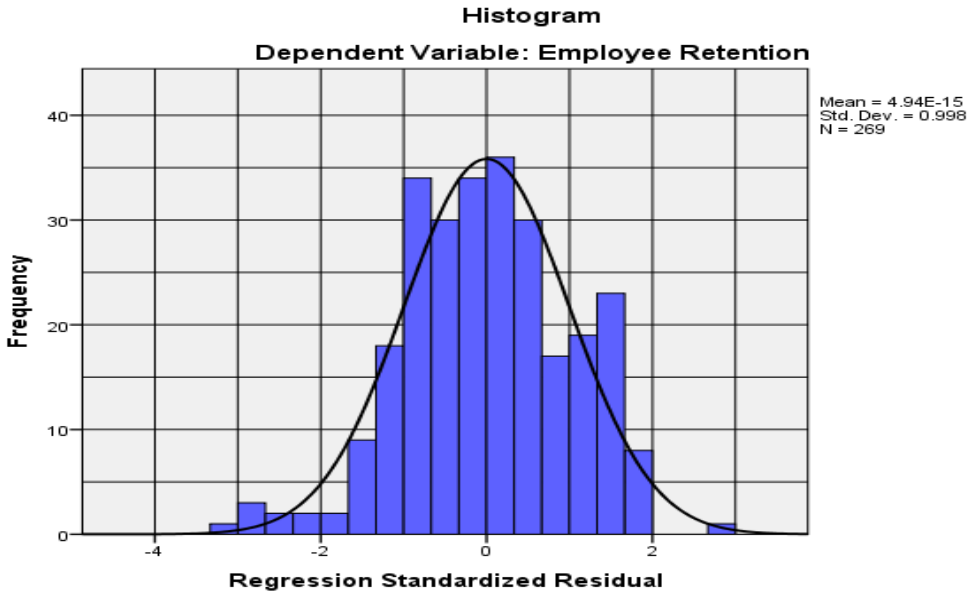
Mild deviations of residuals from normality may not significantly affect the results especially for large sample sizes given that Central Limit Theorem suggests that the dispersal of the sample mean tends to be normal as the sample size grows (Montgomery et al., 2021). Nevertheless, severe deviations from normalcy affects validity of hypothesis tests, predictions and confidence intervals thus ought to be remedied (Peck et al., 2020). Such may be remedied using a variety of measures such as transforming the data, using robust regression, increasing sample size and adopting non-parametric methods that do not depend on normality assumption (James et al., 2023).

The normality of regression residuals may be determined using graphical (Histogram of residuals and P-P plots) and nongraphic (Anderson-Darling Test, Kolmogorov-Smirnov Test and Shapiro-Wilk Test). While testing for normalcy based on Kolmogorov-Smirnov test or Shapiro-Wilk Test, a significant p value (typically < 0.05) suggests the residuals are inconsistent with normal distribution (Stock & Watson, 2020).

Further, while using Histogram, a bell-shaped histogram indicates normality of the residuals while skewed histogram indicates otherwise. While using P-P plot, the residuals points should lie close to the 45-degree line for the residuals to be considered normally distributed (Gujarati, 2021). The study adopted Histogram of residuals, P-P plots and Kolmogorov-Smirnov test. Using the histogram labelled Figure 15 below, the residuals of the retention model depicted a more or less bell shape thus there was no major deviation from normalcy. Further, P-P plot (Figure 16) showed that the points lie close to the 45° normality line and thus were not far away from normally distribution.

Figure 15

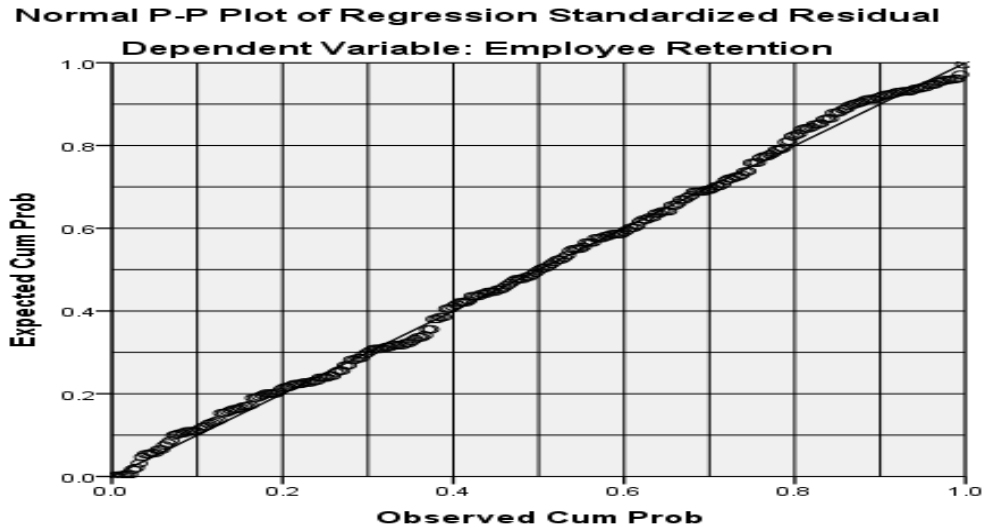
Histogram for Employee Retention Model



Note. Based on the researcher's analysis of field data

Figure 16

Normal P-P Plot for Employee Retention Model



Note. Based on the researcher's analysis of field data

Table 21

Kolmogorov and Shapiro Test for Normality of Employee Retention

	Kolmogorov - Smirnov[a]			Shapiro – Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Standardised Residual	.048	269	.200*	.986	269	.011

Note. Based on the researcher's analysis of field data

The findings in Table 21 above showed that the Kolmogorov-Smirnov statistic was .048 and a corresponding probability value of 0.200. The residuals on the employee retention model were presumed normally distributed given that the corresponding p-value on the 'Kolmogorov-Smirnov' test was higher than 0.05. The study thus concluded that employee retention model did not violate normality assumption of regression.

Heteroscedasticity

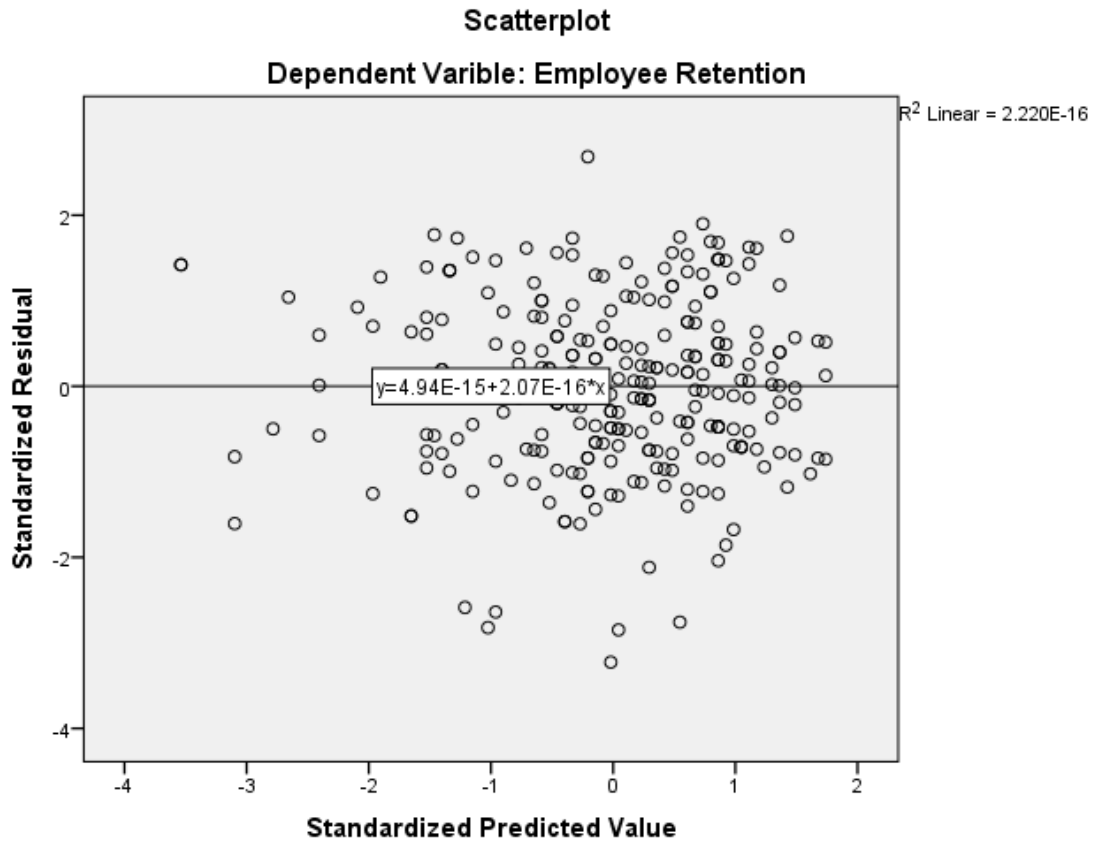
The presence of heteroscedasticity may be determined based on graphical and non-graphical methods. Residual plots where the residuals are plotted against the predicted values is often adopted as a graphical method. When the residuals display a cone shape and funnel shape, heteroscedasticity is often present. However, the residuals are randomly and evenly scattered on either side of line of best fit, it suggests homoscedasticity (Stock & Watson, 2020).

Further, non-graphical methods for instance Breusch-Pagan Test, Goldfeld-Quandt Test White's Test may be adopted to examine the presence or absence of heteroscedasticity. The tests are based on formal statistical test such that if it generates a significant p-value, it advocates the presence of heteroscedasticity otherwise there is no heteroscedasticity when p-value is higher than 0.05 significance level (Montgomery et al., 2021). The study's scatter plot (Figure 17) of predicted values and standardised residuals showed that the plotted values were evenly distributed on either

side of the line of best fit thus it was concluded that heteroscedasticity was not a major problem in the employee retention model.

Figure 17

Scatter Plot for Employee Retention Model



Note. Based on the researcher's analysis of field data

Test for Autocorrelation

The autocorrelation assumption in regression analysis refers to the independence of residuals between periods. Thus, in ordinary least squares regression model, the error terms between successive period of time should be independent of each other (Montgomery et al., 2021). Therefore, the value of the error terms in one period should not be significantly correlated with values of error terms in successive periods. The violation of the assumption leads to

autocorrelation such that the residuals in different periods of time become highly correlated with each other.

Autocorrelation problem is common in time series data where data sourced over time may show a pattern or trend resulting to autocorrelated residuals (Stock & Watson, 2020). Autocorrelation may lead to over estimation or underestimation of the standard errors. Therefore, the confidence intervals and hypothesis tests become inaccurate resulting in inaccurate conclusions on the statistical significance of variables under study (Gupta & Kapoor, 2020).

Based on the 'Durbin-Watson Test', the test statistic values are 0 to 4 and values near 2 indicates no autocorrelation. Values nearby 0 suggests presence of autocorrelation while those nearer 4 suggests negative autocorrelation (Gujarati, 2021). In this research, the Durbin-Watson statistic (Table 22) was 1.921 thus closer to 2. In this regard, autocorrelation was therefore a non-issue in employee retention model.

Table 22

Durbin-Watson Test of Autocorrelation for Employee retention model

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	Durbin-Watson
1	.204[a]	.042	.038	.73006	1.921

Note. Based on the researcher's analysis of field data
a. Predictors: (Constant), Talent Management.
b. Dependent Variable: Employee Retention.

4.3.3.3 Correlation Between Talent Management and Employee Retention

A statistical technique used to examine the direction and strength of a linear relationship between two continuous variables is Pearson correlation analysis. The range of the Pearson product-moment correlation coefficient, or r, is −1 to +1. A strong positive linear link is shown by values near +1, a strong negative linear relationship is indicated by values near −1, and a minimum

or nonexistent linear relationship between the variables is implied by values around zero (Schober et al., 2018).

Prior to conducting more intricate multivariate analyses like regression modeling, Pearson correlation analysis is often used in empirical research as a preliminary diagnostic tool to assess the degree of relationship among study variables (Wooldridge & King, 2019). To determine the pairwise links between the variables under investigation and to provide a preliminary understanding of the direction and strength of their interactions, Pearson correlation coefficients were computed in this study. The Pearson association between employee retention and talent management was examined. As seen in Table 23, the results indicated a positive correlation coefficient (r=0.204) between the two variables. The results suggest a good relationship between employee retention and talent management.

Table 23

Pearson correlation between Talent Management and Employee Retention

		Talent Management	Employee Retention
Talent Management	Pearson Correlation	1	.204**
	Sig. (1-tailed)		.000
	N	269	269
Employee Retention	Pearson Correlation	.204**	1
	Sig. (1-tailed)	.000	
	N	269	269

Note. Based on the researcher's analysis of field data

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

4.3.3.4 Structural Modelling and Hypothesis One Testing

The inquiry adopted SEM to assess hypothesis one (H_{01}) that *talent management has insignificant effect on employee retention in Petroleum firms in Kenya*. SEM enables researchers examine complex associations between observed and latent variables (Sürücü et al., 2023). The

technique combines aspects of factor analysis and multiple regression thereby making it possible to test theoretical models such as multiple relationships simultaneously. This aspect of SEM is the equivalent of multiple regression where exogenous variables predict endogenous variables.

Model Identification

In testing hypothesis (H_{01}), the study examined model identification where the adequacy of model data points was examined. A model is identified if there are enough data points to estimate the parameters. Under-identified model cannot be estimated, whereas an over-identified model has more information than necessary.

The study adopted 'Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity' to test the data appropriateness for factor analysis. In testing the adequacy of sample size and the significance of correlations among latent and observed variables in the examination of the effect of talents management on staff retention, the KMO statistics for variables were 0.928 and 0.727 respectively (Table 24). Further, p value based on Bartlett's Test of Sphericity was lower than 0.05 relevance level and SEM was identified.

Table 24

KMO and Bartlett's Test of Adequacy Employee Retention Model

KMO and Bartlett's Test		Talent Management	Employee Retention
KMO Measure of Sampling Adequacy.		.928	.727
Bartlett's Test of Sphericity	Approx. Chi-Square	2137.474	514.903
	Df	91	21
	Sig.	.000	.000

Note. Based on the researcher's analysis of field data

Factor Loading

The study also performed factor loading for talents management and employees' retention based on Principal Component Analysis. The component matrix for the two variables are given in

Table 25 and 26 respectively. The coefficient ranges from a value of 0 to 1 where 0 imply no correlation exist between indicators (observed variables) and the construct (latent variable). A value of 1 indicates that the relation between indicators and the construct is perfect.

According to Sürücü et al. (2023), the average factor loading for each indicator should be more than 0.7 depicting strong relation between indicators and the construct. Results summarised in Table 25 show that factor loadings for talent management varied from 0.538 to 0.802. Therefore, all the factor loadings that did not achieve the threshold of 0.7 were dropped and not used for further analysis. Therefore, TM11, TM9, TM14, TM7, TM5 and TM6 were not retained for further analysis.

Table 25

Talent Management Component Matrix

Talent Management	Component	
	1	2
TM12	0.802	
TM8	0.757	
TM13	0.753	
TM10	0.738	
TM11	0.688	
TM9	0.637	
TM14	0.623	
TM7	0.622	
TM2		0.813
TM1		0.802
TM4		0.740
TM3		0.733
TM5		0.642
TM6		0.538

Note. Based on the researcher's analysis of field data. TM1-TM14 (Talent Management Indicators)

The results in Table 26 showed that factor loadings of employee retention varied within 0.677 to 0.814. Therefore, the results showed that all the factor loading for employee retention achieved the threshold of 0.7 with the exception of ER1 and were therefore retained for further analysis.

Table 26

Employee Retention Component Matrix

Employee Retention	Component	
	1	2
ER2	.814	
ER3	.779	
ER4	.771	
ER1	.677	
ER5		.832
ER6		.805
ER7		.754

Note. Based on the researcher's analysis of field data. ER1-ER7 (Employe Retention Indicators)
a. Extraction Method: Principal Component Analysis.
b. Rotation converged in 3 iterations.

Model specification and Estimation

After factor loading was undertaken, the study proceeded to specify the model for parameter estimation with reference to hypothesis one. Model specification involved defining the hypothesized relationships between variables based on theory (Sürücü et al., 2023). This step involved drawing the path diagram and specifying the structural and measurement components of the model. After model specification, model estimation was undertaken. The study adopted Maximum Likelihood Estimation (MLE) to scrutinise the direct bearing of management of talents on staff retention. The findings on model specification and estimation are presented in Table 27 and Figure 18.

The prediction power of each indicator of latent constructs of talent management and employee retention was examined based on regression weights. The regression weights (Table 27) showed that talent management and employee retention constructs were significantly explained by their indicators at 0.05 significance level. At 5% significance level, the regression weights for talent management and employee retention indicators had calculated Critical Ratio (C.R) values that were greater than + or -1.96. The findings as regards the relation concerning the constructs and their indicators was significant thus showing convergent validity.

In addition, the research examined hypothesis one (H_{O1}), talents management has no major influence on employees' retention among firms in Kenyan petroleum industry. The results in Figure 18 and Table 27 illustrate that talents management and retention of employees were not strongly related. The standard path coefficients on the outcome of talents management on employees' retention was not significant ($\beta = .071$, C.R = .845, P>.05). However, the effect was positive implying that a unitary increase in talent management resulted to .071 units increase in employee retention. The inquiry failed to reject the first null hypothesis (H_{O1}) meaning that management of talent does not significantly predict employee retention among petroleum firms in Kenya.

Table 27

Regression Weights for Talent Management and Employee Retention

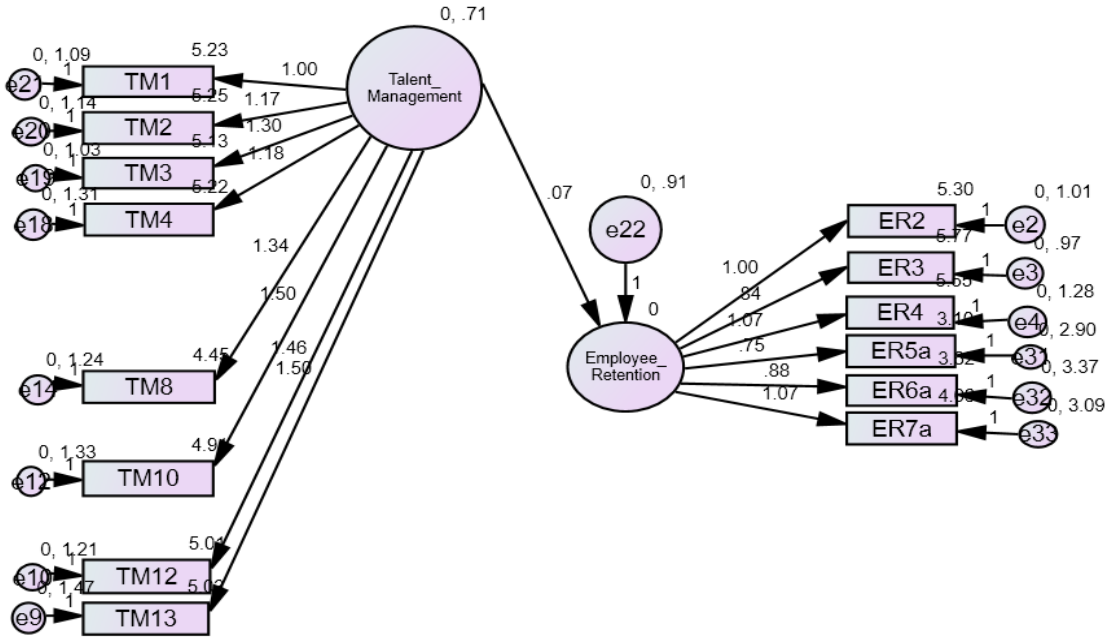
			Estimate	S.E.	C.R.	P
Employee__Retention	<---	Talent__ Management	.071	.084	.845	.398
ER2	<---	Employee__ Retention	1.000			
ER3	<---	Employee _ Retention	.842	.107	7.907	***
TM1	<---	Talent __ Management	1.000			
TM2	<---	Talent __ Management	1.168	.126	9.264	***
TM3	<---	Talent __ Management	1.298	.132	9.839	***
TM4	<---	Talent __ Management	1.176	.130	9.025	***

			Estimate	S.E.	C.R.	P
TM8	<---	Talent __ Management	1.342	.139	9.632	***
TM10	<---	Talent __ Management	1.501	.152	9.898	***
TM12	<---	Talent __ Management	1.460	.147	9.961	***
TM13	<---	Talent__ Management	1.497	.154	9.720	***
ER5a	<---	Employee __ Retention	.749	.142	5.277	***
ER6a	<---	Employee __ Retention	.877	.156	5.619	***
ER7a	<---	Employee __ Retention	1.070	.161	6.638	***
ER4	<---	Employee __ Retention	1.071	.131	8.182	***

Note. Based on the researcher's analysis of field data.

Figure 18

SEM for the outcome of talent management on employee retention



Note. Based on the researcher's analysis of field data

Model Fitness Evaluation

After model estimation, the study evaluated how the estimated model fits the data using various fit indices. The study adopted incremental and absolute fit indices to establish whether the estimated model was a satisfactory match for the data. Table 28 model fit statistics showed that the model fitness was typically satisfactory given the p-value was significant at 0.05 level.

Table 28

Model Fit Statistics Results for Talent management

Model	CMIN	DF	P	CMIN/DF	GFI	CFI	RMSEA
Default model	169.357	70	.000	2.419	.917	.933	.043

Note. Based on the researcher's analysis of field data

The study also undertook interview to understand how talent management links to retention of the workforce. The findings showed that all the 16 respondents in the interview **agreed that talent management practices affected employee retention** in petroleum firms operating in Kenya with most of them responding with a 'Yes'. For instance,

Interviewee A3 noted, "To some extent yes."
Interviewee A7 added, "Yes, I agree."
Interviewee A2 noted, "By a very large extent. Yes."
Further, interviewee A11 noted, "Yes it does."

Further, the study identified ways by which talent management affected employee retention by enhancing motivation through conducive work environment, skills, and career growth. Responds in the interview noted **Talent management makes employees comfortable** –

A3 noted, "The talent management practices make employees comfortable working for the company…."

Interviewee A10 added:

"if you have those practices and you're working on ways to make your employees more comfortable and more productive and happier; it keeps them in the company, they feel more satisfied."

Talents management improves employees' skills- interview A5 reported,

"When well trained, they get motivated and prepared to maintain their work…."
Interviewee A8 added, "It also offers a career development opportunity and also it offers mentorship program."

Talent management leads to optimal use of employee skills- Interviewee A7 noted:

"People tend to enjoy what they do. So, I agree. When you are in an office where your talent is utilised. You tend to stay long..."

Creates positive work environment – interviewee A8 reported, "It creates a positive work environment..."

Talent management results to promotion - Interviewee A13 noted:

"In a way I would say yes…I've moved from a very low position in the Organisation. I've risen above on the ranks. From a junior to now managerial level…"

4.3.4 Talent Management and Work Engagement

4.3.4.1 Descriptive Analysis

Work engagement descriptive analysis was based on 7-point Likert scale such that participants rated various statements regarding work engagement as was undertaken in the petroleum industry in Kenya. In the scale, *'1 - never, 2 - almost never, 3 - rarely, 4 - sometimes, 5 - often, 6 - very often and 7 - always'* (Table 29).

Table 29

Descriptive Analysis of Work Engagement

Statements N=269	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	6 (%)	7 (%)	M
'At my work, I feel busting with energy'	1.1	0.4	8.6	27.5	24.9	20.8	16.7	5.04
'At my job, I feel strong and vigorous'	0.0	1.1	3.7	17.8	23	23.4	30.9	5.57
'I can continue working for very long periods at a time'	1.5	1.5	5.9	22.7	19.7	17.8	30.9	5.35
'At my job, I am very resilient, mentally'	1.1	1.5	7.1	13.4	17.8	22.7	36.4	5.59
'When I get up in the morning, I feel like going to work'	0.7	1.1	4.5	14.5	20.8	23.4	34.9	5.64
'I am proud of the work that I do'	0.0	1.1	3.3	13	21.6	22.3	38.7	5.77
'To me, my job is challenging'	4.8	2.6	12.3	32	14.1	20.1	14.1	4.65
'My job inspires me'	0.7	1.5	5.9	18.6	18.2	19.7	35.3	5.52

'I find the work that I do full of meaning and purpose'	0.4	2.2	4.1	10.8	24.5	16	42	5.73
'I am enthusiastic about my job'	0.0	1.5	4.5	18.2	18.6	20.4	36.8	5.62
Aggregate mean score								5.44

Note. Based on the researcher's analysis of field data

Table 29 affirms that most of the respondents (62.4%) in the survey noted they were often or always bursting with energy at work (μ =5.04). The findings also revealed that most respondents (77.3%) often or always felt strong and vigorous at their jobs (μ =5.57). Further, 68.4 percent of the respondents noted that they are either often or always able to work continuously for long periods of time (μ =5.35). The study also revealed high number of respondents (76.9%) are often or always very resilient mentally at their job (μ =5.59). The respondents also reported that when they rose up every morning, they liked the prospect of heading to work as evidenced by 79.1 percent who either noted often or always (μ=5.64).

Most respondents in the survey also reported that they were proud of the work they did as show by 82.6 percent who either noted often or always (μ = 5.77). Few respondents (48.3%) reported that their job was often or always challenging (μ=4.65). Further, 73.2 percent reported that their jobs often or always inspired them (μ =5.52). The results also showed that most respondents (82.5%) reported that they often or always found the work they do meaningful and purposeful (μ = 5.73). Additionally, 75.8 percent of the respondents noted that they are often or always enthusiastic about their jobs. The aggregate mean score was 5.44, showing that the respondents often felt highly engaged at their work in the petroleum industry.

The inquiry as well sought to scrutinise the level of job engagement in petroleum firms in Kenya based on interviews. The level of work engagement was categorised into three levels including moderately engaged, less engaged and highly engaged. The findings based on the

interviewed showed that majority (10 out of 16) of the respondents noted that their firms depicted **high work engagement**. For instance, interviewee A3 noted:

"The employees in my company are well engaged as everyone has an assigned role duty portfolio and there is no interference of other people's work…"

Additionally, interviewee A13 added:

"Engagement, I would say we are very engaged with our staffs. In our performance management we sit down and have a joint discussion with each staff and discuss maybe the area of strengths, areas of improvements."

Further, 3 out of 16 interviewees reported **moderate work engagement** in their firms. For instance,

Interviewee A4 noted, "It is fairly okay given that each person focuses on their duties. Interviewee A6 reported, "It's fairly frequent".
Interviewee A14 reported, "Its average needs more effort…"

It was therefore, evident that the level of work engagement in most petroleum firms in Kenya was high with only a few firms reporting moderate and less engagement.

The study also evaluated the strategies employed by petroleum firms in promoting high work engagement. The findings revealed several strategies for enhancing work engagement. **Proper role assignment** was mentioned by most respondents as a means of improving engagement. For instance,

Interviewee A3 reported, "There is proper role assignment based on the skills of an employee…"
Interviewee A4 noted, "Each employee is expected to deliver on their mandate."
Respondent A1 reported, "Number two is the issue of assigning of responsibility in terms of projects…"

Another strategy for work engagement was **proper supervision**.

Interviewee A5 noted, "We increase personal supervision…"

Interviewee A6 added, “Most of the time, support supervision is carried out.”

Reporting on work accomplishments was another strategy for enhancing work engagement. Interviewee A9 noted:

“So, by the end of the day, you know, what he has done and what he has not done. So, you receive through the mail…”

Provision of **platform for relaying complaints and compliments** was another strategy for enhancing work engagement. Interviewee A10 noted:

“We have channels and communication spaces for them to express themselves and to communicate or share their opinions…”

Further, interviewee A8 reported:

“Now we have a measuring tool. We call it multiples. Monthly pass check. It's like a survey where all the employees are normally filling in that survey and give their views of how work process can be improved…”

Work life balance was also adopted by firms to encourage work engagement. Interviewee A8 noted,

“The company is also organized in such a way that employees are guided to have a balanced life. We have coaches who normally come on board in terms of taking us through the wellness and the mental assessments.”

Team building also came out as a strategy for enhancing work engagement. Interviewee A7 reported:

“… I would say we also have team building which brings us together with other depot people. But of late it has not happened. But we are hoping in the near future we could do it again…”

Interviewee A16 added, “…We also carry out various team building activities.”

Job rotation and **multifunctional teams** were also used as mechanism to enhance work engagement. Interviewee A1 Noted:

"Eeeh, one is the issue of job rotation. In terms of ensuring that you are always learning something new which is challenging..."

Training and **rewards** were also critical in enhancing work engagement. Interviewee A5 noted, "Increasing the trainings and providing allowances for the training…"

Interviewee A16 added,

"Staff are given bonus; there is also overtime to compensate employees for the more time spent at work. We also carry out various team building activities…"

4.3.4.2 Diagnostic Tests

Linearity Assumption

The study adopted Pearson correlation coefficient to examine if there was a linear relation of managing talent and job engagement. The findings presented in Table 30 showed that R was .231 implying a positive and linear link between the two constructs.

Table 30

Linearity Test for Work Engagement Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.231[a]	.054	.050	.90792

Note. Based on the researcher's analysis of field data

a. Predictors: (Constant), Talent Management
b. Dependent Variable : Work Engagement

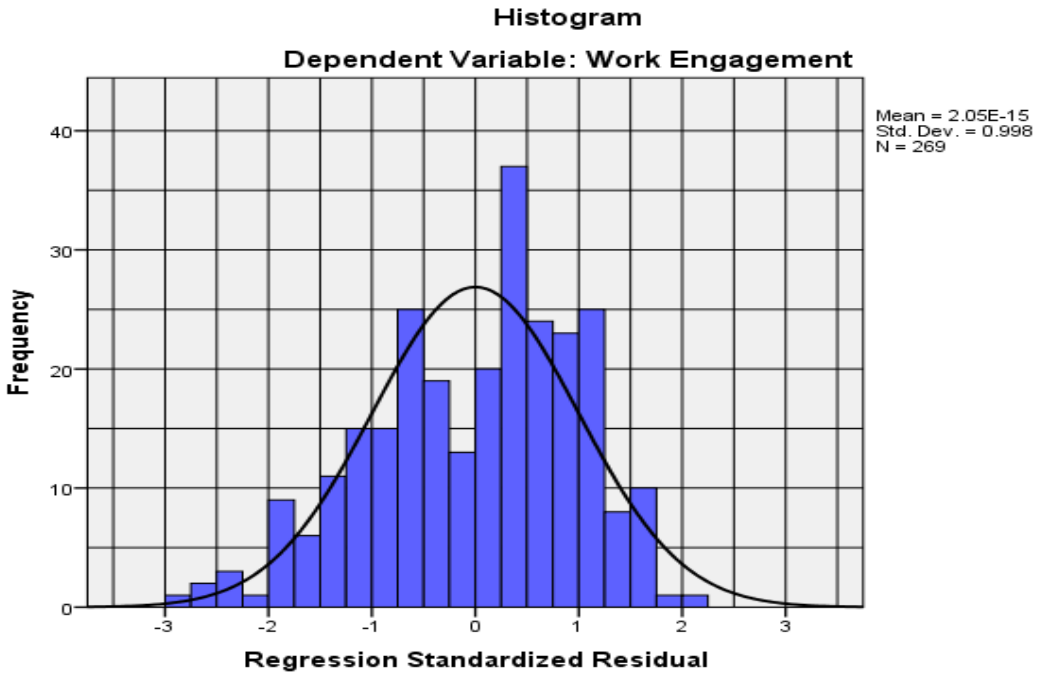
Normality Assumption

The study adopted Histogram of residuals, P-P plots and Kolmogorov-Smirnov. Using the histogram (Figure 19), the residuals of the work engagement model depicted a more or less bell shape thus there was no major deviation from normality. Further, P-P plot (Figure 20) showed that

the points lie close to the 45 degree normality line and thus were not far away from normal distribution.

Figure 19

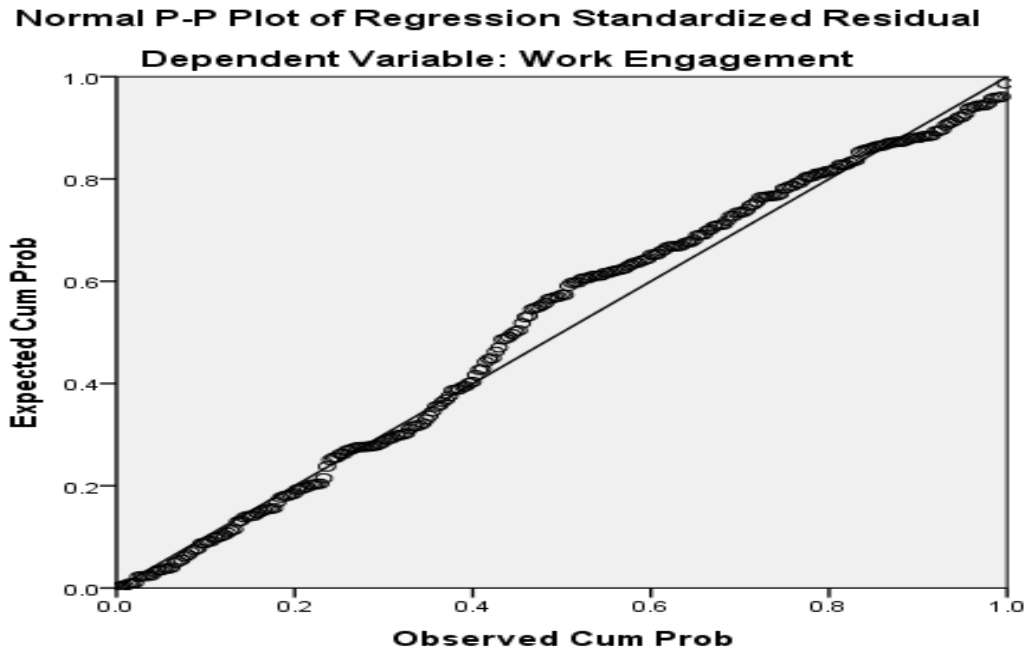
Histogram for Work Engagement Model



Note. Based on the researcher's analysis of field data

Figure 20

P-P Plot for Work Engagement model



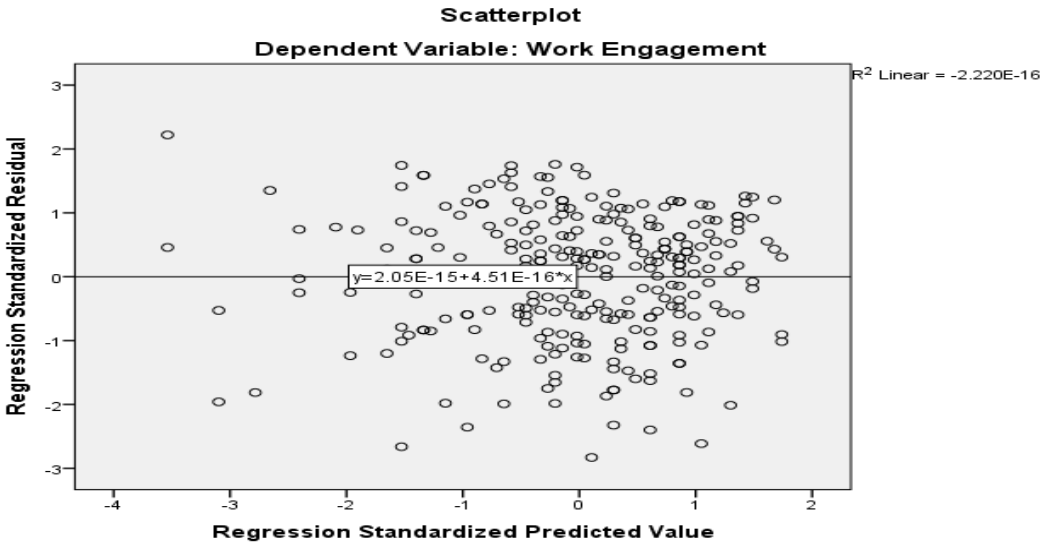
Note. Based on the researcher's analysis of field data

Heteroscedasticity Assumption

In this study, the Scatter plot (Figure 21) of standardised residuals and predicted values showed that the plotted values were evenly distributed on either side of the fit line thus it was concluded that heteroscedasticity was not a major problem in the work engagement model.

Figure 21

Scatterplot for Work Engagement model



Note. Based on the researcher's analysis of field data

Autocorrelation Assumption

Based on the Durbin-Watson Test, the test statistic value varies from 0 to 4 with values near 2 denoting no autocorrelation. Values closer to 0 suggests positive autocorrelation while those nearer 4 suggests negative autocorrelation (Gujarati, 2021). In this inquiry, the Durbin-Watson statistic (Table 31) was 1.912 thus closer to 2. The study thus concluded that autocorrelation was not a major challenge in the work engagement model.

Table 31

Autocorrelation

Model	R.	R-Square	Adjusted- R Square	Std. Error of the Estimate	Durbin – Watson
1	.231[a]	.054	.050	.90792	1.912

Note. Based on the researcher's analysis of field data
a. 'Predictors: (Constant), Talent Management'
b. 'Dependent Variable: Work Engagement'

4.3.4.3 Correlation Between Talent Management and Work Engagement

To figure out the pairwise links between the variables under investigation and to provide a preliminary understanding of the direction and strength of these associations, Pearson correlation coefficients were computed. The Pearson association between job engagement and talent management was investigated. As shown in Table 32, the results indicated a positive correlation coefficient (r=0.231) between the two variables. The results suggest a moderate and favourable relationship between talent management and work engagement.

Table 32

Pearson correlation between Talent Management and Work Engagement

		Talent Management	Work Engagement
Talents Management	Pearson Correlation	1	.231**
	Sig. (1-tailed)		.000
	N	269	269
Work Engagement	Pearson Correlation	.231**	1
	Sig. (1-tailed)	.000	
	N	269	269

Note. Based on the researcher's analysis of field data
**. Correlation is significant at the 0.01 level (1-tailed).

4.3.4.4 Structural Modelling and Hypothesis Two Testing

Model Identification

The study adopted SEM to test hypotheses two (H_{O2}) that *talent management does not significantly affect job engagement*. In testing the hypothesis (H_{O2}), the study first examined model identification through the adequacy of model data points. A model is identified if there are enough data points to estimate the parameters. The adequacy of sample was tested and the significance of the outcome of talents management on job engagement examined. The KMO statistics for talents management and work engagement were 0.928 and 0.913 respectively (Table 33). Thus, it was

determined that the sample size was ideal for factor analysis and SEM as the statistic was nearing 1. Further, p value based on ‘Bartlett's Test of Sphericity’ was below 0.05 level of relevance. Therefore, SEM for testing hypothesis two was identified.

Table 33

KMO and Bartlett's Test of Adequacy Work Engagement Model

‘KMO and Bartlett Test’		Talent Management	Work Engagement
‘KMO Measure of Sampling Adequacy’		.928	.913
Bartlett's Test of Sphericity	Approx. Chi-Square	2137.474	1108.635
	Df	91	45
	Sig.	.000	.000

Note. Based on the researcher's analysis of field data

Factor Loading

The study performed factor loading for dependent variable (work engagement) given that factor loading for talent management had already been undertaken during hypothesis one test. The component matrix for talent management was given in Table 24 with results showing that the factor loadings for talent management oscillated from 0.733 to 0.882. Therefore, the results showed that all items of the factor loading for talent management achieved the threshold of 0.7 and were therefore retained for further analysis. The results for factor loadings for work engagement as presented in Table 34 varied from 0.545 to 0.794. Therefore, the results showed that all the factor loading for work engagement indicators achieved the threshold of 0.7 except W1 and W3 which were dropped in the final path analysis.

Table 34

Component Matrix for Work Engagement

Work Engagement	Component	
	1	2
WE6	.794	
WE9	.791	
WE5	.775	
WE10	.767	
WE8	.754	
WE2	.733	
WE4	.731	
WE3	.654	
WE1	.545	
WE7		.963

Note. Based on the researcher's analysis of field data. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Model Specification and Estimation

Succeeding factor loading, the study proceeded to specify the model for parameter estimation with reference to hypothesis two. Model specification involving drawing the path diagram and specifying the structural and measurement components of the model was done. Thereafter, model estimation was undertaken based on MLE to scrutinise a direct outcome of managing talents on work engagement.

The findings on model specification and estimation are presented in Table 35 and Figure 21 respectively. The prediction power of talent management over work engagement was examined based on regression weights. The regression weights (Table 35) showed that Talent Management and work engagement constructs were significantly explained by their indicators at 0.05

significance level. At a 5% significance, the regression weights for talent management and work engagement indicators had calculated C.R that were greater than + or -1.96. Further, the p-values associated with indicators for talent management and work engagement were lower than 0.05. The findings thus implied that this relationship was substantial thus showing convergent validity.

Further, the research examined null hypothesis two, that talent management had no appreciable impact on work engagement among petroleum firms in Kenya. The findings in Figure 22 and Table 35 revealed that the link of skills management and work involvement was positively significant.

The standard path coefficients on the consequence of talent management on work engagement among firms in the petroleum field was significant (β= .265, C.R = 3.300, P< 0.05). Further, the effect was positive implying that a unitary increase in talent management resulted to .265 units increase in work engagement. Thus, this inquiry rejected null hypothesis (H_{O2}) and accepted alternative hypothesis (H_{a2}) meaning that talent management significantly and positively predict work engagement among employees of petroleum firms in Kenya.

Table 35

Regression Weights for Talent Management and Work Engagement

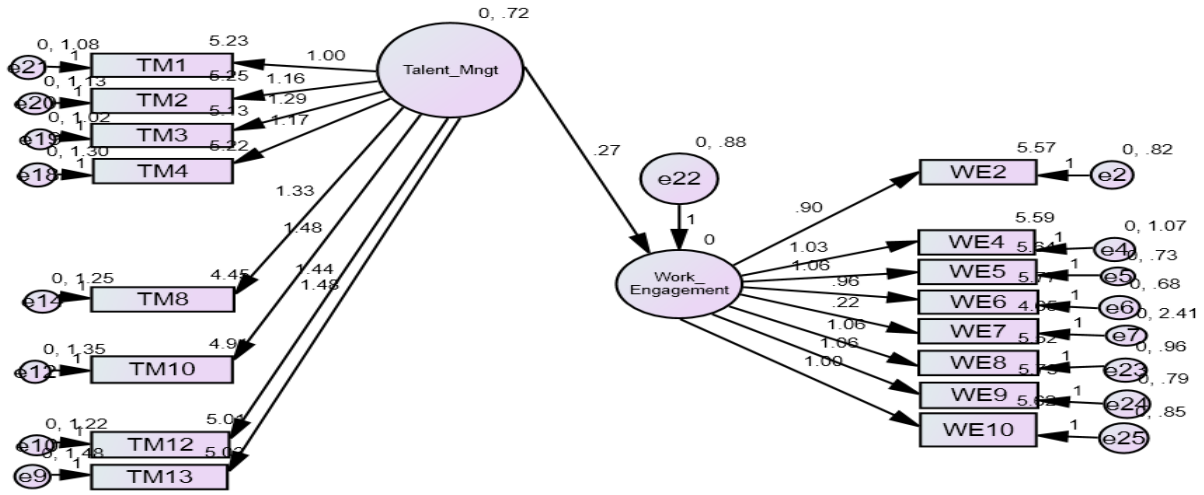
			Estimate	S.E.	C.R.	P
Work__Engagement	<---	Talent_ Management	.265	.080	3.300	***
WE2	<---	Work __ Engagement	.903	.084	10.771	***
WE4	<---	Work __ Engagement	1.033	.096	10.775	***
TM1	<---	Talent _ Management	1.000			
TM2	<---	Talent _ Management	1.163	.124	9.369	***
TM3	<---	Talent _ Management	1.294	.130	9.958	***
TM4	<---	Talent _ Management	1.170	.128	9.116	***
TM8	<---	Talent _ Management	1.327	.137	9.691	***
TM10	<---	Talent _ Management	1.479	.149	9.938	***
TM12	<---	Talent _ Management	1.443	.144	10.026	***
TM13	<---	Talent _ Management	1.480	.151	9.779	***

			Estimate	S.E.	C.R.	P
WE5	<---	Work __ Engagement	1.057	.089	11.885	***
WE6	<---	Work __ Engagement	.965	.083	11.611	***
WE8	<---	Work __ Engagement	1.061	.095	11.202	***
WE9	<---	Work __ Engagement	1.060	.091	11.695	***
WE10	<---	Work __ Engagement	1.000			
WE7	<---	Work __ Engagement	.224	.105	2.129	.033

Note. Based on the researcher's analysis of field data

Figure 22

SEM for effect of Talent Management on Work Engagement



Note. Based on the researcher's analysis of field data

Model Goodness of Fit Evaluation

After model estimation, the study evaluated the model to test how the estimated model was right for the data using various fit indices. The study adopted incremental and absolute fit indices to ascertain if the estimated model was an ideal fit for the data. The model fit statistics in Table 36 revealed that the model fitness was generally satisfactory given the p-values were significant at 0.05 level of significance.

Table 36

Model Fit Statistics Results for Work Engagement Model

Model	CMIN	DF	P	CMIN/DF	GFI	CFI	RMSEA
Default model	198.775	98	.000	2.028	.914	.948	.049

Note. Based on the researcher's analysis of field data

The study as well undertook interviews with employees drawn from petroleum companies to scrutinize the impression of talent management on work engagement. The findings showed that majority (13 out of 16) interviewees were of the view that talent management affected work engagement. For instance, interviewee A2 noted,

"Yes. It starts from recruitment. So, if you don't get the right person, then it becomes difficult to nurture your targets…"

Interviewee A6 revealed, **optimum utilisation of skills enhances engagement.** "Yes. Because it enables them to utilise well their skills to the fullest …"

Further, interviewee A4 added:

"Probably if for instance you get a salary increment you will be motivated to focus more on your work ..."

Interviewee A9 noted:

"Yeah, it affects. Because most of the time it affects. Because as you motivate them, they get that, you know, feeling of, you know, by providing the environment, give them the favourability of working…"

Further, interviewee A15 reported:

"Yes, equipping staff with the skills they need in their day-to-day work increases their level of work engagement. When they are also paid well, they are able to concentrate well on their work …"

The notable concepts involved **quality recruitment** of the right individuals as A2 noted:

"Yes. It starts from recruitment. So, if you don't get the right person, then it becomes difficult to nurture your targets …"

Training builds confidence and aids engagement as reported by A12,

"They acquire skills through training that enhance their capacity to handle duties assigned to them."

Salary increments, bonuses, and promotion signals higher engagement levels as A4 added,

"Probably if for instance you get a salary increment you will be motivated to focus more on your work …"

Further, A15 reported, "When they are also paid well, they are able to concentrate well on their work …"

4.3.5 Work Engagement and Employee Retention

4.3.5.1 Descriptive Analysis

The descriptive analysis for Work engagement and employee retention were undertaken and showcased in Table 29 and Table 19 respectively.

4.3.5.2 Diagnostic Tests

Linearity Assumption

In order to establish whether there was a linear link concerning work engagement and employee retention, the study utilised the person correlation coefficient. The results displayed in Table 37 indicated that R was .384, suggesting a positive and linear association between employee retention and work engagement.

Table 37

Linearity Test for Employee Retention Model

Model	R	R Square	Adjusted - R Square	Std. Error of the Estimate
1	.384[a]	.148	.144	.68855

Note. Based on the researcher's analysis of field data

a. 'Predictors: (Constant), Work Engagement'

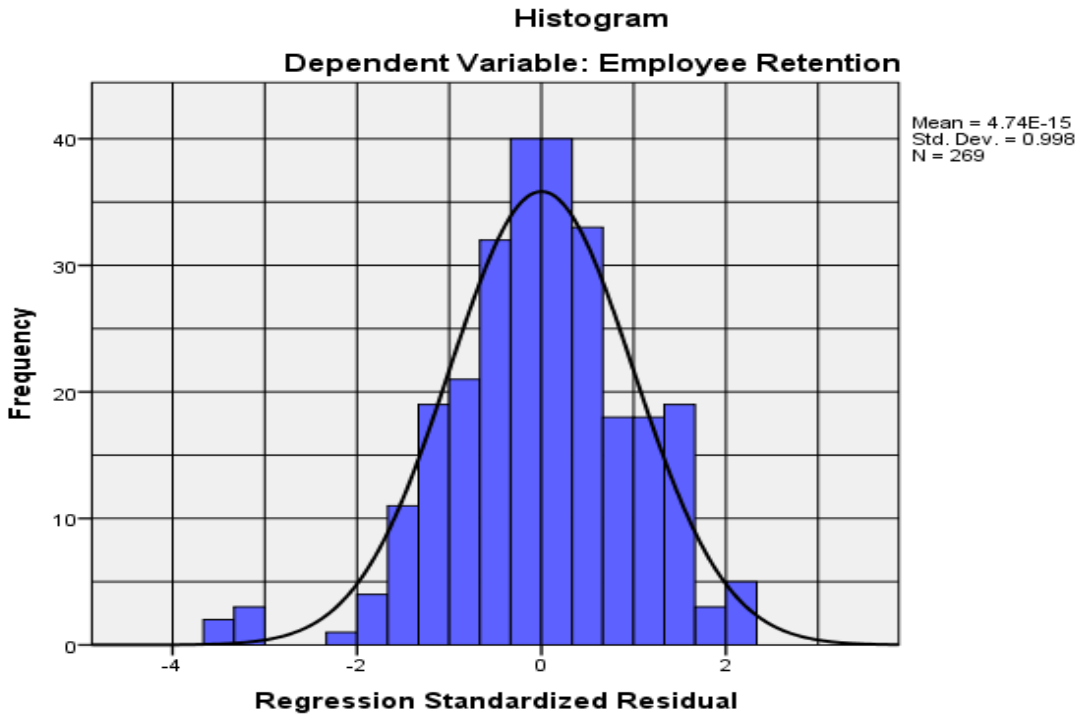
b. 'Dependent Variable: Employee Retention'

Normality Assumption

To examine the normality or otherwise of the regression residuals using the histogram (Figure 23), the residuals of the employee retention model depicted a more or less bell shape thus there was no major deviation from normality. Further, P-P plot (Figure 24) showed that the points lie close to the 45-degree normality line and thus were not far away from normal distribution.

Figure 23

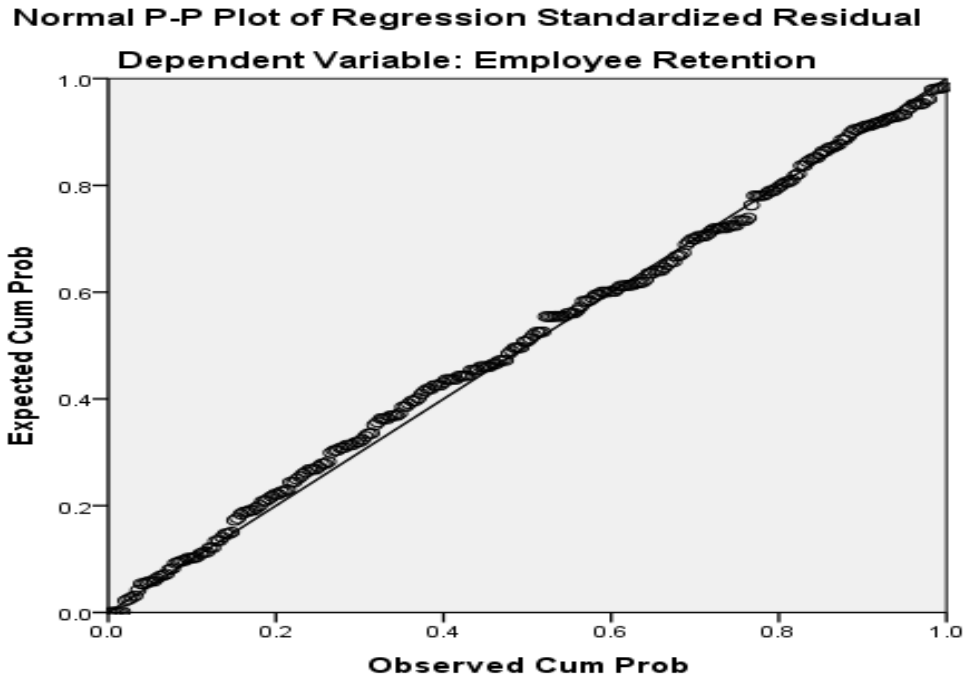
Histogram for Work Engagement and Employee Retention



Note. Based on the researcher's analysis of field data

Figure 24

Plot for Work Engagement and Employee Retention



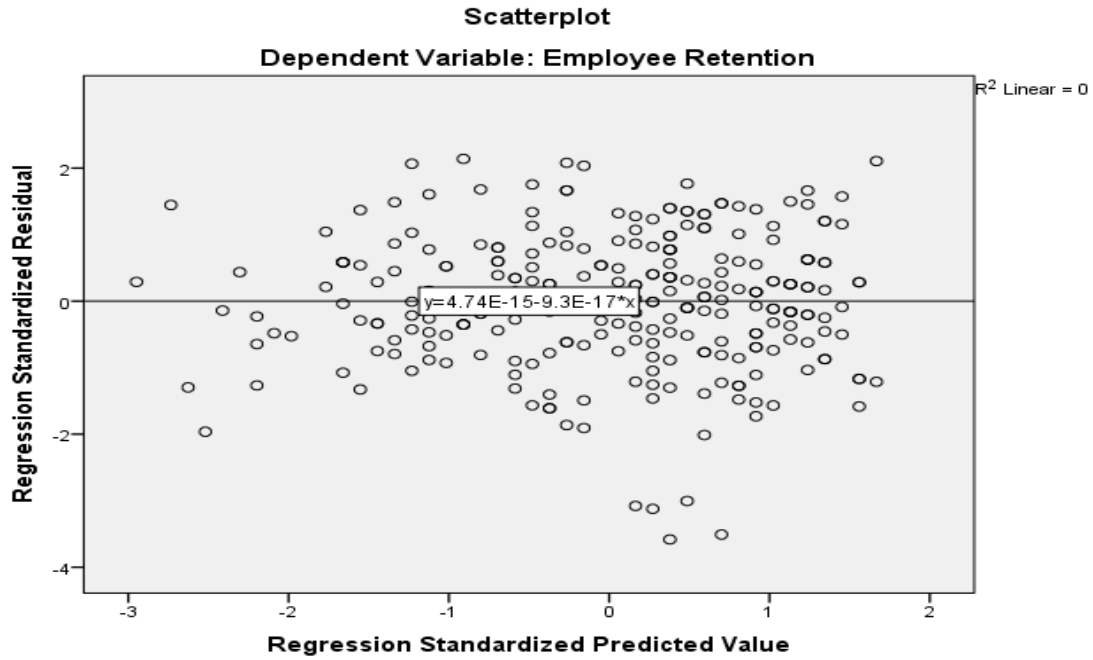
Note. Based on the researcher's analysis of field data

Heteroscedasticity Assumption

The Scatter plot (Figure 25) of standardised residuals and predicted values showed that the plotted values were evenly distributed on either side of the optimal fit line. It was therefore concluded that heteroscedasticity was not a major problem in the model for estimating the effect of work engagement on employee retention.

Figure 25

Scatterplot for Work Engagement and Employee Retention



Note. Based on the researcher's analysis of field data

Autocorrelation Assumption

The study adopted Durbin-Watson statistic to examine the existence of autocorrelation in the regression model examining effect of work engagement on employee retention. The result (Table 38) was 1.997 thus closer to 2 hence autocorrelation was not a major challenge for the model.

Table 38

Durbin-Watson Test for Serial Correlation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbins-Watson
1	.384[a]	.148	.144	.68855	1.997

Note. Based on the researcher's analysis of field data

a. 'Predictors: (Constant), Work Engagement'

b. 'Dependent Variable: Employee Retention'

4.3.5.3 Correlation Between Work Engagement and Employee Retention

In this study, Pearson correlation coefficients were calculated to ascertain the pairwise relations between work engagement and Employee retention. It also offered an initial insight into the direction and magnitude of their associations. The findings showed a positive correlation coefficient between the two variables (r=0.384) as depicted in Table 39. The findings imply that the association between work engagement and employee retention was positive.

Table 39

Pearson correlation between Work Engagement and Employee Retention

		Work Engagement	Employee Retention
Work Engagement	Pearson Correlation	1	.384**
	Sig. (1-tailed)		.000
	N	269	269
Employee Retention	Pearson Correlation	.384**	1
	Sig. (1-tailed)	.000	
	N	269	269

Note. Based on the researcher's analysis of field data

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

4.3.5.3 Structural Modelling and Hypothesis Three Testing

Model Identification

The study adopted SEM to test hypotheses three (H_{O3}) that *work engagement does not significantly affect retention of employees*. In testing the hypothesis, the inquiry first examined model identification where the adequacy of model data points was checked. In testing the adequacy of sample size and the significance of correlations of work engagement on employee retention, KMO statistics were 0.913 and 0.772 respectively as shown in Table 40. It was thus resolved that the sample size was ideal for factor analysis and SEM as the statistic was nearing 1. Further, p

value based on Bartlett Tests was lower than the recommended 0.05 level of significance. Therefore, SEM for testing hypothesis three (H_{O3}) was identified.

Table 40

KMO and Bartlett's Test of Adequacy Employee Retention Model

KMO and Bartlett's Test		Work Engagement	Employee Retention
KMO Measure of Sampling Adequacy.		.913	.772
Bartlett's Test of Sphericity	Approx. Chi-Square	1108.635	514.903
	Df	45	21
	Sig.	.000	.000

Note. Based on the researcher's analysis of field data

Factor loading

The factor loading for employee retention and work engagement were undertaken earlier on as presented in Table 26 and Table 34 respectively. The results exhibited that the factor loading for work engagement varied from 0.545 to 0.794 whereas employee retention arrayed from 0.754 to 0.814. Therefore, all the factor loading for both constructs indicators that achieved the threshold of 0.7 were retained for further analysis.

Model Specification and Estimation

The study proceeded to specify the model for parameter estimation with reference to hypothesis three (H_{O3}). The model specification involved defining the posited relation linking the latent and observed variables using path diagram and specifying the structural and measurement components of the model. After model specification, model estimation was undertaken based on MLE to appraise the direct influence of job engagement on retention of the workforce.

The findings on model specification and estimation as regards the result of work engagement on employee retention as presented in Table 41 and Figure 26. The prediction power of work engagement over employee retention was examined based on regression weights. The

regression weights (Table 41) showed that work engagement and employee retention constructs were significantly explained by their indicators at 0.05 significance level. At a 5% significance level, the regression weights for work engagement and employee retention indicators had calculated C.R that were greater than + or -1.96. Further, the p-values associated with indicators of work engagement and employee retention were lower than 0.05. The findings thus implied that the linkage between the constructs and their indicators was significant thus showing convergent validity.

Additionally, the research investigated the null hypothesis three that work engagement has no evidential outcome on retention of staff among firms in petroleum industry in Kenya. The findings in Figure 26 and Table 41 revealed that the relation between work engagement and retention of staff in the Kenyan petroleum sector was positive and significant. The standard path coefficients on the effect of work engagement on employee retention among firms in the petroleum sector in Kenya was significant ($\beta = .664$, C.R = 7.679, $P< 0.05$). Hence, the effect was positive implying that a unitary increase in work engagement resulted to enhanced employee retention by .664 units. Thereby, the study rejected the null hypothesis (H_{03}) and accepted alternative hypothesis (H_{a3}) meaning that work engagement significantly enhanced employee retention among employees of firms in petroleum industry in Kenya.

Table 41

Regression Weights for Work Engagement and Employee retention

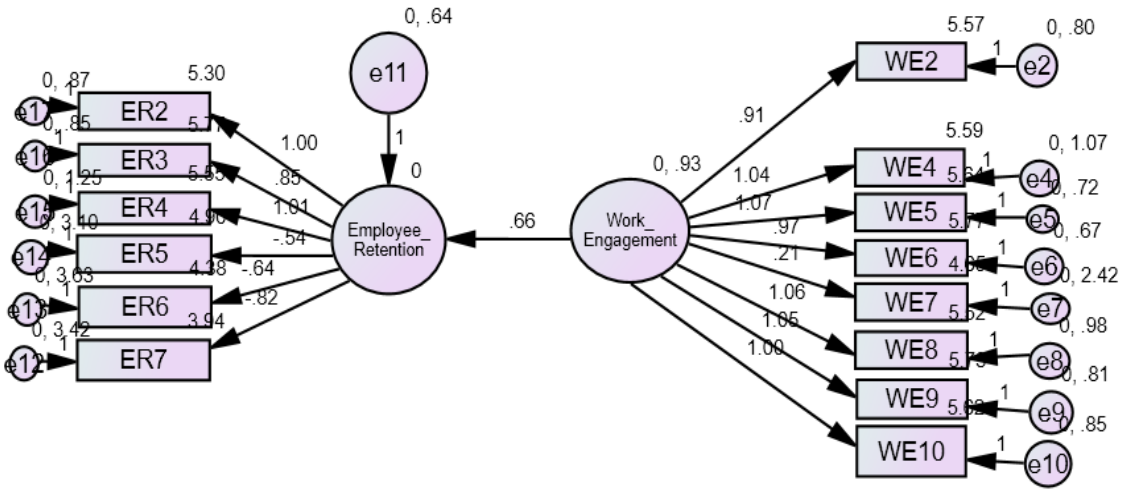
			Estimate	S.E.	C.R.	P
Employee__Retention	<--	Work __ Engagement	.664	.086	7.679	***
WE2	<--	Work __ Engagement	.912	.084	10.877	***
WE4	<--	Work __ Engagement	1.037	.096	10.807	***
WE5	<--	Work __ Engagement	1.066	.089	11.981	***
WE6	<--	Work __ Engagement	.971	.083	11.680	***

			Estimate	S.E.	C.R.	P
WE7	<--	Work __ Engagement	.208	.105	1.982	.048
WE8	<--	Work __ Engagement	1.057	.095	11.156	***
WE9	<--	Work __ Engagement	1.053	.091	11.609	***
WE10	<--	Work __ Engagement	1.000			
ER2	<--	Employee -- Retention	1.000			
ER3	<--	Employee -- Retention	.854	.090	9.452	***
ER4	<--	Employee -- Retention	1.007	.108	9.339	***
ER5	<--	Employee -- Retention	-.539	.124	4.343	***
ER6	<--	Employee -- Retention	-.645	.136	4.746	***
ER7	<--	Employee -- Retention	-.819	.138	5.949	***

Note. Based on the researcher's analysis of field data

Figure 26

SEM for effect of Work Engagement on Employee Retention



Note. Based on the researcher's analysis of field data

Model goodness of Fit

After model estimation, the study evaluated the model to appraise its applicability using incremental and absolute fit indices. The model fit statistics in Table 42 indicated that the model fitness was overally satisfactory as given by p-values that were significant at 0.05 level of significance.

Table 42

Model Fit Statistics Results for Employee Retention Model

Model	CMIN	DF	P	CMIN/DF	GF1	CFI	RMSEA
Default model	120.508	72	.000	1.674	.939	.965	.034

Note. Based on the researcher's analysis of field data

It is worth noting that interviews were conducted with the aim of establishing whether work engagement enhanced employee retention in petroleum firm in Kenya. The findings based on interviews showed that indeed, work engagement was critical in enhancing employee retention as evidenced by all the 16 interviewees responding with a yes to the question. For instance,

A1 noted, “Yes”,
A2 noted, “It does.”
A6 reported, “Work engagement increases self-confidence of employees.”

Further, the study revealed several ways through which work engagement chances employee retention. **Work engagement enhances sense of belonging.**

Interviewee A7 noted:

“You see, there is that sense of belonging. When you feel engaged, there is that sense of belonging. You feel part and parcel of the Organisation and also part the people you work with. So that influences …”

Interviewee A6 reported:

“Work engagement increases self-confidence of employees. They feel a part of the company. In turn, most of them don't prefer to look for other workplaces…”

Work engagement depicts recognition of employees’ worth. For instance, interviewee A11 noted:

“When employees are focused on their tasks which they have to deliver and their bosses give them a listening ear, they will enjoy the work they do and as a result stay in the company….”

Interviewee A13 added:

"They feel recognized. It helps them feel like they are being noticed in the Organisation, and Organisation is looking at their best interest …"

Interviewee A2 noted:

"It does. You know, people feel valued when they are listened to, when they are engaged actively ..."

Work engagement enhances employee work enjoyment. For instance, interviewee A15 noted:

"When employees have the energy to concentrate on their daily work, they are able to enjoy the work and this makes them stay in the company …"

4.3.6 Talent Management and Job Satisfaction

4.3.6.1 Descriptive Analysis

Descriptive analysis for talent management was undertaken and presented in Table 18. The descriptive analysis for job satisfaction was based on a 7-point Likert scale whereby participants rated statements describing job satisfaction in the petroleum industry as demonstrated in Table 43. Similar to other variables in the study, the scales were lumped for the purpose of interpretation of findings as disagree (1-3) and agree (5-7).

Table 43 revealed that the majority of study participants agreed that they were very satisfied with their jobs as depicted by 81 percent of the responds who reported so (μ =5.61). The narrative that respondents would recommend their jobs to their friends was supported by 75.8 percent who noted so (μ = 5.84). Further, majority of the respondents (75.8%) in the survey revealed that their job measured to their expectations (μ =5.38). Overall, 76.9% of the survey participants reported that they were happy with their jobs (μ = 5.49). The statement that the respondents would prefer another job that is more ideal was agreed upon by a slight majority (50.2%) of the respondents (μ = 4.33).

To a great extent, 80.3 percent of the respondents in the survey reported that they were satisfied with the important aspects of their jobs (μ =5.5). Additionally, 65.8 percent of those surveyed claimed that they would take the same jobs again (μ=4.99). The aggregate mean score of 5.30 showed that a high proportion of respondents in the survey agreed that they were satisfied with the jobs they were doing in various petroleum industry firms.

Further, the study undertook an interview to evaluate the level of job satisfaction and strategies for enhancing it. Satisfaction was categorised into three categories including, not satisfied, moderately satisfied and very satisfied. The study showed that most employees working in petroleum firms in Kenya were **highly satisfied** as evidenced by 10 out of 16 noting so. For instance,

Interviewee A1 noted, “I give it 70 percent for myself. I was speaking on my behalf …” Interviewee A2 reported, “I would say our employees have high levels of job satisfaction ...”

Interviewee A3 added:

“Our company ensures employees have job satisfaction by having a personal touch with the employees….”

Additionally, the study identified several ways of enhancing job satisfaction such as promotion, rewards and bonuses, measuring satisfaction, coaching employees, better remuneration. Most respondents noted **rewards and bonuses** as mechanism to enhance satisfaction. For instance, interviewee A7 reported:

“Bonuses at the end of the year and once you've formed well, for example, when you evaluated and you score well, there's that percentage you get over end up your salary …”

Interviewee A10 reported, “Sometimes they are money wise for someone. Yeah. So, yeah, it encourages them …”

Better remuneration was a mechanism of enhancing satisfaction;

Interviewee A6 noted, “Providing promotions, offering rewards, reviewing salaries.”

Interviewee A11 added, “We engage the employees and give them a good salary.”
Interviewee A15 added, “Our employer by providing good salaries, the employees get motivate ...”

Undertaking Satisfaction surveys was another way of enhancing job satisfaction. For instance,

Interviewee A8 noted, “They track employees’ job satisfaction with the surveys and the pulse monthly check.”
Interviewee A12 added, “Employee feedback through surveys and acting on their grievances ...”

Interviewee A13 noted:

“They do survey. And then from the survey, and the comments coming from the survey, then the management will look at that, and then can now address the issues which have been raised…’

Table 43

Descriptive Analysis of Job Satisfaction

Statements N=269	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	6 (%)	7 (%)	M
‘I am very satisfied with my job’	1.1	1.1	4.1	12.6	16	40.1	24.9	5.61
I would recommend this job to a friend		1.1	2.2	9.7	17.5	37.5	32	5.84
This job measures to my expectations	1.9	3.7	5.6	13	20.1	31.2	24.5	5.38
‘Overall, I am satisfied with my job’	1.1	3.3	7.1	11.5	16.7	31.6	28.6	5.49
I would prefer another job, more ideal job	9.7	12.3	7.4	20.4	21.2	13.8	15.2	4.33
‘I am satisfied with the key aspects of my job’	1.1	2.6	3	13	21.6	36.4	22.3	5.5
I would take the same job again	5.9	8.9	6.3	13	14.5	27.9	23.4	4.99
Aggregate mean score								5.30

Note. Based on the researcher's analysis of field data

4.3.6.2 Diagnostic Tests

Linearity Assumption

The study adopted Pearson correlation coefficient to examine whether talents management and job satisfaction were linearly related (Gupta & Kapoor, 2020). The findings presented in Table 44 showed that R for job satisfaction model was .135 implying that the connection between managing talent and job happiness was positive and linear. The study thus concluded that estimation model for the talent management and job satisfaction was linear.

Table 44

Linearity Test for Job Satisfaction Model

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.135[a]	.018	.015	1.02130	1.958

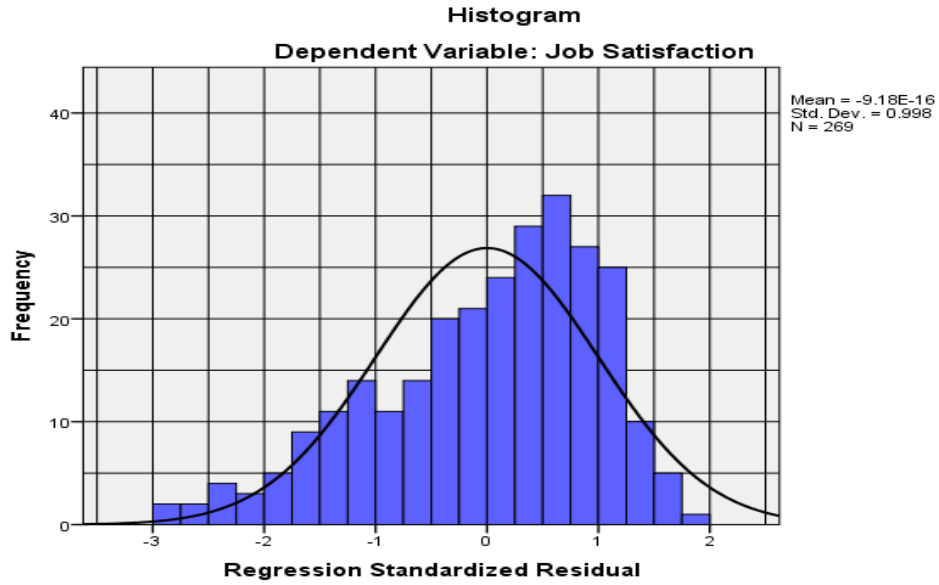
Note. Based on the researcher's analysis of field data
a. Predictors: (Constant), Talent management
b. Dependent Variable: Job satisfaction

Normality Assumption

The research adopted histogram of residuals and P-P plots to examine the normality or otherwise of the regression residuals using the histogram (Figure 27). The residuals of the job satisfaction model depicted a more or less bell shape thus there was no major deviation from normality. Further, P-P plot (Figure 28) showed that the points lie close to the 45-degree normality line and thus were not far away from normally distribution.

Figure 27

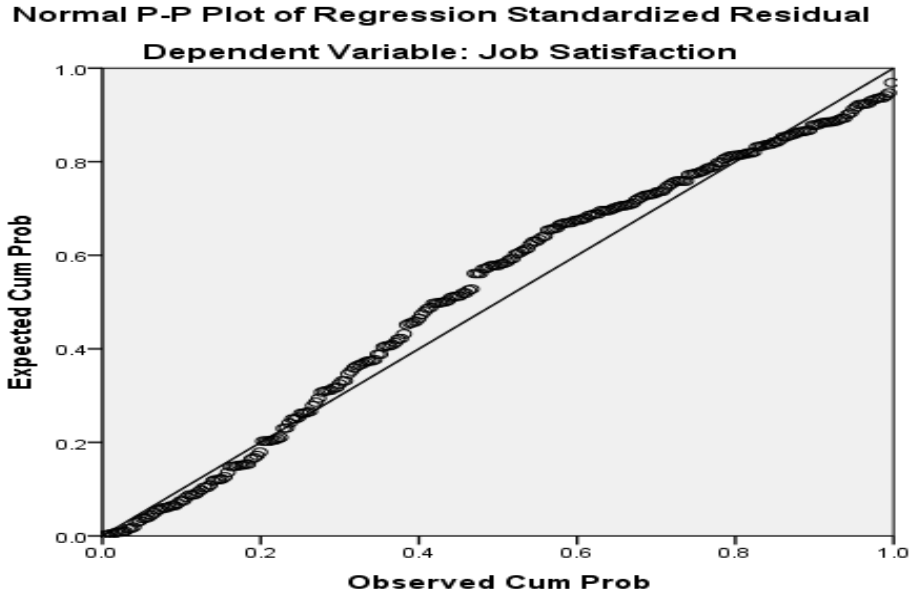
Histogram for Job satisfaction model



Note. Based on the researcher's analysis of field data

Figure 28

P-P Plot for Job Satisfaction



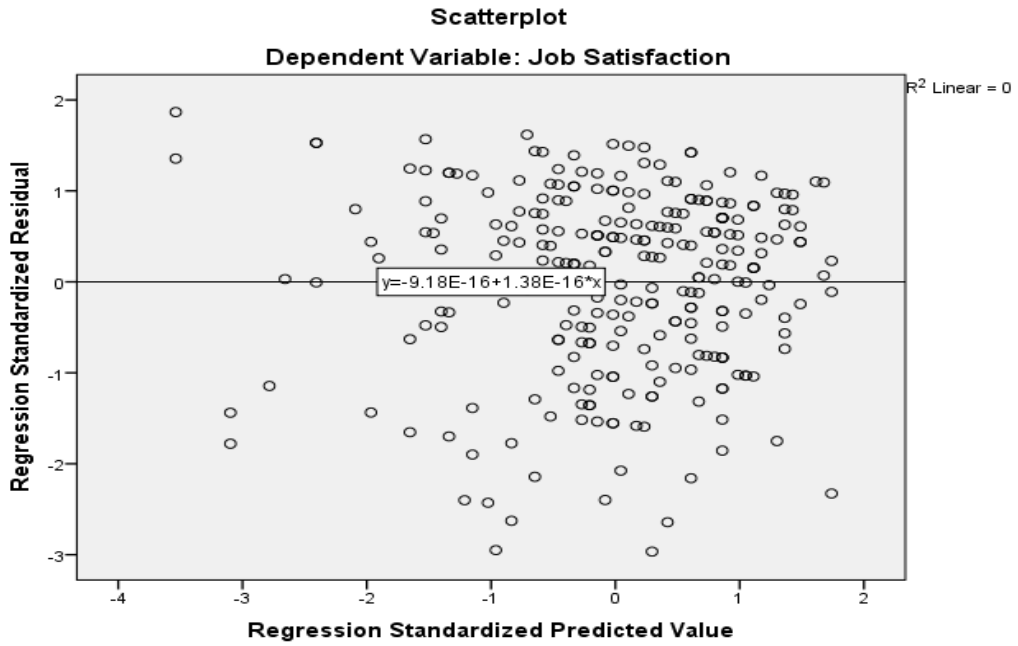
Note. Based on the researcher's analysis of field data

Heteroscedasticity Assumption

The Scatter plot (Figure 29) of standardised residuals and standardised predicted values showed that the plotted values were evenly distributed on either side of the best fit line. Consequently, it was concluded that heteroscedasticity was not a major problem in the model for estimating the stimulus of talent management on job happiness.

Figure 29

Scatterplot for Talent management and Job Satisfaction



Note. Based on the researcher's analysis of field data

Autocorrelation Assumption

The study adopted ‘Durbin-Watson statistic’ to examine the occurrence of autocorrelation in the regression model examining the outcome of talent management on job satisfaction. The Durbin-Watson statistics (Table 45) was 1.929 thus closer to 2. The study thus concluded that autocorrelation is not a challenge in the model.

Table 45

Durbin Watson Test for Autocorrelation

Model	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Job satisfaction	.018	.015	1.02130	1.929

Note. Based on the researcher's analysis of field data
a. Predictors: (Constant), Talent management
b. Dependent Variable: Job satisfaction

4.3.6.3 Correlation Between Talent management and Job satisfaction

Pearson correlation was undertaken between talent management and job satisfaction. The findings showed a positive correlation coefficient between talent management and job satisfaction (r= 0.135) as depicted in Table 46. The findings imply that the association between talent management and job satisfaction was positive.

Table 46

Pearson correlation between Talent Management and Job Satisfaction

		Talent management	Job satisfaction
Talent Management	Pearson Correlation	1	.135*
	Sig. (1-tailed)		.013
	N	269	269
Job satisfaction	Pearson Correlation	.135*	1
	Sig. (1-tailed)	.013	
	N	269	269

Note. Based on the researcher's analysis of field data

4.3.6.4 Structural Modelling and Hypothesis Four Testing

Model identification

The study adopted SEM to test hypothesis four (H_{04}): *talent management does not have a major effect on job satisfaction*. In testing the hypotheses, the study first examined model identification, where the adequacy of model data points was examined.

In testing the adequacy of sample size and the significance of correlations between talent management, work satisfaction, KMO values were 0.928 and 0.836 respectively, as displayed in Table 47. It was thus determined that the sample size was proper for factor analysis and SEM, as the statistic was nearing 1. Hence, the p-value based on 'Bartlett's Test of Sphericity' was below the recommended level of 0.05. Therefore, SEM for testing hypotheses four was identified.

Table 47

KMO and Bartlett's Test of Adequacy of Job Satisfaction, and Talent Management

KMO and Bartlett's Test		Job satisfaction	Talent Management
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.836	.928
Bartlett's Test of Sphericity	Approx. Chi-Square	580.716	2137.474
	Df	21	91
	Sig.	.000	.000

Note. Based on the researcher's analysis of field data

The factor loading for talent management was undertaken earlier, as demonstrated in Table 25. Further, the results for factor loading for organisational job satisfaction, as presented in Table 48, indicated that the factor loadings varied from 0.388 to 0.821. Therefore, the results showed that all the factor loadings for job satisfaction, with the exception of JS5, JS6, and JS7, achieved the threshold of 0.7 and were retained for further analysis. The factor loadings for job satisfaction that did not achieve the threshold of 0.7 were dropped and not used for further analysis.

Table 48

Component Matrix for Job Satisfaction

Job Satisfaction	Component
	1
JS3	.821
JS4	.792
JS1	.779
JS2	.703
JS6	.638
JS7	.631
JS5	.388

Note. Based on the researcher's analysis of field data. Extraction Method: Principal Component Analysis.
a. 1 component extracted.

The inquiry then undertook model specification and estimation with reference to hypothesis four (H_{O4}). The findings on model specification and estimation presented in Table 49 and Figure 30 showed the prediction power of talent management over job happiness. The regression weights (Table 49) showed that talent management and job satisfaction constructs were significantly explained by their indicators at the 0.05 significance level, as given by estimated C.R. values that were larger than + or -1.96. Along with this, the p-values associated with indicators of talent management and job satisfaction were lower than 0.05. The findings thus implied a substantial link between the constructs and their indicators, therefore demonstrating convergent validity.

Moreover, the research examined the fourth hypothesis (H_{04}) that talent management has insignificant impact on work satisfaction amongst petroleum firms. The study's findings in Table 49 and Figure 30 revealed that job satisfaction was strongly and positively predicted by talent management.

The standard path coefficients for the effect of talent management on job satisfaction in petroleum firms in Kenya were significant (β= .192, C.R. = 2.441, p < 0.05). Besides, the effect was positive, implying that a unitary increase in talent management resulted in enhanced job satisfaction by .192 units. Thus, the inquiry rejected the null hypotheses (H_{04}) and accepted the alternative hypotheses (H_{a4}), meaning that talent management significantly enhanced work satisfaction among Kenyan petroleum employees.

Table 49

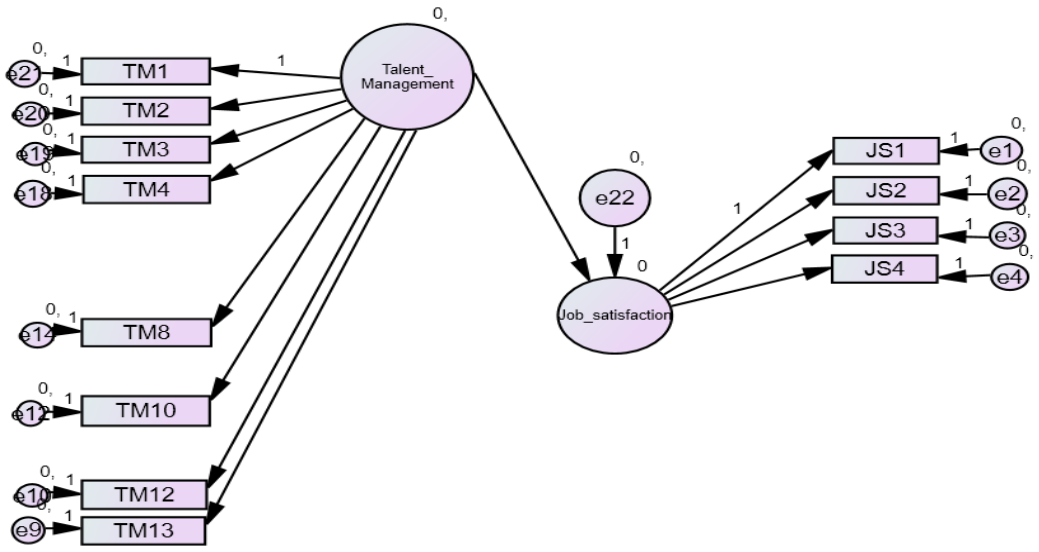
Regression Weights for Talent Management and Job Satisfaction

			Estimate	S.E.	C.R.	P
Job _ satisfaction	<--	Talent - Management	.192	.079	2.441	.015
JS1	<--	Job - Satisfaction	1.000			
JS2	<--	Job - Satisfaction	.746	.080	9.318	***
JS3	<--	Job - Satisfaction	1.311	.111	11.778	***
JS4	<--	Job - Satisfaction	1.177	.106	11.127	***
TM1	<--	Talent - Management	1.000			
TM2	<--	Talent - Management	1.164	.126	9.256	***
TM3	<--	Talent - Management	1.297	.132	9.847	***
TM4	<--	Talent - Management	1.176	.130	9.041	***
TM8	<--	Talent - Management	1.344	.139	9.656	***
TM10	<--	Talent - Management	1.496	.151	9.892	***
TM12	<--	Talent - Management	1.459	.146	9.973	***
TM13	<--	Talent - Management	1.497	.154	9.733	***

Note. Based on the researcher's analysis of field data

Figure 30

SEM for the effect of Talent management on Job Satisfaction



Note. Based on the researcher's analysis of field data

Model Goodness of Fit

The study adopted incremental and absolute fit indices to examine if the estimated model was an ideal fit for the data. The details in Table 50 reveal that the model fit was agreeable given by p-values were significant at the 0.05 level of significance.

Table 50

Model Fit Statistics Results for Job Satisfaction Model

	CMIN.	DF.	P.	CMIN/DF.	GFI	CFI	RMSEAS
Job satisfaction model	104.352	48	.000	2.174	.940	.960	.049

Note. Based on the researcher's analysis of field data

4.3.7 Talent Management, Work Engagement and Employee Retention

The section of the study presents the Pearson correlation between talent management, work engagement and employee retention. Further, it presents the structural modelling and testing of hypothesis five.

4.3.7.1 Correlation Between Talent Management, Work Engagement and Employee Retention

The Pearson correlation was undertaken between talent management, work engagement and employee retention to provide an initial comprehension of the direction and magnitude of their associations. The findings showed a positive correlation coefficient between talent management and employee retention (r= 0.204). Further, the relationship between talent management and work engagement was positive (r=0.231). The correlation between work engagement and employee retention was positive (r=0.384), as depicted in Table 51. The findings imply that the association between talent management, work engagement and retention was positive.

Table 51

Pearson correlation between Talent Management, Work Engagement and Employee Retention

		Talent Mant.	Work Engagement	Employee Retention
Talent Management	Pearson Correlation	1	.231**	.204**
	Sig. (1-tailed)		.000	.000
	N	269	269	269
Work Engagement	Pearson Correlation	.231**	1	.384**
	Sig. (1-tailed)	.000		.000
	N	269	269	269
Employee Retention	Pearson Correlation	.204**	.384**	1
	Sig. (1-tailed)	.000	.000	
	N	269	269	269

Note. Based on the researcher's analysis of field data

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

4.3.7.2 Structural Modelling and Hypothesis Five Testing

The study then undertook model specification and estimation with reference to null hypothesis (H_{05}). The findings on model specification and estimation as regards the mediating consequence of work engagement on the relation between managing talent and retention of employees were presented in Table 52 and Figure 31. The prediction power of managing talent over retention of employees as mediated by work engagement was examined based on regression weights.

The regression weights (Table 52) showed that the constructs of talent management, work involvement and staff retention were significantly described by their indicators at the 0.05 level of significance, as given by calculated C.R. values that were greater than + or -1.96. Further, the p-values associated with their indicators were lower than 0.05. Convergent validity was thus proved by the results, which suggested a considerable relationship between the constructs and their indicators.

In addition, the research examined the hypothesis (H_{O5}) that work engagement has an insignificant mediating effect on the relation of talent management and personnel retention. The findings in Table 52 and Figure 31 revealed that the direct result of talent management on employee retention was negative and not significant (β= -.086, C.R. = -1.080, P>0.05). Further, the effect was negative, implying that a unitary increase in talent management resulted in reduced employee retention by .086 units.

Talent management outcome on the work engagement was significant (β= .283, C.R. = 3.318, p <0.05), and the effect was positive, implying that one-unit increase in talent management resulted to .283 units increase in work engagement. The effect of the mediator on employee

retention was significant (β= .637, C.R. = 7.874, p<0.05), meaning an enhancement of work engagement by one unit resulted in improved employee retention by .637 units.

Talent management had a significant effect on work engagement, which in turn had a substantial effect on employee retention. Thus, the study rejected the null hypothesis (H_{05}) and accepted the alternative hypothesis (H_{a5}), meaning that job engagement completely mediated the bond integrating talent management and retention among petroleum employees in Kenya.

Further, the indirect outcome of talent management on workforce retention through work involvement was the product of (.283 *.637 = 0.180), and the direct effect of talent management on staff retention was (-.086). Hence, the total influence of talent management on staff retention was the sum of the indirect and direct effects (.180+-.086=.09427), implying that an enhancement in talent management by one unit resulted in a total improvement in employee retention by .09427 units.

Table 52

Regression Weights of talent management, work engagement and employee retention

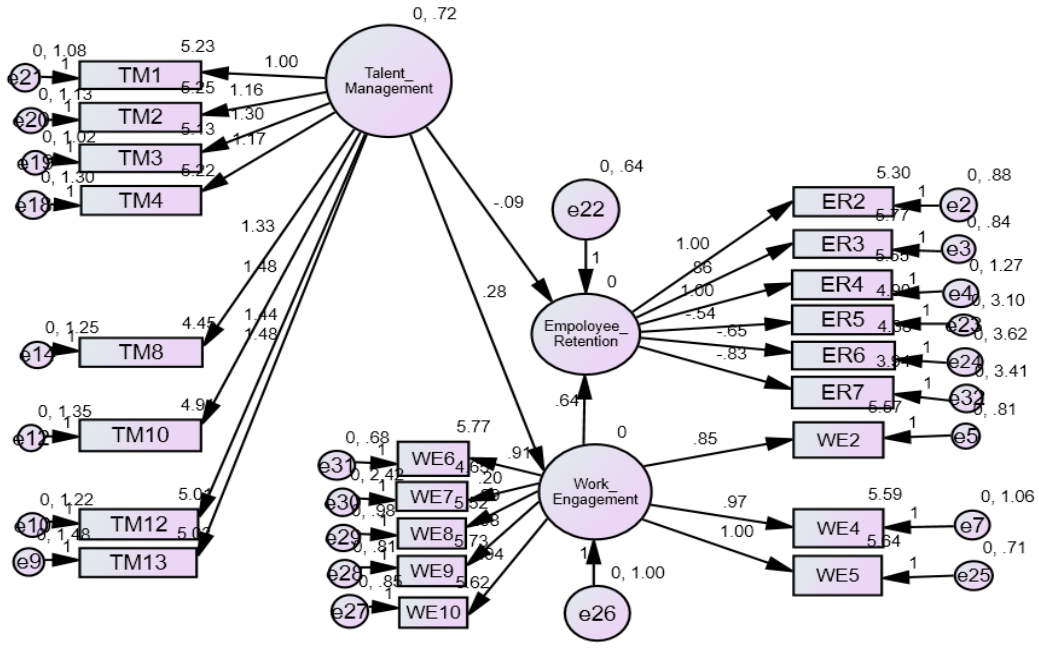
			Estimate	S.E.	C.R.	P
Work__Engagement	<--	Talent __ Management	.283	.085	3.318	***
Employee __ Retention	<--	Talent __ Management	-.086	.079	-1.080	.280
Employee __Retention	<--	Work __ Engagement	.637	.081	7.874	***
ER2	<--	Employee __ Retention	1.000			
ER3	<--	Employee __ Retention	.858	.091	9.464	***
ER4	<--	Employee __Retention	1.002	.108	9.291	***
TM1	<--	Talent __ Management	1.000			
TM2	<--	Talent __ Management	1.164	.124	9.360	***
TM3	<--	Talent __ Management	1.295	.130	9.952	***
TM4	<--	Talent __ Management	1.170	.129	9.100	***
TM8	<--	Talent __ Management	1.329	.137	9.685	***
TM10	<--	Talent __ Management	1.481	.149	9.934	***
TM12	<--	Talent __ Management	1.445	.144	10.018	***
TM13	<--	Talent __ Management	1.482	.152	9.773	***

			Estimate	S.E.	C.R.	P
ER6	<--	Employee __Retention	-.654	.136	-4.805	***
ER5	<--	Employee __ Retention	-.539	.124	-4.340	***
WE2	<--	Work - Engagement	.852	.074	11.580	***
WE4	<--	Work - Engagement	.972	.084	11.539	***
WE5	<--	Work - Engagement	1.000			
WE10	<--	Work - Engagement	.937	.078	12.036	***
WE9	<--	Work - Engagement	.985	.079	12.505	***
WE7	<--	Work - Engagement	.201	.098	2.049	.040
WE6	<--	Work - Engagement	.907	.072	12.567	***
WE8	<--	Work - Engagement	.988	.083	11.928	***
ER7	<--	Employee __ Retention	-.825	.138	-5.988	***

Note. Based on the researcher's analysis of field data

Figure 31

SEM for Talent management, work engagement and employee retention



Note. Based on the researcher's analysis of field data

After model estimation, the study evaluated the model to test in what way the estimated model fit the data using various fit indices. The study adopted incremental and absolute fit indices to assess if the estimated model was an ideal fit for the information. The model fit in Table 53 revealed that the model fitness was generally satisfactory, as indicated by p-values that were significant at the 0.05 level of significance.

Table 53

Model Fit Statistics Results for talent management, work engagement and employee retention

Model	CMIN	DF	P	CMIN/DF	GFI	CFI	RMSEA
Default model	374.940	200	.000	1.875	.891	.936	.045

Note. Based on the researcher's analysis of field data

4.3.8. Talent management, Work Engagement and Job Satisfaction

The section of the study presents the Pearson correlation between talent management, work engagement and job satisfaction. Further, it presents the structural modelling and hypothesis six testing.

4.3.8.1 Correlation Between Talent Management, Work Engagement and Job Satisfaction

The Pearson correlation was computed between talent management, work engagement and job satisfaction. The findings showed a positive correlation coefficient between talent management and job satisfaction (r= 0.135). Further, the relationship between talent management and work engagement was positive (r=0.231). The correlation between work engagement and job satisfaction was positive (r=0.527), as depicted in Table 54. The findings imply that the association between talent management, work engagement and job satisfaction was positive.

Table 54

Pearson Correlation between Talent Management, Work Engagement and Job Satisfaction

		Talent Management	Work Engagement	Job Satisfaction
Talent Management	Pearson Correlation	1	.231**	.135*
	Sig. (1-tailed)		.000	.013
	N	269	269	269
Work Engagement	Pearson Correlation	.231**	1	.527**
	Sig. (1-tailed)	.000		.000
	N	269	269	269
Job satisfaction	Pearson Correlation	.135*	.527**	1
	Sig. (1-tailed)	.013	.000	
	N	269	269	269

Note. Based on the researcher's analysis of field data
**. Correlation is significant at the 0.01 level (1-tailed).
*. Correlation is significant at the 0.05 level (1-tailed).

4.3.8.2 Structural Modelling and Hypothesis Six Testing

The study undertook model specification and estimation with reference to null hypothesis (H_{06}). The findings on model specification and estimation on how work engagement acts as a mediator between talent management and job satisfaction are displayed in Table 55 and Figure 32. The prediction power of talent management over job satisfaction as mediated by work engagement was examined based on regression weights.

The regression weights (Table 55) showed that the talent management, work engagement and job satisfaction constructs were significantly explained by their indicators at the 0.05 significance level, as given by C.R. that were higher than + or -1.96. Also, the p-values associated with indicators of talent management, work engagement and job satisfaction were lower than 0.05. The findings thus implied that the association between the constructs, namely talent management,

work engagement and job satisfaction, and their indicators was significant, thus showing convergent validity.

Furthermore, the research examined the null hypothesis (H_{06}) that work engagement does not have a fundamental mediating role in the relation between talent management and job satisfaction. The findings in Table 55 and Figure 32 revealed that talent management's direct effect on job satisfaction in the petroleum field was positive but not significant. The standard path coefficients of the direct effect of talent management on job satisfaction among petroleum companies in Kenya were insignificant ($\beta = .045$, C.R. = .651, $p > 0.05$).

In addition, the effect was positive, implying that a unitary increase in talent management resulted in improved job satisfaction .045 units. The implications of talent management on work engagement were significant ($\beta = .284$, C.R.= 3.324, $p < 0.05$), implying that an enhancement in talent management by one unit resulted in improved work engagement by .284 units. Further, the influence of work engagement on job satisfaction was substantial ($\beta = .518$, C.R. = 7.457, $p < 0.05$), implying that a one-unit improvement in work engagement resulted in enhanced job satisfaction by .518 units. The predictor variable (talent management) had a major outcome on the mediator (work engagement), and the mediator had a strong influence on the outcome variable (job satisfaction).

Thus, the research rejected the null hypothesis (H_{06}) and accepted the alternative hypothesis (H_{a6}), meaning that work engagement completely mediated the connection between job satisfaction and talent management among Kenyan petroleum employees. Notably, the indirect outcome of talent management on job satisfaction through work engagement was the product of (.284 *.518 = 0.1471), whereas the direct effect was (.045). Therefore, the total effect associated with talent management on job happiness was the sum of the indirect and direct effects

(.1471+.045=.192), implying that an enhancement in talent management by one unit resulted in a total improvement in overall job satisfaction by .192 units.

Table 55

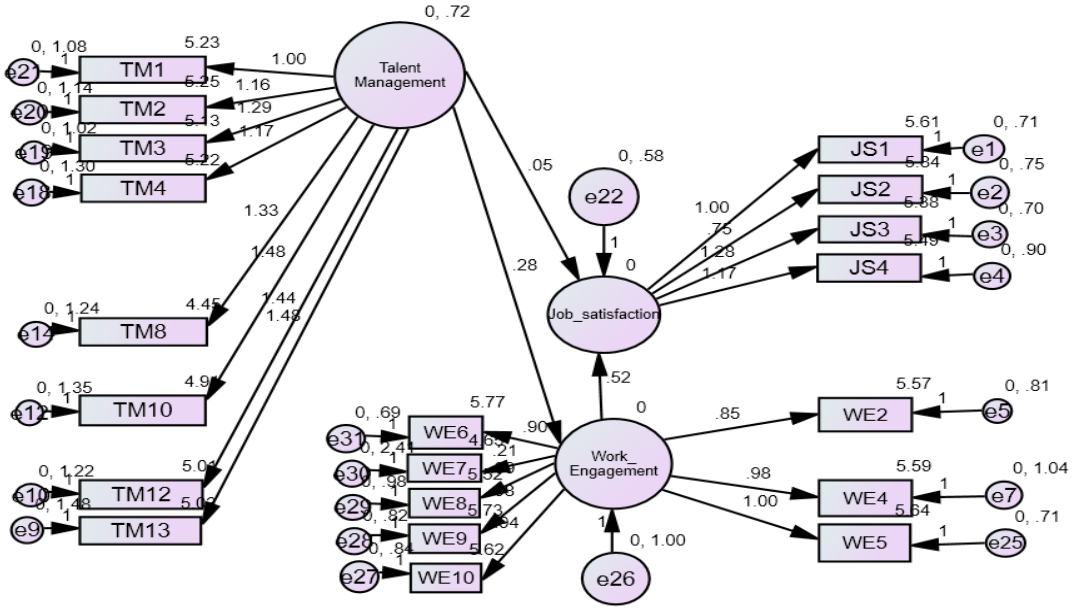
Regression Weights for Talent Management, Work Engagement and Job Satisfaction

			Estimate	S.E.	C.R.	P
Work - Engagement	<---	Talent - Management	.284	.085	3.324	***
Job- satisfaction	<--	Talent _ Management	.045	.070	.651	.515
Job- satisfaction	<--	Work __ Engagement	.518	.070	7.457	***
JS1	<--	Job - Satisfaction	1.000			
JS2	<--	Job _ Satisfaction	.747	.078	9.554	***
JS3	<--	Job _ Satisfaction	1.282	.106	12.122	***
JS4	<--	Job _ Satisfaction	1.168	.103	11.385	***
TM1	<--	Talent _ Management	1.000			
TM2	<--	Talent _ Management	1.162	.124	9.354	***
TM3	<--	Talent _ Management	1.293	.130	9.948	***
TM4	<--	Talent _ Management	1.171	.128	9.116	***
TM8	<--	Talent _ Management	1.329	.137	9.696	***
TM10	<--	Talent _ Management	1.480	.149	9.932	***
TM12	<--	Talent _ Management	1.445	.144	10.025	***
TM13	<--	Talent _ Management	1.482	.152	9.779	***
WE2	<--	Work __ Engagement	.851	.074	11.552	***
WE4	<--	Work __ Engagement	.982	.084	11.670	***
WE5	<--	Work __ Engagement	1.000			
WE10	<--	Work __ Engagement	.941	.078	12.079	***
WE9	<--	Work __ Engagement	.982	.079	12.455	***
WE7	<--	Work __ Engagement	.210	.098	2.141	.032
WE6	<--	Work __ Engagement	.898	.072	12.412	***
WE8	<--	Work __ Engagement	.988	.083	11.914	***

Note. Based on the researcher's analysis of field data

Figure 32

SEM for Talent management, work engagement and Job satisfaction



Note. Based on the researcher's analysis of field data

After model estimation, the study evaluated the model on how the data and the estimated model fit. Incremental and absolute fit indices were employed to ascertain whether the estimated model was a worthy match for the data. The model fit statistics displayed in Table 56 revealed that the model fitness was generally satisfactory, as indicated by p-values that were significant at the 0.05 level of significance.

Table 56

Model Fit Statistics Results for Talent Management, Work Engagement, and Job Satisfaction

Model	CMIN	DF	P	CMIN/DF	GFI	CFI	RMSEA
Default model	275.448	162	.000	1.700	.905	.953	.041

Note. Based on the researcher's analysis of field data

It was thus evident that job engagement was critical to cultivating satisfaction at work. This section described how the study achieved trustworthiness of data through credibility, transferability, confirmability and dependability. Additionally, the study's reliability and validity of data were demonstrated through various statistical tests. The results of the study were presented, having been derived from 269 questionnaires and 16 interviews. The descriptive analysis, diagnostic test and, lastly, structural equation model, where the hypotheses of the study were tested, were illustrated.

4.4 Evaluation of Findings

This inquiry aimed to determine the influence of talent management and work engagement influence on the retention of petroleum workers in Kenya. It also established the outcome of talent management on work fulfilment to companies through work engagement based on a sample of 285 participants (178 Males and 107 Females) who were employees of the OMCs.

As per the six research questions, the research noted a weak but positive influence of talent management on retention of staff. Further, talent management had a significant influence on work involvement, which in turn positively affected staff retention. Additionally, the connection between talent management, job satisfaction, and retention was mediated by work engagement. The evaluation of the study's findings is presented below as per the six hypotheses of the research.

4.4.1 Talent Management and Employee Retention

The study sought to determine the effect of talent management on employee retention in the petroleum industry in Kenya. This objective was tested through the null hypothesis (H_{01}), which stated that talent management does not significantly affect employee retention in the petroleum industry in Kenya. The findings, based on the standardised path coefficient, indicated that talent management had a weak and statistically insignificant positive effect on employee

retention ($\beta = 0.071$, C.R. = 0.845, $p > 0.05$). The positive coefficient implies that a unit increase in talent management was associated with a 0.071-unit increase in employee retention; however, the effect was not statistically significant. Accordingly, the study failed to reject H01, indicating that talent management did not significantly predict employee retention among petroleum firms in Kenya.

The finding is consistent with Antony et al. (2024), who examined talent management in educational institutions in India and reported that identifying and developing talent does not necessarily guarantee employee retention. Their findings suggested that employees attach different levels of importance to organisational initiatives such as remuneration, benefits and training, implying that the effectiveness of talent management practices in retaining employees may depend on employees' specific expectations and perceptions. This provides a plausible explanation for the weak relationship observed in the present study.

Similarly, recent systematic evidence indicates that the relationship between talent management and retention is multidimensional and may vary according to the practices implemented, organisational context and intervening mechanisms (Porkodi et al., 2025; Zamri & Abd Halim, 2024). These findings suggest that the presence or implementation of talent management practices alone may not be sufficient to produce a direct and statistically significant improvement in employee retention.

The present finding also contrasts with a substantial body of empirical evidence reporting a significant positive relationship between talent management and employee retention. Amushila and Bussin (2021), Ekhsan et al. (2020), Kafetzopoulos et al. (2021), Kumar (2022), Madurani and Pasaribu (2022), Redondo et al. (2021), and Yildiz and Esmer (2022) generally established that effective talent management practices enhance employees' willingness to remain with their

organisations. Similarly, Afridi et al. (2019) emphasised that selective recruitment, employee recognition, performance reviews, training needs assessment, training and coaching, motivation, teamwork and provision of adequate resources are important for enhancing employee retention.

Irshad et al. (2021) further reported that human-resource practices, including remuneration, training, flexible work schedules and career development, significantly influenced employee outcomes, while Kyndt et al. (2018) established that learning opportunities enhance employee retention. Aljbour et al. (2021) and Madurani and Pasaribu (2022) likewise found that talent management can reduce employee turnover and recommended integrated retention policies to mitigate employee turnover.

The divergence between the present finding and these studies may be attributable to differences in organisational and sectoral contexts. Most of the studies reporting significant effects were conducted in organisational environments that differ from Kenya's petroleum industry. Petroleum organisations operate under distinctive conditions involving specialised technical skills, safety-critical operations, multinational organisational structures, project-based employment, expatriate-local workforce dynamics and changing local-content requirements.

Consequently, talent management practices that effectively promote retention in other sectors may not automatically generate the same outcome among petroleum employees in Kenya. The contextual nature of the relationship is further supported by recent evidence from Kenyan oil and gas companies. Amisi et al. (2026) found that factors such as benefits, job security and organisational belonging influence outsourced employee retention, demonstrating that retention may depend on specific employment conditions rather than talent management practices in isolation.

The qualitative findings provide further insight into the weak positive relationship identified in the quantitative analysis. Interview participants indicated that talent management practices can make employees feel comfortable within the organisation, improve their skills, facilitate optimal utilisation of employee capabilities, create a progressive work environment and provide opportunities for promotion.

These experiences suggest that talent management has the potential to contribute to retention even though its direct statistical effect was not significant. In particular, opportunities for development, career progression, recognition and effective utilisation of skills may strengthen employees' attachment to their organisations. However, the qualitative evidence also indicates that the influence of talent management may operate through employees' psychological experiences rather than directly translating into a decision to remain.

This interpretation is consistent with recent meta-analytic evidence showing that employee engagement may partially mediate the relationship between talent management practices and turnover intention (Sinisterra et al., 2026). Thus, the insignificant direct effect observed in this study does not necessarily imply that talent management is irrelevant to employee retention. Rather, it may indicate that the effect of talent management is transmitted through other organisational or psychological mechanisms.

Work engagement is particularly relevant because employees who perceive meaningful opportunities for development, recognition, career progression and organisational support may become more energetic, dedicated and psychologically involved in their work, which may subsequently strengthen their intention to remain. This provides a possible explanation for why talent management produced a positive but statistically insignificant direct effect in the present study.

The finding therefore provides an important qualification to the assumption that talent management necessarily produces a direct improvement in employee retention. While previous studies have demonstrated positive relationships between talent management and retention (Amushila & Bussin, 2021; Ekhsan et al., 2020; Kafetzopoulos et al., 2021; Kumar, 2022; Madurani & Pasaribu, 2022; Redondo et al., 2021; Yildiz & Esmer, 2022), the current study demonstrates that such an effect may be weak and statistically insignificant in the Kenyan petroleum context. The finding is also consistent with the broader evidence that talent management–retention relationships are contingent on contextual factors and intervening mechanisms (Porkodi et al., 2025; Zamri & Abd Halim, 2024). Therefore, organisations should not assume that implementing talent management practices in isolation will automatically result in higher employee retention.

The finding is further consistent with the Resource-Based View (RBV), which regards employees as valuable, rare and difficult-to-imitate resources that contribute to sustained competitive advantage (Barney et al., 2021). From an RBV perspective, organisations have an incentive to develop and retain valuable human capital because employees embody knowledge, skills and capabilities that are strategically important.

However, the insignificant direct effect suggests that investment in human capital does not necessarily translate immediately into employee retention. The manner in which employees experience and respond to such investments may determine whether they ultimately choose to remain with the organisation. This reinforces the importance of examining the intervening role of work engagement in the relationship between talent management and employee retention.

4.4.2 Talent Management on Work Engagement

The study further sought to determine the effect of talent management on work engagement. This objective was tested through the second null hypothesis (H_{02}), which stated that talent management has no significant effect on work engagement. The results based on the standardised path coefficient revealed a statistically significant and positive effect of talent management on work engagement ($\beta = 0.265$, C.R. = 3.300, $p < 0.05$).

The positive coefficient indicates that a unit increase in talent management was associated with a 0.265-unit increase in work engagement. Since the relationship was statistically significant, the study rejected H02 and accepted the alternative hypothesis (Ha2), concluding that talent management significantly enhanced work engagement among employees in petroleum companies in Kenya.

The finding suggests that talent management practices, including employee recognition, motivation, selective recruitment, performance reviews, training needs assessment, training and coaching, and teamwork, can create conditions that encourage employees to become more energetic, dedicated and involved in their work. This interpretation is reinforced by the qualitative findings.

Interviewee A2 observed that engagement begins with recruitment, noting that selecting the right person makes it easier to nurture employees towards organisational objectives. Similarly, A6 explained that talent management enables employees to utilise their skills to their fullest potential, while A4 indicated that salary increments can motivate employees to focus more on their work. These accounts suggest that appropriate recruitment, effective utilisation of employee

capabilities and attractive rewards can strengthen employees' psychological involvement in their work.

The finding is strongly supported by previous empirical studies. Sousa et al. (2023), in a review of 43 studies, established that talent management practices, particularly training and development, performance management, recognition and rewards, are positively associated with employee engagement. The authors further noted that personal factors, such as work centrality and customer orientation, may influence the strength of this relationship.

Zahari and Kaliannan (2023) similarly found that effective talent management enhances employee engagement by strengthening intrinsic motivation, perceived organisational support and the work environment. These findings closely correspond with the present study because they demonstrate that talent management can create organisational conditions that encourage employees to invest greater energy and involvement in their work.

The findings are also consistent with Stubbings and Sethi (2020), who argued that developing employees' skills enhances both talent and work engagement by enabling employees to adapt to changing industry conditions. Similarly, Sopiah et al. (2020) established that organisations competing for scarce talent need to implement attractive reward packages, development opportunities and engagement-oriented policies to motivate and retain employees. Such practices strengthen employees' commitment to the organisation and encourage higher levels of work engagement.

In the petroleum context, Al Hammadi et al. (2022), in their study of employees at Abu Dhabi National Oil Company, demonstrated that talent management practices that engage employees enhance their satisfaction and performance at work. The relevance of this finding to

the present study is particularly notable because both studies were undertaken within petroleum-sector environments.

Evidence from other occupational and national contexts further supports the positive relationship identified in this study. Lerotholi (2021) in a study of nurses in Gauteng, South Africa, established that talent management practices significantly influenced work engagement. Ishiyama (2022) similarly found that strategic talent management significantly affected employee work engagement in Japanese firms.

Harahapa and Julvirta (2020), studying helpdesk employees in the Indonesian hospitality industry, reported that talent management significantly influenced employee engagement and those engaged employees demonstrated greater effort towards achieving organisational goals. Yuniati et al. (2021) likewise established that talent management was important for enhancing employee engagement among midwives in Indonesian private hospitals, with engagement subsequently contributing to organisational performance. Alhamadi et al. (2022) also reported that talent management programmes enhance employee engagement, reduce turnover and contribute to positive organisational performance.

The positive relationship is further supported by studies focusing on specific talent-management practices. Kadiri and Jimoh (2021), in Trust Bank Nigeria, found a positive relationship between talent management, particularly career management, and employee engagement. Their findings also indicated a significant relationship between employee engagement and employee turnover.

Gitonga et al. (2024) similarly found that career development, an important component of talent management, influenced employee engagement in TVET institutions in Kenya. Alhajaj and Ahmad (2024) established that employees' perceptions of talent management practices, including

empowerment, communication and pay satisfaction, influenced work engagement among UAE government employees.

In a study of vehicle artisans in South Africa, Smit et al. (2021) also found a favourable relationship between talent management and job engagement, particularly through practices such as performance management, career development and motivation. Collectively, these studies reinforce the current finding that talent management can enhance work engagement through development, career progression, recognition, empowerment and appropriate rewards.

The finding is also consistent with Memon et al. (2020), who examined human resource management practices in the Malaysian petroleum industry. Their study found that satisfaction with training and performance appraisal influenced employee engagement, while work engagement was negatively associated with employees' intentions to leave. Importantly, engagement also mediated the relationship between human-resource practices and turnover intentions.

Although Memon et al. (2020) examined broader HRM practices rather than talent management as a composite construct, their findings provide relevant evidence from the petroleum industry that employee development and performance-related practices can strengthen engagement, which subsequently has implications for retention.

Nevertheless, not all studies have reported a positive and significant relationship. Mugizi et al. (2022), in their study of non-teaching employees in public higher education institutions, found a negative and statistically insignificant relationship between talent attraction and work engagement. This finding contrasts with the present study, which established a significant positive effect of overall talent management on work engagement. The difference may partly arise from the distinction between talent attraction and talent management as broader constructs. Talent

attraction focuses primarily on recruiting and selecting employees, whereas talent management encompasses a wider range of practices, including development, performance management, recognition, career progression and rewards.

Mugizi et al. (2022) consequently recommended combining talent development practices, such as performance evaluation, training and promotion, with effective attraction and selection strategies to improve engagement. Their findings therefore do not necessarily contradict the broader proposition that comprehensive talent management can enhance work engagement; rather, they suggest that individual talent-management practices may produce different outcomes.

Decuypere and Schaufeli (2020) similarly explain that engaged employees demonstrate high levels of energy, pride and involvement in their roles and are more willing to assume responsibility and participate in organisational activities. These perspectives help explain why talent management can enhance engagement: development opportunities, meaningful responsibilities, supportive leadership, recognition and appropriate rewards can create favourable working conditions that encourage employees to invest themselves more fully in their work. The scholars further emphasise the importance of leadership and adaptive organisational practices in sustaining engagement, suggesting that talent management should operate within a supportive organisational environment rather than as an isolated set of HR practices.

The finding therefore supports the conceptualised relationship between talent management and work engagement. The significant positive path coefficient indicates that employees are more likely to demonstrate higher levels of work engagement when organisations effectively identify, develop, recognise, motivate and utilise their talents. This is particularly important in the petroleum industry, where specialised skills and changing operational demands require employees who are capable of adapting to industry challenges. As Stubbings and Sethi (2020) observed,

continuous skills development enables employees to respond to uncertainty, while effective talent management provides mechanisms for developing and utilising those capabilities.

The finding is also consistent with the RBV which regards employees' knowledge, skills and capabilities as valuable organisational resources that can contribute to sustained competitive advantage (Utami & Alamanos, 2022). From this perspective, investment in employee development, career growth, recognition and participation strengthens the human resources available to the organisation and can encourage employees to deploy their capabilities more fully. The resulting increase in engagement may enhance productivity and organisational effectiveness.

The finding also aligns with Job Embeddedness Theory, which emphasizes the importance of employees' connections, fit and involvement within their work environment (Halvorsen et al., 2020). Talent management practices that provide employees with meaningful responsibilities, career opportunities, supportive relationships and opportunities to use their skills can strengthen their connection to the organisation and increase their involvement in their work.

4.4.3 Work Engagement on Employee Retention

The study tested the third null hypothesis (H_{03}), which stated that work engagement has no significant effect on employee retention. The results revealed that work engagement had a statistically significant and positive effect on employee retention in the petroleum industry in Kenya ($\beta = 0.664$, C.R. = 7.679, $p < 0.05$). The coefficient indicates that a unit increase in work engagement was associated with a 0.664-unit increase in employee retention. Given the magnitude and statistical significance of the path coefficient, the study rejected H_{03} and accepted the alternative hypothesis (Ha3), concluding that work engagement significantly enhances employee retention among employees in Kenya's petroleum industry.

The finding demonstrates that employees who are more psychologically, emotionally and physically engaged in their work are more likely to remain with their organisations. The qualitative findings reinforce this conclusion by showing that work engagement contributes to retention through several mechanisms, including an enhanced sense of belonging, recognition of employees' worth, increased self-confidence and greater enjoyment of work.

For example, Interviewee A6 reported that "work engagement increases self-confidence of employees."

These findings suggest that engaged employees develop stronger psychological connections with their work and organisation, making continued employment more attractive and reducing their inclination to leave.

The finding is consistent with a substantial body of empirical evidence. Almohtaseb et al. (2020) established that employee engagement enhances employees' morale and encourages them to pursue organisational goals, thereby strengthening loyalty to the organisation. Similarly, Al-Hajri (2020) found a positive and significant effect of work engagement on employee retention in the context of green human resource management practices.

Sepahvand and Khodashahri (2021) also established a positive relationship between job engagement and employee retention and further demonstrated that job engagement mediated the relationship between strategic human resource management practices and employee retention. These findings support the present study by demonstrating that engagement is not merely an employee attitude but an important mechanism through which organisations can strengthen employees' willingness to remain.

The current finding is further supported by Srimulyani (2020), who established a positive effect of work engagement on employee retention among employees in a firm in Madiun City.

Clack (2021) also associated low levels of work engagement with absenteeism, reduced productivity and high employee turnover, suggesting that disengagement may increase the likelihood of employees leaving.

Yuniati et al. (2021) further reported that work engagement, together with talent management, strengthens employees' emotional motivation and reduces absenteeism and fatigue. Collectively, these findings converge with the present study in demonstrating that employees who experience higher levels of engagement are more likely to maintain positive relationships with their organisations and remain in employment.

Evidence from the petroleum industry provides particularly relevant support for the present finding. Memon et al. (2020), in their study of employees in the Malaysian petroleum industry, found that work engagement had a negative relationship with employees' intention to leave. Higher levels of engagement were associated with lower voluntary exit intentions because positive work experiences enhanced employees' perceptions of their employers and strengthened their dedication to the organisation.

Although Memon et al. (2020) examined intention to leave rather than actual employee retention, the direction of the relationship is consistent with the current finding: higher work engagement is associated with a lower likelihood of employee departure. This sectoral similarity strengthens the relevance of the current finding to petroleum organisations, despite differences in national context.

The finding is also supported by the broader literature on the relationship between work engagement and turnover. Decuypere and Schaufeli (2020) conceptualised work engagement as employees' physical, emotional and cognitive investment in their work. Engaged employees devote personal resources to their tasks, remain mentally alert and establish positive relationships

with colleagues. Such experiences can strengthen staff sense of value and belonging within the organisation, thereby reducing their propensity to leave. These positive work experiences may reinforce employees' attachment to the organisation and consequently support retention.

The present finding is nevertheless not universally supported. Some studies have reported weak or statistically insignificant relationships between employee engagement and retention. Alrianti and Ekshan (2024), for example, found that employee engagement did not significantly affect employee retention in their study of talent management, employee engagement and retention, with job satisfaction serving as a mediating variable. Similarly, Hido (2021) found a small but statistically insignificant effect of employee engagement on employee retention. These findings contrast with the strong and statistically significant relationship established in the present study ($\beta = 0.664$, $p < 0.05$).

The divergent findings may be explained by differences in research context, measurement and the mechanisms through which engagement translates into retention. Employee retention is influenced by multiple factors, including remuneration, career opportunities, job security, organisational support, work environment and employees' personal circumstances.

Consequently, engagement may not always have a sufficiently strong direct effect on retention where other factors dominate employees' decisions to remain or leave. Alrianti and Ekshan (2024), for instance, incorporated job satisfaction as a mediating variable, suggesting that the relationship between engagement and retention may depend on intervening mechanisms. Similarly, Hido's (2021) insignificant finding indicates that engagement alone may not be sufficient to explain retention across all organisational contexts.

The qualitative findings of the present study provide further explanation for the significant positive relationship. Participants identified belonging, recognition, self-confidence and

enjoyment of work as mechanisms through which engagement contributes to retention. These factors are consistent with Decuypere and Schaufeli (2020) view that engaged employees invest themselves physically, cognitively and emotionally in their work. When employees experience recognition, meaningful involvement and positive interpersonal relationships, they are likely to develop stronger organisational attachment.

Ahmad et al. (2019) similarly demonstrated that organisational socialisation strategies, including orientation, feedback, mentoring and integration, strengthen employees' embeddedness within the organisation and reduce turnover intentions. These mechanisms may help explain why the highly engaged employees in the present study were more inclined to remain with their organisations.

The findings are also consistent with Job Embeddedness Theory. Employees who become strongly connected to their work through relationships, responsibilities, organisational fit and social connections may perceive greater costs associated with leaving the organisation (Halvorsen et al., 2021). Work engagement can strengthen these connections by encouraging employees to participate actively in organisational activities, develop relationships with colleagues and supervisors, and invest more personal resources in their roles. Consequently, employees may become increasingly embedded in their work environment and less inclined to sever these connections by leaving.

The finding further aligns with the Resource-Based View, which regards employees' knowledge, skills and capabilities as valuable organisational resources that contribute to organisational effectiveness and competitive advantage (Utami & Alamanos, 2022). From this perspective, work engagement reflects the extent to which employees deploy their personal resources towards achieving organisational objectives. When employees are actively engaged,

organisations are better positioned to utilise their human capital effectively, while employees may simultaneously experience greater fulfilment and recognition of their contribution. This reciprocal relationship can strengthen organisational attachment and contribute to employee retention.

4.4.4 Talent Management Effect on Job Satisfaction

The study evaluated the fourth null hypothesis (H_{04}), which stated that talent management has no significant effect on job satisfaction. The results revealed that talent management had a positive and statistically significant effect on job satisfaction among employees in petroleum firms in Kenya. Specifically, talent management significantly predicted job satisfaction ($\beta = 0.192$, C.R. $= 2.441$, $p < 0.05$).

The positive coefficients indicate that improvements in talent management were associated with corresponding improvements in job satisfaction. A one-unit increase in talent management was associated with an estimated 0.192-unit increase in job satisfaction, holding other factors in the model constant. Accordingly, H_{04} was rejected, while the corresponding alternative hypotheses were supported. The findings therefore demonstrate that effective talent management is an important organisational mechanism for enhancing employees' satisfaction with their jobs.

The finding on job satisfaction is consistent with the study's conceptual framework, which proposed that systematic management of organisational talent would create favourable employee attitudes towards work. Talent management encompasses practices such as talent identification, recruitment, training and development, coaching, performance appraisal, career development, motivation and retention. When these practices are implemented effectively, employees are likely to perceive that the organisation values their capabilities and invests in their professional growth. Such perceptions can enhance intrinsic and extrinsic satisfaction by improving opportunities for

advancement, recognition, competence development and meaningful participation in organisational activities.

This interpretation is supported by Gül et al. (2023), who found that talent management positively influenced both intrinsic and extrinsic job satisfaction among nurses. Their study further established that job satisfaction mediated the relationship between talent management and organisational commitment, suggesting that employees who experience greater satisfaction as a result of effective talent practices are subsequently more likely to develop stronger attachment to their organisations.

The present finding is also consistent with Alparslan and Saner (2020), who examined sustainable talent management among employees in Turkey's manufacturing sector and established that talent management significantly affected job satisfaction. Importantly, their findings demonstrate that the benefits of talent management extend beyond immediate employee satisfaction to broader attitudinal outcomes.

Similarly, Alhamadi et al. (2022) reported that talent management strategies positively influenced employee satisfaction and, subsequently, work performance. Drawing on Social Exchange Theory (SET), the authors argued that employees reciprocate organisational investments in their development through positive attitudes and behaviours. The present finding provides further support for this reciprocity mechanism within Kenya's petroleum sector, where employees who perceive effective investment in their talents may respond with greater satisfaction and stronger organisational attachment.

Evidence from the petroleum industry provides particularly strong support for the current results. Alanazi (2022), in an investigation of talent management and employee outcomes in Saudi Arabia's petroleum sector, found that younger employees exhibited relatively low levels of

organisational loyalty and job satisfaction, which were associated with weaknesses in talent management practices. The study recommended transformational leadership, improved talent identification and greater development opportunities to create a supportive environment for talent development and retention.

Similarly, Alshehri et al. (2024), examining talent management in Saudi oil and gas multinational corporations, emphasised the difficulties organisations face in developing and retaining employees capable of responding to the rapidly changing requirements of the petroleum industry. They recommended strengthening training, development and performance evaluation as mechanisms for developing an adaptable workforce. These findings reinforce the present inquiry argument that talent management is not merely an administrative human resource function but a strategic mechanism for creating favourable employee experiences and strengthening workforce capability.

Dayeh and Farmanesh (2021) likewise established that talent management enhanced organisational commitment among employees in Jordanian banks and recommended that managers align talent management practices with employee needs and organisational objectives. Their study also identified mediating mechanisms through which talent management influences employee outcomes, including person-organisation fit and in service training. These findings suggest that the effect of talent management on commitment is likely to be strengthened when employees perceive congruence between their individual needs, career aspirations and the organisation's practices.

The relationship between job satisfaction identified in the present study is also supported by Nguyen et al. (2021), who examined work-related factors among 316 employees in Vietnamese universities. Their findings demonstrated a strong positive relationship between job satisfaction

and organisational commitment, with job-related characteristics significantly influencing satisfaction. Similarly, Saputra and Riana (2021), in a study conducted in Indonesia, established that job satisfaction significantly influenced organisational commitment and organisational citizenship behaviour.

In addition, Alsenani and Afaneh (2022) also reported a substantial relationship between job satisfaction and organisational commitment among 243 employees of a Saudi telecommunications company. Their findings showed that dimensions such as the nature of work, job security, career progression, growth opportunities, remuneration and supervision were strongly associated with job satisfaction. These findings provide an important explanation for the current results: talent management may strengthen organisational commitment partly because it improves the employment conditions and developmental opportunities that constitute important sources of job satisfaction.

The current results are further consistent with Redondo et al. (2021), who investigated talented employees in multinational firms in Mexico and Spain. Their findings indicated that highly skilled employees exhibited high levels of job satisfaction and organisational commitment and relatively low intentions to leave. The authors further demonstrated that job satisfaction and organisational commitment reduced employees propensity to leave the organisation. This finding is particularly relevant to the petroleum industry where the loss of highly skilled employees can impose considerable costs because of the specialised technical knowledge, experience and safety competencies required. Consequently, talent management practices that improve satisfaction and commitment can potentially contribute to employee retention and the preservation of organisational knowledge.

Other studies similarly demonstrate that organisational support and favourable employment conditions can strengthen employee satisfaction and loyalty. Al Habsi et al. (2021) found that competitive remuneration and responsiveness to employees' concerns created a sense of security and loyalty among employees. Arasanmi and Krishna (2019) also demonstrated that perceived organisational support and employer branding could strengthen employee attachment and identification with an organisation, with organisational commitment playing a mediating role in employee retention.

Shahzad et al. (2024) further found that strategic human resource practices, including training, incentives and talent development, enhanced employees' intention to remain with their organisations by improving job satisfaction and engagement. Their study also identified psychological empowerment as an important mechanism linking human resource practices with talent retention. Taken together, these findings indicate that employees are more likely to develop positive attitudes towards their organisations when talent management is accompanied by tangible support, developmental opportunities, empowerment and fair rewards.

The findings also receive support from Azmy (2021), who examined the role of talent management in employee outcomes and found that employee engagement and job satisfaction influenced workforce agility. The study suggested that talent management initiatives strengthen employees' ability to respond to organisational challenges by developing their capabilities, flexibility and innovativeness.

Similarly, Hongal and Kinange (2020) argued that talent management enhances competitive advantage, employee engagement and organisational dedication. These findings imply that the positive effects of talent management may extend beyond attitudinal outcomes to employees' ability to respond effectively to changing organisational demands. For petroleum firms

operating in an increasingly dynamic technological and competitive environment, developing and retaining employees with the skills and motivation to respond to such changes is therefore strategically important.

However, not all empirical evidence has reported a positive effect of talent management on job satisfaction. Dzimbiri and Molefi (2021), in their study of 834 nurses in four public hospitals in Malawi found that only four of the nine talent management indicators were effective in explaining job satisfaction. Their overall findings suggested that talent management did not have a significant effect on job satisfaction.

This contrasting evidence may be attributable to differences in sectoral context, institutional conditions and the effectiveness with which talent management practices are implemented. Public healthcare institutions may face resource constraints, bureaucratic structures and limited opportunities for career advancement that reduce the capacity of formal talent management practices to translate into employee satisfaction (Dzimbiri & Molefi, 2021). In contrast, the current study was undertaken in Kenya's petroleum sector, where specialised skills, competition for experienced employees and the strategic importance of human capital may provide stronger incentives for firms to invest in talent development, recognition and retention.

The positive relationship identified in the present study can also be explained through Social Exchange Theory. The theory proposes that employment relationships involve reciprocal exchanges in which favourable treatment by one party generates an obligation for the other party to reciprocate with positive attitudes and behaviours.

When petroleum firms invest in employee training, coaching, career development, performance appraisal, recognition and other talent management practices, employees may interpret such investments as evidence that the organisation values their contribution and

wellbeing. In response, employees are likely to reciprocate through greater job satisfaction and willingness to remain with the organisation. Alhamadi et al. (2022) similarly applied SET to explain the positive effects of talent management on employee outcomes, arguing that organisational investment in employee development encourages positive employee responses.

The results can further be anchored in Job Embeddedness Theory, which explains employee retention in terms of the extent to which employees become connected to their jobs and communities through links, fit and sacrifice. Effective talent management can create stronger organisational links by connecting employees to colleagues, supervisors, career opportunities and professional development programmes. It can also increase person-organisation fit by aligning employees' capabilities and career aspirations with organisational opportunities.

At the same time, employees who receive valuable training, career development and progression opportunities may perceive greater benefits from remaining in the organisation and consequently face higher perceived costs of leaving. Halvorsen et al. (2020) argue that when employees receive the resources required to perform their roles effectively, they become more embedded in their work and are more inclined to remain in the organisation.

4.4.5. Talent Management and Work Engagement on Employee Retention

The study tested the sixth null hypothesis (H_{05}), which stated that the relationship between talent management and employee retention is not mediated by work engagement. The mediation analysis was conducted using the three-step procedure proposed by Baron and Kenny. The first step examined the direct effect of talent management on employee retention. The results showed that talent management had a negative and statistically insignificant effect on employee retention ($\beta = -0.086$, C.R. $= -1.080$, $p > 0.05$). Although the direction of the relationship was negative, the

effect was not statistically significant, indicating that an increase in talent management alone did not produce a significant direct improvement in employee retention.

The second step examined the effect of talent management on work engagement. The results showed that talent management had a positive and statistically significant effect on work engagement ($\beta = 0.283$, C.R. = 3.318, $p < 0.05$). This finding indicates that a one-unit increase in talent management was associated with a 0.283-unit increase in work engagement. The result suggests that employees are more likely to become psychologically and behaviourally engaged with their work when organisations implement effective talent management practices. Such practices may include appropriate talent identification, training and development, career management, performance appraisal, recognition, rewards, leadership support and opportunities for advancement.

The third step examined the effect of work engagement on employee retention. The results established a positive and statistically significant effect of work engagement on employee retention ($\beta = 0.637$, C.R. = 7.874, $p < 0.05$). Thus, a one-unit increase in work engagement was associated with a 0.637-unit increase in employee retention. The magnitude and significance of this coefficient indicate that work engagement is an important determinant of employees' willingness to remain with their organisations. Employees who are psychologically invested in their work, enthusiastic about their responsibilities and willing to devote energy to their roles are more likely to maintain their employment relationship with the organisation.

Taken together, the three mediation paths demonstrate that talent management significantly enhances work engagement, while work engagement significantly enhances employee retention. The indirect effect of talent management on employee retention through work engagement was approximately 0.180, whereas the direct effect was −0.086. The resulting total

effect was approximately 0.094. These results indicate that the positive influence of talent management on employee retention operates primarily through work engagement rather than through a direct pathway.

Accordingly, H_{06} was rejected and the alternative hypothesis (Ha6) was supported confirming that work engagement mediates the relationship between talent management and employee retention among employees in Kenya's petroleum sector. The finding therefore suggests that talent management practices do not necessarily retain employees automatically; rather, their retention effect is realised when such practices generate stronger employee engagement with work and the organisation.

The positive effect of talent management on work engagement observed in the present study is supported by Ismail et al. (2021), who examined the relationship between talent management, employee engagement and employee retention among Malaysian SMEs. The authors concluded that effective talent management contributed to higher productivity and stronger employee attachment to the organisation. The present study extends this evidence to the Kenyan petroleum sector by demonstrating that engagement is not merely associated with talent management and retention but constitutes a significant mechanism through which talent management contributes to employee retention.

Similarly, Ekhsan et al. (2023) found that employee engagement mediated the relationship between digital talent and employee retention. The findings are particularly relevant to the petroleum sector because technological transformation increasingly requires employees to acquire and apply specialised digital and technical competencies. Thus talent management that provides opportunities for skills development, meaningful work, supportive relationships and participation may enhance engagement and consequently, employees' willingness to stay with the organisation.

The current finding is further supported by Sinisterra et al. (2024), who conducted a systematic review of 43 studies examining the relationship between talent management, employee engagement and turnover intentions. Their review established that effective talent management enhances employee engagement and reduces employees' intentions to leave. More importantly, job engagement was found to mediate the relationship between talent management and turnover intentions. The authors also identified age and organisational tenure as important control variables. Although turnover intention is conceptually distinct from employee retention, the inverse relationship between the two provides useful corroboration for the present findings. Employees who are more engaged are less likely to contemplate leaving, thereby increasing the probability of retention.

The findings are also consistent with Setiawan and Prasojo (2021), who examined talent management, employee engagement and turnover intention among 71 employees at Yamada Plant Factory in Indonesia. Their findings indicated that talent management significantly and negatively affected employees' turnover intentions, whereas employee engagement was significantly related to turnover intention. Engagement also mediated the relationship between talent management and employees' intention to leave. The convergence between their findings and the present results suggests that engagement functions as a critical psychological mechanism through which organisational talent practices influence employees' decisions either to remain with or withdraw from an organisation.

Further evidence of this mechanism is provided by Srimulyani (2020) who found that work engagement partially mediated the relationship between talent management and employee retention in an Indonesian company. The talent management practices examined included leadership support, career management, rewards and recognition. These practices were associated

with high levels of employee engagement and very high employee retention. Although the mediation in that study was partial, whereas the present findings indicate that the retention effect of talent management operates predominantly through engagement, both studies demonstrate the central role of work engagement in translating talent management practices into retention outcomes.

The relationship between talent management, engagement and retention is also evident in healthcare settings. Lerotholi (2021), in South Africa, established that work engagement mediated the effect of talent management on nurse retention. Similarly, Elhaddad et al. (2020) reported significant relationships among nurses' perceptions of talent management, work engagement and employee retention. Their findings indicated that many nurses exhibited low levels of work engagement and weak intentions to remain with their organisations, alongside unfavourable perceptions of talent management. These findings reinforce the proposition that ineffective talent management may weaken employee engagement and subsequently undermine retention. Conversely, when employees perceive that their skills and contributions are recognised and that opportunities exist for development and progression, they are more likely to become engaged and remain with the organisation.

In Namibia, Barkhuizen and Kasera (2021) established significant relationships among talent management, work engagement and voluntary turnover in a financial institution. Their study of 91 employees showed moderate to high levels of engagement, with employees reporting that their skills were appropriately aligned with their roles, they were proud of their organisation's brand and that they received performance feedback. Nevertheless, some employees still expressed intentions to leave.

The finding is important because it demonstrates that employee retention is multidimensional and that engagement, although important, may not be sufficient on its own (Barkhuizen & Kasera, 2021). Compensation, career opportunities, organisational support and external employment opportunities may also influence employees' decisions to remain. The present finding therefore suggests that petroleum firms should not view engagement as a substitute for effective talent management but rather as the mechanism through which well designed talent practices can produce stronger retention outcomes.

Related evidence is provided by Al-Hajri (2020), who examined the relationship between green human resource management, employee engagement and retention in the Omani pharmaceutical sector. Using 349 valid responses from 506 distributed questionnaires, the study found that green human resource management had a positive but insignificant direct effect on employee retention, and a positive and significant effect on work engagement. Importantly, work engagement mediated the relationship between green human resource management and employee related outcomes.

This pattern closely resembles the present findings, where the direct effect of talent management on retention was negative and insignificant, but the indirect pathway through work engagement was positive. The similarity strengthens the argument that employee engagement may serve as a transmission mechanism through which organisational human resource practices ultimately influence retention.

Sepahvand and Khodashahri (2021) likewise demonstrated the importance of employee engagement in the relationship between strategic human resource management practices and employee retention. Their study found that job engagement moderated the relationship between

strategic human resource practices and employee retention. However, engagement did not significantly moderate the relationship between pay satisfaction and turnover intention.

The findings suggest that employee engagement is more strongly influenced by developmental and organisational practices, such as training and performance appraisal, than by financial rewards alone. This observation has implications for the present study because it suggests that petroleum firms seeking to enhance retention should place emphasis not only on financial incentives but also on developmental practices that make employees feel valued, capable and involved in their work.

Further, Memon et al. (2021) established that engagement mediated the relationship between employees' satisfaction with human resource practices, such as performance appraisal and training, and their intentions to leave. These studies reinforce the argument that engagement acts as a psychological pathway through which employees interpret and respond to organisational practices. When employees perceive HR practices positively, they are more likely to experience stronger engagement, which in turn reduces withdrawal intentions and supports retention.

The present findings are also supported by Alhajaj and Ahmad (2024), who examined the effects of human resource management practices on turnover intention through work engagement and self-efficacy in the UAE. The study found that work engagement negatively affected turnover intention and mediated the relationship between employees' perceptions of HR strategies and turnover intention. These findings suggest that engagement is strengthened when employees experience not only material rewards but also autonomy, effective communication and opportunities to participate in organisational processes. Such conditions can be incorporated into talent management systems within petroleum firms to strengthen employee attachment and reduce turnover.

The relationship between talent management and employee performance through work engagement also provides further support for the present findings. Sopiah et al. (2020) similarly established that effective talent management improved employee performance and work engagement among Indonesian nurses. These findings imply that talent management can create a reinforcing cycle in which investment in employees increases engagement, engagement improves performance, and positive work experiences strengthen employees' willingness to remain with the organisation. For petroleum firms, such a cycle is strategically important because the retention of experienced employees preserves organisational knowledge, technical expertise and operational capabilities.

The findings can also be understood in light of the RBV perspective that employees' knowledge, skills, experience and capabilities constitute strategic resources when they are valuable, rare, difficult to imitate and appropriately organised (Miller, 2019). Talent management enables organisations to acquire, develop and deploy these human resources strategically.

However, simply possessing talented employees does not guarantee retention. Employees must also be motivated and psychologically engaged with their work and organisation. The present finding demonstrates this distinction: talent management had no significant direct effect on retention, but it significantly increased work engagement, which in turn had a strong positive effect on retention. Thus, work engagement can be viewed as the mechanism that converts investments in human capital into employee stability and, ultimately, organisational capability.

The findings also support SET when organisations invest in employees through training, career development, recognition, performance feedback, empowerment and other talent management practices, employees may interpret these investments as evidence of organisational support (Asplund, 2020). In response, they reciprocate through greater enthusiasm, dedication and

involvement in their work. Such engagement strengthens the employment relationship and increases employees' willingness to remain with the organisation. This interpretation is consistent with the findings of Ismail et al. (2021), Alhajaj and Ahmad (2024) and Al-Hajri (2020), all of whom demonstrate that positive organisational practices can enhance engagement, which subsequently influences employee outcomes.

The findings can further be explained through Job Embeddedness Theory. Employee retention is influenced by the extent to which individuals develop links with colleagues and the organisation, perceive a good fit between themselves and their work environment, and recognise the sacrifices associated with leaving. Talent management can strengthen these dimensions by providing career opportunities, professional development, recognition, supportive leadership and opportunities for employees to build meaningful relationships within the organisation. These practices can increase employees' attachment to their jobs and make leaving less attractive. The significant effect of work engagement on employee retention in the present study therefore suggests that engaged employees become more deeply connected to their work roles and organisational environment, thereby strengthening their propensity to remain.

The negative and insignificant direct effect of talent management on employee retention deserves particular attention. At face value, the finding may appear inconsistent with studies that report a direct positive relationship between talent management and retention. However, the mediation results provide a more nuanced explanation. Talent management by itself may not be sufficient to retain employees, particularly where employees have alternative employment opportunities or where talent practices do not translate into meaningful daily work experiences.

What appears to matter is whether talent management generates psychological involvement and enthusiasm towards work. The positive indirect effect of approximately 0.180

compared with the negative direct effect of −0.086 indicates that the favourable retention consequences of talent management are transmitted through work engagement and are partially offset by the negative direct pathway. This pattern highlights the importance of examining the mechanisms underlying employee retention rather than relying solely on direct-effect models.

The findings therefore differ from Bonneton et al. (2022a) who found that talent management strategies directly influenced employees' intentions to stay and identified career orientation as an important mechanism in employee retention. The difference may arise from variations in industry, organisational context and the mediating mechanisms considered. While career orientation may be particularly important in multinational organisations where employees have diverse international career opportunities, work engagement appears to be the more immediate psychological mechanism in the Kenyan petroleum context. This contextual difference supports Gallardo-Gallardo et al. (2020) observation that organisations configure talent management according to their particular environments and strategic needs.

4.4.6 Talent management, Work Engagement and Job Satisfaction

The study tested the sixth null hypothesis (H_{06}), which stated that work engagement does not mediate the relationship between talent management and job satisfaction. The mediation analysis was undertaken in three stages. The first stage examined the direct effect of talent management on job satisfaction. The results showed that talent management had a positive but statistically insignificant direct effect on job satisfaction ($\beta = 0.045$, C.R. = 0.651, $p > 0.05$). Although the direction of the relationship was positive, the coefficient was small and statistically insignificant, indicating that talent management alone did not significantly improve job satisfaction among employees in Kenya's petroleum sector.

The second stage examined the effect of talent management on the proposed mediator, work engagement. The results established a positive and statistically significant effect of talent management on work engagement ($\beta = 0.284$, C.R. = 3.324, $p < 0.05$). Thus, a one-unit increase in talent management was associated with a 0.284-unit increase in work engagement. This finding indicates that employees are more likely to become psychologically invested in their work when organisations provide effective talent identification, development, performance management, recognition, career advancement and other supportive talent management practices.

The third stage examined the effect of work engagement on job satisfaction. The findings revealed a positive and statistically significant effect of work engagement on job satisfaction ($\beta = 0.518$, C.R. = 7.457, $p < 0.05$). Therefore, a one-unit increase in work engagement was associated with a 0.518-unit increase in job satisfaction. The relatively large coefficient and high critical ratio indicate that work engagement is an important predictor of employees' satisfaction with their jobs. Engaged employees are more likely to experience enthusiasm, psychological involvement and meaning in their work, which can translate into more favourable evaluations of their jobs.

The mediation results demonstrate that talent management significantly influenced work engagement and that work engagement, in turn, significantly influenced job satisfaction. The indirect effect of talent management on job satisfaction through work engagement was 0.1471, while the direct effect was 0.045. The resulting total effect was approximately 0.192. Thus, although talent management did not have a statistically significant direct effect on job satisfaction, it exerted a positive indirect effect through work engagement.

This finding indicates that the contribution of talent management to job satisfaction is transmitted primarily through employees' engagement with their work. Accordingly, H_{07} was rejected, and the alternative hypothesis (Ha6) was supported, confirming that work engagement

mediates the relationship between talent management and job satisfaction among employees in Kenya's petroleum sector.

The present finding is strongly supported by Hakro et al. (2022), who examined the relationship among talent management, employee engagement, job satisfaction and employee performance in Pakistani non-governmental organisations. The study found that employee engagement mediated the relationship between talent management and job satisfaction.

Talent management also had positive effects on employee engagement, job satisfaction and employee performance, while employee engagement independently exerted a positive effect on job satisfaction. These findings closely correspond with the present study because they establish the same sequence of relationships: talent management enhances employee engagement, which subsequently contributes to greater job satisfaction (Hakro et al., 2022). The consistency across the two studies strengthens the argument that engagement is a critical psychological pathway through which talent management produces favourable employee attitudes.

Similarly, three studies, one in Indonesia's automotive industry, second in Southeast Asia and the other in PT Bank Indonesia, found that talent management significantly influenced job satisfaction both directly and indirectly through employee engagement among employees (Asbari, 2020; Goestjahjanti et al., 2020; Khairina et al., 2022). The convergence of these findings with the present study provides strong empirical support for the mediating role of engagement, although the present study differs in showing that the direct effect of talent management on job satisfaction was not statistically significant.

Further support comes from Sypniewska et al. (2023), who examined sustainable human resource management among 1,051 employees in Poland. Their study considered employee wellbeing, employee development, retention, work engagement and job satisfaction and

established that employee wellbeing, development and retention were associated with higher levels of job satisfaction. More importantly, employee engagement mediated the relationships between these sustainable HRM practices and job satisfaction. The findings suggest that employees' positive reactions to organisational practices are partly dependent on the extent to which those practices foster engagement.

Memon et al. (2021) similarly established that work engagement mediated the relationship between employees' satisfaction with HR practices, particularly training and performance appraisal, and their intention to leave. Although the outcome variable differed from that of the present study, the underlying mechanism is comparable: organisational investment in employees influences employee attitudes partly by increasing their engagement with work.

The findings also correspond with Shahzad et al. (2024), who investigated strategic human resource practices, job satisfaction, work engagement and employee retention among 332 university employees in Pakistan. The study established that strategic HR practices positively influenced employee retention and that work engagement and job satisfaction mediated the relationship between HR practices and employee retention.

Additional support is provided by Azmy (2021) demonstrating that employee engagement and job satisfaction significantly influenced workforce agility, while talent management played an important mediating role in the relationship between employee-related factors and workforce agility. Although the study focused on workforce agility rather than job satisfaction as the outcome, it demonstrates the interconnectedness of talent management, employee engagement and positive employee outcomes. This is particularly relevant to the petroleum industry, where workforce agility and employee capability are important for responding to changing technological, operational and safety requirements.

The current finding is supported in the wider literature linking engagement and satisfaction with employee retention. Hido et al. (2021) found that job satisfaction significantly influenced employee retention, while employee engagement had a positive but insignificant effect on retention when considered independently. However, job satisfaction and employee engagement jointly had a positive effect on retention. This finding indicates that engagement and satisfaction may operate together rather than as isolated employee outcomes.

On the contrary, Hido's finding also provide a useful qualification on work engagement. This contrasts with the present study, where work engagement had a strong and statistically significant effect on job satisfaction ($\beta = 0.518$, C.R. = 7.457, $p < 0.05$). The difference may reflect variations in organisational context, measurement approaches and model specification. It also suggests that the effect of engagement should not be assumed to be uniform across all employee outcomes. Engagement may be particularly important for generating job satisfaction, while other factors may become more influential when predicting retention.

Evidence from Achmad et al. (2023), however, provides an important qualification to the present finding. Their study of 342 Generation Z employees in Southeast Asia examined talent development, employee engagement, job satisfaction and intention to stay. The findings showed that talent development positively affected employees' intention to stay, but job satisfaction played a more important mediating role than employee engagement. This differs from the present study, where work engagement was the significant mediator between talent management and job satisfaction.

The difference may be explained by variations in the dependent variable and the characteristics of the study population. Achmad et al. (2023) focused specifically on Generation Z employees and intention to stay, whereas the present study examined employees in the petroleum

sector and considered job satisfaction as the outcome. The findings therefore suggest that the relative importance of engagement and satisfaction as mediating mechanisms may depend on the employee population, industry and outcome being examined.

A related contrast is provided by Mathur and Srivastava (2024), who investigated talent management, employee retention and job satisfaction among 200 employees from six banks in Jaipur. Their SEM results established that talent management significantly influenced employees' intention to remain and that job satisfaction mediated the relationship between talent management and employee retention.

Unlike the present study, where job satisfaction is the outcome and work engagement is the mediator, Mathur and Srivastava positioned job satisfaction as the intervening mechanism between talent management and retention. Nevertheless, the two studies collectively demonstrate that talent management can influence employee outcomes through different attitudinal mechanisms. This reinforces the importance of considering the sequence and role of employee attitudes when explaining how talent management produces organisational outcomes.

The present results are also theoretically consistent with the Resource-Based View. Talent management enables organisations to acquire, develop, deploy and retain valuable human resources (Miller, 2019). Training, career development, performance appraisal and other talent practices increase employees knowledge and capabilities. However, the current finding suggests that the possession or development of human capital alone does not automatically generate job satisfaction.

Employees must also be psychologically engaged in applying their acquired capabilities to their work. Thus, work engagement represents an important mechanism through which investments in human capital are converted into positive employee attitudes. In the petroleum

industry, where specialised knowledge and technical competencies are important organisational resources, maintaining an engaged workforce is therefore essential for deriving sustained value from talent investments

The findings can also be explained through Social Exchange Theory (Asplund, 2020). When organisations invest in employees through training, career opportunities, recognition, performance feedback and other talent management practices, employees may perceive these investments as evidence that the organisation values their contribution. In response, employees reciprocate through greater dedication, enthusiasm and involvement in their work. This increased engagement subsequently enhances their satisfaction with the job. The present finding therefore supports the exchange based argument that favourable treatment from an organisation can generate positive employee attitudes and behaviours.

Job Embeddedness Theory also provides an additional explanation (Halvorsen, 2020). Effective talent management creates opportunities for employees to develop links with supervisors and colleagues, establish career pathways and perceive a stronger fit between their abilities and organisational roles. These links and the perceived benefits of remaining with the organisation can increase employees' psychological attachment to their work.

Work engagement can consequently emerge as an expression of this attachment, with engaged employees experiencing greater meaning, involvement and satisfaction in their roles. The present finding therefore demonstrates that talent management can contribute to positive employee outcomes not simply by providing material benefits but by creating an environment in which employees become more deeply involved in their work.

4.5 Key Results

The inquiry looked into the outcome of talent management and work involvement on workforce retention in the petroleum field in Kenya. The study's objectives were to determine the effect of talent management on staff retention, examine the role of managing talent on staff attitudes and behaviours and assessing the mediating outcome of task engagement in association with talent management and workforce results. In order to achieve results, data sourced from structured questionnaires and interviews were analysed in an explanatory sequential manner (Dubey & Kothari, 2022).

The inquiry ensured that the quality of data collected was trustworthy and credible for analysis and dependable conclusions to be drawn. Credibility of the data was guaranteed by collecting data from employees of licensed OMCs. The use of two research tools to collect data assisted in achieving method triangulation, which provided robust information for the study. Thick description of data was used to provide information on how the study was conducted in a way that other researchers can emulate (Creswell & Plano Clark, 2018; Creswell, 2021; Sürücü & Maslakci, 2020). A peer who had completed their PhD study critiqued the inquiry and provided feedback which was incorporated in the study.

Additionally, the outcomes of the inquiry can be transferred to similar contexts, as the findings can be generalised and therefore dependable (Kakar et al., 2023; Onwuegbuzie & Hitchcock, 2022). The questionnaires were checked for completeness and usability before being transferred to the excel sheet and subsequently on SPSS, hence the results attained confirmability. The consistency and legitimacy of the data was also addressed to augment trustworthiness of the data. The research objectives reflected the inquiry's questions and tools for face validity. The

research tools were adapted from other scholars, ensuring their validity (Sürücü & Maslakci, 2020).

Additionally, the study employed communalities to maintain construct validity, with all items in the main variables proving ideal except for JS5, JS6 and JS7, E1. Cronbach alpha was employed to check the reliability of the study with all the variables being higher than 0.7. Talent management had .927, work engagement .868, job satisfaction .789 and employee retention .759 and hence the research tool was reliable.

The questionnaires yielded quantitative data that was checked for completeness after which coding was done. The participant identification codes per region were assigned to the questionnaires. The data was then entered into an excel sheet as per the categories indicated in the questionnaire that is; the demographic information, talent managing, job engagement and lastly workforce attitudes and behaviour. The scores were assigned as per the 7-point Likert scale, employed for all variables in the study.

The information in the excel sheet was uploaded to SPSS software for analysis. In analysing numerical data, the study begun by descriptive analysis of study variables. The software analysis availed results including frequency distribution, percentages, standard deviations and means. The descriptive analysis of the variables revealed patterns that illustrated the difference between two or more variables and their meaningfulness.

After conducting descriptive analysis, the research undertook diagnostic checks to ratify that assumptions of the regressions model adopted in the study were not violated. Such violations would affect the conclusion drawn based on the data models adopted in analysis. The study therefore tested for heteroscedasticity, serial correlation, normality and linearity assumptions.

After diagnostic tests, the study then commenced inferential analysis where the study adopted factor analysis, and SEM.

Factors analysis examined the validity of the data gathering tools and suitability of the structural equation modelling method for hypotheses testing. The validity was examined based on communalities where average communalities for each construct of 0.5 and above signified construct validity. The KMO test was also adopted to assess the sufficiency of the sample size to enable factor analysis. Consequently, the proportion of divergence in the data that may have been occasioned by underlying factors was evaluated.

Bartlett's test on the other hand assessed whether the correlation matrix had sufficient correlations to proceed. A significant p value results (< 0.05) indicated that there were correlations in the data, and factor analysis can be considered appropriate.

After confirming that the sample size was sufficient and that the indicators strongly explained the construct, factor loading was undertaken for each construct that is talent management, employee retention, work engagement and job satisfaction depending on the Principal Component Analysis. Sürücü et al. (2023) notes that the average factor loading for each indicator should be more than 0.6 for robust relations between indicators and the construct. The study adopted a minimum factor loading of 0.7 with indicators of the constructs that had factor loading below 0.7 being omitted in the path analysis. Table 57 below provides a summarized tabulation of the results.

Table 57

Summary of KMO, Bartlett's test and Factor Loadings

	KMO	**Bartlett's test**	**Factor Loadings**
TM	0.928	.000	0.538 to 0.813
ER	0.772	.000	0.677 to 0.832

WE	0.913	.000	0.545 to 0.963
JS	0.836	.000	0.388 to 0.821

Note. Based on the researcher's analysis of field data

After factor loading was finalised, the study proceeded to specify the model for the parameter estimation with reference to hypotheses one to six. This involved defining the hypothesised relationships between variables based on theories, which included drawing the path diagram and specifying the structural and measurement components of the model.

The model estimation was undertaken through Maximum Likelihood Estimation to evaluate the implication of talent management tactics both directly and indirectly on retention of staff and work satisfaction. The prediction power of each indicator to the latent construct was scrutinized using regression weights. These revealed the strength and sign of the effect of latent construct on the observed variables. A p value, associated with coefficient of the latent construct less than 0.05 signified a significant effect. Additionally, at statistic higher than t critical of +- 1.96 denoted a significant effect of latent construct on the observed variables. Further, null hypotheses were also tested using the regression weights, which indicated the strength and sign of the effect of explanatory variables on outcome variables.

The investigation tested null hypothesis (H_{O1}) whose results revealed an outcome of employee management on retention of staff in the hydrocarbons sector was positive but not significant ($\beta = .071$, C.R. = .845, P>.05) hence the hypothesis was supported. Additionally, null hypothesis (H_{O2}) testing illustrated that the outcome of talent management on work involvement among petroleum companies in Kenya was positive and significant ($\beta= .265$, C.R. = 3.300, $P < 0.05$). Similarly, the third hypothesis (H_{O3}) findings showed that job engagement positively impacted retention of petroleum workers among firms in Kenya ($\beta = .664$, C.R. = 7.679, $P< 0.05$). The research sought to test null hypothesis four (H_{04}) which the findings highlighted that talent

management effect on work gratification in the petroleum industry in Kenya was positive and significant respectively (β= .192, C.R. = 2.441, p < 0.05).

Additionally, the inquiry tested the fifth null hypothesis (H_{O5}) on the mediation part of job involvement on talents management and staff retention. The mediation based on Kenny and Baron method was undertaken in three steps. Firstly, the direct outcome of talent management on staff retention was negative and insignificant (β= -.086, C.R. = -1.080, P>0.05). Secondly, the mediation showed that talent management significantly affected work engagement (β= .283, C.R. = 3.318, p<0.05). Thirdly, the mediation revealed that work engagement significantly affected employee retention (β= .637, C.R. = 7.874, p<0.05). Consequently, the study did not accept the null hypothesis (H_{05}) and implying that job engagement completely mediated the affiliation regarding talent management and staff retainment in the Kenyan petroleum firms.

The null hypothesis (H_{O6}) tested how work engagement mediated between talent management and work happiness. Talents management direct consequence on job happiness in the petroleum firms was demonstrated as positive but not significant (β= .041, C.R. = .606, P>0.05). Secondly, the stimulus of talent management on work involvement was established as significant (β= .284, C.R. = 3.313, P< 0.05). Finally, the impact of job engagement on satisfaction was significantly affirmative (β= .518, C.R. = 7.457, p <0.05). Accordingly, null hypothesis H_{06} was declined connoting that job engagement completely mediated the correlation of talent management and work satisfaction among petroleum sector employees in Kenya.

Regarding evaluation of the results, the null hypothesis ($H_{O1)}$ was accepted, as talent management did not have a significant association with retainment of employees, a position supported by Antony et al. (2024). This finding is not in agreement with majority of the studies in

the field that established that talent management significantly affected retention of employees (Amushila & Bussin, 2021; Bonneton et al., 2022a).

The second null hypothesis H_{02} was rejected in that, talent management significantly predicted work engagement. This finding is supported by Lerotholi (2021), Ishiyama (2022), Kadiri and Jimoh (2021), Harahapa and Julvirta (2020) amongst others. The third hypothesis (H_{03}) was also rejected as it was demonstrated that work engagement positively affected staff retention. Al-Hajri (2020), Sepahvand and Khodashahri (2021), Srimulyani (2020) and Yuniati et al. (2021), supports this finding. This finding however opposes Alrianti and Ekshan (2024), Hido (2021) and Memon et al. (2021) who established a negative impact of the same variables.

The fourth null hypothesis was also rejected as the findings revealed that the outcome of managing talents on work satisfaction of employees in the petroleum firms was positive and significant. This finding aligns with Alanazi (2022), Friday and Sunday (2019), Gül et al. (2023), Nguyen et al. (2021) and Redondo et al. (2021) who similarly established that talent management supported job happiness.

The null hypothesis (H_{O5}) was rejected on the basis that work involvement mediated the correlation of talent management and staff retention in the Kenyan petroleum business. This finding is in agreement with Lerotholi (2021), Ismail et al. (2021), Setiawan & Prasojo (2021), Sinsterra et al. (2024) who established similar findings.

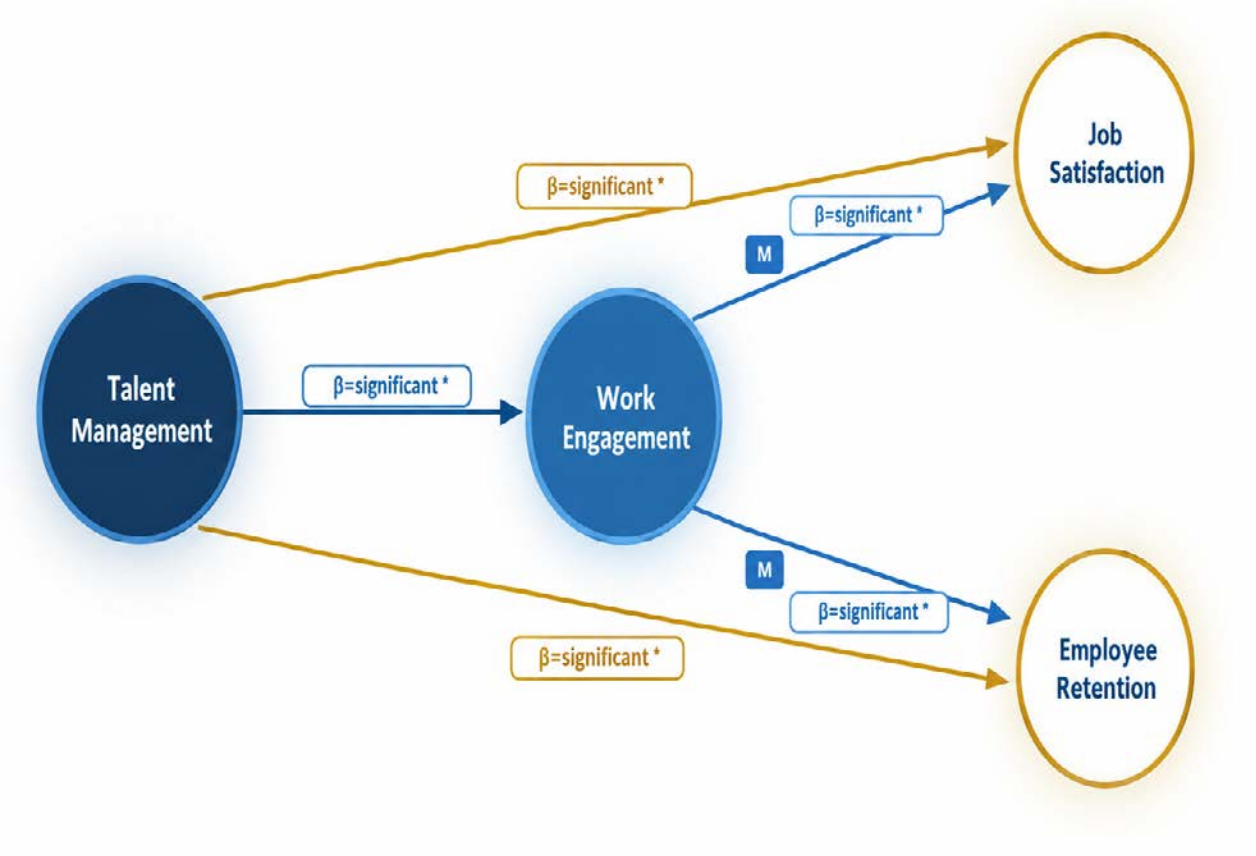
The null hypothesis (H_{O6}) was rejected as work engagement mediated the ties between talent management and workers satisfaction in the petroleum sector. This outcome supports similar conclusions reached by Asbari (2020), Memon et al. (2021) and Sypniewska et al. (2023).

In sum, the aim of the study was attained, and a suitable research model developed *'integrated talent management model'* as shown in Figure 33. This model calls for more focus on

work engagement as the central bolt that supports talent management strategies in achieving job satisfaction and enhancing workforce retention. With work engagement in place, talent management has an impact on employee retention, hence benefiting the organisations.

Figure 33

Integrated Talent Management Model



Note. Based on the researcher's analysis of field data

4.6 Summary

This chapter highlighted how the inquiry ensured the credibility, trustworthiness, dependability and transferability of the data through various means such as peer review, debriefing of participants, truthful reporting, and using validated instruments, amongst others. This ensured that the study obtained credible results through a rigorous process that can be used by other scholars. The results of the inquiry were presented beginning with the demographic details, where the majority of the respondents were male, aged between 30 and 39.

This was followed by an evaluation of results based on the research questions. It was revealed that talent management had a weak effect on staff retention and a major effect on job engagement. Further, work engagement positively influenced staff retention and mediated the association between management of talent and retention of workers and job satisfaction. These results were then elaborately discussed in comparison with previous similar studies and the developed integrative talent management model presented.

CHAPTER 5: IMPLICATIONS, RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

The chapter provides an overview concerning the study's problem statement. It gives a snapshot of the methodology, limitations and ethical considerations as the introduction. It then expounds on the study's implications in the second section, recommendations for application in the third section and recommendations for future studies in section four. Lastly, it provides the conclusion of the study in section five.

The business environment, with the growth of innovative technology making the world a global village, faces talent challenges commonly known as ‘talent war’. This is because the workforce is mobile and can work anywhere in the world, including their homes. Consequently, the petroleum industry also faces competition regarding acquiring and retaining talent so as to gain return on investment (Coulson- Thomas, 2019; PWC, 2020).

The oil and gas sector is a key commercial driver, and any challenges it experiences are reflected in the economy. These have been reported as harsh economic conditions, a competent workforce, employment of locals and expatriates, amongst others. All these challenges can be adequately managed by skilful employees. It is thus necessary that companies must work to retain them for achievement of the organisational goals (Coulson-Thomas, 2019). To retain the skilled employees, companies must implement talent management and work engagement strategies (Lerotholi, 2021; Mitosis et al., 2021). The study therefore explored the use of job engagement in collaboration with work satisfaction to the companies as a means in which management of the petroleum industry could retain its workforce.

The interplay between talent management techniques in companies and retainment of the workforce has been widely studied. However, there still exists misperception on the interaction

between managing of talent and workforce retention (Amushila & Bussin, 2021; Bonneton et al., 2022a). Many studies have been undertaken in the developed and developing nations espousing the different contexts of application of the concept in companies. In Kenya, it has been undertaken in various industries such as the academia (Kiragu et al., 2021), museum (Ochieng'Ojwang, 2019), banking (Muriithi, 2020; Nyaema and Wambua, 2019), telecommunication providers (Kireru, 2019; Rotich, 2022), health (Golicha et al., 2022; Yeswa and Ombui, 2019) amongst others.

Despite the countless studies in this field, it is pertinent to note that innumerable studies have been undertaken on management of talent in the petroleum segment in Kenya. Most studies dealing with the oil and gas industries talent management have been undertaken in prominent oil producing nations such as Nigeria (Friday & Sunday, 2019), Saudi Arabia (Alanazi, 2022; Alshehri et al., 2024), Abu Dhabi - UAE (Alhamadi et al., 2022).

In addition, Anlesinya et al. (2019) notes that several scholars have questioned the efficacy of talent management techniques. The goal of talent managing is to support attainment of the overall goal of an organisation which is driven by the talent managers (Singh, 2021) hence the need for successful practice.

There is a gap in studies that depict effectiveness of the talent management practices especially in developing economies. In this regard, this study was designed to fill the aforementioned gap and provide appropriate recommendations. The study therefore probed the effect of talents management initiatives on workforce retention with the aid of work engagement in Kenya's petroleum industry. Further, the outcome of managing talent on work satisfaction and finally, mediation of work involvement on the link between talents management and staff dispositions and behaviour.

The study utilised mixed method to evaluate the outcome of talent management, with the mediation of work engagement on retention of the workforce. This method was considered appropriate as it provided robust information drawn from both quantitative and qualitative methods while mitigating the weaknesses of each method. Additionally, the study employed an explanatory sequential design, which was undertaken in two phases; phase one being quantitative data gathering and analysis, whereas phase two included gathering and analysis of qualitative data.

This inquiry incorporated primary and secondary information. The primary data were extracted from interviews and questionnaires that were intended to cover every issue in the research questions. It is notable that 281 participants were randomly selected to answer the questionnaires, which yielded quantitative data, out of which 269 valid responses were received. 30 participants, on the other hand, were purposively selected to be interviewed for the qualitative data; however, saturation was attained after 16 interviews. The participants were aged between twenty-five (25) and sixty (60) years and were employees of the OMCs willing to contribute to the research.

A total of top thirty companies were used in the inquiry (15 from SR and 15 from WR). The study was therefore conducted in two regions only, hence limiting the perspectives that could be gained from a region like Nairobi. Further, research tools such as focus group discussions were not used though it could have provided additional details on the subject under study. The study was a cross-sectional inquiry hence not much time was taken to delve into the problem under study.

Regarding ethical considerations, the researcher prior to commencing the study applied for the provisional University Research Ethics Committee (UREC) approval which was granted during Dissertation Stage 1 in March 2022 (see Appendix C). The application for final UREC

approval was done during Dissertation Stage 3 with UREC reviewing the research tools and granting the approval on 12th March 2024. Thereafter, the researcher submitted an application for a research permit from the local institution 'National Commission for Science, Technology and Innovation (NACOSTI)' and the license was provided on 14th May, 2024 (see Appendix B).

It is worth noting that the study participants were made aware of what the research entailed and provided with participant information sheet. They were further requested to take part voluntarily in the study and signed an informed consent form (see Appendix E) as an affirmation of their free will. The participants were also informed that the study was being conducted for academic objectives hence there would be no financial benefit for their participation. As required, the researcher conducted the interviews using ethical approaches to interviewing.

Additionally, the researcher worked effectively with both study participants and others who were contacted in any capacity during the investigation. The researcher respected the research site by adhering to the required safety guidelines and caused least amount of disruption to the participants' work schedule. Hence, the researcher and the participants agreed on a mutually convenient time for the researcher to drop off and pick up the surveys and or conduct interviews. Lastly, the study complied with the privacy and anonymity ethical guidelines for research and posed no risk to the participants.

5.2 Implication of the study

The study was based on the petroleum segment in Kenya, which is considered significant as it brings out strategies that can be implemented by management of oil and gas companies in order to retain employees. It also contributes to the knowledge in the field of talents management in addition to job engagement and retention of employees.

Further, the study contributes insights to the theoretical perspective of job embeddedness, social exchange and resource-based view theories regarding employee retention. To the academic field, this inquiry sets a base for studies on management of talents in the petroleum sector and provides an arena for future studies.

Additionally, the study has social impact as it creates avenues where employees are able to engage with their supervisors and peers at work as a way of fostering productivity. The study's implication is further explained below based on the research hypotheses.

5.2.1 Talent management and employee retention

According to the analysis report, the connection involving talent management and retention of staff was insignificant and weak as reflected by the structural equation modelling ($\beta = .071$, C.R. = .845, $P>0.05$). The study therefore accepted the first null hypothesis. This indicated that talent management does not significantly predict employee retention in the Kenyan petroleum sector as had been anticipated in the conceptual framework. However, despite the weak talent management's effect upon employee retention, the effect was positive inferring an increase in talent management resulted to .071 units increase in employee retention.

In agreement with quantitative findings with regard to positive correlation between employee retention and talent management, the qualitative analysis identified ways by which talent management affected employee retention. Respondents in the interviews noted that talent management makes employees comfortable**,** improves their skills, leads to optimal use of employee skills, creates a conducive work environment and results to promotion.

The study thus concluded that even though the effect of talents management on workforce retention was weak, the positive connotation made it critical in enhancing employee retention.

This position is supported by Dalayga and Baskaran (2019) that, although an organisation's ability to retain staff depended on talent development, this component has been neglected because it is entwined with talent management. They added that career development and training are two essential components of talent development that serve as incentives for sustaining employees in companies.

Similarly, Oduntan (2020) agrees that organisational practices such as career advancement, recognition and benefits, training and development, health and safety have an influence on personnel retention in Shell Nigeria. Moreover, Al Habsi et al. (2021) posits that training, equal treatment, mentorship, assessment of performance, and merit-based hiring were essential for retention. This position is supported by Chizoba & Olechukwu (2025) from a similar study in Nigeria. Moreover, Al Habsi et al. (2021) posits that training, equal treatment, mentorship, assessment of performance, and merit-based hiring were essential for retention.

Significantly, the study revealed that inadequate individual career development plans was an aspect of managing talent that inhibited workers' retention. The finding is in congruence with Dalayga and Baskaran (2019) who noted that development of talent must be tailored to suit individual requirement since there is no 'one-size fit all'. The finding has an implication for personalised career development plans for employees in an effort to retain them longer in the petroleum firms in Kenya.

Sikawa (2020) similarly established that career progress, workplace conditions, succession strategies, and rewards schemes all had a favourable impact on secondary school teachers' retention in Tanzania. When management of talent is handled well, there is rarely a talent shortage within the company, and strategies are implemented.

Further, Kiragu and Marwa (2022) reported a positive correlation between tactical human resources initiatives and staff retention in Kenyan banks. The strategies included recruitment of staff, training and career management which made employees look into the future because of promotion and career growth. They note that training provides employees and management a clear view of the organisational goals and what is expected from each employee.

Nyongesa (2025) explored the influence of management practices namely training, job coaching and mentoring on retention of workers in terms of low attrition, dedication rates and improved loyalty. From a sample of 179 participants from 58 Kenyan pharmaceuticals, it emerged that maintenance of employees enhances retention of staff. The findings also showed that inadequate work-life balance measures like flexible scheduling that suits staff needs were critical for retention purposes. The finding thus points towards effort and policy of implementing work life balance practices among petroleum firms in Kenya.

In tandem with the foregoing outcomes, Zainal et al. (2022) recognised that job environment and balancing work and life had a beneficial impact on retaining of personnel than payment and rewards in Malaysia service sector. This aspect is validated by Fatma et al. (2025) who notes that workers lives are multifaceted off workplace and employers should acknowledge this and support their employees to have a healthy balance and carry out an assessment of this regularly. They front welfare programs, culture, reflection, flexible work schedule and low stress environment as key in improving this balance.

On the other hand, the study dealt with intent to stay or leave as elements of staff retention. These notions developed by employees in the course of the day-to-day duties are developed and maintained by the practices implemented by the management to retain talent. In this regard when

employees develop the feeling of leaving the organisation, the initiatives by management should turn that back to intent to stay longer within the company.

This revelation adds to the reservoir of knowledge on employee retention and management of talent. The unexpected result of the negative correlation between the two variables calls for future studies that might shed more light on the matter. This could have resulted from the use of less practices in testing the relationship.

5.2.2 Talent Management and Work Engagement

Regarding this hypothesis, the findings proved the connection between talent management and work engagement in petroleum companies was positive and significant (β= .265, C.R. = 3.300, P< 0.05). The effect was also positive implying that a unitary increase in talent management resulted to .265 units increase in work engagement. The findings based on content analysis of qualitative data were in congruence with SEM based on quantitative data. The findings showed that majority of interviewees were of the perception that talent management affected work engagement. In sum, the null hypothesis two was not supported as talent management significantly predicted work engagement amongst petroleum employees in Kenya.

The concept of work engagement focused on the vigour and dedication of employees at the workplace whereas talent management focused on job performance, attracting talent, training, career development and leadership management. It was thus evident that talent management was critical in enhancing work engagement in organisations. Several studies have demonstrated similar positive relation between work engagement and resources provided by an organisation such as managerial and social support, autonomy, feedback from management and variation of tasks. By providing these resources, the organisation expects return on investment hence the employees need

to be highly engaged with their work by being ‘absorbed, dedicated and energetic’ in the tasks they are assigned (Redelinghuys & Rothmann, 2019).

Additionally, De Beer et al. (2022) state that engaged employees pay attention, associate, participate and accomplish assigned tasks with precision. They build concrete relations with their colleagues and give their all when performing tasks. Further on, the employees are willing to invest the amount of energy similar to their degree of involvement at work in the performance of their work. Management should therefore maximize on this aspect for optimum productivity by ensuring that the level of work engagement in their organisations are at high levels.

Work engagement can be used as a tool to enrich the competitive edge of an organisation through the use of its human capital which cannot be duplicated by rival companies. This can be attained by having numerous employee engagements which leads to improved performance and high affinity to work. Affinity to work helps employees to create behaviours such as presenting ideas to their supervisors, staying in the organisation and having a drive to work (Sopiah et al., 2020). With these positive behaviours, staff will be encouraged to perform well and be committed to the organisation.

The foregoing conclusion corresponds with Al Hammadi et al. (2022) who in a similar inquiry, established that engaging employees was a tenet of talent management in the Abu Dhabi National Oil Company. Additionally, Stubbings and Sethi (2020) noted that organisations should build employees' skills through various programmes to enhance their abilities. This creates a strong organisational culture and enriches employee engagement. Work engagement has a great impact on organisational outcomes, including employees’ productivity, commitment, lower recruitment and retention costs and stability of the organisation; hence, it has gained attention amongst scholars and practitioners (De Beer et al., 2022).

The finding was expected as per the developed conceptual framework. It is also supported by past studies as illustrated above and therefore contributes to the study's theoretical and practical implications. Organisations should implement policies and activities that promote talent management strategies together with work engagement for the betterment of the organisation. It also aligns with the job embeddedness theory in that the talent management techniques in use in the organisation enhances the links that employees have with the organisation. The practices also improve the suitability of employees skills to their roles and their view of the work environment as conducive. Talent management therefore makes employees more embedded in their work.

5.2.3 Work engagement and employee retention

The testing of the third null hypothesis demonstrated a correlation between work engagement and employee retention in petroleum firms was positive and significant ($\beta = .664$, C.R = 7.679, $P< 0.05$). In this regard, the null hypothesis was rejected as work engagement significantly predicted employee retention among workers in the petroleum industry. Thus, the effect was positive denoting that a unitary increase in work engagement resulted in improved employee retention by .664 units.

Additionally, findings from the interviews disclosed that indeed, work engagement was critical in enhancing employee retention as evidenced by the 16 interviewees 'yes' response to the question. The interviews further revealed several ways through which work engagement changes employee retention including; enhancing sense of belonging, recognition of employees worth and enhancing employee work enjoyment. Thus, the study concluded that work engagement was critical in improving employee retention. Therefore, improved work engagement resulted to increased employee retention among petroleum firms in Kenya. Aspects of work engagement

among employees in Petroleum firms in Kenya that proved critical in enhancing employee retention included vigour, mental resilience, pride in work, inspiration and enthusiasm.

In concurring with the finding, Almohtaseb et al. (2020) observed that staff engagement is a key component of talent management that enhances employees' skills through delegation allowing them to perform higher roles. This fosters a feeling of inclusion for employees and also makes them improve their performance towards attaining the company's objectives. Moreover, Yuniati et al. (2021) noted that work engagement dimension of talent management created emotional motivation amongst employees and reduced job fatigue and absenteeism.

Similarly, Ochieng'Ojwang (2019) established that the high levels of work engagement significantly influenced staff turnover intention. However, less challenging work as an aspect of work engagement inhibited employee retention. Hence, work design and job enrichment should be robust to ensure that employees are adequately engaged to improve employee retention. Bakkert & Albrecht (2018) notes that engaged employees have high creativity skills, high job performance and positive organisational behaviours hence organisations management should ensure that their employees are well engaged.

Further, Al-Hajri (2020) established a positive relation between work engagement and employee retention whereas Sepahvand and Khodashahri (2021) suggested job engagement as a means of positively improving retention of the workforce. Similar results were also established by Clack (2021), Fulmore et al., (2021), Srimulyani (2020) amongst others. Two studies however do not support this finding as illustrated by Alrianti & Ekshan (2024) and Hido (2021) who found that employee engagement does not affect employee retention hence an increase in employee engagement does not cause an increase in employee retention.

This research finding was expected as demonstrated in the conceptual framework. It is also supported by numerous studies except two as indicated above. This finding therefore contributes to the existing knowledge on work engagement and employee retention. It also provides a model for management in oil and gas industries to implement the practices and policies to support their organisations through engagement hence retaining employees for long periods. This finding further supports the theoretical implication regarding the use of job embeddedness theory in promoting employee engagement and retention at the workplace.

It is important to note that the study's findings are consistent with the job embeddedness theory, which was created as a framework that demonstrates that workers who are deeply committed to their jobs are unlikely to leave the company (Halvorsen et al., 2020). They viewed employees as individuals with complex relationships in many facets of their lives, with employment serving as the focal points. Workers with more interactions and duties are more integrated into their jobs since they have many connections. Since the relationships they have formed as a result of their jobs, they stand to lose more if they quit their current employment.

On the other hand, employees with minimal duties and relationships have fewer connections, which results in less work embeddedness. They also have less to lose if they leave their careers (Ahmad et al., 2019). This approach, as per Halvorsen et al. (2020), focuses on three factors: the connections, fit, and sacrifice made by the individual and their employer. The theory is in agreement with the current study findings that highly engaged employees in the organisation are also well embedded in the company and they tend to remain longer thus resulting in high retention.

5.2.4 Talent management on job satisfaction

This inquiry established the outcome of talents management on happiness at work among the petroleum companies in Kenya as significant ($\beta = .192$, C.R. = 2.441, $p < 0.05$) regarding the fourth hypothesis. This illustrates that talent management significantly predicted work satisfaction in the petroleum employees in Kenya with a unitary increase in talent management resulting in enhanced work satisfaction by .192.

The study therefore concluded that techniques regarding talent management were critical in improving employee job satisfaction. Talent management techniques including proper recruitment, training, benefits, performance measurement and promotion improved employee satisfaction. Hence, enhanced talent management practices resulted to high work satisfaction among staff in the Kenyan petroleum business. Satisfaction was evidenced by respondents agreeing to recommend their jobs to their friends, responses noting that their jobs measured to their expectations and respondents agreeing to take the same jobs again if given a chance.

This result corresponds with Gül et al. (2023) who established that talent administration had a substantial impact on job happiness of nurses in Çanakkale. The findings validate Dzimbiri and Molefi (2021), who found that talent development, talent deployment, and staffing were more successful in forecasting registered nurses job satisfaction than other strategies including performance management, talent retention, and talent evaluation processes. The study findings reported performance management as an indicator to job satisfaction. Talent review process was not appraised whereas retention of talent was an outcome variable in the study.

Moreover, Friday and Sunday (2019) revealed that talent management enhanced commitment by staff to petroleum companies in Nigeria. In contrast, Alsenani and Afaneh (2022),

Nguyen et al. (2021), Saputra, and Riana (2021) identified a favourable correlation between organisational loyalty and job happiness in an Indonesian telcom company, Vietnam higher institutions of learning and Indonesian mobile shop respectively.

On the hand, Redondo et al. (2021) also established that the highly talented employees displayed great levels of commitment to the company and work satisfaction hence low levels of intention to quit. It was demonstrated that commitment and satisfaction neutralized the effects of quitting. Also, Alparslan and Saner (2020) established that talents management significantly affected work satisfaction and staff commitment to the company, a position supported by Dayeh & Farmanesh (2021)

Further, talent management practices were crucial for gaining organisational commitment in petroleum firm in Kenya. In lieu with this finding, Almohtaseb et al. (2020) recommended that companies provide their staff incentives like bonuses, flexible work schedules, and recognition in order to motivate them and earn their loyalty. Friday and Sunday (2019) found that the elements of talent management that strengthened employees' loyalty to Nigerian oil and gas firms were talent hiring, development, and retention.

Similarly, Mehreza and Bakria (2019) identified a favourable correlation between HR approaches, job happiness, and loyalty to the company, which leads to retention. Benefits, supervisor’s assistance, salaries, training and development, performance evaluation, working conditions, job security, employee empowerment, and job plans were among the human resource methods that were looked at. This study also evaluated performance management, support from the supervisors, career development and training as the talent management initiatives that improved satisfaction at work.

This result was anticipated as captured in the conceptual framework of the inquiry. This finding as shown above is supported by numerous past studies. It is notable that management of organisations should focus on having initiatives or programs that support implementation of talents management techniques, overall job happiness of employees of employees to the companies. This fosters productivity of the companies and development of a positive organisational culture (Shahzad et al., 2024).

Similarly, the finding contributes to the knowledge on talents management and satisfaction at work. It also addressed the research problem in that employees who are selected and placed appropriately, trained well and are happy with their jobs. These employees tend not to leave the organisation when other opportunities arise hence curbing employee turnover in the organisation.

This finding is anchored on the social exchange theory where the employees give back to the organisation in the same measure as they receive. When the talent management initiatives are adequately implemented in the organisation, employees will put in best effort in their jobs resulting in positive outcomes such as satisfaction. Employees therefore derive job happiness from the workplace environment and therefore commit to the organisation in equal measure to what they receive (Arasanmi & Krishna, 2019).

5.2.5 Talent management, work engagement and employee retention

The null hypothesis (H_{O5}) was tested and it revealed a negative and insignificant consequences of talents management on staff members' retention in Kenya's petroleum sector (β= -.086, C.R. = -1.080, P>0.05). Talent management's impact on the mediator was significant (β= .283, C.R. = 3.318, p<0.05). Moreover, the effect of mediator on employee retention was significant (β= .637, C.R. = 7.874, p<0.05). Consequently, talents management had a great effect

on work involvement whereas the mediator had a major effect on staff retention. The study therefore did not concur with fifth null hypothesis (H_{O5}) as work engagement mediated the relationship between management of talent and retainment of employees in the petroleum industry.

Furthermore, the indirect effect of management of talent on staff retention through work engagement was 0.18 while the direct effect of talent management on workers' retention was -.086. Thus, the sum effect of talents management on retention was .09427 implying that enhancement in talent management by one unit resulted to improved employee retention by .09427 units.

The inquiry hence concluded that talent management influenced staff retention directly and indirectly with work engagement as the mediator. The direct effect of talents management on workers' retention was weak but positive implying that talent management in isolation does not contribute significantly to employee retention as there are other variables such as worker engagement that are also instrumental in the process.

The direct effect result was not anticipated while the indirect effect and result was expected as indicated in the study's conceptual framework. The indirect effect of talent management on employee retention was substantial. This implied that in the presence of work engagement, talent management practices enhanced employees' retention. Therefore, undertaking talent management practices and enhancing work involvement among staff in petroleum firms in Kenya resulted to high employee retention.

This finding is supported by Lerotholi (2021) who had similar results in a study on nurses in Guateng South Africa. The scholar however used demographic details such as age, race, employment and marital status as moderators in her study unlike the current study where work engagement was used as the mediator. Similarly, Ismail et al. (2021) determined a major effect of

talent management on staff engagement and retainment of staff in SMEs in Malaysia.

Significantly, Sinisterra et al. (2024) postulates that management of talent augmented employee engagement and reduced intention to quit. Job engagement also mediated the role between talents management and intent to leave. Also, age and length of stay in the company were important control variables of the mentioned constructs. The current study did not consider the aspect of age and years of experience as control. Additionally, Elhaddad et al. (2020), reports nurses' perceptions of talent management, job engagement and retention levels were significantly linked.

Similarly, Sepahvand and Khodashahri (2020) established that operational engagement moderated the relation between SHRM techniques and staff retention in Iran. They posited that employee work engagement is anchored on training and performance appraisal perception by employees. In the same way, Memon et al. (2021) noted that work engagement mediated the relation between employees' satisfaction with the human resources practices (training and performance appraisal) and intention to leave.

In a related study, Alhajaj and Ahmad (2024) revealed that job engagement negatively impacted on turnover intention. It further mediated the relation between workers' perception of HR strategies and intentions to quit. Setiawan and Prasojo (2021) revealed a negative and major effect of talents maintenance on intent to quit. In addition, employee engagement had an effect on turnover intention whereas retention of staff had an effect on intention to quit in Yamada Indonesia Plant Factory.

This finding though not as expected in terms of relation between management of talent and employee retention is significant to the study and practice. It highlights that there is more that needs to be done in retaining employees than just using talent management practices. Management

of oil and gas companies need to expand their approaches so as to retain employees. With the use of work involvement initiatives, the finding became significant. This enriches the existing knowledge on the subject and affirms studies previously done regarding the three variables, these are talent management, employee retention and work engagement.

5.2.6 Talent management, work engagement and job satisfaction

The results regarding null hypothesis (H_{O6}) indicated that the direct effect of talents management on job satisfaction was positive but not significant (β= .045, C.R. = .651, p>0.05). The influence of the talents management on work engagement was significant (β= .284, C.R. = 3.324, p< 0.05) whereas work engagement on job satisfaction was significant (β= .518, C.R. = 7.457, p <0.05). In sum, talent administration had a significant effect on mediator whereas the mediator had a great effect on job happiness. Consequently, the study rejected the hypothesis indicating that job engagement mediated the association between talents management and work satisfaction amongst petroleum employees in Kenya.

Besides this, the indirect effect of talents management on job happiness via engagement was 0.147 while the direct influence of talent management on work satisfaction was 0.045. Consequently, the sum effect of talents management on work satisfaction was .192 inferring that enhancement in talent management by one unit led to improved job satisfaction by .192 units.

The finding was expected as per the postulated concept of the study. Staff leave the organisation when they are unhappy with the work environment which make them develop negative attitudes. This result therefore implies that the management of oil and gas companies ought to implement strategies and policies that promote talent management practices, active involvement of staff in the operations at work and ensuring that generally employees are happy.

When this is done, the employees will have positive attitude and behaviour toward their jobs and they stay for long in the firm.

Accordingly, the finding also adds to the existing knowledge on the three variables as demonstrated by various similar studies. Memon et al. (2021) supports this finding as they noted that work engagement mediated the relation between employees' gratification, human resources practices (training and appraisal of performance) and intention to quit. The study also focused on training and performance management but added attracting talent, career development and leadership support as part of the tenets that support talent management. The current study therefore extended its breath and with significant findings, management of the oil and gas companies can adopt these measures to enhance staff retention.

This finding is reinforced by Khairina et al. (2022) who established that that talent managing had a significant impact on job happiness through staff engagement, both directly and indirectly in PT Bank Indonesia. This study focused on staff performance as the key criteria for talent management whereas the current study looked into more perspectives of talent management including attracting talent, leadership support, training and career progress.

Similarly, Goestjahjanti et al. (2020) and Hakro et al. (2022) in related inquiries determined that talent management positively affected employee engagement indirectly and through job satisfaction directly. Goestjahjanti et al. (2020) also explored the concept of authentic leadership on the already mentioned variables but it turned out as not having a significant effect on the study. The current study did not look into authentic leadership but rather had leadership support as a tenet of talent management.

Significantly, Shahzad et al. (2024) in a study of Pakistan universities induced employee engagement and work satisfaction as mediators of management of talent and workforce retention.

The current study utilised work engagement as the mediating variable whereas job happiness was an outcome variable. Though in both cases the results were significant, future studies can work around this to produce suitable research models for both the academia and organisations. Achmad at al. (2023) conducted a similar study but focused on the young workforce that revealed similar results safe for job satisfaction, which had more mediating effect than employee engagement. Sypniewska et al. (2023) notes that high levels of employee workplace wellbeing, staff development, employee retention was linked to greater levels of satisfaction.

The study thus concluded that talent management influenced job satisfaction directly and indirectly. The weak direct effect of talent management on work satisfaction implies that talents management in isolation from other critical factors contributed marginally to work satisfaction. However, the strong indirect effect of talent management on satisfaction with work engagement implied that enhanced talent management practices accompanied by improved work engagement resulted to high job satisfaction. It was thus evident that enriched talent management accompanied by enhanced work engagement resulted to improved job satisfaction among employees in petroleum firms in Kenya.

5.3 Recommendations for Application

Petroleum companies operating in Kenya rely on their employees to achieve their goal which is receiving and disbursing petroleum products to the customers. The employees working in various sections of the companies in SR and WR provided their perceptions on how employees are managed, engaged and retained. The results of this inquiry bring insight that builds on the practice of managing talent in companies. The theories used in the study were also expanded and this study will act as a base for future studies on talents management in the Kenyan petroleum sector.

5.3.1 Contribution to Practice

Management of organisations have put in efforts to ensure that employees' needs are addressed and talent management initiatives are put in place to enhance employee retention. By retaining employees' organisations, avoid additional costs that would be incurred by employing and training new staff as replacements of employees who have left the organisations (Li Qi & Jia Qi, 2021). The findings of this inquiry in relation to implementation of talent management initiatives to progress staff retention is beneficial if adopted by organisations in the petroleum sector.

The inquiry was based on two regions which provided rich insights on talent management from the context of companies dealing with receipt and disbursement of petroleum products. This validated the key role played by application of talent management techniques in the petroleum supply chain in augmenting employee satisfaction, and retention. The outcomes showed that the connection between employee retention and talent management was weak. However, despite the weak link of talents management on staff retention, the effect was positive. The inquiry thus recommends that top administration and human resource executives in petroleum firms enhance talent management practices as an effort in retention of the workforce.

The critical aspects of managing talent that need to be enhanced by petroleum companies are individual or personalised career growth plans and the balance between work and life practices that suits the schedule of personnel. Consequently, the top management and HR actors in the petroleum firms in Kenya should put in place polices towards personalised and career development plans for employees in an effort to retain them longer. They should also have a flexible working

arrangement and the middle tier companies should look to compensate staff for long working hours.

This is in line with Dalayga and Baskaran (2019) who identified career advancement and training as incentives for retaining employees in organisations. They further suggested that organisations focus on career development based on individual needs noting that there is no umbrella model for career development for all employees. This improves career progression of employees resulting to employee retention.

It is notable from the findings that the relationship concerning work engagement and employee retention in petroleum companies in Kenya was positive and significant. This study therefore suggests that top management and HR executives in the petroleum firms put in place policies and measures towards enhancing work engagement which is an important aspect of managing talents (Al Hammadi et al., 2022). Improving work engagement results to increased employee retention.

Aspects of work engagement amongst employees in petroleum firms in Kenya that are critical in enhancing employee retention are vigour, mental resilience, and pride in work, inspiration and enthusiasm. The HR executives and depot managers should make work challenging in order to engage their staff as recommended by Ochieng'Ojwang (2019). They should also redesign jobs to enrich the experiences of employees and ensure that they are adequately engaged to improve retention levels.

Additionally, talent management predicted the outcomes of job happiness in the petroleum companies. Petroleum companies should therefore implement talent management practices such as training, promotions, managing performance, enhanced benefits to achieve employee satisfaction as advocated by Gül et al. (2023) and Redondo et al. (2021).

On the Nigerian oil and gas front, Friday and Sunday (2019) reported the enhanced commitment of employees due to implementation of talent management initiatives. Management of petroleum firms should focus on talent management initiatives as a way of enhancing staff satisfaction to the company with the aim of retaining their talents a position also confirmed by Mehreza and Bakria (2019).

Importantly, talents management had a major effect on job involvement that in turn had a resultant increased effect on staff retention. Additionally, the inquiry illustrated that work engagement mediated the association between retaining workers and management of talent among petroleum employees in Kenya. This research therefore recommends that the top management and HR executives in petroleum firms in Kenya puts in place policies and strategies to enrich talent management and work engagement simultaneously to enhance employee retention.

In the presence of work engagement strategies, talent management practices enhanced employee retention in a significant way as also established by Elhaddad et al. (2020), Lerotholi (2021), Sinisterra et al. (2024) amongst others. Therefore, undertaking talents management techniques and enhancing engagement among staff working in petroleum firms in Kenya were critical tools in employee retention efforts.

Moreover, talent management had a great influence on employee engagement at work resulting to job contentment. The finding implied that work engagement mediated the connection between employee satisfaction with employment and talent administration of petroleum firms in Kenya. Identical results were demonstrated by Khairina et al. (2022) and Memon et al. (2021) in their separate inquiries. The study thus recommends top management in petroleum firms in Kenya to simultaneously enhance talent management practices and work enhancement to improve on job satisfaction.

In addition, there is need to inculcate the aspects of management of talent with the aid of work involvement and staff retention by the depot managers as part of their day-to-day routine. This is due to the fact that some managers during the interviews indicated that those roles were aligned elsewhere in the companies while others indicated that they did not have such a role. In this regard, the study recommends that the petroleum training institutions in Kenya such as the Petroleum Institute of East Africa and Morendat Institute of Oil and Gas should include trainings on managing talent according to the results of this investigation for the depot managers and other management leaders in the petroleum field.

The investigation suggests that management of petroleum companies ought to prioritize planned talent management practices in terms of time and financial support for successful implementation. This is in relation to interviews where the participants indicated lack of time and money to carry out planned activities relating to talent management. Further research can be done to examine the successful implementation of talent managing strategies in organisations so as to assess its importance.

Lastly, some of the participants indicated that they had not considered approaches for talent management in their organisation. The inquiry hence recommends that the management of the start-up companies in the petroleum sector should benchmark on issues regarding talent management with older companies in the sector and find a way of remodelling their practices to suit their context and needs. The companies should also adopt the integrative research model developed in this study to guide their implementation of talent management and work involvement techniques. This will assist them in retaining talent and build their competitive advantage as they grow.

5.3.2 Contribution to Theory

The outcomes of the inquiry contributed to the theoretical and conceptual framework developed for the talents management study in the hydrocarbons area. The existing studies on the aspects of talent management and workforce retention in Kenya did not give much focus to the oil and gas industry. The study therefore addresses this loophole in the literature by highlighting the contexts from SR and WR show casing the talent management practices implementation and it affects staff retention.

The study adapted a tripartite theoretical framework consisting of social exchange, resource-based view and job embeddedness theories. The findings of the study brought in information that supported the three theories used in the study. The findings revealed that the workforce was an essential asset in the organisation as expounded by the resource-based view theory. The workforce drives the organisation with the aid of other resources provided by the organisation such as technological systems, buildings, raw materials amongst others (Baroun, 2021; Utami & Alamanos, 2022).

Additionally, the study established that work engagement was crucial in the application of talent management strategies towards attaining staff retention in the petroleum sector. This demonstrates the applicability of the job embeddedness theory in the study as established that engaged employees were willing to stay longer in the organisations (Halvorsen et al., 2020). Job engagement further aided achievement of other positive employee outcomes such as satisfaction of employees. In this regard, work engagement was a key factor in management of employees in the petroleum companies.

Further, the findings revealed that employees in the petroleum sector were influenced by the resources availed by the organisations for them to execute their duties including career progress, wages, working environment amongst others. This supports the theory of social exchange, which posits that workers reciprocate to the organisation based on resources availed to them through their efforts in attaining the organisational goals (Asplund, 2020).

The combination of the three theories brings out the best in the organisations talents and ensures sustainable employee retention, engaging of workers through the use of talents management strategies. Consequently, the inquiry recommends the use of the theories in advancing workforce retention in the petroleum sector with the implementation of talents management strategies

Accordingly, the theories were used to bring a comprehension of the interaction concerning management of talent and retention of staff from different lenses. It also contributes to addressing the question regarding implementation of talent management strategies in Kenya's petroleum industry. With insignificant studies having been conducted in the petroleum sector, this study brings forth the use of management of talent in Kenyan companies.

The investigation supports the extant literature on talent management assisting organisations to achieve return on investment through their human assets (Halvorsen et al., 2020) and various factors. Talent management with employee retention (Al-Hajri, 2020), work engagement (De Beer et al., 2022) and job satisfaction (Achmad at al., 2023). The study thus recommends the use of the theories in advancing workforce retention in the petroleum sector with the implementation of talents management strategies.

Regarding the theoretical structure, the findings of the investigation partially accepted the fronted hypotheses. Out of the six null hypotheses, five were not accepted whereas one was

accepted meaning that the study fronts an amended conceptual framework with a caution to the petroleum industry management on the direct effect of talents management on workforce retention which was found to be weak though positive.

The study thus established that the isolated contribution of talent management to retention of employees, though positive, was not strong enough. It was therefore, apparent that talent management practices alone may not be a strong predictor for retention of the workforce. Hence, other variables are critical in the nexus between management of personnel and employee retention and with intervention of work engagement, as the impact was significant.

Consequently, the study recommends the implementation of a mix of policies and strategies comprising of talent management and work engagement to accomplish retention of employees. The developed research model arising from the study can be applied by the petroleum companies in Kenya based on their contexts. Other nonpetroleum companies can also adopt the model considering the fact the issues under study are crucial for organisations in various settings and industries.

Additionally, work engagement positively mediated the connection between management of talent and workforce attitudes and behaviour (retention of staff and job satisfaction). Therefore, work engagement was a critical factor in enhancing the effect of management of talent on workforce retention, contentment and loyalty to company. It is notable that work engagement was demonstrated by attributes such as vigour, resilience, challenging duties, job inspiration and purpose among employees. The employees depicting work engagement attributes also showed high satisfaction and low attrition chances. Hence, the study recommends petroleum companies to implement policies, strategies and culture that cultivates high employee engagement levels for favourable employee outcomes such as satisfaction, and retention.

5.3.3 Methodological Contribution

The study utilised a mixed method approach to assess the influence of talent management on staff retention. This brought out a wide berth of insights on the issue of employee retention and talent management. The pragmatic approach and procedures used to gather data provided a rigorous experience crucial for methodological aspect of research. The use of explanatory sequential design enabled the study to be conducted in two phases that is quantitative phase where data was collected using questionnaires and subsequent qualitative phase where interviews were conducted hence providing robust information on the research problem (Creswell & Guetterman, 2019; Taherdoost, 2022). This would not be achieved if the study had been aligned to one method only, qualitative or quantitative method.

The mixed data highlights the need for implementing talent management elements in petroleum companies together with work engagement initiatives, which enhance staff satisfaction resulting to staff retention in the oil and gas industry. The findings of the study therefore highlight the methodological contribution brought forth. Most previous studies on the field of talents management employed quantitative method (Bonneton et al., 2022a; Gül et al., 2023; Lerotholi, 2021; Redondo et al., 2021) and qualitative method (Alshehri et al., 2024; Mitosis et al., 2021). Consequently, this study using the mixed method brings in a new perspective that captures the use of talent management in the petroleum field. The study recommends the use of mixed method approach for conducting future studies to advance the fields of talents management, work involvement and workforce retainment in organisations.

The application of work engagement, satisfaction, to organisation and management of talent constructs to understand staff retention in the Kenyan petroleum context also adds to the

methodological contribution of the study. This illustrates the initiatives that companies can apply in order to achieve high rate of employee retention depending on their contexts.

5.3.4 Contribution to knowledge

The research developed an integrated talent management model, which is a contribution to the current knowledge on managing of talent. The model expounds on how talent management initiatives (attracting talent, training, career management, performance management, leadership support) can be incorporated with work engagement tenets of vigour and absorption to achieve employee satisfaction at work and in general retain the staff for longer periods in the organisation. The model can be implemented by organisations based on their resources, needs and contexts to improve retention of their workforce. The model can also serve as a platform for further development or remodelling by other scholars in the petroleum and non-petroleum industry.

5.3.5 Contribution to corporate policy

The study puts forth the following as the contribution to policy development;

a) Develop and fund integrated talent management and work engagement plans.

The study found that talent management alone has a weak direct effect on retention. However, its effect becomes strong and significant when mediated by work engagement. Therefore, policies must promote the simultaneous implementation of both for maximum impact on employee retention and satisfaction.

Policy Action: Mandate OMCs to create annual, budgeted plans that strategically combine talent management initiatives (like training and career development) with work engagement activities (like job redesign and challenging assignments).

b) Implement personalised career development and work-life balance programs.

The research identified "inadequate individual career development plans" and a lack of "work-life balance measures" as key factors inhibiting employee retention. The study emphasizes that there is no "one-size-fits-all" model, calling for personalised approaches to career growth and flexibility.

Policy Action: Establish policies that require OMCs to create individualised career progression plans for employees and adopt flexible work arrangements that suit employee schedules.

c) Incorporate talent management and engagement training into industry certification.

The study found that some managers did not view talent management as part of their role or lacked the knowledge to implement it. Formal, industry-wide training would standardise and elevate management practices, ensuring leaders are equipped to retain talent.

Policy Action: Work with petroleum training institutions (e.g., Petroleum Institute of East Africa) to integrate modules on effective talent management and work engagement strategies into training curricula for depot managers and other leaders.

d) Promote a culture of challenging work and job enrichment.

The findings revealed that less challenging work as an aspect of work engagement that inhibited employee retention. To counter this, policies should advocate for "work design and job enrichment" to keep employees adequately engaged and embedded in their roles, which the Job Embeddedness theory supports.

Policy Action: Encourage OMCs to adopt policies focused on job design that ensures roles are mentally stimulating and provide a sense of pride and inspiration to employees.

e) Establish a monitoring and evaluation framework for talent initiatives.

The inquiry recommends "close monitoring to identify strategies that are giving positive results for continuance implementation and those initiatives with weak results for reviewing and necessary adjustment." A structured monitoring and evaluation framework is crucial for ensuring that the implemented policies are effective and resources are well-spent.

Policy Action: Require OMCs to develop a monitoring plan to track the progress and impact of their talent management and work engagement initiatives, with periodic reporting to senior management for review and adjustment.

5.3.6 Relation to prior and subsequent research

The inquiry compliments the various studies conducted in different fields regarding talent management, staff retention, employee engagement and satisfaction as demonstrated under the literature review chapter two and evaluation of findings in chapter four. These studies include Al-Hajri (2020), Ismail et al. (2021), Lerotholi (2021), Setiawan and Prasojo (2021), Sinisterra et al. (2024) amongst others. The interconnectedness of the concepts applied in this petroleum sector study creates a better understanding of the staff retention in that sector from a Kenyan perspective in line with other developing economies.

In addition, the study can be utilised as a baseline for future studies on talent management in the Kenyan petroleum segment. Further, it can serve as an information resource point for inquiries relating to work engagement and job happiness to companies as the sector grows. The description of the undertaken research process from the problem statement to data gathering and analysis procedures can assist other scholars in undertaking similar inquiries either in Kenya or other nations.

This study provides the insights on to the application of talent management in organisations towards enhancing work engagement, realization of staff retention, attaining general work contentment and obligation to the organisation in the petroleum industry in Kenya. This builds up the inquiries mostly undertaken in Nigeria (Friday & Sunday, 2019). The inquiry further indicated that the relation between talents management and employee retention was weak hence there is need for more inquiries into this aspect of the study. There is need to relook into the industry's application of talent management right from recruitment for a period of time to establish relation between the two variables in a wider span of time.

Finally, the study could be of interest to management and employees of the petroleum companies, Kenyans who have interest in talent management and the petroleum industry in general, petroleum training institutions, talent management professionals, petroleum professionals, researchers and other agencies involved in the petroleum issues. The concept of talent management and employee retention are contemporary issues affecting organisations not only in the petroleum sector but also non-petroleum sectors in Kenya and globally. Hence, the study’s research problem is of interest to the scholarly community as an area of inquiry.

5.3.7 Social and Ethical contribution

The investigation has social impact as it creates avenues where employees are able to engage with their supervisors and peers at work as a way of fostering productivity in terms of support from management (Arasanmi & Krishna, 2019). Further, employees also develop various links at work and outside work that enhances their social structure in the community (Halvorsen et al., 2020). Majority of the employees 57.6% worked in their home county whereas 42.4% came from other counties. The search for employment opportunities leads to movement of people

between the different counties in Kenya which fosters unity among communities as people from different cultures meet, live and work together. Shet (2020) notes that talent management in companies depends on a country's culture, political environment, local institutions amongst others hence the OMCs talent management reflects the culture of the Kenyan people.

Furthermore, the study findings revealed that talent management and work involvement has an impact on employee retention which is critical for functioning of organisations. The study provides insights on how organisations can enhance retention. Consequently, employees will have work and income therefore, able to meet their needs and that of their families and by extension the society around them such as shopkeepers, transport owners, hospitals amongst others. Employees create a ripple economic effect on the society by how they spend their income.

Regarding the ethical implication, the study collected personal information; names and the signatures of the OMCs employees in the consent forms. This personal information is an identifier which can reveal what particular employees answered in the research questions (Drolet et al., 2023; Fetters, 2019). The researcher therefore separated the consent form from the questionnaire and used codes for both the questionnaires and interviews to ensure anonymity. The forms were also kept in a lockable cabinet for confidentiality purposes and to avoid third party intrusion (Fetters, 2019). The scanned copies of the forms were stored in a computer with two level passwords.

Further, the Data Protection Act of 2019 in Kenya requires users of information to avoid sharing or revealing personal information hence the researcher adhered to this and assured the participants that the data would only be utilised for educational purposes (Law, 2019). The researcher respectfully discussed and agreed with the depot managers on when to drop and collect

the questionnaires and also the appropriate time to conduct the interviews (Clark et al. 2021). Consequently, the researcher did not disrupt the work schedule of the employees.

Short term recommendations

The management of OMCs should develop yearly incorporated talent management plans for approval and implementation by their head offices. The required budget should also be prepared for consideration and review by management. Initiatives such as work involvement, developing of performance key performance indices/ performance contracts and leadership support can be initiated within the depots, as it is a quick win for the OMCs and their employees. A monitoring plan should be developed to ensure that the management are appraised of the progress of implementation of the initiatives.

Medium term recommendation

The initiatives in the plans that do not require much resource such as developing of the performance appraisals by employees, local or basic trainings should be executed with available internal resources. Monitoring should be carried out to establish the impact of the initiatives being implemented for review or amendment as necessary. Further, initiatives that require funding such as career progression, international and high level training should be prioritized with funds set aside for their implementation.

Long term recommendations

The funds and tasks set aside for initiatives such as personalised career goals should now be rolled out. The developed plans and initiatives on talent management plan should be fully deployed as part of the organisation policies. The employees should be sensitized about the talent management programs as an organisational culture. The implementation of the plans should be reviewed and the developed plans amended based on the assessment from the reports. The

monitoring of the progress of implementation of the initiatives should continue with periodic reports submitted to management for review.

5.4 Recommendations for Future Research

The current study conceptual arrangement concentrated on the direct effect of talent management on employee attitudes and behaviour. Further, the study examined the indirect effect of talent management on employee jobs satisfaction, and employee retention through work engagement. Notably, only talent management and work engagement described jobs satisfaction, and employee retention. The parameter estimates may change when additional explanatory variable is added in the models. Therefore, future studies should introduce other variables in addition to talent management and work engagement that also explains jobs satisfaction and employee retention.

In addition, future studies can also introduce a moderating variable in the relation between talent management and employees' attitude and behaviour. A moderated relation may be considered where the connection through work engagement is moderated by another variable such as succession planning, communication or culture amongst others. Lerotholi (2021) used the demographic determinants such as age, marital status, employment status, race and gender as moderating variables in her study hence widening its scope. Such aspects will bring more information on what the organisation needs to consider about talent management implementation and retention of staff.

Moreover, the study adopted a set of observed indicators for measuring the latent constructs including talent management (attracting employees, training, support from the leadership, management of performance, career advancement), work engagement (dedication and vigour), work satisfaction (general satisfaction) and employee retention (intention to stay or leave).

Therefore, the magnitude and sign of the relationship of the latent constructs depend on the indicators adopted to measure them. The study thus suggests that future researchers adopt other indicators of the same latent constructs and undertake studies in similar context to establish whether the findings are holding. These include talent management (succession planning) and work engagement (absorption).

Based on the weak relation between talent management and employee retention revealed by the results, future studies should examine this association further in similar and different contexts to ascertain the effect. More focus should be on the petroleum industry to create an understanding of this phenomenon and the improvements that needs to be undertaken to improve the association.

Methodologically, this study relied on content analysis and SEM to examine the relationship among talent management, work engagement and employee attitudes and behaviour. Work involvement was used as the mediating variable in the study. Analysis relying on SEM has the limitation of examining the effect of explanatory variables these are management of talent and engagement at work on the outcome variables in isolation namely job happiness and workforce retention. The study thus recommends that future studies should also adopt multiple Ordinary Least Squares (OLS) regression to enrich findings and confirm the results under SEM.

Notably, the study findings were based on structured questionnaires and interview schedules, therefore there are aspects of talent management, work engagement and employees' attitudes and behaviour that may not be adequately captured based on the adopted instruments. The study thus recommends that future studies adopt other instruments such as focused group discussion, semi-structured questionnaires, and simulation to improve on the details of data collected.

The study used manual questionnaires which was a cumbersome exercise in terms of printing, carrying around and distributing. More time was used in walking around to distribute the papers in the various companies. Hence, future researchers should consider using online questionnaires for ease of distribution and managing the collected data in a timely manner.

Further on, the current study was based on responses from employees, depot managers and the assistant depot managers of various petroleum firms in Kenya which may have resulted to some degree of biasness. Future studies in the petroleum industry should include other players such as the regulators to lower biasness and get a wider perspective of talent management in the hydrocarbon industry.

The current study utilised the inclusive approach of managing talent which looped all employees in the companies as talent. A different view of the practice can be obtained by using the exclusive approach which focuses only on the identified talent pool. Consequently, future studies can consider examining the use of exclusive approach of talent management in relation to staff retention in the petroleum sector. This will bring out the best talent management practice for adoption in the petroleum industry.

Researchers should also engage the anticipated gatekeepers early on before the study commences so that they can have sufficient time to look for other gatekeepers in case the selected gatekeepers are not willing to assist. Additionally, NACOSTI should carry out more sensitizations on the importance of research for the country's development to ensure that all stakeholders are willing to assist researchers in their studies.

The study provides a platform for human resource managers to acquire extensive knowledge on the areas of talent management that requires to be addressed in order to improve

staff retention. With this knowledge, they are able to formulate policies to guide the operational decisions in the organisation towards reducing staff turnover.

In addition, future scholars should consider conducting qualitative studies where the employees can give their perspectives of the talent management in use by their companies through key in-depth interviews. This will add an authentic voice to the call for organisations to meet their employees' expectations in order to retain them. Future scholars should consider undertaking their studies in Nairobi Region as it will bring out new insights from the capital city as most headquarters of the petroleum companies are based in the Nairobi. This will also give the scholars the opportunity to engage with the human resource teams who will provide a global view of the talent management practices in their companies.

Contextually, the findings have limited application and generalisation in petroleum firms in Kenya. The parameter estimates are thus more suitable for decision making in the context of petroleum firms in Kenya. Further, the application of the parameter estimates in other contexts should be done with caution as the change in context such as regulatory environment may have a bearing on the estimates. Importantly, in a bid to enhance the generalisation to other contexts, the future studies can be undertaken in non-petroleum industry firm such as financial sector, manufacturing sector, agricultural firms, educational institutions among others to observe whether the findings are holding in varied contexts.

The aspect of the upstream sector is also a segment that can be explored by future studies with the employment of local talent and expatriates due to lack of technical skills by the locals. Further, the aspect of outsourced employees came up during one of the interview sessions and this is a field that future researchers can examine to determine how management are able to incorporate this team of employees in their talent management plans.

The inquiry focused on the general OMCs in Kenya, however it would be remarkable to observe the comparison of application of talent management between the Multinational companies, government owned (NOCK) and the private owned companies to determine the effective framework to improve workforce retention within the concept of organisational culture and structure. The study provides insights that are critical for implementation in the academic arena as well as the commercial sector where the petroleum industry lies and the corporate policy spheres in Kenya. The government can also put in place policies under the Ministry of Energy and Petroleum to support capacity building initiative in the sector.

5.5 Conclusions

The petroleum industry in Kenya faces significant challenges in retaining skilled employees, a critical concern given the specialized nature of the sector and the substantial investment required to develop talent. This comprehensive study examining the relationship between talent management and employee retention in the industry has revealed important insights that challenge conventional assumptions about workforce retention strategies. The research explored not only the direct effects of talent management on employees' retention but also investigated the crucial mediating role of work engagement, alongside its implication on job satisfaction. One of the significant findings of this inquiry is the paradoxical nature of talent management's influence on workforce retention. While talent management demonstrates a positive influence on keeping employees within organisations, this effect is surprisingly weak when implemented in isolation. This discovery challenges the traditional assumption that robust talent management systems alone are sufficient to retain valuable employees in the petroleum sector.

The study identified several talent management practices that prove critical for retention, including highly selective recruitment processes, recognition of talent pools, comprehensive

performance appraisals, systematic training needs assessments, organisational training programs, career development initiatives, strategic changes in job responsibilities, and coaching or mentoring programs. These practices, when properly implemented, creates an environment where employees progress and feel valued.

However, the research also highlighted a significant shortcoming in current talent management approaches: the inadequacy of individual and personalised career development plans. This gap represents a critical area where petroleum firms in Kenya must focus their improvement efforts. Employees increasingly expect customized career trajectories that acknowledge their unique skills, aspirations, and circumstances. The absence of such personalisation diminishes the overall effectiveness of talent management initiatives.

The study reveals that work engagement emerges as the pivotal factor that transforms talent management from a weak influence into a powerful driver of employee retention. Work engagement showed a strong and positive relationship with both talent management initiatives and employee retention. This finding fundamentally reshapes how organisations should approach retention strategies.

Work engagement encompasses several dimensions that proved essential for retention: vigour, mental resilience, pride in work, inspiration, and enthusiasm. When employees experience these qualities in their work, they become deeply embedded in their organisations, investing not just their time but also their emotions and personal resources into their roles. Such embedded employees find it difficult to leave because that represents a significant personal loss beyond mere employment.

The mediating function of work engagement means that talent management practices become significantly more effective when they successfully engage employees with their work.

This synergy creates a multiplier effect where the combined impact far exceeds what either approach could achieve independently. Organisations that implement talent management strategies alongside deliberate work engagement initiatives witness substantially higher retention rates and improved job satisfaction.

Another critical finding relates to work-life balance, particularly the implementation of flexible work scheduling. The study identified inadequate work-life harmonisation strategies as a significant inhibitor of employee retention in the petroleum sector. Modern employees, especially those with specialized skills that make them highly marketable, increasingly prioritize organisations that recognize and support their need for balance between professional responsibilities and personal life.

Flexible work arrangements represent a relatively low-cost intervention that can yield substantial returns in terms of employee satisfaction and retention. The petroleum industry, traditionally characterised by rigid operational structures, must evolve to accommodate these changing employee expectations. Companies that successfully integrate flexibility into their operational models gets a competitive advantage in attracting and retaining top talent.

The research demonstrated that talent management significantly and positively affects both job satisfaction. Effective talent management practices; including selective recruitment, comprehensive training and development, appropriate compensation, fair performance measurement, and transparent promotion processes, directly contribute to employee satisfaction with their jobs. Satisfied employees in the study expressed willingness to recommend their jobs to friends, felt their positions met their expectations, and indicated they would choose the same jobs again if given the opportunity.

The affiliation between talent management and job satisfaction, finds theoretical support in both the resource-based view and social exchange theories. Organisations that view employees as valuable resources and invest in their development create a reciprocal connection where employees react with loyalty and commitment. This mutual exchange benefits both parties and creates sustainable competitive advantages for organisations.

The findings carry significant practical implications for petroleum firms in Kenya and potentially for the broader industry. Management must adopt a dual-track approach that simultaneously implements robust talent management practices and creates highly engaging work environments. This integration requires: first, organisations must develop comprehensive talent management frameworks that encompass the entire employee lifecycle from recruitment through retention. These frameworks should include personalised career development plans that recognise individual employee aspirations and capabilities.

Second, companies must design jobs and work environments that promote high levels of engagement. This includes ensuring work provides appropriate challenges involves employees in decision-making processes, and creates opportunities for meaningful contribution. The study specifically noted that less challenging work inhibited retention, suggesting that job enrichment and thoughtful work design are essential.

Third, petroleum firms need to establish continuous monitoring systems to evaluate which talent management and engagement initiatives deliver positive results and which require adjustment. Given the initially weak direct effect of talent management, ongoing assessment and refinement are crucial for optimising outcomes. Fourth, organisations should implement comprehensive work-life balance policies, recognising that flexibility increasingly represents a competitive necessity rather than a discretionary benefit.

Further, this study makes important theoretical contributions by validating the application of job embeddedness, social exchange, and resource-based view theories within the petroleum industry context. It demonstrates how these theoretical frameworks provide practical guidance for addressing real world retention challenges.

The study also addresses existing knowledge gaps regarding talent management and retention in Kenya's petroleum industry, providing a foundation for future research while offering practical remedies for the industry's attrition challenges. The findings benefit multiple stakeholders: they give petroleum company management actionable strategies, provide scholars with a basis for further investigation, offer content for educational curricula in petroleum management programs, and inform policy makers developing strategies for strengthening the industry's workforce capabilities.

The inquiry conclusively demonstrates that while talent management is necessary for employee retention in Kenya's petroleum industry, it is insufficient when implemented alone. Work engagement serves as the critical catalyst that amplifies talent management's effectiveness, transforming weak effects into strong, positive outcomes. Organisations that recognise this synergy and implement integrated strategies addressing both talent management and work engagement will achieve superior outcomes in retaining valuable employees and enhancing job satisfaction. As the petroleum industry continues evolving, these insights provide a roadmap for building sustainable, engaged, and committed workforces capable of driving company success in an increasingly competitive environment.

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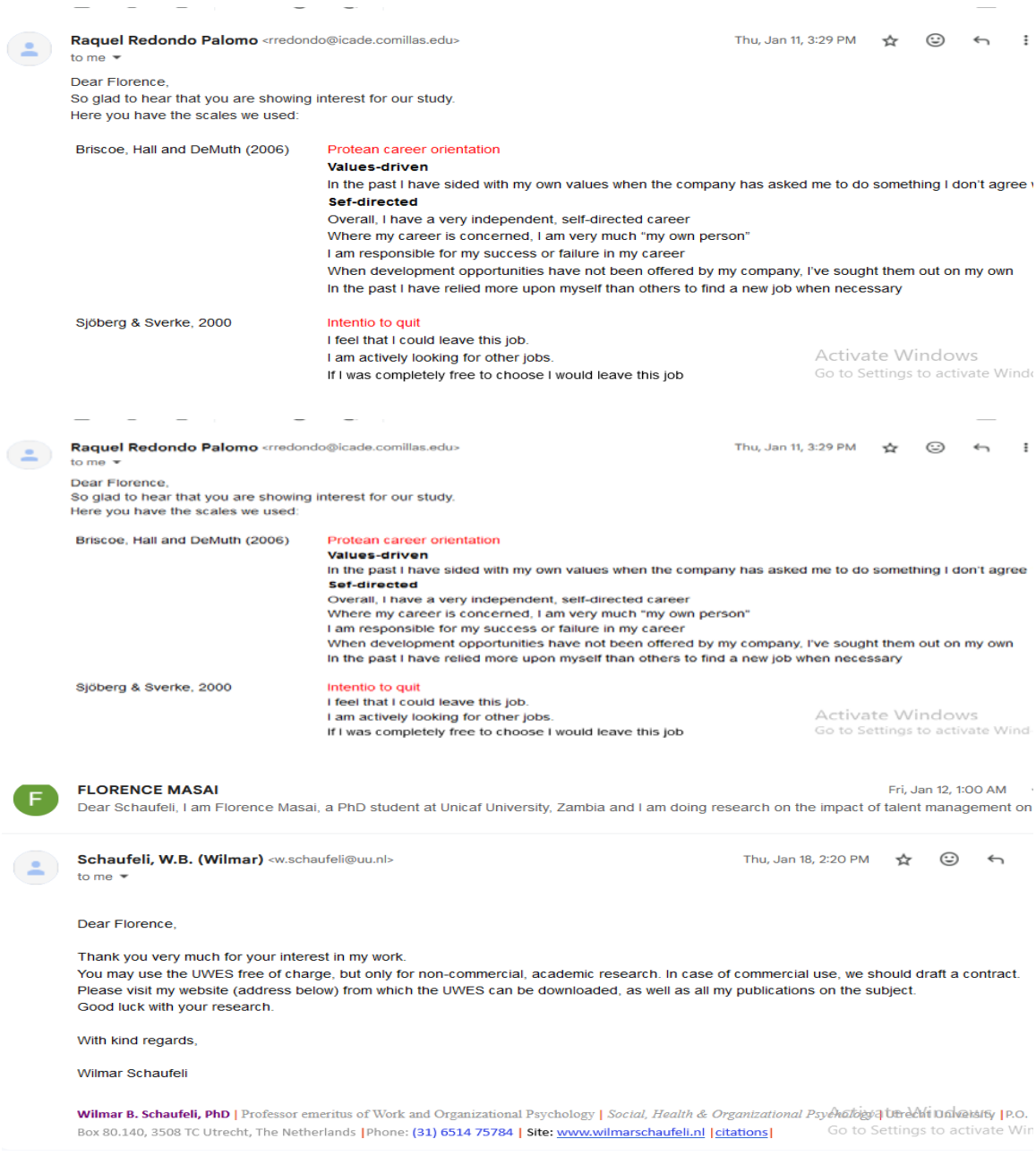
Appendices

Appendix A: Permission to Adapt Questionnaire



Raquel Redondo Palomo <rredondo@icade.comillas.edu> Thu, Jan 11, 3:29 PM
to me

Dear Florence,
So glad to hear that you are showing interest for our study.
Here you have the scales we used:

Briscoe, Hall and DeMuth (2006)	Protean career orientation **Values-driven** In the past I have sided with my own values when the company has asked me to do something I don't agree **Sef-directed** Overall, I have a very independent, self-directed career Where my career is concerned, I am very much "my own person" I am responsible for my success or failure in my career When development opportunities have not been offered by my company, I've sought them out on my own In the past I have relied more upon myself than others to find a new job when necessary
Sjöberg & Sverke, 2000	Intentio to quit I feel that I could leave this job. I am actively looking for other jobs. If I was completely free to choose I would leave this job

Activate Windows
Go to Settings to activate Windo

Raquel Redondo Palomo <rredondo@icade.comillas.edu> Thu, Jan 11, 3:29 PM
to me

Dear Florence,
So glad to hear that you are showing interest for our study.
Here you have the scales we used:

Briscoe, Hall and DeMuth (2006)	Protean career orientation **Values-driven** In the past I have sided with my own values when the company has asked me to do something I don't agree **Sef-directed** Overall, I have a very independent, self-directed career Where my career is concerned, I am very much "my own person" I am responsible for my success or failure in my career When development opportunities have not been offered by my company, I've sought them out on my own In the past I have relied more upon myself than others to find a new job when necessary
Sjöberg & Sverke, 2000	Intentio to quit I feel that I could leave this job. I am actively looking for other jobs. If I was completely free to choose I would leave this job

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FLORENCE MASAI Fri, Jan 12, 1:00 AM
Dear Schaufeli, I am Florence Masai, a PhD student at Unicaf University, Zambia and I am doing research on the impact of talent management on

Schaufeli, W.B. (Wilmar) <w.schaufeli@uu.nl> Thu, Jan 18, 2:20 PM
to me

Dear Florence,

Thank you very much for your interest in my work.
You may use the UWES free of charge, but only for non-commercial, academic research. In case of commercial use, we should draft a contract.
Please visit my website (address below) from which the UWES can be downloaded, as well as all my publications on the subject.
Good luck with your research.

With kind regards,

Wilmar Schaufeli

Wilmar B. Schaufeli, PhD | Professor emeritus of Work and Organizational Psychology | *Social, Health & Organizational Psychology* | Utrecht University | P.O. Box 80.140, 3508 TC Utrecht, The Netherlands | Phone: (31) 6514 75784 | Site: www.wilmarschaufeli.nl | citations |

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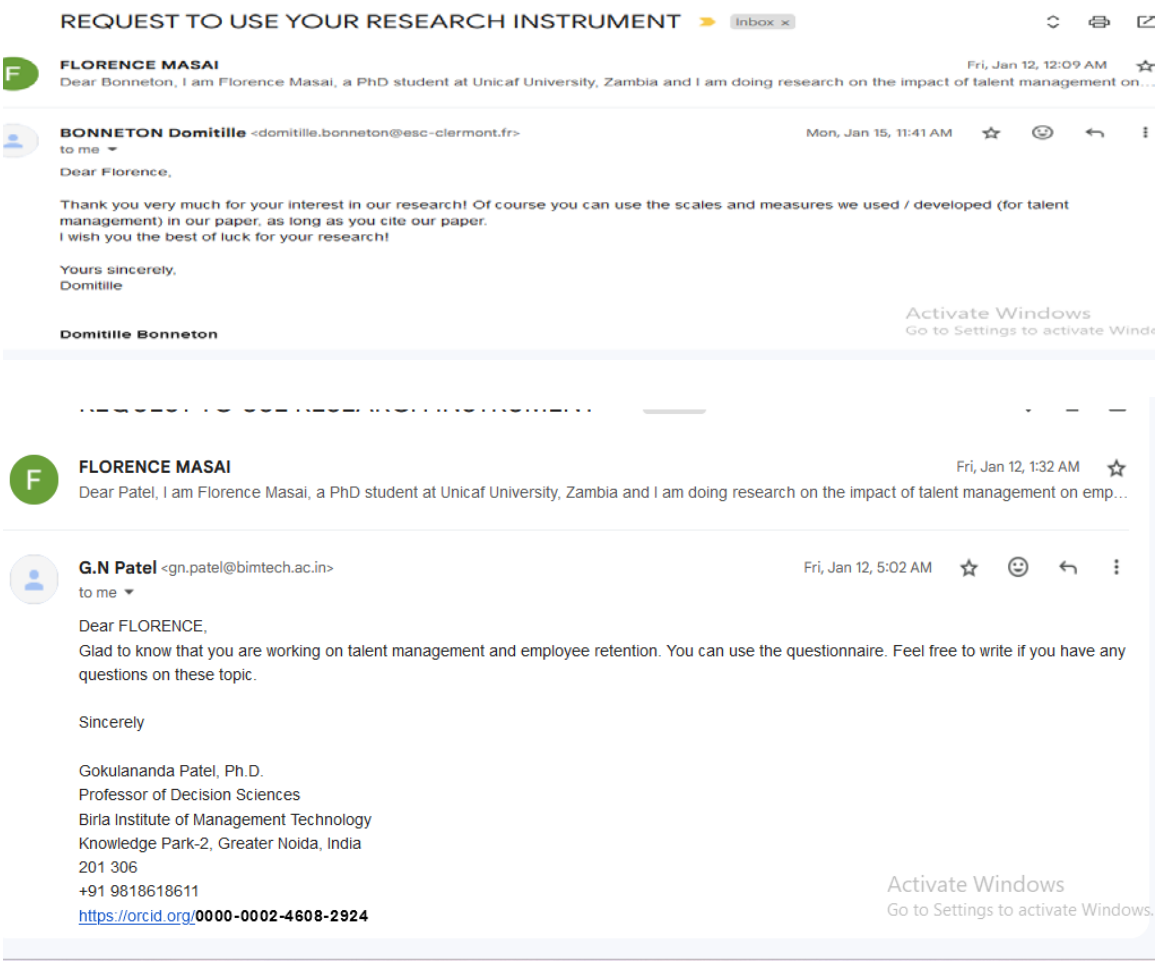

REQUEST TO USE YOUR RESEARCH INSTRUMENT Inbox ×

FLORENCE MASAI Fri, Jan 12, 12:09 AM
Dear Bonneton, I am Florence Masai, a PhD student at Unicaf University, Zambia and I am doing research on the impact of talent management on…

BONNETON Domitille <domitille.bonneton@esc-clermont.fr> Mon, Jan 15, 11:41 AM
to me

Dear Florence,

Thank you very much for your interest in our research! Of course you can use the scales and measures we used / developed (for talent management) in our paper, as long as you cite our paper.
I wish you the best of luck for your research!

Yours sincerely,
Domitille

Domitille Bonneton

Activate Windows
Go to Settings to activate Windows.

FLORENCE MASAI Fri, Jan 12, 1:32 AM
Dear Patel, I am Florence Masai, a PhD student at Unicaf University, Zambia and I am doing research on the impact of talent management on emp…

G.N Patel <gn.patel@bimtech.ac.in> Fri, Jan 12, 5:02 AM
to me

Dear FLORENCE,
Glad to know that you are working on talent management and employee retention. You can use the questionnaire. Feel free to write if you have any questions on these topic.

Sincerely

Gokulananda Patel, Ph.D.
Professor of Decision Sciences
Birla Institute of Management Technology
Knowledge Park-2, Greater Noida, India
201 306
+91 9818618611
https://orcid.org/**0000-0002-4608-2924**

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Appendix B: National Approval

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **314196**

Date of Issue: **14/May/2024**

RESEARCH LICENSE



This is to Certify that Ms.. Masai Florence of UNICAF University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kisumu, Mombasa, Uasin-Gishu on the topic: EFFECT OF TALENT MANAGEMENT, WORK ENGAGEMENT ON EMPLOYEE RETENTION IN KENYA'S PETROLEUM INDUSTRY for the period ending : 14/May/2025.

License No: **NACOSTI/P/24/35354**

314196

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)
Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was the established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
    i. Endanger national security
    ii. Adversely affect the lives of Kenyans
    iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
    iv. Result in exploitation of intellectual property rights of communities in Kenya
    v. Adversely affect the environment
    vi. Adversely affect the rights of communities
    vii. Endanger public safety and national cohesion
    viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. The license any rights thereunder are non-transferable
5. The Commission reserves the right to cancel the research at any time during the research period if in the opinion of the Commission the research is not implemented in conformity with the provisions of the Act or any other written law.
6. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research.
7. Excavation, filming, movement, and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
8. The License does not give authority to transfer research materials.
9. The Commission may monitor and evaluate the licensed research project for the purpose of assessing and evaluating compliance with the conditions of the License.
10. The Licensee shall submit one hard copy, and upload a soft copy of their final report (thesis) onto a platform designated by the Commission within one year of completion of the research.
11. The Commission reserves the right to modify the conditions of the License including cancellation without prior notice.
12. Research, findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

National Commission for Science, Technology and
Innovation(NACOSTI),
Off Waiyaki Way, Upper Kabete,
P. O. Box 30623 - 00100 Nairobi, KENYA
Telephone: 020 4007000, 0713788787, 0735404245
E-mail: dg@nacosti.go.ke
Website: www.nacosti.go.ke

Appendix C: UREC Provisional Approval

UNICAF UNIVERSITY

UREC Desision, Version 2.0

Unicaf University Research Ethics Committee Decision

Student's Name: Florence Masai

Student's ID #: R2010D11413255

Supervisor's Name: Dr. Elizabeth George

Program of Study: UU-DOC-900-1-ZM (PhD)

Offer ID /Group ID: O34895G36562

Dissertation Stage: DS 1

Research Project Title: IMPACT OF STRATEGIC TALENT MANAGEMENT ON EMPLOYEE RETENTION IN KENYA'S PETROLEUM INDUSTRY

Comments:

4b: 300 participants. Please elaborate on your target population number and how many participants will be part of the focus groups, how many will take part in the interviews, and how many will be asked to complete the questionnaire. Remember that in order for the results to be representable of the specific pilot study, 1/3 of the overall target population should participate in the study. To be precise, if a company has 100 employees that are of interest to the research (target population) at hand, then at least 33 employees should participate in the study in order for the study to be representative of the topic studied.
b - Disabilities - You should only include the participants who can provide informed consent for themselves, therefore, people with mental disabilities should not take part in the research. Please add this information to the section.
. Will you need any further approvals from official bodies such as ministries?

Decision*: B. Provisionally approved with comments for minor revision

Date: 17-Mar-2022

*Provisional approval provided at the Dissertation Stage 1, whereas the final approval is provided at the Dissertation stage 3. The student is allowed to proceed to data collection following the final approval.

Appendix D: UREC Final Approval

UNICAF UNIVERSITY

UREC Decision, Version 2.0

Unicaf University Research Ethics Committee Decision

Student's Name:	Florence Masai
Student's ID #:	R2010D11413255
Supervisor's Name:	Dr Elisabeth George
Program of Study:	UU-DOC-900-3-ZM
OfferID / GroupID:	O60077G79442
Dissertation stage:	DS3
Research Project Title:	EFFECT OF TALENT MANAGEMENT, WORK ENGAGEMENT ON EMPLOYEE RETENTION IN KENYA'S PETROLEUM INDUSTRY
Ethical conditions for approval:	No comments.
Methodological recommendations:	
Decision*:	A. Approved without revision or comments
Date:	March 12, 2024

All Doctoral students are advised to check the regulations pertaining to research and General Data Protection Regulation (GDPR) of the country in which the research will take place as each country may have different restrictions on conducting research.

i. Approval from a local Research Ethics Committee (REC) or professional regulatory body such as Institutional Review Board (IRB)

ii. Approval from Ministry or public agency

*Provisional approval provided at the Dissertation Stage 1, whereas the **final** approval is provided at the Dissertation stage 3. The student is allowed to proceed to data collection following the final approval.

Appendix E: Template of Informed Consent

UU_IC - Version 2.1

Informed Consent Form

Part 1: Debriefing of Participants

Student's Name: FLORENCE MASAI

Student's E-mail Address: flomaasai@gmail.com

Student ID #: R2010D11413255

Supervisor's Name: DR. ELIZABETH GEORGE

University Campus: Unicaf University Zambia (UUZ)

Program of Study: Doctorate of Philosophy

Research Project Title: EFFECT OF TALENT MANAGEMENT, WORK ENGAGEMENT ON EMPLOYEE RETENTION IN KENYA'S PETROLEUM INDUSTRY

Date: 27-Jan-2024

Provide a short description (purpose, aim and significance) of the research project, and explain why and how you have chosen this person to participate in this research (maximum 150 words).

The purpose of this study is to evaluate talent management practices and its effect on retention of employees in the petroleum sector in Kenya. It is becoming a challenge for organizations to keep their best employees due to the ongoing talent war resulting from globalization and technological advancements. This study therefore seeks to highlight and build the importance of talent management aspect in the industry. With the discovery of oil in Kenya, the petroleum industry will be on a trajectory hence the need for oil and gas companies to align their human capital appropriately with the insights from this study. The effective talent management practices highlighted by the study can be employed in other non-petroleum industries. You were chosen to participate in this study due to the extensive knowledge and skills that you possess on petroleum industry and your company being among the top share market holders. You were also highly recommended by your supervisor.

The above named student is committed to ensuring participant's voluntarily participation in the research project and guaranteeing there are no potential risks and/or harms to the participants.

Participants have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In these cases, data collected will be deleted.

All data and information collected will be coded and will not be accessible to anyone outside this research. Data described and included in dissemination activities will only refer to coded information ensuring beyond the bounds of possibility participant identification.

I, FLORENCE MASAI **, ensure that all information stated above is true and that all conditions have been met.**

Student's Signature: FMasai

UU_IC - Version 2.1

Informed Consent Form

Part 2: Certificate of Consent

This section is mandatory and should to be signed by the participant(s)

Student's Name: FLORENCE MASAI

Student's E-mail Address: flomaasai@gmail.com

Student ID #: R2010D11413255

Supervisor's Name: DR. ELIZABETH GEORGE

University Campus: Unicaf University Zambia (UUZ)

Program of Study: Doctorate of Philosophy

Research Project Title: EFFECT OF TALENT MANAGEMENT, WORK ENGAGEMENT ON EMPLOYEE RETENTION IN KENYA'S PETROLEUM INDUSTRY

I have read the foregoing information about this study, or it has been read to me. I have had the opportunity to ask questions and discuss about it. I have received satisfactory answers to all my questions and I have received enough information about this study. I understand that I am free to withdraw from this study at any time without giving a reason for withdrawing and without negative consequences. I consent to the use of multimedia (e.g. audio recordings, video recordings) for the purposes of my participation in this study. I understand that my data will remain anonymous and confidential, unless stated otherwise. I consent voluntarily to be a participant in this study.

Participant's Print name: _____

Participant's Signature: _____

Date:

If the Participant is illiterate:

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had an opportunity to ask questions. I confirm that the aforementioned individual has given consent freely.

Witness's Print name: _____

Witness's Signature: _____

Date:

Appendix F: REAF DS

REAF_DS - Version 3.3 AP ☐

UNICAF UNIVERSITY
RESEARCH ETHICS APPLICATION FORM
DOCTORAL STUDIES

UREC USE ONLY:
Application No:

Date Received:

Student's Name: FLORENCE MASAI

Student's E-mail Address: flomaasai@gmail.com

Student's ID #: R2010D11413255

Supervisor's Name: DR. ELIZABETH GEORGE

University Campus/Program: Unicaf University Zambia: PhD Doctorate of Philosophy

Research Project Title: EFFECT OF TALENT MANAGEMENT, WORK ENGAGEMENT ON EMPLOYEE RETENTION IN KENYA'S PETROLEUM INDUSTRY

1. **Please state the timelines involved in the proposed research project:**

Estimated Start Date: 24-Dec-2023 Estimated End Date: 24-Dec-2024

2. **External Research Funding (if applicable):**

2.a. Do you have any external funding for your research?

☐ YES ☑ NO

If YES, please answer questions **2b** and **2c**.

2.b. List any external (third party) sources of funding you plan to utilise for your project. You need to include full details on the source of funds (e.g. state, private or individual sponsor), any prior / existing or future relationships between the funding body / sponsor and any of the principal investigator(s) or co-investigator(s) or student researcher(s), status and timeline of the application and any conditions attached.

2.c. If there are any perceived ethical issues or potential conflicts of interest arising from applying for and/or receiving external funding for the proposed research then these need to be fully disclosed below and also further elaborated on, in the relevant sections on ethical considerations later on in this form.

5 b. Relevant Details of the Participants of the Proposed Research

State the number of participants you plan to recruit, and explain in the box below how the total number was calculated.

Number of participants: 311

The target population is 946 existing employees of 30 Oil Marketing Companies in the Southern (651) and Western Region (295) in Kenya. Using Taro Yamane formula, 281 participants will be used for the quantitative part, on a ratio of 2:1, 187 from Southern and 94 Western Region. 30 participants will be used for the qualitative part that is interviews. The study will therefore use 311 participants who are knowledgeable about the industry.

Describe important characteristics such as: demographics (e.g. age, gender, location, affiliation, level of fitness, intellectual ability etc). It is also important that you specify any inclusion and exclusion criteria that will be applied (e.g. eligibility criteria for participants).

Age range From 25 To 60

Gender
- ☑ Female
- ☑ Male

Eligibility Criteria:

- Inclusion criteria:
  Must be an employee of an Oil and Gas company in Southern or Western Kenya
  Be between 25 - 60 years old
  Those who can give informed consent for themselves
- Exclusion criteria:
  Less than 25 years or more than 60 years old
  Customers of the Oil and gas companies
  Those unable to give consent
  People with mental disabilities

Disabilities/Disorders: You should only include the participants who can provide informed consent for themselves. Individuals who have a mental disability and are not in a position to provide their own consent should not participate in the study. Please provide information for any other disabilities/disorders the participants may have:

People with mental disabilities will not take part in this research.

Other relevant information (use the space provided in the box):

5 c. Participation & Research setting:

Clearly describe which group of participants (described in 5b) is completing/participating in the material(s)/tool(s) described in 4c above (use the space provided in the box)

From the sample size of the study, 281 participants drawn from the various cadres of employees will fill the questionnaire. 30 participants specifically, the depot managers and those at management level will participate in the interviews.

5 d. Recruitment Process for Human Research Participants:

Clearly describe how the potential participants will be identified, approached and recruited (use the space provided in the box).

The researcher will approach Supplycor Kenya Limited which is the coordinating body of Oil Marketing Companies in Kenyan Depots to provide access to the company managers, 15 in Southern Region and 15 in the Western Region. The researcher will contact the managers through phone calls and inform them of the study and seek permission for participation of their companies in the study. The researcher will then randomly sample employees from the respective companies and seek consent for their participation in the study after receiving approval from Unicaf University. The depot managers will be purposively sampled as they have a big role to play in the talent management aspect of their companies. The study will therefore use 311 adults between the ages of 25-60 drawn from the Petroleum Industry in the Southern and Western Region in Kenya as participants.

5 e. Research Participants Informed Consent.

Select below which categories of participants will participate in the study. Complete the relevant Informed Consent form and submit it along with the REAF form.

Yes	No	Categories of participants	Form to be completed
☑	☐	Typically Developing population(s) above the maturity age *	Informed Consent Form
☐	☑	Typically Developing population(s) under the maturity age *	Guardian Informed Consent Form

* Maturity age is defined by national regulations in laws of the country in which the research is being conducted.

5 f. Relationship between the principal investigator and participants.

Is there any relationship between the principal investigator (student), co-investigators(s), (supervisor) and participant(s)? For example, if you are conducting research in a school environment on students in your classroom (e.g. instructor-student).

☐ YES ☑ NO

If YES, specify (use the space provided in the box).

6. Potential Risks of the Proposed Research Study.

6 a. i. Are there any potential risks, psychological harm and/or ethical issues associated with the proposed research study, other than risks pertaining to everyday life events?

☐ YES ☑ NO

If YES, specify below and answer the question 6 a.ii.

6 a.ii Provide information on what measures will be taken in order to exclude or minimise risks described in 6.a.i.

6 b. Choose the appropriate option

		Yes	No
i.	Will you obtain a written informed consent form from all participants?	☑	☐
ii.	Does the research involve, as participants, people whose ability to give free and informed consent is in question?	☐	☑
iii.	Does this research involve participants who are children under maturity age? **If you answered YES to question iii, complete all following questions.** **If you answered NO to question iii, do not answer Questions iv, v, vi and proceed to Questions vii, viii, ix and x.**	☐	☑
iv.	Will the research tools be implemented in a professional educational setting in the presence of other adults (i.e. classroom in the presence of a teacher)?	☐	☑
v.	Will informed consent be obtained from the legal guardians (i.e. parents) of children?	☐	☑
vi.	Will verbal assent be obtained from children?	☐	☑
vii.	Will all data be treated as confidential? If NO, explain why confidentiality of the collected data is not appropriate for this proposed research project, providing details of how all participants will be informed of the fact that any data which they will provide will not be confidential.	☑	☐
viii.	Will all participants/data collected be anonymous? If NO, explain why and describe the procedures to be used to ensure the anonymity of participants and/or confidentiality of the collected data both during the conduct of the research and in the subsequent release of its findings.	☑	☐

		Yes	No
ix.	Have you ensured that personal data and research data collected from participants will be securely stored for five years?	☑	☐
x.	Does this research involve the deception of participants? If YES, describe the nature and extent of the deception involved. Explain how and when the deception will be revealed, and who will administer this debrief to the participants:	☐	☑

6 c. i. Are there any other ethical issues associated with the proposed research study that are not already adequately covered in the preceding sections?

☐ Yes ☑ No

If YES, specify (maximum 150 words).

6.c.ii Provide information on what measures will be taken in order to exclude or minimise ethical issues described in 6.c.i.

6 d. Indicate the Risk Rating.

☐ High ☑ Low

7. Further Approvals

All researchers are advised to check the regulations pertaining to research and General Data Protection Regulation (GDPR) of the country in which the research will take place as each country may have different restrictions on conducting research. **Are there any other approvals required (i.e., from a ministry or public agency in the country, in addition to ethics clearance from UREC) in order to carry out the proposed research study?**

☑ YES ☐ NO If YES, specify.

The researcher will obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) as required in Kenya once the UREC approval is granted.

8. Application Checklist

Mark √ if the study involves any of the following:

☐ Children and young people under 18 years of age, vulnerable populations such as children with special educational needs (SEN), racial or ethnic minorities, socioeconomically disadvantaged persons, pregnant women, elderly, malnourished people, and ill people.

☐ Research that foresees risks and disadvantages that would affect any participant of the study such as anxiety, stress, pain or physical discomfort, harm risk (which is more than is expected from everyday life) or any other act that participants might believe is detrimental to their wellbeing and/or has the potential to / will infringe on their human rights / fundamental rights.

☐ Risk to the well-being and personal safety of the researcher.

☐ Administration of any substance (food / drink / chemicals / pharmaceuticals / supplements / chemical agent or vaccines or other substances (including vitamins or food substances) to human participants.

☐ Results that may have an adverse impact on the natural or built environment.

9. Further documents

Check that the following documents are attached to your application:

		ATTACHED	NOT APPLICABLE
1	Recruitment advertisement (if any)	☐	☑
2	Informed Consent Form / Guardian Informed Consent Form	☑	☐
3	Research Tool(s)	☑	☐
4	Gatekeeper Letter	☑	☐
5	Any other approvals required in order to carry out the proposed research study, e.g., institutional permission (e.g. school principal or company director) or approval from a local ethics or professional regulatory body.	☑	☐

10. Final Declaration by Applicants:

(a) I declare that this application is submitted on the basis that the information it contains is confidential and will only be used by Unicaf University for the explicit purpose of ethical review and monitoring of the conduct of the research proposed project as described in the preceding pages.

(b) I understand that this information will not be used for any other purpose without my prior consent, excluding use intended to satisfy reporting requirements to relevant regulatory bodies.

(c) The information in this form, together with any accompanying information, is complete and correct to the best of my knowledge and belief and I take full responsibility for it.

(d) I undertake to abide by the highest possible international ethical standards governing the Code of Practice for Research Involving Human Participants, as published by the UN WHO Research Ethics Review Committee (ERC) on http://www.who.int/ethics/research/en/ and to which Unicaf University aspires to adhere.

(e) In addition to respect any and all relevant professional bodies' codes of conduct and/or ethical guidelines, where applicable, while in pursuit of this research project.

☑ **I agree with all points listed under Question 10**

Student's Name: FLORENCE MASAI

Supervisor's Name: DR. ELIZABETH GEORGE

Date of Application: 27-Jan-2024

Important Note:
Save your completed form (we suggest you also print a copy for your records) and then submit it to your UU Dissertation/project supervisor (tutor). **In the case of student projects, the responsibility lies with the Faculty Dissertation/Project Supervisor.** If this is a student application, then it should be submitted via the relevant link in the VLE. Please submit only electronically filled in copies; **do not** hand fill and submit scanned paper copies of this application.

Appendix G: Introductory Letter

29th April, 2024

To Whom It May Concern

This letter serves as confirmation that Florence Masai with student ID number R2010D11413255 is currently enrolled in the Doctor of Philosophy – Business programme of Unicaf University in Zambia.

The student is currently undertaking research for the Dissertation, on the below topic:

'EFFECT OF TALENT MANAGEMENT, WORK ENGAGEMENT ON EMPLOYEE RETENTION IN KENYA'S PETROLEUM INDUSTRY'.

If you require any additional information or clarification, please do not hesitate to contact us in the first instance.

Best regards,

Ms. Selia Masoura

Registrar

UNICAF University:
Plot 20842, Off Alick Nkhata Road, Longacres, Lusaka, Zambia
Telephone: +260 211250522 Email: info@zambia.unicaf.org
www.unicafuniversity.ac.zm www.unicafuniversity.com

Appendix H: Gatekeeper Letter

UNICAF UNIVERSITY

UU_GL - Version 2.0

Gatekeeper letter

Institution / Organization :

Address:

Date:

Subject: REQUEST FOR ACCESS TO OMCs

Dear Sir/Madam

I am a **doctoral** student at Unicaf University **Zambia**.

As part of my degree I am carrying out a study on **the effect of talent management, work engagement on employee retention in Kenya's petroleum industry.**

I am writing to enquire whether you would be interested in/willing to **assist me in getting access to the oil marketing companies operating in the southern and western Kenya to participate** in this research.

Kindly introduce me and the study i am conducting to the Oil Marketing Companies by sending them an e-mail requesting them to grant me access to their premises and to allow their staff to participate in the interviews and filling the questionnaires. The collection of data will take approximately three months that is from February 2024 to April 2024 within the period i will be in contact with your office.

Subject to approval by Unicaf Research Ethics Committee (UREC) this study will be using **questionnaires and interviews to collect data.**

This study seeks to examine the talent management and work engagement practices implemented by Oil Marketing Companies and their effect on employee retention. The study will be carried out under the supervision of Dr. Elizabeth George.

Thank you in advance for your time and for your consideration of this project. Kindly please let me know if you require any further information or need any further clarifications.

Yours Sincerely,

Florence Masai

Student's Name: FLORENCE MASAI
Student's E-mail: flomaasai@gmail.com
Student's Address and Telephone: P.O BOX 3287 ELDORET Tel. No. 0736071573
Supervisor's Title and Name: DR. ELIZABETH GEORGE
Supervisor's Position: LECTURER
Supervisor's E-mail: e.george@unicaf.org

Appendix I: Questionnaire

QUESTIONNAIRE

Dear Participant,

I am Florence Masai, a PhD student at Unicaf University, Zambia. I am currently carrying out a study for my dissertation examining employee attitudes, behaviours and opinions on their work in Kenya's petroleum industry. This study is towards the fulfilment of the requirements for the award of a Doctor of Philosophy Degree in Business. The filling of the questionnaire will take approximately thirty to forty minutes and your participation is voluntary. You are kindly requested to provide accurate and independent answers to the questions.

Please note that the information you provide in the questionnaire will be treated with confidentiality and will be used for academic purposes only. Your participation in the study is also voluntary and you can withdraw at any point in the study. The data you will have provided will not be used.

Please provide your answers by ticking the appropriate box.

In case you have any query or require clarification you can reach me through the contact below.

Florence Masai

Email: flomaasai@gmail.com

Tel. no. 0736071573

Date ..... Questionnaire No: .....

CONSENT TO PARTICIPATE

I have read and understood the information provided about the study and I understand that the information I provide will remain confidential and anonymous. I consent to voluntarily participate in this study.

I agree [ ] I Disagree [ ]

If you agree, please proceed to answer the questionnaire.

SECTION A: DEMOGRAPHIC DETAILS

Please read the statement and select the appropriate answer.

1. What is you gender?

Female [ ] Male [ ] Other [ ] Prefer not to answer [ ]

2. What is your age range?

20 – 29 [ ] 30 – 39 [ ] 40 – 49 [ ] 50 – 59 [ ] 60 or above [ ]

3. Do you work in your home county?

No [ ] Yes [ ]

4. What is your highest level of education?

High School [ ] Certificate [ ] Diploma [ ]

Degree [ ] Masters [ ] Doctorate [ ]

5. How many years of experience do you have?

5 or below [ ] 6 – 10 [ ] 11 – 15 [ ] 16 – 20 [ ] 20 or above [ ]

6. What is your rank? ……

Lower cadre [ ] Middle Management [ ] Top Management [ ]

7. Do you have any staff reporting to you?

Yes [ ] No [ ] , If yes, approximately how many? ……..…

8. How many positions did you change during the last five years? ……..

SECTION B: TALENT MANAGEMENT

This section measures talent management practices being used by companies. The items are measured on a rating scale of 1 (Extremely small extent) to 7 (to an Extremely large extent)

How do the statements fit you as an employee? Tick appropriately.

		Extremely Small Extent	**Very Small extent**	**Small Extent**	**Moderate Extent**	**Large Extent**	**Very large Extent**	**Extremely Large extent**
		1	**2**	**3**	**4**	**5**	**6**	**7**
1	To what extent did you perceive the organization as the best employer when you applied							
2	To what extent do you feel that you went through a highly selective process when you were recruited							
3	To what extent do or did you feel recognized as part of a talent pool at your organization							
4	To what extent have your potential and performance been continuously assessed							
5	To what extent has the feedback on your							

	performance improved your daily job deliverables							
6	To what extent has your organization put in effort in organizing training that supports your daily job							
7	To what extent have your training needs been continuously assessed							
8	To what extent have you received individual and personalized career development plans							
9	To what extent have you changed job or responsibilities, for example through job rotations, cross-functional assignments, or internal transfers							
10	To what extent has your organization internal career development benefited you							

11	To what extent have you been working in multicultural teams							
12	To what extent has your organizations coaching or mentoring program enhance your job skills							
13	To what extent have you received senior management's attention							
14	To what extent has your organization put in place work-life balance practices, such as flexible work arrangements that suits your schedule							

SECTION C: WORK ENGAGEMENT

The questions seek to measure how employees are engaged at their work place using a 7 point Likert Scale, 1 (Never) to 7 (Always). Please tick appropriately.

		Never	**Almost Never**	**Rarely**	**Sometimes**	**Often**	**Very Often**	**Always**
		1	**2**	**3**	**4**	**5**	**6**	**7**

1	At my work, I feel busting with energy							
2	I am proud of the work that I do							
3	At my job, I feel strong and vigorous							
4	To me, my job is challenging							
5	My job inspires me							
6	I find the work that I do full of meaning and purpose							
7	I can continue working for very long periods at a time							
8	I am enthusiastic about my job							
9	At my job, I am very resilient, mentally							
10	When I get up in the morning, I feel like going to work							

SECTION D: EMPLOYEE ATTITUDES AND BEHAVIOURS

This item seeks to ascertain the level of employee's attitudes and behaviours towards their job using a Likert scale of 1 (Strongly Disagree) to 7 (Strongly Agree). Please tick appropriately.

		Strongly Disagree	**Disagree**	**Slightly Disagree**	**Neither Agree nor Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
		1	**2**	**3**	**4**	**5**	**6**	**7**
1	I am very satisfied with my job							

2	If it were up to me, I will definitely be working for this organisation for the next five years.							
3	I would recommend this job to a friend							
4	This job measures to my expectations							
5	Overall, I am satisfied with my job							
6	Within this organisation my work gives me satisfaction.							
7	I would prefer another job, more ideal job							
8	If I received an attractive job offer from another organisation, I would take the job.							
9	I am satisfied with the important aspects of my job							
10	The work I'm doing is very important to me.							
11	I have checked out a job in another organisation previously							
12	I'm planning on working for							

	another organisation within a period of three years							
13	I would take the same job again							
14	I see a future for myself within this organisation.							

Thank you for taking time to participate in this study.

Appendix J: Interview Guide

INTERVIEW GUIDE

INTERVIEW INTRODUCTION

The interview questions below will be conducted with the depot managers including the deputies of the Oil Marketing Companies in Southern and Western Regions in Kenya. The questions seek to address the impact of talent management on employee retention with the mediating role of work engagement.

Dear participant, thank you for taking time off your schedule to be part of this study. I am a PhD student at Unicaf University, Zambia and I am carrying out a study on the influence of talent management practices on employee retention in Kenya's petroleum industry. During this interview, I do hope that I will be able to get your perception on talent management, work engagement and its effect on employee retention. I also hope to get insights on job satisfaction of employees in the petroleum sector.

All the information that you share with me during this interview will be anonymous and will not in any way be linked to you. I will also keep the information confidential and use it for academic purpose only. I assure you that there are no risks to you for participating in this study. Further, your participation is voluntary and you have the right to withdraw at any point during the interview process.

I would like to request that you allow me to record our discussion to ensure that I get all your views correctly. The recording be stored safely in a secure place for five years after which it will be destroyed. You can let me know at any point if you want me to turn off the recorder. This session will take approximately 30 – 40 minutes.

SECTION A: CONSENT TO PARTICIPATE

Before we proceed with the interview, do you consent to participate in this study?

Yes [ ] No [ ]

Am I permitted to record our conversation?

Yes [ ] No [ ]

SECTION B: DETAILS OF THE PARTICIPANT

1. What is your gender?

Female [ ] Male [ ] Other [ ] Prefer not to answer [ ]

2. What is your age range?

20 – 29	
30 – 39	
40 – 49	
50 – 59	
60 or above	

3. Do you work in your home county? Yes [ ] No [ ]

4. What is your highest level of education?

High School	
Certificate	
Diploma	
Degree	
Masters	
Doctorate	

5. How many years of experience do you have? …….

6. What is your position in the company? ……..

7. Do you have staff reporting to you? Yes [ ] No [ ]. How many? ……

8. How many positions have you change in the last five years? ……

SECTION C: INTERVIEW QUESTIONS

1. What are some of the talent management practices in use in your company?
    - Are there any challenges in the implementation of the talent management practices?
    - Can you describe your role in relation to talent management?
2. Do talent management practices affect retention of employees? How?
3. What can you say about the level of work engagement in your company?
    - What does your company do to enhance employee work engagement?
4. In your view, does the talent management practices affect employees' work engagement? Why?

5. What would you say about employee retention in your company?
    - What are some of the strategies put in place?
6. In what ways does work engagement influence employee retention?
7. How does your company deal with job satisfaction?
8. Could work engagement influence employees' job satisfaction? How?
9. What areas of improvement would you suggest to the management of the company?
10. Is there anything else that you would like to add?

Thank you for participating.