# Factors Contributing to Employee Turnover in the South African Renewable Energy Sector.

**Dumsile Nondumiso Ngema**

**Student Number: 2625028**

**Student Email Address: 2625028@students.wits.ac.za**

**A Research Article Submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in Partial Fulfilment of the Requirements for the Degree of Master of Business Administration**

**Johannesburg, 2024**

# DECLARATION

I, Dumsile Nondumiso Ngema, hereby declare that this thesis is my original work, except where acknowledged, and has not been submitted for any other degree or examination. All sources and references used have been duly cited and acknowledged. This work is submitted in partial fulfilment of the requirements for the Master of Business Administration degree at the University of the Witwatersrand, Johannesburg.

# ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to my supervisor, Dr Grant Seiff for his unwavering support, guidance, timeous feedback, and insights throughout this research journey. I am also thankful to the participants who generously contributed their time and knowledge. Special thanks also go to my family, friends, industry and academic peers for their constant encouragement.

# ABSTRACT

The primary objective of this study was to identify the key factors driving employee turnover. Concurrently, the study aimed to investigate the underlying organisational culture disparities across different age groups and gender profiles. Additionally, it explored the impact of leadership on turnover and the relationship between employee compensation and turnover. Considering the complex nature of employee turnover's impact, the development of effective retention strategies has become a crucial need for organisations in this rapidly growing industry. Implementing these strategies is vital for retaining top talent, safeguarding institutional knowledge, mitigating turnover-related costs, and enhancing overall organisational productivity. To address the study's objectives, a digital quantitative research survey was conducted with a sizable sample of 300 employees employed in the renewable energy sector. The survey achieved a 95.67% response rate, providing a robust dataset for analysis. The collected data underwent rigorous statistical examination, which included both inferential and descriptive statistics. Among the key findings, organisational culture emerged as the primary driver of employee turnover within South Africa's renewable energy sector. This highlights the significance of elements such as inclusivity, employee support, respect, work-life balance, and ethical conduct as crucial components of the organisational culture. Employee compensation also played a significant role in influencing employee turnover in this sector, with job satisfaction acting as a critical mediator in explaining the relationship between culture and employee retention. Interestingly, the study did not identify a similar mediating role between compensation and turnover. Additionally, other factors such as leadership and training and development did not demonstrate a significant relationship with turnover. The practical implications of these findings are significant for improving human resource practices in the renewable energy sector. These findings also highlight the importance of strengthening organisational culture while also focusing on job satisfaction and competitive compensation packages. Policymakers and industry associations can draw valuable insights from the findings of this study to enhance employee retention strategies. This study contributes meaningfully to the understanding of employee turnover in the

renewable energy sector, not only within South Africa but with potential relevance in a broader context.

## KEYWORDS

Employee turnover, job satisfaction, organisational culture, organisational leadership, employee compensation, training and development, renewable energy, retention strategies, human resource management

# TABLE OF CONTENTS

# LIST OF TABLES

# LIST OF FIGURES

# LIST OF ACRONYMS

**ANOVA – Analysis of Variance**

**DF – Degrees of Freedom**

**EFA – Explanatory Factor Analysis**

**HR – Human Resource**

**IPP – Independent Power Producer**

**KMO – Kaiser Meyer Olkin**

**NERSA – National Energy Regulator of South Africa**

**PCA – Principal Component Analysis**

**REIPPP- Renewable Independent Power Producer Program**

**SD – Standard Deviation**

**SPSS- Statistical Package for Social Sciences**

# 1 INTRODUCTION

This chapter provides the background context of the study, which sets the stage for the identified problem statement that forms the basis of the study's focus. It further details the primary research objective and secondary research objectives, justification of the study, delimitations applied in the study as well as operational definitions of the focused concepts for the research. The section concludes by presenting a summary of the overall research structure.

## 1.1 Statement of purpose

The purpose of this research is to investigate the factors contributing to employee turnover within the renewable energy sector in South Africa. The study aims to identify the key drivers of employee turnover and propose effective strategies for employee retention. By examining existing research and analysing the experiences and perspectives of employees, managers, and human resource professionals, the study provides evidence-based recommendations to enhance employee job satisfaction, communication channels, job design, and flexibility within organisations. Ultimately, the findings of this research will help renewable energy organisations in South Africa improve employee retention, increase productivity, and achieve their business objectives.

## 1.2 Background of the study

In recent years, South Africa has faced a significant crisis in its power industry, marked by a series of challenges including frequent power outages, load reductions, and load shedding. This power crisis is primarily caused by aging and poorly maintained infrastructure, inadequate investment in new power generation, and mismanagement of the state-owned power utility, Eskom (Nhende, 2023). The utility has struggled to meet the country's growing energy demands due to several factors, and as such, the South African government has launched several initiatives aimed at increasing the country's power generation

capacity and promoting the development of renewable energy sources. This has seen an increase in foreign renewable energy companies penetrating and dominating the South African Renewable Energy market (Intelligence, 2021).

However, Nhende (2023) highlights as part of workforce challenges amid the new renewable energy technologies that South Africa's power industry is largely skilled in power resources such as coal and nuclear as primary sources within the utility company, Eskom. This, therefore, implies that there is a growing need for workforce upskilling, training and knowledge focusing on renewable energy technologies, particularly wind and solar (Nhende, 2023).

Despite the growing need for an agile rollout of the renewable independent power producer program (REIPPP) aimed at bringing additional megawatts into South Africa through private investments (South African, 2022), particularly well-established and experienced independent power producers (IPPs), the industry is seeing a growing trend of employee turnover (Intelligence, 2021). Employee turnover is arguably one of the most persisting challenges facing various industries despite different strategies and initiatives organisations have put in place to combat this growing concern (Maangi & Wambalaba, 2017). This also undermines the efforts and cost invested in developing these strategies, putting organisations in difficult positions with direct competition. Maangi and Wambalaba (2017) observed that employee turnover essentially translates to a gain of new skills and knowledge by another organisation, putting a strain from a competition perspective on the former organisation that experiences the outflow, particularly for small and developing industries.

According to Al-Ali et al. (2019), human resources are the most dynamic resources for the expansion and progress of any organisations, and the health and behaviour of employees has a significant impact on organisational performance (Silaban & Syah, 2018). Al-Ali et al., (2019) and Alubelkassaw (2018) further believe that employee turnover can be due to many factors including but not limited to job satisfaction, organisational culture, better opportunities, compensation, and job skills, all of which can result in a lack of business success, reduction in business productivity and efficiency, loss of

morale from other employees amongst many other findings investigated by various authors (Dwesini, 2019).

When turnover rates are high, Mamun & Hasan (2017) cautions that both direct (recruitment costs, selection, inductions) and indirect costs (training, social capital) go up, and this also affects the morale of existing employees. Moreso, there is a compelling need to identify factors contributing to turnover intentions and address the issues retain top-skilled talent, particularly in the renewable energy industry seeing the demand for efficient and high-performing renewable projects amid power constraints. Understanding the many factors leading to job dissatisfaction as the core concept resulting to employee turnover therefore requires an exploration of the Herzberg Two-Factor Theory. A model that seeks to uncover different factors leading to both employee satisfaction and dissatisfaction (Ngo-Henha, 2017). Based on the two-factor theory, when the elements influencing job satisfaction begin to have a detrimental impact, employees tend to exhibit signs of turnover intention (Ngo-Henha, 2017). With numerous factors influencing employee turnover intention across different industries, this research aims to primarily identify the fundamental factors that adversely affect job satisfaction, ultimately resulting in employee turnover within the renewable energy organisations in South Africa.

## 1.3 Research problem

Previous research has examined employee turnover factors extensively, but there are still significant gaps in understanding the specific dynamics of turnover within the renewable energy sectors in South Africa. For example, Maangi and Wambalaba (2017) conducted a study in the context of law firms in Kenya, which demonstrated that employee turnover is influenced by multiple factors such as limited career growth opportunities, challenges in the working environment, and perceived unfairness in hiring processes, highlighting the need for further research to explore similar factors within the renewable energy sector in South Africa. While Silaban and Syah (2018) investigated compensation and organisational commitment as key factors contributing to turnover in the hospital

industry and acknowledged the influence of other factors such as work motivation, work stress, leadership styles, and work overload on turnover intentions. These findings emphasize the relevance of exploring these factors within the context of the renewable energy sector in South Africa to gain a deeper understanding of their impact on employee turnover. Additionally, Al-Ali et al. (2019) found job happiness as a mediating factor between job satisfaction, employee performance and turnover intention within the oil and gas industry and proposes future research to focus on employee turnover intention in cross-cultural organisations. Alubelkassaw (2018) proposes the exploration of turnover factors across various organisations and sectors where limited research has been conducted, highlighting the importance of investigating these factors within the renewable energy sector in South Africa to gain a comprehensive understanding of their impact on employee turnover. The author argues that while these factors may be common across organisations, it is still possible that a significant factor in one organisation becomes insignificant in another organisation or sector (Alubelkassaw, 2018). Addressing these gaps will provide valuable insights for developing strategies to reduce turnover and improve employee retention.

This study aims to fill this gap by investigating the factors influencing employee turnover within renewable energy organisations in South Africa, providing valuable insights for improving employee retention strategies in this sector. The study aims to use the two-factor theory to unpack different factors negatively affecting job satisfaction leading to employee turnover, helping organisations realize the most impactful factors to be prioritized during retention strategy development.

## 1.4 Research objectives.

The primary objective of this study is to investigate the most prominent factors contributing to employee turnover amongst employees in the renewable energy sector in South Africa.

The study also aims to address the following secondary research objectives.

1. To determine the underlying organisational culture factors that contribute to employee turnover within renewable energy organisations in South Africa across different age groups and gender profiles.
2. To examine the impact of leadership styles and strategies employed by renewable energy organisations in South Africa on employee turnover.
3. To assess the relationship between employee compensation and turnover within the renewable energy sector in South Africa.

## 1.5 Rationale

Addressing the main and secondary research objectives will provide valuable insights to various stakeholders including organisational leadership, management, and human resources personnel amongst other stakeholders on the most prominent factors to focus attention on when developing retention and leadership strategies, as well as human resource management policies. From a two-factor theoretical model perspective, these policies and strategies could focus on factors that promote job satisfaction as the main priority inputs when developing employee value propositions. The insights could further probe different levels of management within organisations to develop strategies that assist in predicting employee turnover intention before the actual turnover.

Additionally, organisations could get insights into highly demanded skills in the industry and prioritize training and development of employees as part of contingency resource planning to ensure continued organisational effectiveness. As cited by many authors, high turnover can also damage an organisation's reputation, making it less attractive to potential investors, employees, and customers. By proactively addressing turnover factors, organisations can create a virtuous cycle where a positive reputation as an employer of choice attracts talented individuals, and in turn, the organisation's improved performance and customer satisfaction further enhance its reputation in the marketplace.

Research has also revealed that employee turnover has cost implications on organisations related to recruiting and training new employees, as well as the loss of productivity during the transition (Li, Lourie, et al., 2019), therefore, in essence, insights provided by this study can help organisations save cost by reducing the need for frequent new hires and help organisations retain experienced employees who can mentor, share knowledge and skills, and contribute to a more productive workforce. According to Dwesini (2019), a consequence of high employee turnover is low spirits and enthusiasm among employees who remain in that organisation, such employees often feel overworked. So, the findings of this research aim to assist organisations to also develop workplace improvement initiatives that may help improve other employees' morale and commitment and improve job satisfaction.

The study findings will be of great benefit to the renewable energy industry at large in South Africa as it will human resource aspects that potentially contribute to employee movement between competitors and from a policy point of view, policies could be developed from this perspective.

## 1.6 Delimitations of the study

a) The study will focus specifically on the renewable energy sector in South Africa, particularly solar, wind or hybrid (solar and wind).
b) The study will solely concentrate on voluntary employee turnover factors and exclude any involuntary factors such as terminations.
c) Regarding data collection, online questionnaires will be the primary method used, other approaches like experiments and interviews will not be included.
d) The study's scope will be limited to the information provided by the participants and will not incorporate data from other sources.
e) This limitation extends to the resources available to the researcher, including time, budget, and access to participants.

## 1.7 Definition of terms

The section outlines various operational definitions and variables used in the study with the intention to provide a precise and clear meaning of the keywords, concepts, and variables of interest in the study.

### *1.7.1 Employee turnover*

Silaban and Syah (2018) define turnover as an outward movement of employees or workforce, the author associates such movement with a variety of underlying factors including resignation, leaving the organisation, discharge, or death of a member in an organisation. While Li, Zhang, et al. (2019) agrees with the concept, the author brings a different dimension to turnover and highlights it as a rate at which the workforce leaves a particular organisation, raising a need for replacement. Li, Zhang, et al. (2019) further believes that if this rate is high, it may often result in cost implications related to new recruitment and training. Mamun and Hasan (2017) also agrees that this concept is delineated with employee movement outside an organisation for many reasons and brings forth an argument that such movement can negatively affect an organisation in terms of expenditures already highlighted by (Li, Zhang, et al., 2019). The author further states that organisations are forced to consider redistribution of the existing workforce to fill in turnover gaps but also warns organisations that redistribution can result in work overload and ultimately increased turnover intentions.

### *1.7.2 Employee retention*

Employee retention is a critical aspect of human resource management that focuses on an organisation's ability to keep its employees and reduce turnover rates (Gebremichael, 2019). It involves implementing strategies that create a positive work environment, promote employee engagement, job satisfaction, and foster loyalty (Gebremichael, 2019). Employers adopt various tactics, such as providing growth opportunities and recognition, to encourage employees to stay longer within the organisation (Jeyaseeli, 2022). From the employee perspective,

retention is seen as a strategy where staff members feel confident and committed to remaining with the organisation for an extended period (Priya, 2020). By prioritizing employee satisfaction, organisations can improve retention rates and cultivate a more stable and productive workforce (Gebremichael, 2019).

### *1.7.3 Job satisfaction*

This concept refers to an individual's subjective evaluation of level of fulfilment and contentment with their job or career. It can be influenced by various factors such as job characteristics, work environment, relationships with colleagues, compensation, advancement opportunities, and work-life balance (Jeung & Jeong Yeon Lee, 2021; Wahyono & Riyanto, 2020). It is a personal assessment that varies from person to person based on their unique experiences and preferences. Al-Ali et al. (2019) classifies job satisfaction as effective and cognitive, where effective job satisfaction increases job happiness while cognitive assesses the facets related to the job. GEBREMICHAEL (2019) defines it as simply positive emotional state when an employee's expectations are met, the opposite resulting to job dissatisfaction. The concept of job satisfaction according to Singh and Sant (2021) differ from employee to employee due to different employee personal factors.

### *1.7.4 Job dissatisfaction*

Job dissatisfaction can refer to a feeling of discontent or unhappiness an employee experiences in their job. From a two-factor theoretical framework, job dissatisfaction is caused by several factors, including compensation issues, lack of career growth opportunities, poor working conditions, conflicts with co-workers

or managers, job insecurity, and lack of recognition or appreciation amongst many factors (Ngo-Henha, 2017).

### *1.7.5 Renewable energy*

According to the South African government, renewable energy is "energy generated from natural resources that can be replenished and are constantly renewed, such as solar, wind, hydro, and bioenergy" (Department of Energy, n.d.). The South African National Energy Regulator (NERSA) agrees and defines renewable energy as "energy from sources that are naturally replenishing and are not depleted by consumption, such as wind, solar, hydro, geothermal, and biomass" (NERSA, 2017). In the context of this study, renewable energy organisations refer to energy generation using solar, wind or hybrid (solar and wind).

## 1.8 Assumptions

**Voluntary Turnover**: The study assumes that employee turnover is primarily driven by voluntary reasons, where employees choose to leave their positions voluntarily rather than being forced to do so.

**Context**: It further assumes that the factors influencing employee turnover may vary from other industries or regions due to the unique characteristics of the renewable energy sector and the specific context of South Africa.

**Multifactorial Influences:** It is also assumed that employee turnover is influenced by multiple factors, such as job satisfaction, compensation, organisational culture, leadership, and training and development, among others. These factors may interact and contribute to the overall turnover of employees in the renewable energy sector.

**Individual Differences**: The study assumes that individual employees may have varying perceptions, experiences, and preferences, which can influence their turnover intentions. Therefore, the research acknowledges the importance of

considering individual differences when examining the factors contributing to employee turnover.

**Generalisability**: While the study focuses on the renewable energy sector in South Africa, it assumes that the findings and insights gained from the research may have broader implications and applicability to other similar industries or contexts.

## 1.9 Chapter Outline

This paper follows a structure as detailed.

Chapter 2 focuses on a critical analysis of different literatures related to employee turnover. The chapter analyses, critiques, and assesses what different authors have published in terms of various factors related to employee turnover in various sectors, organisations and countries. A substantial number of studies has been conducted by many authors and this literature review section aims to gather all critical insights related to the theoretical underpinnings of job satisfaction and dissatisfaction as the core driver or factor contributing to turnover.

Chapter 3 discusses the methodological approach used to assess employee turnover in the renewable energy sector in South Africa. It explains the rationale behind the chosen methodology, presents details on data collection, analysis, and management, and describes the study design and interpretation.

Chapter 4 presents the results obtained from data collected from renewable organisations in South Africa. It includes an analysis of the data and the findings from the questionnaires administered during the study.

The final chapter summarizes the findings and conclusions derived from the questionnaires, relating these findings to the study's theoretical assumptions and main objectives. It also addresses any research gaps identified and provides recommendations for future research.

# 2 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

## 2.1 Introduction

The renewable energy sector in South Africa is experiencing significant growth, but it also faces challenges related to employee turnover. The demand for skills and knowledge exceeds the available supply, resulting in employees seeking better opportunities elsewhere, including higher pay, career development, and improved working conditions (Nhende, 2023). Studies conducted by Mabece and Fourie (2019) and Prah et al. (2021) indicate that job satisfaction plays a critical role in the turnover of renewable energy professionals in South Africa. These studies highlight multiple factors contributing to turnover, including work-life balance, compensation, job satisfaction, career development, job security, and organisational culture. Understanding and addressing these factors is important in preventing negative effects on employee morale, job satisfaction, engagement, and productivity. Turnover can also lead to a loss of skills, increased unemployment, and poverty, impacting both individuals and society as a whole (Mabece & Fourie, 2019). Despite the growth of the renewable energy sector in South Africa, there is a lack of comprehensive research examining the specific factors contributing to employee turnover and the associated impacts on employee morale, job satisfaction, and organisational performance, including the potential loss of skills and negative socio-economic consequences.

This chapter aims to provide a comprehensive review of theoretical and empirical literature on employee turnover factors, focusing on their relevance across different organisations. A systematic approach is used to analyse various academic sources, including books, journal articles, and scholarly publications. The review evaluates the theoretical concepts used to understand turnover and examines the empirical evidence supporting or challenging these concepts. It also assesses the research methods used in previous studies, identifying gaps,

inconsistencies, and opportunities for further research in the field of employee turnover in the renewable energy sector in South Africa.

## 2.2 Background discussion

### *2.2.1 Conceptualization of employee turnover*

Many authors are encouraging organisations to recognize that employee turnover is a multifaceted problem that can greatly affect performance. To tackle this issue, Prah et al. (2021) suggests that it is important to first comprehend why employees leave and develop retainment plans. The term "employee turnover" broadly defines a state in which employees leave organisations the subsequent filling of their positions with new hires. According to Gebremichael (2019), this simply is a ratio of the total employees to be replace at an instance over the average number of employees.

### *2.2.2 Employee turnover and turnover intention*

Multiple studies in literature highlight that employee turnover is often preceded by an underlying intention to leave, which, if unaddressed, can ultimately lead to turnover. Factors that contribute to turnover include job dissatisfaction, perceived organisational support, and job stress. Organisations can reduce turnover intentions by focusing on improving job satisfaction and fostering a supportive organisational culture (Ngo-Henha, 2017; Indriyani & Meria, 2022; Chen, 2020; Akinbode et al., 2022). Wibowo et al. (2021) suggests that turnover intention can be predicted using the theory of reasoned action (TRA) which suggests that an individual's attitudes and subjective norms influence behavioural intentions, which in turn influence ultimate behaviour (Al-Alawi & Al-Marzooqi, 2019).

### *2.2.3 Different types of employee turnover*

Employee turnover can be either voluntary or involuntary, a decision by an employee to leave is voluntary turnover whereas employment termination by the

organisation or due to other reasons such as death (Wahyono & Riyanto, 2020). Other authors have classified turnover into functional, where low-performing or low-potential employees leave, or dysfunctional, where high-performing or high-potential employees depart (Gebremichael, 2019).

#### *2.2.3.1 Voluntary turnover*

Voluntary turnover refers to the situation where employees make a deliberate decision to leave their jobs due to personal or professional factors. This type of turnover is initiated by the employees themselves, driven by their own choices and considerations (Gebremichael, 2019). Organisations can prevent voluntary turnover by identifying leading factors and aligning employee value propositions to meet their needs. Functional turnover, where underperforming employees depart, can benefit the organisation by creating opportunities for others, while reducing costs associated with ongoing training. However, dysfunctional turnover, when high-performing employees leave, leads to negative consequences such as loss of expertise (Chatzoudes & Chatzoglou, 2022). To mitigate this, knowledge transfer and retention strategies like training, mentoring, and job shadowing are recommended (Alubelkassaw, 2018).

#### *2.2.3.2 Involuntary turnover*

Involuntary turnover happens when employees are terminated from their jobs because of poor performance, misconduct, downsizing, health issues, retirement, or violation of contractual agreements (Mathis & Jackson, 2011). It can also be initiated by the organisation itself due to performance-related issues, underperformance, or compromised company positions that require employee layoff (An, 2019). Additionally, Gebremichael (2019) suggests that issues related to disability or prolonged illnesses resulting in the incapacity to perform contracted duties can also lead to involuntary turnover, including company-mandated employee layoff under section 189.

### *2.2.4 Employee turnover contributing factors.*

Various studies have examined factors that can contribute to employee turnover, and authors agree that different organisations or sectors may be influenced by different factors. Therefore, organisations should take the time to study these factors to fully understand the prominent ones (Wibowo et al., 2021). These factors are generally categorized as personal, organisational, and economic factors (Pratiwi & Lo, 2020).

#### *2.2.4.1 Employee compensation structures*

According to SHRM (2021) employees may leave a company if they are not well or fairly compensated for the work scope they perform, or when the compensation package is below the competitive rate in the market. Indriyani and Meria (2022) further highlights that compensation related issues may also include company benefits. Some employees prefer for example, good medical insurances, or company vehicles or fuel compensation when their work requires a lot of travelling (Silaban & Syah, 2018).

#### *2.2.4.2 Organisational culture*

The role of organisational culture in employee turnover is crucial, as studies have shown. When employees believe there is a mismatch between own values and the organisational culture, it is easier to voluntarily leave their organisation (Smart & Chamberlain, 2016). Additionally, a workplace culture characterized by bullying, harassment, or discrimination can have a toxic effect on employees, leading to turnover. Moreover, the lack of recognition and appreciation for employees' contributions also contribute to turnover rates (Tanwar, 2017). Surveys have identified company culture as the second most important factor in employee retention, with the absence of recognition and toxic workplace behaviour being cited as prominent reasons for turnover (SHRM, 2018).

#### *2.2.4.3 Organisational leadership*

One of the primary reasons for employee turnover is poor management, which can be linked to many factors such as inadequate communication, lack of support, and unrealistic expectations set by managers (Ajoke, 2020). On the other hand, poor management, characterized by a lack of support, ineffective communication, and unrealistic expectations, can lead to increased turnover (Chen, 2020). Employees may choose to leave a company if there is lack trust in the leadership or perceive a lack of transparency and honesty (Eisenberger et al., 2002). In fact, a survey by Edelman found that 60% of employees do not trust their employer's leadership (Edelman, 2021). These findings highlight the importance of effective leadership practices and building trust in leadership to reduce turnover rates and foster employee engagement and loyalty.

#### *2.2.4.4 Career development*

Various authors believe that if employees feel that there are few opportunities for professional development and are not receiving the necessary training and development, they are likely to quit. According to a survey by Kelly (2019), 21% of employees cited a lack of training and development as a top reason for leaving their jobs. Additionally, when employees perceive slow career growth or feel unchallenged, they may choose to leave. A survey by Caulfield (2022) identified lack of career advancement as a top reason for employee turnover.

#### *2.2.4.5 Workload*

Employees may leave a company if they feel overwhelmed or stressed due to excessive work or job demands. Stress has been found to be one of the top reasons for employee turnover according to a study by (American Psychological Association, 2017). If job expectations do not match the reality of the job, or if employees were misled during the hiring process, they may also leave the company. Work-life balance is also a significant factor that can influence employee turnover (FlexJobs, 2019).

#### *2.2.4.6 Personal reasons*

Employees may also leave a company for personal reasons, such as family obligations, health issues, or career changes. While these factors may be out of the employer's control, they can still contribute to employee turnover (Saeed, 2022).

### *2.2.5 Employee retention*

Retention of employees is a critical aspect for organisations due to its role in maintains institutional knowledge, reducing turnover costs and enhancing productivity (Chatzoudes & Chatzoglou, 2022). Arasanmi and Krishna (2019) believes that retaining skilled employees is a managerial challenge, particularly with younger generations who tend to switch jobs frequently. According to Wibowo et al. (2021), organisations should adopt proactive recruitment strategies, integrate people and organisational needs in policy development, provide growth opportunities, competitive compensation, and foster a positive culture. Fan et al. (2022), believes supportive leadership and effective expatriate management practices, such as cross-cultural training, can significantly reduce turnover rates and create a supportive work environment in multinational organisations. Therefore, investing in these areas leads to increased retention, employee engagement, and improved business performance (Samovar et al., 2015).

## 2.3 Empirical research

Employee turnover presents a major challenge for organisations worldwide, including South Africa. This empirical research review aims to provide an overview of existing studies on employee turnover, the impact of turnover on organisational performance, the role of organisational culture on employee turnover, effects on employee well-being, and factors contributing to turnover intentions. By analysing the findings from these authors, the review aims to offer a comprehensive understanding of employee turnover and provide insights for

organisations to develop effective retention strategies. Table 1 presents a summary of key themes identified through a review of more than 30 literature sources on different employee turnover concepts.

## Table 1: Research Gaps Overview

| Theme | Articles | Research gaps | Reference |
|---|---|---|---|
| **Employee compensation influence on turnover** | 3 | • What employee pay packages, flexible work systems and other benefits promote employee commitment? | (Susanti & Herminingsih, 2022), (Jahya et al., 2020) |
| **Organisational culture and commitment** | 10 | • Provision of direct work supervision and trust as basis of good organisational culture<br>• How organisational culture influence turnover in different generations and nationals?<br>• Can organisational justice, employee engagement promotes a sense of belongingness in other industries?<br>• Exploration of organisational culture initiatives and leadership development in different industries | (mohammad et al., 2022), (Indriyani & Meria, 2022), (Folry, 2022) |
| **Job satisfaction and employee engagement** | 7 | • Effect of employee regular surveys and employee evaluations on identification of real employee problems and needs.<br>• What leadership strategies can stimulate effective organisational commitment amongst workers? | (Wibowo et al., 2021), (Wahyono & Riyanto, 2020) |

| | | | |
|---|---|---|---|
| | | • Effect of overtime, workload and work stress on employee commitment and job satisfaction<br>• Leadership role on socialization with employees | |
| **Training and development impact on Turnover** | 4 | • Employee career development plans as a factor that promotes employee commitment | (Pratiwi & Lo, 2020) |
| **Employee focused retention strategies** | 6 | • How can human resource management systems promote sustainable employee performance through employee motivation and skills development?<br>• Leadership styles as a main driver of employee retention<br>• Pro-innovative human resource practices in modern technology driven organisations.<br>• Organisational leadership engagement of employee wellness and scope of work evaluation | (Saeed, 2022), (Ajoke, 2020), (Gadomska-Lila & Rogozińska-Pawełczyk, 2022) |

### *2.3.1 Theme 1: Employee compensation influence on turnover.*

Compensation's impact on turnover intention has been studied in different contexts. Susanti and Herminingsih (2022) found that compensation significantly reduced turnover intention among IT workers but cautioned that findings may not be generalizable. In their study on the finance sector in Malaysia, Jahya et al. (2020) examined the drivers of turnover intention among Generation Y employees and identified training and development, organisational culture compensation, as significant factors. The findings emphasize the importance of fair compensation in reducing turnover intention, particularly among Generation Y employees. However, the authors suggest that further research is necessary to understand the impact of other compensation benefits, such as work flexibility, hybrid working models and medical contributions, on retention when the basic compensation is considered fair (Srivastava, 2015).These studies shed light on the multifaceted nature of compensation and its influence on turnover intention, suggesting the need for comprehensive compensation strategies to effectively retain employees.

### *2.3.2 Theme 2: Organisational culture and commitment*

Theoretical research emphasizes the importance of a positive organisational culture in reducing employee turnover. For instance, studies by Indriyani and Meria (2022); Jahya et al. (2020); Susanti and Herminingsih (2022) found that employee turnover and organisational culture are negatively correlated. According to Indriyani and Meria (2022) positive work cultures characterized by good relationships, support, and respect create a comfortable and conducive environment that promotes employee longevity. Mohammad et al. (2022) found that organisational culture influences job satisfaction, leading to turnover. However, acknowledges that more research is needed to explore the mediating role of culture in other sectors. Folry (2022) study in the manufacturing industry highlighted the negative impact of poor organisational culture on productivity and its link to motivation, job commitment, and satisfaction. (Susanti and Herminingsih (2022) suggests that leaders play a critical role in driving a positive work culture,

while employees also share responsibility. The author also believes that continuous assessment and improvement of culture are necessary to reduce turnover, particularly among younger generations. Research in various contexts has highlighted the significant impact of positive organisational culture on reducing employee turnover, emphasizing the need for further investigation into the role of culture in turnover intention and the development of leadership initiatives to foster a positive work environment within the renewable energy sector.

### *2.3.3 Theme 3: Job satisfaction and employee engagement*

Work motivation and employee engagement are key factors that influence employee turnover (Susanti & Herminingsih, 2022). Wahyono and Riyanto (2020) conducted a study which found a significant correlation between job satisfaction and organisational commitment in predicting employee turnover. This implies that employees who experience greater job satisfaction and demonstrate a higher level of commitment to their organisation are less inclined to leave. Focusing on work motivation, employee engagement, and minimizing work stress can create a conducive work environment that reduces turnover rates (Wibowo et al., 2021). This is also proven in a quantitative study by (Jahya et al., 2020) amongst a generation between 18 and 40 years that when employees perceive or experience a positive work culture, they are unlikely going to resign. According to the findings from these researchers, future research should explore employee needs and leadership strategies that promote organisational commitment to effectively reduce turnover. This can save organisations time and resources associated with hiring and training new employees (Wahyono & Riyanto, 2020). The discussed literature offers useful insights into how organisational commitment, job satisfaction, work motivation, and employee engagement impact employee turnover. Nevertheless, there exists a visible gap in research pertaining to the precise circumstances of the renewable energy sector. Further investigation is needed to understand how these factors operate within the unique dynamics of the renewable energy industry to develop targeted strategies for reducing turnover and improving employee retention in this sector.

### *2.3.4 Theme 4: Training and development impact on Turnover*

Training and development initiatives have consistently shown to decrease turnover intention and enhance work commitment among employees (Jahya et al., 2020; Pratiwi & Lo, 2020). These initiatives also serve as a tangible demonstration of the organisation's commitment to their growth and success. By offering comprehensive and tailored training opportunities aligned with organisational goals, organisations can foster job satisfaction and career development, resulting in reduced turnover intention and increased employee retention. Continuous monitoring and improvement of these initiatives are crucial for maximizing their effectiveness in reducing turnover employees (Jahya et al., 2020; Pratiwi & Lo, 2020). Although research has consistently shown that training and development initiatives can decrease turnover intention and enhance work commitment among employees, there is a need for further exploration of the specific types of training programs and approaches that are most effective in the renewable energy sector. Additionally, the impact of continuous monitoring and improvement of these initiatives on long-term employee retention warrants further investigation to ensure their sustained effectiveness in reducing turnover.

### *2.3.5 Theme 5: Employee focused retention strategies*

The consequences of turnover, as highlighted by multiple authors, can have adverse effects on the organisation's reputation, making it difficult to attract and retain highly skilled employees. Recent research findings from various studies reveal the following retention strategies.

#### *2.3.5.1 Improving job satisfaction*

In a study conducted by Ghani et al. (2022) in the Indian hospitality organisation, it was shown that work satisfaction plays a crucial role in predicting employee retention. The study employed a quantitative research methodology and collected data from a sample of 400 employees. It found a robust correlation between job satisfaction and employee retention. In a comparable manner, Kaur (2013) carried out a quantitative investigation in the Indian manufacturing sector,

encompassing a group of 400 employees. The study examined the influence of meaningful work and autonomy on both job satisfaction and turnover intention. The results suggested that offering employees with meaningful work and independence can enhance job-related contentment and reduce turnover. The research findings stress the importance of job satisfaction in employee retention and propose that providing meaningful work and autonomy can be efficacious approaches for mitigating turnover rates. Although there is already research on the association between job satisfaction and employee retention, there is a shortage of knowledge published to date about specific strategies and interventions that companies may use to improve job satisfaction and effectively decrease turnover rates.

#### *2.3.5.2 Providing growth opportunities*

Quantitative research conducted by Aleem and Bowra (2020); Raza et al. (2020) demonstrates the positive impact of growth opportunities and training and development on reducing turnover intention. Both studies found that providing career growth and advancement opportunities, as well as training and development programs, increased employee engagement, commitment, and motivation, leading to lower turnover rates. These findings highlight the significance of offering growth and development opportunities to employees as a strategy to enhance engagement, commitment, and ultimately reduce turnover within organisations.

#### *2.3.5.3 Offering competitive compensation and benefits*

The study conducted by Nguyen et al. (2020) employed quantitative research methods to investigate the relationship between job satisfaction, compensation and incentives and turnover intention in the hotel industry. The findings revealed that providing competitive compensation and benefits can effectively reduce turnover rates by enhancing employee satisfaction and motivation. Similarly, in a related study, Soltani et al. (2020) investigated the influence of flexible benefits packages on job satisfaction and retention. Their research involved collecting data from 200 employees in the private sector using a quantitative research

approach. The study demonstrated that offering flexible benefits packages can significantly increase employee retention. These findings emphasize the significance of offering competitive compensation, benefits, and flexible benefits packages in promoting job satisfaction and reducing turnover. Although Nguyen et al. (2020) and Soltani et al. (2020) have conducted research on the relationship between compensation, benefits, and job satisfaction with turnover intention, there is a need for more research into the precise strategies and approaches that organisations can employ to successfully implement competitive compensation, benefits, and flexible benefits packages to decrease turnover rates in various industries and contexts.

#### *2.3.5.4 Fostering a positive organisational culture*

Research by Gallup (2021) and Kim et al. (2020) indicates that a positive organisational culture, supportive work environment, and promoting work-life balance can effectively reduce employee turnover. Additionally, studies by (Basu & Srivastava, 2021; Sakthivel & Rajendran, 2018) highlight the significance of cross-cultural training in multinational organisations, as it helps employees adjust to new environments and decreases turnover due to culture shock. These findings suggest the importance of creating a favourable workplace environment while providing essential assistance to improve employee satisfaction, reduce intentions to leave, and retain top talent. In the context of the renewable energy industry, there is a notable gap in research that specifically examines the impact of organisational culture, work environment, work-life balance, and cross-cultural training on employee turnover. While there are studies available in other industries, more research is needed to understand how these factors uniquely affect turnover rates within the renewable energy sector. This research gap highlights the need for industry-specific studies that investigate the effectiveness of interventions and strategies aimed at reducing turnover and improving employee retention in renewable energy organisations.

#### *2.3.5.5 Supportive leadership*

In a quantitative study conducted by Eisenberger et al. (2002) the researchers found that supportive leadership is an effective approach to increase employee retention. The study involved 221 participants from a healthcare organisation and highlighted the significance of fostering a positive work environment, building trust, and showing respect towards employees. Similarly, ee and Mitchell, (2021) conducted a study in the service industry involving 241 employees. Their findings supported the notion that supportive leadership, in combination with a positive organisational culture, can effectively reduce employee turnover. The study concluded that employees who perceived their leaders as supportive were less likely to have turnover intentions. These studies emphasize the importance of supportive leadership and a positive organisational culture in promoting employee retention. These findings highlight the need for organisations in the renewable energy industry to focus on fostering supportive leadership behaviours and creating a positive work environment to enhance employee retention.

## 2.4 Analytical framework

### *2.4.1 Theoretical framework*

Many authors have investigated employee turnover factors in different organisations, countries, sectors, population groups, etc. Authors have analysed many variables using different theoretical and conceptual frameworks. However, the theoretical foundations for most of authors investigating the causes of employee turnover are rooted in Herzberg's Two-Factor Theory, commonly referred to as the Motivation-Hygiene Theory (Herzberg, 1968). The theory was proposed by Frederick Herzberg, a psychology researcher, in 1959 (Herzberg, 1968). It offers a beneficial model for understanding employee motivation and job satisfaction. In the context of the renewable energy sector in South Africa, where turnover can have significant financial and operational implications, there is an opportunity to explore this

theory to identify the most influential factors and develop effective talent management strategies.

Herzberg's two-factor theory distinguishes between motivator factors, which contribute to job satisfaction, and hygiene factors, which address employees' basic needs and prevent dissatisfaction (Herzberg, 1968). In accordance with Herzberg's Two-Factor Theory, the presence of motivator factors enhances job satisfaction and intrinsic motivation, while the presence of hygiene factors prevents discontentment. To mitigate turnover, organisations should prioritize addressing both hygiene and motivator factors, fostering a work environment conducive to job satisfaction and intrinsic motivation (Herzberg, 1968). This theoretical framework holds practical implications for leaders and human resource management in the renewable energy sector, aiding their comprehension and handling of the factors influencing employee contentment and retention. Herzberg's two-factor theory forms the basis for several other theories examined in the literature, including job embeddedness, equity theory, and job happiness (Adams, 1965; Mitchell et al., 2001).

### *2.4.2 Theoretical framework application*

This theory remains prevalent, and many authors have explored it as a research framework in many domains including (Rachman, 2021), (Foley, 2022), (Singmin Lo, 2020), (mohammad et al., 2022). The theory offers significant perspectives on practical strategies that managers can employ to encourage and keep employees (Rozos, 2022). An important advantage of Herzberg's Two-Factor Theory is its emphasis on internal factors, which have a direct correlation with job satisfaction (Gebremichael, 2019). The theory highlights the significance of job satisfaction and employee motivation in order to maintain consistent employee engagement and mitigate employee turnover (Kodom et al., 2018). By focusing on these factors, the theory suggests that leaders can develop strategies that are conducive to higher levels of job satisfaction and retention of employees.

An empirical study by Singmin Lo (2020) found that good interpersonal relationships, positive working environment, job security and competitive salary

motivate workers. While Y. Liu & Liu (2020) discovered that job satisfaction reduces turnover intention, with organisational commitment partially mediating the relationship. Mihail and Liminosu (2020) found that job satisfaction mediated Herzberg's motivators and turnover intentions but was not significant between hygiene factors and turnover intentions. However, Jeung and Jeong Yeon Lee (2021) examined how perceived stress affects job satisfaction, burnout, and turnover intention among South Korean hotel employees. Perceived stress decreased job satisfaction and increased burnout and turnover intention. Job satisfaction partially mediated perceived stress and turnover intention (Jeung & Jeong Yeon Lee, 2021).

In a study conducted by Kodom et al. (2018), the authors investigated the factors that affect the ability of employees to stay in a Ghanaian electrical firm. The study discovered that job satisfaction acted as a mediator in a relationship among various factors, including leadership support, organisational justice, commitment, work environment, training, and compensation. The study also emphasised the influence of age, gender, experience, and education on job satisfaction and employee retention. Employee retention was found to be influenced by factors such as promotion chances, remuneration, and training. Kodom et al. (2018) recommended that management give priority to these aspects when formulating retention strategies.

These empirical studies highlight the enduring relevance of Herzberg's Two-Factor Theory in comprehending employee turnover and devising strategies to mitigate turnover rates across diverse industries. Several authors propose that organisational leaders should strategically emphasize the nature of work itself, offering employees opportunities for autonomy, responsibility, and personal growth to enhance job satisfaction. Additionally, management should address the job environment, encompassing policies, procedures, supervision, and working conditions, to minimize dissatisfaction (Herzberg, 1968; Kodom et al., 2018).

Despite its relevance, authors have also pointed out that the theory carries certain limitations, the main being that it believes satisfaction and discontent are at opposite ends of a spectrum (Ngo-Henha, 2017). However, research has shown

that employees can feel both satisfaction and dissatisfaction at the same time, a phenomenon known as ambivalence (Mitchell et al., 2001; Priya, 2020). To overcome this constraint, researchers can apply more complex measures of job satisfaction and investigate the complex relationships between many factors that influence employee motivation (Mihail & Liminosu, 2020).

### *2.4.3 Review of other theories*

#### *2.4.3.1 Job Embeddedness Theory*

The review of other theories related to employee turnover provides valuable insights into the factors influencing turnover and retention within organisations. Job Embeddedness Theory emphasizes the extent to which an employee's job is connected to other aspects of their life that influence the likelihood for an individual to stay. This theory complements Herzberg's Two-Factor Theory by considering factors such as fit, links, and sacrifice, which can impact turnover intentions (Mitchell et al., 2001).

#### *2.4.3.2 Equity Theory*

The Equity Theory emphasizes the significance of equity in the workplace, where perceived imbalances can result in job dissatisfaction and heightened intentions to leave (Adams, 1965). This theory is consistent with Herzberg's Two-Factor Theory, which highlights the significance of motivators and hygiene factors in influencing both job contentment and discontentment (Herzberg, 1968).

#### *2.4.3.3 Job Satisfaction Theory*

The Theory of Job Satisfaction posits that employees who attain satisfaction in their work are less inclined to resign from their positions (Tietjen & Myers, 1998). Elements like maintaining a healthy work-life balance, having job security, accessing growth opportunities, and cultivating positive relationships contribute to fostering job satisfaction (Tietjen & Myers, 1998). Herzberg's Two-Factor Theory aligns with this concept as it identifies motivators that directly influence job satisfaction (Herzberg, 1968).

#### *2.4.3.4 Social Exchange Theory*

The theories of Social Exchange and Herzberg's Two-Factor provide insight into the phenomenon of employee turnover. According to Social Exchange Theory, employees have a mutually beneficial connection with their organisation, and it is important for there to be fair exchanges and fulfilling work experiences (Blau, 1964). Herzberg's approach emphasises the importance of motivators and hygienic elements in impacting job satisfaction and dissatisfaction.

#### *2.4.3.5 Theories explaining employee turnover in South Africa*

In the context of employee turnover in South Africa, several theories have been explored. The Push-Pull Theory highlights factors such as job dissatisfaction and better job offers as drivers of turnover (Mobley et al., 1978), while the Social Identity Theory states that employees who possess a robust sense of loyalty or commitment towards their organisations are less inclined to go. (Tajfel & Turner, 2001). Institutional Theory on the other side considers societal and cultural factors, such as unemployment rates and job insecurity, as influencers of turnover (DiMaggio & Powell, 2000).

The Person-Environment Fit Theory argues that employees who perceive a high degree of alignment between their own values and the goals of the organisation are more inclined to remain in their positions (Kristof-Brown et al., 2005). Overall, Herzberg's Two-Factor Theory underpins the different theories explored by various researchers to understand factors contributing to employee turnover. Herzberg provides a framework for understanding the motivational aspects of employee turnover, while the theories offer additional perspectives and context specific to the South African environment. Combined these theories contribute to a broader knowledge of the factors influencing employee satisfaction, dissatisfaction, and turnover.

### *2.4.4 Conceptual framework*

Herzberg's Two-Factor Theory is used to examine employee turnover in South Africa's renewable energy sector. The framework assumes that turnover is a function of job satisfaction and informs organisations of the sources of job dissatisfaction so they may develop or improve strategies, policies, and processes to retain top talent and reduce the negative business performance and continuity effects of turnover (Herzberg, 1968).

The provided framework seeks to outline the relationship between employee turnover and several independent variables within renewable organisations in South Africa. These variables include organisational culture, leadership, and compensation. The framework posits that when these factors are effectively managed, employees experience satisfaction, and job satisfaction acts as a mediating factor in the relationship between these variables and turnover.

The conceptual framework proposed is heavily influenced by the review of literature and empirical studies conducted by various authors including Silaban et al. (2018) and Gebremichael (2019) who looked at compensation and Organisational commitment as factors contributing to turnover, while J. Liu et al. (2018) focused on training and development factors. Mohammad et al. (2022) focused on work cultural aspects mediating turnover and job satisfaction. The review of literature from Jeung and Jeong Yeon Lee (2021); Kodom et al. (2018); Mihail and Liminosu (2020); Mohammad et al. (2022); Silaban et al. (2018) and others significantly contributed to the construction of the conceptual framework as depicted in figure 1 below.

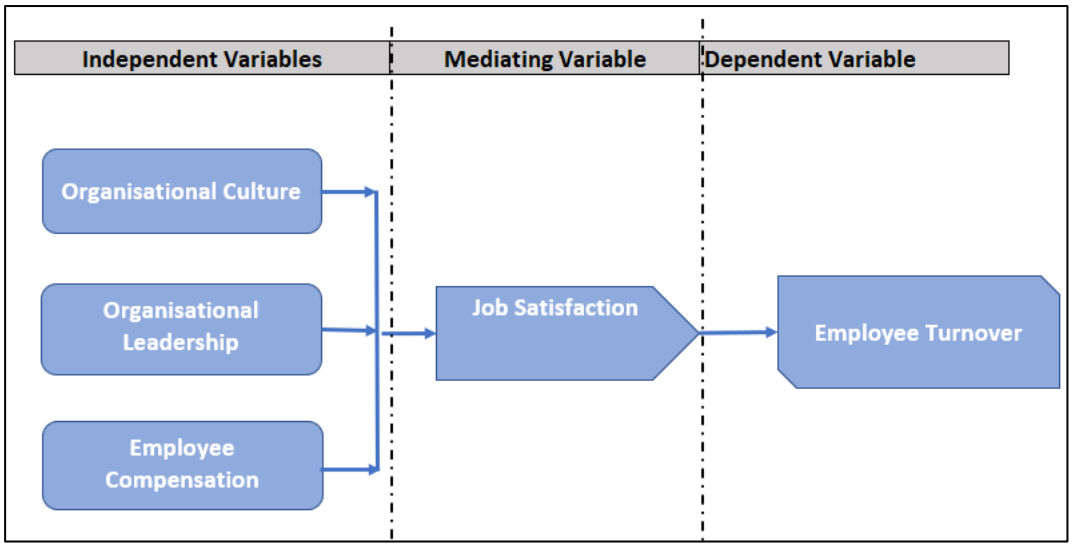


**Figure 1: Conceptual Framework (Source: Own model developed from Herzberg's Two-Factor Theory)**

The next section examines all the proposed variables and concepts. The framework seeks solutions to renewable energy personnel turnover issues. Understanding employee turnover factors in the renewable energy sector is crucial for effective talent management strategies. By addressing these factors, companies can reduce the turnover rate, retain valuable employees, and enhance organisational performance amongst other benefits studied through literature (Al-Ali et al., 2019; Priya, 2020).

#### *2.4.4.1 Relationship between turnover independent variables and employee turnover*

Literature has identified many factors directly contributing to employee turnover, amongst those identified as focal points for this study is Organisational culture, organisational leadership, Employee compensation as studied by authors such as (Akinbode et al., 2022; Chen, 2020; Pratiwi & Lo, 2020; Rachman, 2021a). However, there is a lack of studies explicitly examining the interaction of these factors and their collective influence on employee turnover in the renewable energy industry, highlighting a gap in the current body of literature. The table 2 below provides a broad overview of the conceptual definition of the different independent variables, how they have been measured by various authors to

justify and substantiate how this study aims to measure these constructs and guide the research process.

**Table 2:Turnover Independent variables relationship to employee turnover measures**

| Variable | Conceptual definition | Variable measures | References |
|---|---|---|---|
| Organisational culture | • Employees are likely to stay if the culture is positive and enabling | • Shared values and beliefs, Positive attitudes and behaviors, Clear organisational structure, Strong employee relationships, diversity and inclusion, open communication, employee recognition and appreciation | (mohammad et al., 2022; Samovar et al., 2015; Susanti & Herminingsih, 2022) |
| Organisational leadership | • Effective organisational leadership encourages employees to stay | • Clear vision and strategy, Innovation and continuous improvement, Accountability, Results-delivery, employee engagement | (Ajoke, 2020; Chen, 2020) |
| Employee compensation | • When employees are satisfied with the compensation structures, they are likely going to remain committed | • Competitive salary and benefits, Transparency of payment grades, performance-based pay, employee satisfaction | (Nguyen et al., 2020; Silaban & Syah, 2018; Susanti & Herminingsih, 2022) |

Based on the context provided, the following hypothesis to be used for the research study based on the objectives are therefore deduced.

**Table 3: Independent Variables Hypothesis**

| Independent variable | Hypothesis |
|---|---|
| **Hypothesis 1** (Organisational culture) | **H0:** There is no negative and significant relationship between Organisational culture and employee turnover.<br>**H1:** There is a negative and significant relationship between Organisational culture and employee turnover |
| **Hypothesis 2** (Organisational Leadership) | **H0:** There is no significant relationship between Organisational leadership and employee turnover.<br>**H1**: There is a significant relationship between Organisational leadership and employee turnover |
| **Hypothesis 3** (Employee Compensation) | **H0:** Employee compensation has no negative and significant effect on employee turnover.<br>**H1**: Employee compensation has a negative and significant effect on employee turnover |

#### *2.4.4.2 Job satisfaction relationship to employee turnover*

Job satisfaction is a multifaceted concept that pertains to an individual's comprehensive attitude and emotions regarding their job. There are several sub-constructs or dimensions of job satisfaction that have been identified by researchers (Mabece & Fourie, 2019; Mihail & Liminosu, 2020) as tabulated below.

## Table 4: Job satisfaction relationship to Employee turnover Measures

| Variable | Conceptual definition | Variable measures | References |
|---|---|---|---|
| Supervisory support | • Job satisfaction is higher for employees who get help and feedback from managers. | • Level of employee engagement, employee direction, level of employee knowledge, employee confidence, Positive feedback from employees | (Gadomska-Lila & Rogozińska-Pawełczyk, 2022; Li, Zhang, et al., 2019; Mihail & Liminosu, 2020) |
| Job autonomy | • This construct refers to the degree of control employees have over their work. Autonomy boosts job satisfaction. | • Decision-making authority, Flexibility, level of trust and support from management | (Chatzoudes & Chatzoglou, 2022; Kristof-Brown et al., 2005; Srivastava, 2015) |
| Co-worker relationships | • Positive coworker relationships improve job satisfaction. | • Employee collaboration, cohesion, peer-peer knowledge sharing, level of trust, level of positive and open communication | (Kristof-Brown et al., 2005; Singh & Sant, 2021) |
| Workload | • Employees who feel that their workload is manageable and reasonable are more likely to have high levels of job satisfaction. | • Clear priorities, Adequate resources, manageable expectations, level of absenteeism | (Gebremichael, 2019; Jeung & Jeong Yeon Lee, 2021; Singh & Sant, 2021) |

| | | | |
|---|---|---|---|
| Task significance | • Employees that believe their work matters are more satisfied. | • Level of decision-making authority, level of trust, level of feedback and recognition, amount of challenging work to encourage employees to apply their skills and experience | (Jeung & Jeong Yeon Lee, 2021; Mihail & Liminosu, 2020; Rozos, 2022) |
| Career development | • This study defines career development as organisational efforts to improve employees' knowledge, skills, and talents.<br>• Training and clear development plans encourages employees to stay | • Clear learning and development goals, Structured training programs, Performance management, Mentoring and coaching, Career development, Succession planning | (Aleem & Bowra, 2020; Raza et al., 2020) |

Based on the context provided above, the following hypothesis is therefore deduced as follows.

**Table 5: Mediating Variable Hypothesis**

| Mediating variable | Hypothesis |
|---|---|
| **Hypothesis 4** (Job Satisfaction) | **H0:** Job Satisfaction does not mediate the relationship between the independent variables (organisational culture, organisational leadership, employee compensation) and employee turnover.<br><br>**H1:** Job Satisfaction mediates the relationship between the independent variables (organisational culture, organisational leadership, employee compensation,) and employee turnover |

## 2.5 Conclusion of Literature Review

Existing research on employee turnover has revealed several gaps that warrant further investigation across different industries. These research gaps present valuable opportunities to explore employee turnover factors in various contexts and sectors, including the renewable energy sector in South Africa. Through a comprehensive literature review, five core themes have emerged as significant areas of interest.

One theme focuses on the relationship between compensation and employee turnover, highlighting the need for more research to understand how compensation influences turnover in industries such as renewable energy. Another theme revolves around organisational culture and commitment, emphasizing the importance of exploring how organisational culture impacts turnover in different types of organisations and among different generations of employees. Understanding the cultural aspects that significantly influence employee turnover is essential.

The role of leadership in employee turnover is another significant theme that deserves attention. Effective leadership strategies are crucial for retaining top talent across various sectors, and further research is needed to identify the most effective approaches. Training and development emerged as an important aspect that organisations should prioritize to provide growth opportunities for employees. However, further exploration is required to identify the specific elements of training and development initiatives that are essential for employee retention.

Some authors argue that leadership and human resource management systems are critical for employee motivation and skill development. This highlights the importance of adopting open-minded approaches during policy-making processes to ensure that strategies effectively retain employees. The significance of employee retention as an objective for organisations to enhance productivity and organisational performance was also highlightd as a key theme. Retaining

talented employees is crucial for the long-term success of organisations, and further research can shed light on effective strategies and practices.

The existing research on employee turnover has identified several gaps that need further exploration, particularly within the renewable energy sector. These gaps include an understanding of the relation between compensation and turnover, the influence of organisational culture and commitment on turnover, the role of leadership in mitigating turnover, the effectiveness of training and development programmes in retaining employees, and the importance of employee retention as an organisational objective. To address these gaps, further research is needed to examine these factors specifically in the context of the renewable energy industry in South Africa.

The gaps revealed through the literature assessment have played a role in the development of a conceptual framework to test multiple hypotheses, based on Herzberg's Two-Factor Theory. The purpose of these hypotheses is to identify correlations between several independent variables, such as organisational culture, leadership, compensation, and their influence on employee turnover. Furthermore, the importance of job satisfaction as a mediator.

The primary goal of evaluating these hypotheses is to identify the most pertinent factors that contribute to employee turnover in the renewable energy sector in South Africa. By establishing these relationships, the framework can provide insights and focal points for organisations in developing effective employee retention strategies and reducing dysfunctional voluntary turnover.

# 3 RESEARCH METHODOLOGY

This chapter presents a concise overview of the research approach, paradigm, design, and the techniques utilized for data collection and analysis. Ethical considerations, including obtaining informed consent, maintaining confidentiality, and safeguarding data, are also discussed. Moreover, the chapter examines the limitations of the study and the implications of the research findings, fostering a comprehensive understanding of the research process and highlighting the significance of the study's results.

## 3.1 Research approach

Many authors have conducted research using different research methods i.e., quantitative research, qualitative research, or a combination of these methods. The study employs a quantitative cross-sectional survey as the research approach. The study uses a quantitative cross-sectional survey as its research methodology. The technique entails gathering data from a selected group of individuals at a specific moment in time to investigate the correlation between variables and collect quantitative data (Fowler, 2013). By using a survey questionnaire, a large amount of data was collected efficiently, allowing for a broader representation of the target population in the renewable energy sector in South Africa. The survey consisted of structured questions with predefined response options, enabling the measurement of variables related to employee turnover, such as job satisfaction, compensation, leadership styles, organisational culture, and other relevant factors. The quantitative cross-sectional survey approach provided statistical data that was analysed to identify patterns, trends, and associations among variables, contributing to a comprehensive understanding of the factors influencing employee turnover in the renewable energy sector (Babbie, 2017).

The research involved the administration of surveys to a sample of participants in the target population. The quantitative approach provided a structured and objective method for data collection and analysis (Babbie, 2017; Creswell, 2014;

Maree & Pietersen, 2010), allowing for generalization and making inferences about the larger population of the factors influencing employee turnover in the renewable energy sect. The approach also offered the advantage of providing precise and measurable data, enabling the researcher to quantify the extent and magnitude of relationships between variables. The findings from the quantitative analysis contributed to a deeper understanding or and provide evidence-based recommendations for organisations to improve employee retention.

## 3.2 Research Paradigm

The chosen research paradigm for the quantitative data is positivism, which is one of several paradigms explored by researchers, including Critical Realism, Design Science, and Pragmatism (Creswell, 2014). The decision to employ the positivist paradigm is based on the nature of the quantitative section of the study which involves testing specific hypotheses or relationships between variables (Bryman & Emma, 2015).

The positivist paradigm was suitable for this study because it prioritizes objectivity and aims to minimize personal bias and interpretation during data collection and analysis. This emphasis on objectivity ensured that the study findings are reliable and valid (Sekaran & Roger, 2016). By adopting the positivist paradigm, the study employed rigorous scientific methods to investigate the factors contributing to employee turnover in the renewable energy sector in South Africa. This approach enhanced the credibility and robustness of the research findings.

## 3.3 Research design

The research design method was through survey research in the form of online questionnaires. This method was effective in examining the relationships between variables, which is essential for understanding the cause and effect of various factors contributing to turnover. This design approach involved the collection of data through self-reported measures to gather information from a sample of individuals that could be used to make inferences about a larger

population. The method offered several advantages, including efficient data collection from a large sample, standardized procedures ensuring consistency and reliability, quantitative data analysis for identifying significant factors, generalizability to the broader population, and objectivity in data collection and analysis (Dillman et al., 2014; Fowler, 2013; J.-O. Lee, 2018) .

Even though this research design provided a suitable framework for examining the factors influencing employee turnover in the renewable energy sector in South Africa, other authors cautions that the downside factors researchers are encouraged to be aware of include the following.

- **Response Bias**: This can occur when respondents do not always provide accurate or honest replies to survey questions. This can be attributed to social desirability bias, in which respondents give answers they believe are socially acceptable or expected. To avoid this, anonymous surveys and shortening the survey length to promote more honest responses will be employed (Babbie, 2017).

- **Questionnaire Design**: Poorly designed survey questions might result in imprecise or ambiguous responses, lowering the accuracy of the data obtained. To avoid this, the use standardized, clear and concise questionnaires and pilot testing the survey before distribution will be employed (Fowler, 2013).

- **Response Rates**: According to (Babbie, 2017), Low response rates can affect the generalizability of the results and limit the sample size. Therefore, the use of follow-up reminders, and provide a clear and concise explanation of the study's purpose will be adopted.

Although there are some limitations associated with the survey research approach, it remains suitable for a quantitative method study on the factors contributing to employee turnover in the renewable energy sector in South Africa. The approach offers several advantages and the proposed mitigation measures

helped address the limitations and ensured that the study maintains high data quality and reliability, minimizing any potential impact on the research outcomes.

## 3.4 Data collection methods

Data collection employed the use of online questionnaire surveys. This method provides several advantages, such as flexibility for participants to complete the survey anytime, leading to higher response rates (Baker et al., 2017). The strategy is cost-efficient since it eliminates the expenses associated with printing, shipping, and human data entry, leading to savings of resources (Asbury et al., 2019). Additionally, the anonymity offered by online questionnaires encourages participants to provide more truthful and straightforward responses (Asbury et al., 2019)

Furthermore, the use of online questionnaires enabled automatic data collection and analysis, saving time and effort. The online survey used google forms as a reliable platform for data collection. The use Likert scale questions to measure variables related to turnover factors, job satisfaction, compensation, leadership styles, organisational culture was used. The survey was clear, concise, and easy to navigate for participants.

The use of various channels to recruit participants, such as professional networks, industry associations, and company contacts was adopted. This was done through personalized invitations with a brief explanation of the study's purpose and a link to the online survey.

Participants were given clear and specific instructions on how to utilise an online link to offer accurate responses to the survey questions. The questionnaire was designed to provide participants with efficiency and convenience, and an expected completion time of 10-15 minutes. To enhance the quality of responses, the questionnaire design used straightforward and concise language to sustain respondents' interest.

## 3.5 Population and sample

### *3.5.1 Population*

The scope of this study encompassed employees working in renewable energy organisations in South Africa. It included individuals employed in different types of renewable energy companies, such as solar, wind, and hybrid companies. The target population consisted of employees across various job roles, including technical, managerial, and administrative positions, such as managers, engineers, technicians, artisans, and administrative staff as shown in table 6. The study focuses on investigating the factors that contribute to employee turnover within this specific population deemed susceptible to turnover.

**Table 6: Population target**

| Population | Definition |
|---|---|
| Management | This population includes all levels of management of the different organisations i.e.. Head of departments, plant managers, asset managers, supervisors |
| Technical staff | This population includes engineers, technicians, electricians/artisan, specialist |
| Administrative (other) staff | This population refers to HR personnel, safety employees, administrators, contract management personnel, logistics |

### *3.5.2 Sample and sampling method*

Due to constraints in terms of time, resources, and accessibility, a sample was chosen from the population to serve as a representative sample of employees in the renewable energy industry in South Africa. A study using a non-probability purposive sampling method was used. Purposive sampling aims to discover individuals within a community who are probable to possess specific features or experiences and are willing to communicate their experiences (Baker et al., 2017). The sample is the sub-set of the population. The population target is

employees of the big five organisations within the renewable sector which each has approximately 250 employees. Therefore, 250 multiply by 5 = 1250 which is the target population (N). Using a known target population, the sample can be estimated using this formula (Baker et al., 2017).

$n = N/(1+N(e)^2)$

Where;

n= sample size, N= Population size, e = margin of error (5%)

$n= 1250/ (1+1250(0.05)^2 = 303$

Therefore, the sample was calculated to be at least **300.**

## 3.6 The research instrument.

The research instrument is designed to gather information on a range of factors that may be contributing to employee turnover in the renewable energy sector in South Africa. The instrument contained quantitative research questionnaire sections that use a Likert scale.

### *3.6.1 Part I: Demographic information*

Participants were requested to include demographic details, encompassing age, gender, education level, job position, and industry experience. Collecting this information facilitated comprehension of the varied factors influencing turnover intentions, all while ensuring the anonymity of participants.

### *3.6.2 Part II: Reasons for leaving.*

Part II focused on the reasons for considering leaving the job. Participants were asked if they have considered leaving in the last year and to choose the main reasons from a provided list.

### *3.6.3 Part III: Factors Contributing to Employee turnover questions.*

#### A. Organisational Culture

Participants rated their perceptions of the organisational culture, including values, diversity and inclusion, communication, ethics, work-life balance, and employee engagement using a Likert scale.

#### B. Organisational leadership

This section asked about the participant's perceptions of the leadership effectiveness at their organisation, including communication between management and employees, support from supervisors or managers, Employee retention strategies, leadership promotion of innovation and continuous improvement.

#### C. Employee Compensation

This section asked about the participant's satisfaction with their current level of compensation, it measured what respondents perceive about the competitiveness of their salary and benefits, transparency of payment grades, performance-based incentives.

#### D. Career Development

Career development included questions about the participant's satisfaction with the training and development opportunities provided by their organisation, as well as how well the organisation supports employee learning and growth. It also asked whether there are structured training programs and development plans and general satisfaction levels.

#### E. Employee Turnover

This section measured the level in which employees are intending to leave their current organisations.

### F. Job satisfaction

This section asked about the participant's overall job satisfaction, as well as their satisfaction with specific aspects of their job, such as supervisory support, job autonomy, co-worker relationships, workload, and task significance. This section was important for understanding how satisfied employees are with their current job and what factors may be contributing to dissatisfaction.

## 3.7 Data analysis strategies and interpretation

The aim of this section is to provide a systematic approach used to analyse the data and interpret the results. A structured approach that considered the following aspects was adopted.

### *3.7.1 Piloting the research instrument*

The first strategy adopted for data analysis included piloting the research instrument amongst a small sample of 18 respondents from 4 renewable energy organisations in south Africa. This was done to identify and address any issues with the research instrument such as unclear, ambiguous, and confusing variables or questions in the survey. Other respondents amongst the 18 were experts of different levels in the renewable energy sector, academic professionals, human resource management individuals who provided clear guidance and confirmation of the relevancy of all aspects of the research instrument.

### *3.7.2 Data preparation and cleaning*

After conducting a successful pilot test of the research instrument, data collection was resumed, with a primary focus on professional networks such as LinkedIn. The strategy employed to encourage individuals' participation involved the regular distribution of surveys and reminders on a weekly basis. These communications included sharing insights into response rates and intriguing observations, with the aim of generating curiosity among potential respondents.

This approach ultimately proved effective in achieving a favourable response rate for the research project.

Following data collection was data preparation and cleaning. This process involved organizing, transforming, and checking the quality of data collected from research participants. The purpose of this process was to ensure that the data is accurate, consistent, and ready for analysis. This included aspects such as data organisation, checking for missing data, identifying, and addressing outliers, checking for any existing inconsistencies, and transforming the data (Osborne, 2014). This process was used to test for the goodness of data collected, assessing its validity and precision.

### *3.7.3 Reliability and Validity Analysis*

This section was dedicated to examining the dependability and soundness of the data. Reliability pertains to the consistency and replicability of a measurement, ensuring that it produces consistent outcomes when applied to the same sample (Sekaran & Bougie, 2016). A measurement is considered highly reliable when it consistently yields similar findings upon repetition (Sekaran & Bougie, 2016). Conversely, validity refers to the extent to which a measurement accurately captures the intended construct without encompassing irrelevant factors. To ensure trustworthy results, the measurements should exhibit strong internal and external validity. In this study, the reliability of measurements was assessed using the Cronbach's alpha coefficient (α). Furthermore, exploratory factor analysis was employed to discern the structure and interrelationships among the variables, shedding light on their underlying patterns (Sekaran & Bougie, 2016)

### *3.7.4 Descriptive statistical analysis*

The IBM Statistical Package for Social Sciences (SPSS) was used to facilitate the descriptive statistical analysis, enabling the calculation of descriptive statistics for the variables of interest. This involved employing statistical measurements such as mean, median, mode, standard deviation, and range computations to

accurately depict the distribution and central tendencies of the data. During this analysis, data visualization was also conducted to illustrate data trends and patterns. Lastly, from the descriptive statistics and data visualizations, data interpretation and conclusions were drawn highlighting any observed limitations on data.

### *3.7.5 Inferential statistical analysis*

In the first step, Pearson correlation analysis was utilized to assess the association between employee turnover and the independent variables (organisation culture, organisational leadership, employee compensation. This analysis aimed to identify any initial correlations between these factors.

Subsequently, multiple regression analysis was applied to further explore the relationship between employee turnover (the dependent variable) and the independent variables, namely, organisational culture, organisational leadership, and employee compensation. This analysis aimed to understand the direct impact of these independent variables on employee turnover.

In a more comprehensive approach, the mediating variable, job satisfaction, was introduced into the regression model. This allowed for an examination of its mediating role in the relationship between the independent variables and employee turnover. By including job satisfaction, the researcher sought to determine how it influenced or mediated the impact of organisational culture, organisational leadership, and employee compensation on employee turnover.

## 3.8 Possible limitations of the study

a) Obtaining a large and diverse sample of employees from the renewable energy sector in South Africa may be challenging.
b) Limited time and budgetary constraints may have restricted the research ability to thoroughly investigate all relevant factors and collect extensive data.

c) Findings from a study focused on the renewable energy sector in South Africa may have limited generalizability to other industries or geographic regions.
d) External variables such as government regulations, economic situations, or developments in technology have an impact on the renewable energy business in South Africa. The influence of these external factors on employee turnover can be substantial, making it difficult to distinguish the effects of internal factors from the broader industry patterns in the study.

## 3.9 Quality Assurance

### *3.9.1 External validity*

To enhance the external validity of the study on employee turnover in the renewable energy sector, various strategies were employed. These include ensuring a diverse sample representing different regions and types of companies within the sector, providing detailed documentation of the research methodology, sampling process, and data collection instruments, and comparing findings with existing literature and empirical evidence from other contexts. By employing these strategies, the study aimed to increase the generalizability of its findings and contribute to the broader understanding of employee turnover in the renewable energy sector.

### *3.9.2 Internal validity*

To enhance the internal validity of the study on factors contributing to employee turnover in the renewable energy sector, rigorous research practices were implemented. These practices include conducting a thorough literature review to inform the research instrument, employing robust sampling techniques, implementing randomization and control measures, and ensuring comprehensive and reliable data collection. Statistical analyses, such as regression models, were utilized to examine the relationship between the identified factors and employee turnover. By adhering to these practices, the study established strong internal

validity, reducing the influence of alternative explanations, and increasing confidence in the study's findings.

### *3.9.3 Reliability*

The study on factors contributing to employee turnover in the renewable energy sector implemented measures to ensure reliability. These measures included rigorous development of the research instrument, pilot testing, and pre-testing to assess clarity and reliability. Clear instructions were provided to participants, standardized measurement scales used, and statistical analyses conducted to evaluate data reliability. These measures enhanced the reliability of the findings and increase confidence in the study's results.

## 3.10 Ethical considerations

### *3.10.1 Permissions to conduct the study.*

The study obtained the necessary permissions and ethical approvals for data collection amongst individual employees of the renewable energy sector in South Africa. Participants were required to acknowledge their consent for participation, and a set of instructions highlighting confidentiality and privacy was declared to the participants. The study was conducted ethically, protecting the rights and well-being of the participants involved.

### *3.10.2 Informed consent and Participation*

The study guaranteed that participants were kept informed and protected throughout the research process. Participants were fully told of the voluntary nature of their participation prior to their involvement. By choosing to take part in the study on employee turnover within the South African renewable energy sector, they were providing their informed consent willingly.

The participants were made aware that their participation involved completing a confidential survey or questionnaire that aimed to explore factors contributing to turnover. It was also stressed that their responses would be kept anonymous, further safeguarding their privacy. Importantly, participants were assured that they could opt out at any point without facing any negative consequences. To establish eligibility, the research instrument initially asked respondents if they were employed in the renewable energy sector. This step helped ensure that the study focused on relevant individuals.

The consent process highlighted the voluntary nature of participation and reinforced the absence of adverse repercussions for non-participation or withdrawal. Moreover, the research upheld strict confidentiality and anonymity standards to protect the responses of all participants. Participants were provided with contact information, should they have any questions, require clarification, or wish to raise concerns about the study. This ensured that participants had a direct means of communication with the researchers.

Lastly, the study adhered to ethical guidelines and institutional requirements to uphold the rights and well-being of the participants, further demonstrating its commitment to ethical research practices.

### *3.10.3 Confidentiality*

Stringent confidentiality measures were implemented to safeguard all collected data and maintain the privacy of participants. Participants' personal information was anonymized, ensuring that any identifying details are removed. Only aggregated and de-identified data was utilized in research report to uphold confidentiality. The utmost care is taken to handle the data with strict confidentiality, aligning with ethical guidelines and regulations.

### *3.10.4 Data Management*

Effective data management is crucial for maintaining data integrity and ensuring security. The gathered data is kept securely in a password-protected system with

restricted access. Personal identifiers were eliminated or anonymized to uphold participant confidentiality. The data will be retained for the necessary duration and then securely disposed of in accordance with established protocols. The study complies with privacy laws to guarantee the privacy and security of the data collected. The study adheres to data protection laws to ensure the confidentiality and integrity of the collected data.

# 4 DATA ANALYSIS AND INTERPRETATION

## 4.1 Introduction

The primary objective of this study is to investigate the most prominent factors contributing to employee turnover amongst employees in the renewable energy sector in South Africa. This chapter focuses on presenting the analysis and interpretation of the collected data to address the research objectives. It plays a crucial role in transforming raw data into meaningful insights through processes such as data cleaning, transformation, interpretation, and analysis. Employing quantitative data analysis methods, it seeks to understand the factors contributing to employee turnover. Ultimately, the objective is to support data-driven decision-making processes that can help reduce turnover rates, thereby enhancing the stability and performance of organisations operating in the renewable energy sector.

## 4.2 Data Preparation

One of the most crucial components of this chapter is data preparation; this includes data cleaning and transformation. Cleaning and processing of data were mainly conducted to enhance the quality and usability of raw data for analysis and modelling. This process involved a systematic process that begins with data inspection to understand the dataset's structure and identify issues like missing values and outliers. Other key steps include handling missing data, treating outliers, transforming variables to meet analysis requirements, and encoding categorical variables. Thorough documentation of decisions and validation of the cleaned data is crucial. Thoroughly processed data is the basis for precise and significant statistical analysis or modelling, guaranteeing dependable insights and model effectiveness. For this study, meticulous attention was given to data integrity which resulted in the absence of missing data, duplicates, data collection errors, or outliers. Given the thoroughness of the data collection process, there was no necessity for imputation or standardization. The data was collected

through Google Forms, all constructs encoded using a common Likert scale coding scheme. "Strongly Disagree" was represented as 1, while "Strongly Agree" received a code of 6, with intermediate values for the other response categories, such as "Disagree" (2), "Neutral" (3), and "Agree" (4) which further enhanced the reliability and accuracy of the dataset. This deliberate choice of data collection method aligns with the study's objectives, emphasizing the commitment to precision and eliminating potential sources of bias or inconsistency.

## 4.3 Internal consistency and Reliability (Cronbach's Alpha)

Cronbach's alpha is a statistical measure employed to evaluate the internal consistency or reliability of a scale or questionnaire. It assesses the degree of interrelatedness among a set of items or questions within a measurement instrument (Alkhadim, 2022). The Cronbach's alpha test quantifies the degree to which the items in a scale are measuring the same underlying construct. It aids in assessing the consistency and reliability of a series of questions or items in a survey or questionnaire Alkhadim (2022) for example:

- **Consistency** - it assesses whether the items within a scale or questionnaire are consistent with each other. In other words, it checks if the items are measuring the same thing in a reliable (Saputra & Dwikotjo Sri Sumantyo, 2022)
- **Reliability**- It quantifies the scale's reliability. A higher value of Cronbach's alpha indicates more reliability as it signifies that the items in the scale consistently measure the same underlying concept (Saputra & Dwikotjo Sri Sumantyo, 2022)
- **Internal Structure**- It helps to understand the internal structure of a scale or questionnaire. If Cronbach's alpha is high, it suggests that the items are strongly related to each other, indicating a clear internal structure. If it's low, it may indicate that the scale lacks internal consistency (Saputra & Dwikotjo Sri Sumantyo, 2022)

The Cronbach's alpha test requires a dataset containing responses to scale or questionnaire items. The resulting coefficient, which ranges from 0 to 1, is used by researchers and survey designers to evaluate the internal consistency and reliability of the scale items in measuring the intended construct. A higher coefficient value indicates better suitability (Alkhadim, 2022). The minimum threshold for Cronbach's alpha is as follows.

- **0.60 or lower**: A Cronbach's alpha below 0.60 may indicate poor internal consistency and suggests that the items in the scale are not measuring the same underlying construct reliably.
- **A coefficient of 0.70 or above** is deemed adequate for research purposes, as it signifies a moderate level of internal consistency and reliability.
- **0.80 or higher** ensure a strong level of internal consistency (Alkhadim, 2022; Sand, 2022; Saputra & Dwikotjo Sri Sumantyo, 2022).

### *4.3.1 Reliability Statistics Test Results*

Table 7 below provides a summary of the reliability statistics test results using Cronbach Alpha. Detailed tables with Cronbach statistics for all the individual constructs with their sub-constructs are presented in the appendix B.

**Table 7:Cronbach Alpha test Results**

| Research Construct | Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | Number of items/questions |
|---|---|---|---|
| Organisational Culture | 0.955 | 0.955 | 10 |
| Organisational leadership and strategy | 0.958 | 0.958 | 8 |
| Employee Compensation | 0.916 | 0.917 | 8 |
| Career Development | 0.939 | 0.939 | 6 |
| Employee Turnover | 0.886 | 0.888 | 6 |

| | | | |
|---|---|---|---|
| Job Satisfaction | 0.863 | 0.855 | 8 |

Based on the table above, the following can be deduced.

- **Organisational Culture (Cronbach's Alpha = 0.955**), this high alpha value of 0.955 indicates excellent internal consistency among the items measuring Organisational Culture. It suggests that the items in this construct reliably measure the same underlying aspect of organisational culture.
- **Organisational Leadership and Strategy (Cronbach's Alpha = 0.958),** similarly, the high alpha value of 0.958 for Organisational Leadership and Strategy signifies strong internal consistency among the items within this construct. It indicates that the items collectively measure the intended dimensions of leadership and strategic aspects reliably.
- **Employee Compensation (Cronbach's Alpha = 0.916**), the Cronbach's alpha of 0.916 for Employee Compensation suggests a high level of internal consistency among the items measuring compensation-related factors. This indicates that the items in this construct are reliably capturing the intended aspects of employee compensation.
- **Career Development (Cronbach's Alpha = 0.939),** the high alpha value of 0.939 for Career Development indicates strong internal consistency among the items in this construct. It suggests that the items collectively measure the intended dimensions of career development in a reliable manner.
- **Employee Turnover (Cronbach's Alpha = 0.886),** the Cronbach's alpha of 0.886 for Employee Turnover Intention suggests a good level of internal consistency among the items measuring turnover intention. It indicates that the items are reliably assessing the employee's inclination towards leaving the organisation.
- **Job Satisfaction (Cronbach's Alpha = 0.863),** the Cronbach's alpha of 0.863 for Job Satisfaction suggests a moderate level of internal consistency among the items measuring job satisfaction. While this is

generally good, it's slightly lower compared to some other constructs, indicating a somewhat lower reliability.

## 4.4 Descriptive statistics

Descriptive statistics are methods and measures used to summarize and describe key characteristics of data, including central tendencies, variability, and data distribution. They provide a snapshot of the data's main features, making it easier to understand and interpret before further analysis. Common examples include mean, median, mode, standard deviation, and graphical representations like histograms and box (Ali et al., 2022).

### *4.4.1 Response rate*

The response rate is the percentage of individuals who participated in a survey out of the total contacted or eligible. It assesses data collection effectiveness and represents sample representativeness. A total of 287 responses were recorded over a sample size of 300, this resulted in a response rate of 95.67% for this study.

### *4.4.2 Demographic characteristic analysis*

To gather data that can offer valuable insights and assist in addressing the primary and secondary research objectives of this study, demographic data was collected from the 287 survey participants. The demographic information encompassed elements such as age, gender, educational qualifications, work experience, and job title ranking. The following figures provide a summary of this demographic information, helping us understand the characteristics of the respondents in our survey.

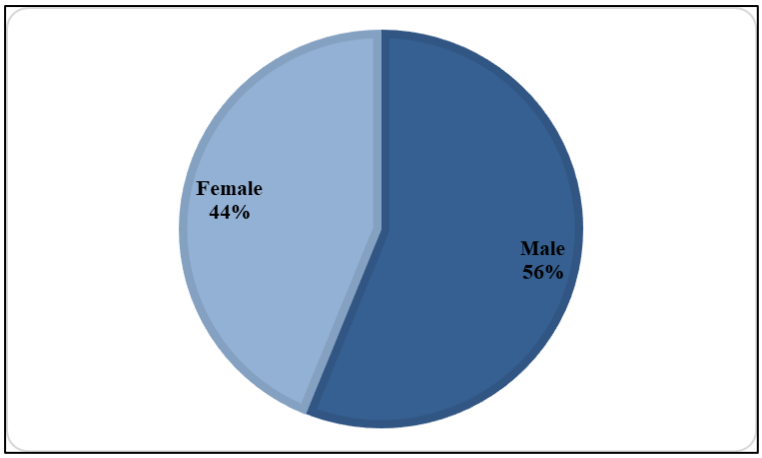


**Figure 2: Gender Distribution**

Figure 2 above indicates that 56% of the respondents are male, while 44% are female.

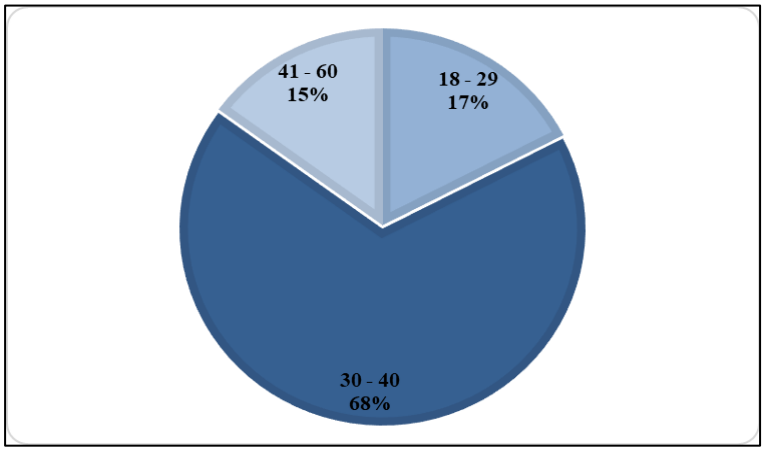


**Figure 3: Respondent's Age Distribution**

As depicted in Figure 3 above, it becomes evident that the predominant segment of respondents falls within the "30 - 40" age category, comprising 67.6% of the entire sample. The "18 - 29" age group accounts for 17.4% of the respondents, while the "41 - 60" age group constitutes 15.0%.

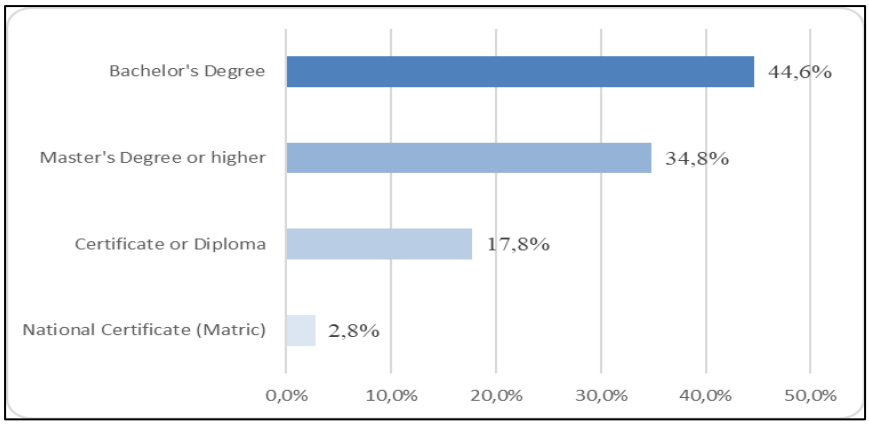


**Figure 4: Educational Qualification Distribution**

In accordance with the data presented in Figure 4, it is notable that a substantial proportion of respondents hold a "Bachelor's Degree" (44.0%) as their highest educational qualification. This is trailed by respondents with a "Master's Degree or higher" (35.2%), and those possessing a "Certificate or Diploma" (18.0%). The group with a "National Certificate (Matric)" accounts for 2.8% of the total respondents.

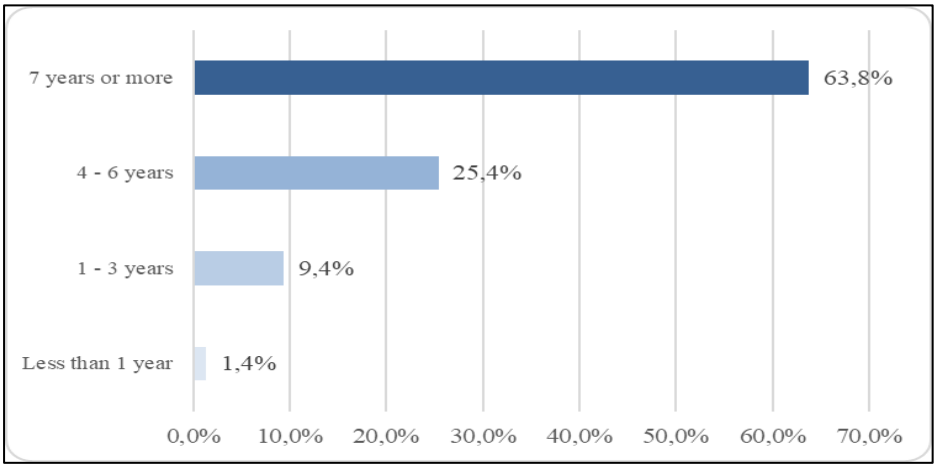


**Figure 5: Work Experience Distribution**

Based on the data presented in Figure 5, it is evident that the largest segment of respondents possesses "7 years or more" of work experience, comprising 63.8% of the total sample. Following this, the "4 - 6 years" category accounts for 25.4% of the respondents, while the "1 - 3 years" category represents 9.4%. A smaller

proportion, 1.4%, consists of respondents with "Less than 1 year" of work experience.

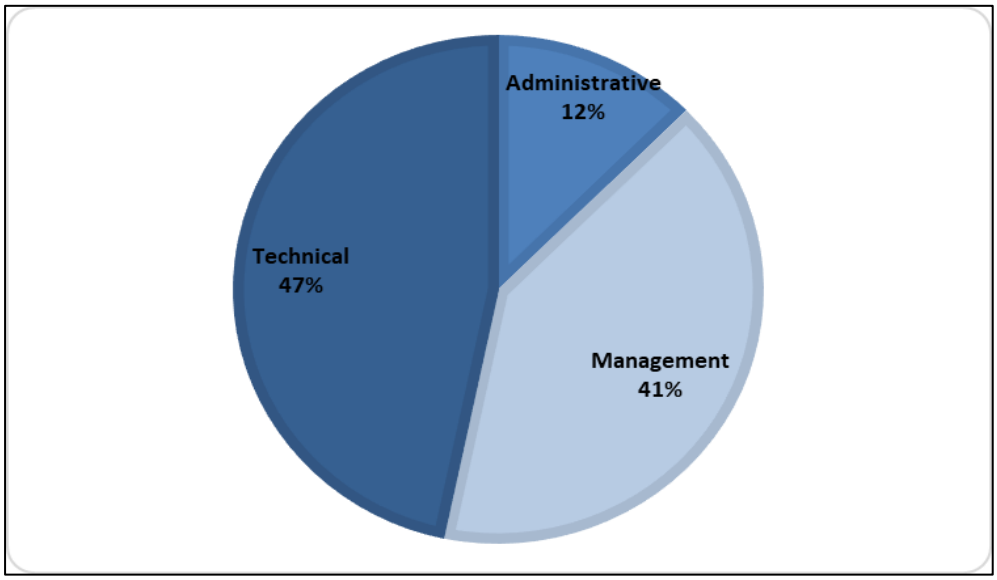


**Figure 6: Job Title Ranking Distribution**

As depicted in Figure 6, the current positions of the respondents are classified into three distinct categories: "Administrative," "Management," and "Technical." Notably, the largest portion of respondents categorizes their positions as "Technical," accounting for 47% of the total sample. Following closely, the "Management" category encompasses 41% of the respondents, while the "Administrative" category represents a smaller fraction, constituting 12%.

In the survey, participants were also asked whether they had considered leaving their organisation in the last 12 months to gather the many reasons why employees are intending to leave. The results are presented in figure 7 below.

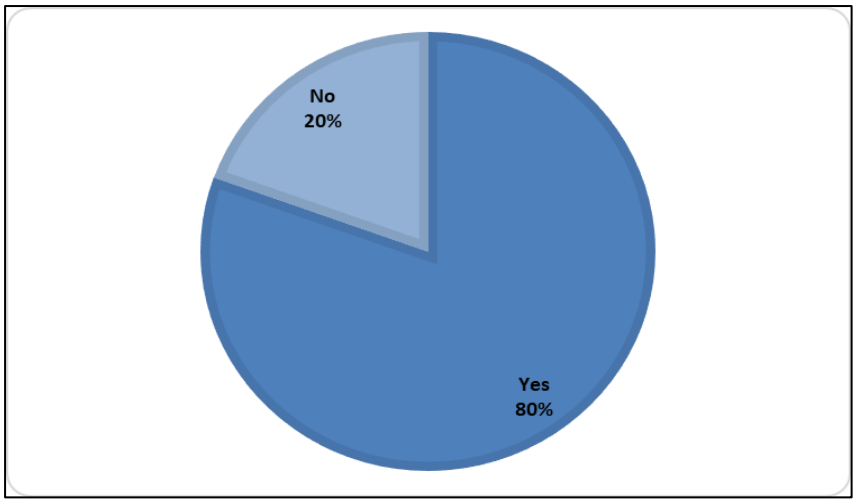


**Figure 7: Employee turnover distribution**

The majority, comprising 80.5% of respondents, indicated "yes," suggesting that a significant portion of the workforce had contemplated leaving their current workplace during the specified period. On the other hand, 19.5% of respondents answered "no," indicating that a noteworthy portion of participants did not entertain thoughts of leaving their organisation within the past year. This information emphasizes the prevalence of considerations about job changes among employees, providing valuable insights into the potential factors influencing workplace satisfaction and retention.

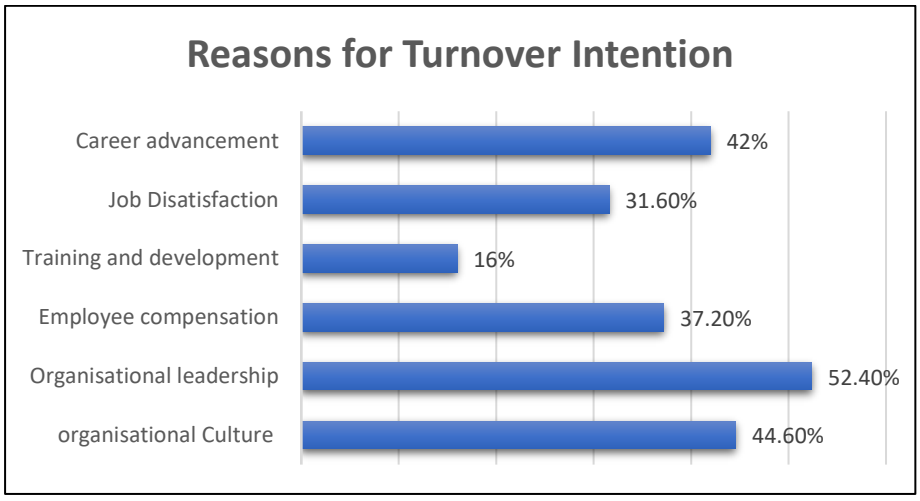


**Figure 8: Reasons for leaving Current Jobs**

The data on turnover reasons and their corresponding percentages reveals several key insights. Organisational leadership and culture stand out as significant factors, with over half of respondents citing leadership issues and nearly half pointing to cultural concerns as reasons for considering leaving. Career advancement and compensation also play prominent roles, with 42% and 37.20% of respondents, respectively, expressing these as factors influencing their contemplation of departure. Job dissatisfaction, mentioned by 31.60% of participants, highlights the importance of overall job satisfaction. Training and development, while less frequently mentioned at 16%, still signify the need for opportunities for skill growth. These findings emphasize the multifaceted nature of employee turnover, suggesting that addressing leadership, culture, advancement opportunities, and compensation concerns may be essential for enhancing workplace satisfaction and retention. A detailed table with combination of reasons provided by participants on contemplating of leaving their current organisational roles are presented in the appendix C.

### *4.4.3 Mean and Standard Deviation*

The provided descriptive statistics offer insights into the responses across various constructs in the dataset. For each item, the statistics include the number of responses (N=287), the minimum and maximum values (Likert scale), the sum of responses (Sum), the mean (average), and the standard deviation (Std Deviation). These measures provide a comprehensive overview of the distribution and variability of responses for each surveyed aspect. For instance, in the "Organisational Culture" and "Leadership" constructs, the mean values and standard deviations reflect the level of agreement or divergence among respondents. Similarly, in the "Employee Compensation" and "Career Development" constructs, the statistics convey the perceived competitiveness and satisfaction levels. The data pertaining to intentions to leave the organisation, job satisfaction, and managerial support offer valuable insights into the workforce's sentiments.

The mean scores and standard deviations were analysed for each construct based on responses from 287 participants as shown in table 8. "Organisational Culture" had a mean of 3.5509 (SD = 1.32533), indicating a moderately positive perception overall. "Organisational Leadership and Strategy" had a mean of 3.2443 (SD = 1.32754), suggesting a somewhat neutral stance. "Employee Compensation" scored a mean of 3.1503 (SD = 1.21696), indicating a moderate satisfaction level. "Career Development" reflected a mean of 3.4855 (SD = 1.27726), showing a generally positive sentiment. "Employee Turnover " had a mean of 4.2793 (SD = 1.40294), suggesting a notable inclination towards considering leaving. Lastly, "Job Satisfaction" scored a mean of 3.1028 (SD = 1.15967), indicating a moderate level of job satisfaction. These insights illuminate participants' perspectives on organisational aspects, encompassing both central tendencies and the extent of variation in responses across the constructs.

**Table 8: Mean and Std Dev for all constructs.**

| **Constructs** | **Average/Mean** | **Std. Deviation** | **Number of participants (N)** |
|---|---|---|---|
| Organisational Culture | 3.5509 | 1.32533 | 287 |
| Organisational Leadership and Strategy | 3.2443 | 1.32754 | 287 |
| Employee Compensation | 3.1503 | 1.21696 | 287 |
| Career Development | 3.4855 | 1.27726 | 287 |
| Employee Turnover | 4.2793 | 1.40294 | 287 |
| Job Satisfaction | 3.1028 | 1.15967 | 287 |

## 4.5 Inferential statistics

Inferential statistics relies on data obtained from a subset of a population to derive inferences and predict results for the entire population (Sand, 2022). It is critical for making research judgments and decisions since it allows for the determination of the relevance of links and patterns in data, especially when working with small samples. Hypothesis testing, confidence intervals, and regression analysis are examples of technique.

### *4.5.1 Factor Analysis*

Explanatory Factor Analysis (EFA) is a statistical technique for identifying underlying components that explain patterns in observable data. By grouping similar observed variables under a smaller number of components, it decreases data dimensionality, identifies latent variables, and simplifies data interpretation (S. J. Lee et al., 2023). In the context of this study, factor analysis considers tests such as Kaiser-Meyer-Olkin (KMO), Bartlett's Test, scree plots, and structure matrixes.

**a) KMO and Bartlett's Test**

The Kaiser-Meyer-Olkin (KMO) is a measure of sampling adequacy used in statistical analysis, particularly in the context of factor analysis or structural equation modelling. It assesses the suitability of data for such analyses by evaluating whether the sample size is sufficient and if variables are correlated enough for meaningful results. A KMO value typically ranges from 0 to 1, where higher values indicate better sampling adequacy.

- **KMO < 0.5**: Generally considered unacceptable, indicating that the data may not be suitable for factor analysis or related techniques.
- **0.5 ≤ KMO < 0.6:** Marginal sampling adequacy, suggesting that improvements in data quality may be necessary for robust results.
- **0.6 ≤ KMO < 0.7**: Mediocre sampling adequacy, implying that the data might be used with caution for factor analysis.

- **0.7 ≤ KMO < 0.8**: Good sampling adequacy, indicating that the data are reasonably suitable for factor analysis.
- **KMO ≥ 0.8**: Excellent sampling adequacy, suggesting that the data are highly suitable for factor analysis or structural equation modelling.

The Kaiser-Meyer-Olkin (KMO) metric of sampling adequacy in table 9 is remarkably high, standing at 0.954, signalling that the variables in the analysis are well-suited for factor analysis. This indicates a strong level of intercorrelation among the variables, suggesting their collective suitability for extracting common factors.

Bartlett's Test of Sphericity helps determine whether the variables in the dataset are related enough to justify the use of factor analysis or other dimensionality reduction techniques. This study achieved an approximate chi-square value of 13232.945 and 1035 degrees of freedom (df), produced a significance level below 0.001. This result indicates a significant departure from the assumption that variables are uncorrelated. In simpler terms, there's substantial evidence supporting the use of factor analysis for this dataset. In essence, both the elevated KMO measure and the significant Bartlett's Test emphasizes the dataset's appropriateness for factor analysis, affirming the existence of meaningful correlations among the variables.

**Table 9: KMO and Bartlett Test**

| **KMO and Bartlett's Test** | | |
|---|---|---|
| **Kaiser-Meyer-Olkin Measure of Sampling Adequacy.** | | 0.954 |
| **Bartlett's Test of Sphericity** | Approx. Chi-Square | 13232,945 |
| | df | 1035 |
| | Significance. | <0.001 |

### b) Scree plot

Scree plot plays a vital role in EFA and principal component analysis (PCA) applications, as this plot serves as a visual tool to assess the significance of various factors or components, offering a graphical representation of the outcomes of selection methods like parallel analysis (Del Giudice, 2022). The eigenvalues depicted in the scree plot provide insights into the extent of variance explained by each respective factor or component. Researchers and analysts commonly rely on scree plots to make informed decisions about the number of factors or components to retain in their analysis, thereby aiding in the interpretation and simplification of complex datasets.

For this study, the scree plot in figure 9 is a graphical representation of the eigenvalues associated with principal components derived from factor analysis or principal component analysis. It is observed that the eigenvalues start to level off at component 5, with a value of 1.559, and continue to component 7, where the eigenvalue is 1.059. The scree plot assists in identifying an "elbow" or a point where eigenvalues plateau, indicating that additional components beyond this point contribute relatively little to the overall variance explained.

In the decision-making process for this study, even though factor analysis was conducted, the choice was made to adhere to the initial identification of five constructs. This decision is supported by the scree plot, which confirms that most of the variance in the data is captured by the first five components (further illustrated in appendix D. Consequently, these five constructs are deemed sufficient to represent the essential variability in the study, and the scree plot helps validate this decision by highlighting the diminishing returns in variance explained beyond the fifth component.

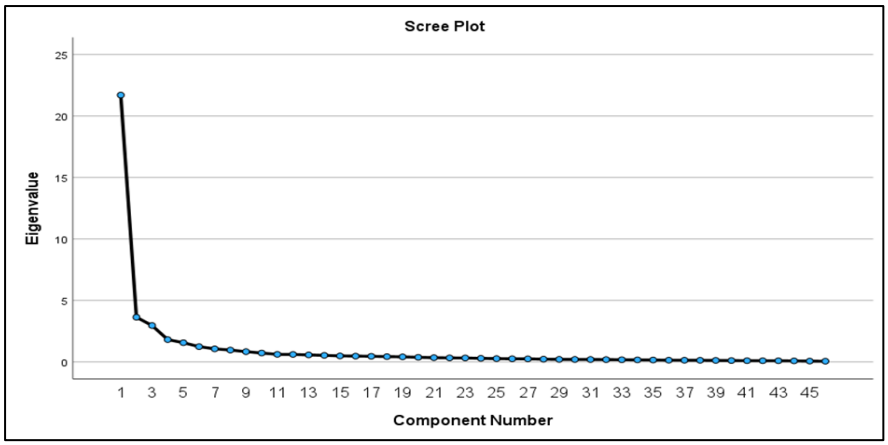


**Figure 9: Scree Plot**

### c) Structure Matrix

The Structure Matrix is an essential component of factor analysis and Principal Component Analysis (PCA). It helps researchers understand the relationships between variables and factors, aids in variable selection, enhances the interpretability of the analysis, and validates the factor/component solution, making it a crucial tool for extracting meaningful information from complex datasets. The structure matrix resulting from PCA with Oblimin rotation and Kaiser Normalization reveals the associations between the original variables and the extracted components(Del Giudice, 2022). The loadings in the component matrix for this study are presented in appendix D. This table represent the relationships between the observed variables and the underlying components extracted through PCA. Each variable's loading on a component indicates the strength and direction of its association with that component. For instance,

- **In Component 1**, variables related to organisational culture, inclusivity, diversity, and employee respect, show high positive loadings, suggesting a shared variance in these aspects.
- **Component 2** seems to capture aspects related to leadership qualities and their impact on employee commitment, motivation, and well-being, as evidenced by high loadings on variables related to leadership behaviour.

- **Component 3** appears to reflect employees' perceptions of compensation, including competitiveness, transparency, and alignment with skills and qualifications.
- **Component 4** is associated with feedback, career growth opportunities, and the organisation's commitment to employee development.
- **Component 5** relates to employees' active job-seeking behaviours and intentions.
- Lastly, **Component 6** is associated with job satisfaction, workload management, and stress or burnout.

These loadings provide insights into the underlying factors influencing employees' perceptions and behaviours in the workplace. In the context of factor analysis, a widely recognized guideline for determining the robustness of factor loadings involves considering those with an absolute value of 0.3 or higher as substantive. This criterion serves as a threshold to identify meaningful associations between observed variables and latent factors.

### *4.5.2 Pearson's Correlation (Strength and Direction between two variables)*

Pearson's correlation coefficient, commonly represented as "r," is a statistical measure that measures the magnitude and direction of a linear association between two continuous variables. The range of values for this variable is between -1 and 1. Positive values indicate a positive linear relationship, negative values indicate a negative linear relationship, and a value of 0 suggests no linear relationship. Pearson's correlation is commonly used to measure and interpret associations between variables in various fields. Table 10 presents the Pearson correlation coefficients between various constructs in this study, as well as their statistical significance (Sig.) and 95% confidence intervals.

#### a) Sig. (2-tailed)

This row displays the p-value that is linked to the correlation coefficient. A p-value quantifies the level of statistical significance of the correlation. All correlations in

this table exhibit a p-value of <0.001, signifying that the relationships are statistically significant. Correlation quantifies the magnitude and direction of the linear association between two variables, indicating the extent to which they co-vary, it does not imply causation. For example. Sig.2-tailed of <0.001 between Organisational culture and organisation leadership implies that there is statistical association/relationship between the two and the relationship is positive (82.5%). Because the association is statistically significant and strongly positive, it implies that if there is great organisational culture, the organisational leadership and strategy is likely great.

**Table 10: Pearson's Correlation Test**

| Correlations | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | **Organisational Culture** | **Organisational Leadership and Strategy** | **Employee Compensation** | **Career Development** | **Employee Turnover** | **Job Satisfaction** |
| **Organisational Culture** | Pearson Correlation | 1 | ,825** | ,523** | ,602** | -,501** | ,729** |
| | Sig. (2-tailed) | | <,001 | <,001 | <,001 | <,001 | <,001 |
| | | | | | | | |
| **Organisational Leadership and Strategy** | Pearson Correlation | ,825** | 1 | ,525** | ,664** | -,429** | ,776** |
| | Sig. (2-tailed) | <,001 | | <,001 | <,001 | <,001 | <,001 |
| | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Employee Compensation** | Pearson Correlation | ,523** | ,525** | 1 | ,621** | -,342** | ,548** |
| | Sig. (2-tailed) | <,001 | <,001 | | <,001 | <,001 | <,001 |
| | | | | | | | |
| **Career Development** | Pearson Correlation | ,602** | ,664** | ,621** | 1 | -,297** | ,613** |
| | Sig. (2-tailed) | <,001 | <,001 | <,001 | | <,001 | <,001 |
| | | | | | | | |
| **Employee Turnover** | Pearson Correlation | -,501** | -,429** | -,342** | -,297** | 1 | -,515** |
| | Sig. (2-tailed) | <,001 | <,001 | <,001 | <,001 | | <,001 |
| | | | | | | | |
| **Job Satisfaction** | Pearson Correlation | ,729** | ,776** | ,548** | ,613** | -,515** | 1 |
| | Sig. (2-tailed) | <,001 | <,001 | <,001 | <,001 | <,001 | |
| ****. Correlation is significant at the 0.01 level (2-tailed).** | | | | | | | |

From the table above, it can be deduced that;

- **Organisational Culture** is strongly positively correlated with Organisational Leadership and Strategy ($r = 0.825$, $p < 0.001$),

Employee Compensation ($r = 0.523$, $p < 0.001$), Career Development ($r = 0.602$, $p < 0.001$), and Job Satisfaction ($r = 0.729$, $p < 0.001$) but negatively correlated with Employee Turnover ($r = -0.501$, $p < 0.001$).

- **Organisational Leadership and Strategy** is strongly positively correlated with Employee Compensation ($r = 0.525$, $p < 0.001$), Career Development ($r = 0.664$, $p < 0.001$), and Job Satisfaction ($r = 0.776$, $p < 0.001$). It is negatively correlated with Employee Turnover ($r = -0.429$, $p < 0.001$).
- **Employee Compensation** is strongly positively correlated with Career Development ($r = 0.621$, $p < 0.001$) and Job Satisfaction ($r = 0.548$, $p < 0.001$). It is negatively correlated with Employee Turnover ($r = -0.342$, $p < 0.001$).
- **Career Development** is strongly positively correlated with Job Satisfaction ($r = 0.613$, $p < 0.001$). It is negatively correlated with Employee ($r = -0.297$, $p < 0.001$).
- **Employee Turnover** is strongly negatively correlated with Job Satisfaction ($r = -0.515$, $p < 0.001$).

### b) Confidence Intervals

The lower and upper bounds of the 95% confidence interval provide a range of values within which the true population correlation is likely to fall. For example, this can mean that the researcher is 95% confident that the true population correlation value is between 78.4% and 85.9% for organisational culture and leadership in the renewable energy sector in South Africa as shown in table.

## Table 11: Confidence Intervals

| | Pearson Correlation (r) | Sig. (2-tailed) | 95% Confidence Intervals (2-tailed)[a] | |
|---|---|---|---|---|
| | | | Lower | Upper |
| Organisational Culture - Organisational Leadership and Strategy | ,825 | <,001 | ,784 | ,859 |
| Organisational Culture - Employee Compensation | ,523 | <,001 | ,433 | ,602 |
| Organisational Culture - Career Development | ,602 | <,001 | ,522 | ,671 |
| Organisational Culture - Employee Turnover Intention | -,501 | <,001 | -,582 | -,408 |
| Organisational Culture - Job Satisfaction | ,729 | <,001 | ,669 | ,778 |
| Organisational Leadership and Strategy - Employee Compensation | ,525 | <,001 | ,435 | ,604 |
| Organisational Leadership and Strategy - Career Development | ,664 | <,001 | ,593 | ,723 |
| Organisational Leadership and Strategy - Employee Turnover Intention | -,429 | <,001 | -,519 | -,329 |
| Organisational Leadership and Strategy - Job Satisfaction | ,776 | <,001 | ,725 | ,818 |
| Employee Compensation - Career Development | ,621 | <,001 | ,544 | ,687 |
| Employee Compensation - Employee Turnover Intention | -,342 | <,001 | -,440 | -,235 |

| | | | | |
|---|---|---|---|---|
| Employee Compensation - Job Satisfaction | ,548 | <,001 | ,461 | ,624 |
| Career Development - Employee Turnover Intention | -,297 | <,001 | -,398 | -,187 |
| Career Development - Job Satisfaction | ,613 | <,001 | ,534 | ,680 |
| Employee Turnover - Job Satisfaction | -,515 | <,001 | -,595 | -,424 |

Pearson correlation coefficients (r values) for each pair of variables in this study as presented above is summarized as follows;

- **Organisational Culture - Organisational Leadership and Strategy (r = 0.825):** This correlation is positive and strong (0.825). It suggests a robust relationship between Organisational Culture and Organisational Leadership and Strategy. When Organisational Culture improves, Organisational Leadership and Strategy tend to improve as well.
- **Organisational Culture - Employee Compensation (r = 0.523):** This correlation is positive and moderate (0.523). It indicates a moderate relationship between Organisational Culture and Employee Compensation. As Organisational Culture scores increase, Employee Compensation scores also tend to increase.
- **Organisational Culture - Career Development (r = 0.602):** This correlation is positive and moderate (0.602). It suggests a moderate relationship between Organisational Culture and Career Development. An improvement in Organisational Culture is associated with an increase in Career Development.
- **Organisational Culture - Employee Turnover (r = -0.501):** This correlation is negative and moderate (-0.501). It shows a moderate, negative relationship between Organisational Culture and Employee

Turnover Intention. When Organisational Culture is better, Employee Turnover Intention tends to decrease.

- **Organisational Culture - Job Satisfaction (r = 0.729):** This correlation is positive and strong (0.729). It implies a strong, positive relationship between Organisational Culture and Job Satisfaction. A better Organisational Culture is linked to higher Job Satisfaction.
- **Organisational Leadership and Strategy - Employee Compensation (r = 0.525):** This correlation is positive and moderate (0.525). It indicates a moderate relationship between Organisational Leadership and Strategy and Employee Compensation. Improvements in Organisational Leadership and Strategy tend to be associated with higher Employee Compensation.
- **Organisational Leadership and Strategy - Career Development (r = 0.664):** This correlation is positive and strong (0.664). It suggests a strong, positive relationship between Organisational Leadership and Strategy and Career Development. When Organisational Leadership and Strategy are stronger, Career Development tends to be better.
- **Organisational Leadership and Strategy - Employee Turnover Intention (r = -0.429):** This correlation is negative and moderate (-0.429). It shows a moderate, negative relationship between Organisational Leadership and Strategy and Employee Turnover Intention. Improved Organisational Leadership and Strategy are linked to decreased Employee Turnover Intention.
- **Organisational Leadership and Strategy - Job Satisfaction (r = 0.776):** This correlation is positive and strong (0.776). It indicates a strong, positive relationship between Organisational Leadership and Strategy and Job Satisfaction. Better Organisational Leadership and Strategy are related to higher Job Satisfaction.
- **Employee Compensation - Career Development (r = 0.621):** This correlation is positive and moderate (0.621). It suggests a moderate relationship between Employee Compensation and Career Development.

Higher Employee Compensation tends to be associated with better Career Development.

- **Employee Compensation - Employee Turnover Intention (r = -0.342):** This correlation is negative and moderate (-0.342). It shows a moderate, negative relationship between Employee Compensation and Employee Turnover Intention. Improved Employee Compensation is associated with decreased Employee Turnover Intention.
- **Employee Compensation - Job Satisfaction (r = 0.548):** This correlation is positive and moderate (0.548). It implies a moderate relationship between Employee Compensation and Job Satisfaction. Higher Employee Compensation tends to be related to higher Job Satisfaction.
- **Career Development - Employee Turnover Intention (r = -0.297):** This correlation is negative and moderate (-0.297). It indicates a moderate, negative relationship between Career Development and Employee Turnover Intention. Enhanced Career Development is linked to decreased Employee Turnover Intention.
- **Career Development - Job Satisfaction (r = 0.613):** This correlation is positive and strong (0.613). It shows a strong, positive relationship between Career Development and Job Satisfaction. Improved Career Development is associated with higher Job Satisfaction.
- **Employee Turnover - Job Satisfaction (r = -0.515):** This correlation is negative and strong (-0.515). It suggests a strong, negative relationship between Employee Turnover Intention and Job Satisfaction. Higher Employee Turnover Intention is associated with lower Job Satisfaction.

### *4.5.3 Multiple Regression Analysis (Hypothesis Testing)*

Multiple linear regression is a statistical technique that extends simple linear regression to model the relationship between a dependent variable and multiple independent (Babbie, 2017; J.-O. Lee, 2018). It helps to understand how changes in multiple factors are associated with changes in the dependent variable and is used for prediction and understanding complex relationships in data.

In this study, this is a statistical method used to examine the relationship between independent variables (Organisational Culture, Organisational Leadership and Strategy, Compensation, Career Development) and a dependent variable (Employee Turnover) while Job satisfaction is mediator. It aims to model and predict how changes in the independent variables (i.e., Organisational Culture, Organisational Leadership and Strategy, Compensation, Career Development) are associated with changes in the dependent variable (Employee Turnover). Regression analysis is widely used across various fields to make predictions, understand relationships, and inform data-driven decisions.

The coefficient of determination (R-squared) and its adjusted counterpart are crucial metrics in evaluating regression models. R-squared offers an indication of how well the independent variables explain the variability in the dependent variable, ranging from 0 to 1. On the other hand, adjusted R-squared considers the model's complexity by factoring in the number of predictors. This adjusted measure provides a more nuanced assessment, penalizing the inclusion of unnecessary variables and guarding against overfitting. Both metrics are valuable in assessing the overall goodness of fit and ensuring a balance between the model's explanatory power and simplicity, particularly when dealing with multiple predictors. Multiple models have been tested in the study using multiple regression analysis.

### *A) Model 1: Multiple regression without the mediator*

Multiple regression in model 1 considered independent variables (Career Development, Organisational Culture, Employee Compensation, Organisational Leadership, and Strategy) to predict a dependent variable (Employee Turnover). Table 12 and 13 presents the modelling and testing of the independent variables to predict a dependent variable without the mediating variable (Job satisfaction).

**Table 12: Model 1 - Independent vs Dependent variables**

| Model | Variables Entered | Variables Removed |
|---|---|---|
| 1 | • Career Development,<br>• Organisational Culture,<br>• Employee Compensation,<br>• Organisational Leadership and Strategy | Mediator (Job Satisfaction) |
| **Dependent Variable**: Employee Turnover | | |

**Table 13: Model 1 Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | 0,513 | 0,263 | 0,253 | 1,21254 |
| **Predictors**: (Constant), Career Development, Organisational Culture, Employee Compensation, Organisational Leadership and Strategy | | | | |

The Model Summary (table 13) for the regression analysis indicates that in Model 1, R is 0.513 which is a measure of how well the independent variables (Career Development, Organisational Culture, Employee Compensation, Organisational Leadership and Strategy) collectively predict the dependent variable (Employee Turnover). The closer the absolute value of "R" is to 1 in this case 0.513 which implies the model fits the data moderately. The coefficient of determination (R Square) is 0.263, signifying that approximately 26.3% of the variance in Employee Turnover is explained by the combination of Career Development, Organisational Culture, Employee Compensation, Organisational Leadership, and Strategy. The adjusted R Square is 0.253, adjusting for the number of predictors in the model. The standard error of the estimate is 1.21254, representing the average distance between observed values and those predicted by the model. The predictors in the model include a constant term, Career

Development, Organisational Culture, Employee Compensation, Organisational Leadership, and Strategy. The information provided in the Model Summary serves as an overall assessment of the model's ability to predict Employee Turnover.

In Model 1, the analysis of variance (ANOVA) presented in table 14 reveals the statistical significance of the regression model in predicting Employee Turnover. The sum of squares for the regression is 148,299, indicating the variability in the dependent variable explained by the combination of Career Development, Organisational Culture, Employee Compensation, Organisational Leadership, and Strategy. The F statistic of 25.216, with a p-value less than 0.001, highlights the overall significance of the model. The degrees of freedom for the regression (4) and the residuals (282) contribute to the mean square calculations for regression (37,075) and residuals (1,470). This comprehensive assessment demonstrates that the specified predictors collectively have a significant impact on Employee Turnover. The total sum of squares is 562,913, of which the sum of squares helps quantify how much of the variability in Employee Turnover is accounted for by the predictors in the regression model, providing insights into the model's explanatory power. In conclusion, the F-statistic and associated p-value indicate that the model is statistically significant, and the sum of squares values provide insights into the proportion of variability explained by the predictors. While there are no strict thresholds for these values, comparing them with other models or using R-squared as a reference can help gauge the model's effectiveness.

**Table 14: ANOVA Test for Model 1**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 148,299 | 4 | 37,075 | 25,216 | <,001 |
| | Residual | 414,614 | 282 | 1,470 | | |
| | Total | 562,913 | 286 | | | |
| **Dependent Variable**: Employee Turnover | | | | | | |
| **Predictors:** (Constant), Career Development, Organisational Culture, Employee Compensation, Organisational Leadership and Strategy | | | | | | |

A further analysis of the regression coefficients has been done to provide insights into the relationship between the independent variables (Organisational Culture, Organisational Leadership and Strategy, Employee Compensation, Career Development) and the dependent variable (Employee Turnover). The intercept, represented by the constant term, is 6.274 (B), with a standard error of 0.236 shown in table 15.

**Table 15: Regression coefficients**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 6,274 | ,236 | | 26,530 | <,001 |
| | Organisational Culture | -,462 | ,098 | -,437 | -4,731 | <,001 |
| | Organisational Leadership and Strategy | -,058 | ,103 | -,055 | -,559 | ,576 |
| | Employee Compensation | -,162 | ,077 | -,140 | -2,088 | ,038 |
| | Career Development | ,098 | ,083 | ,090 | 1,183 | ,238 |
| **Dependent Variable**: Employee Turnover | | | | | | |

Based on table 15 above, the following can be deduced.

### a) Significant Variables:

**Organisational Culture:** The coefficient for Organisational Culture is -0.462, and its statistical significance ($t = -4.731$, $p < 0.001$) indicating that changes in Organisational Culture are associated with significant changes in Employee Turnover. The negative coefficient suggests an inverse relationship, i.e. a more negative or less supportive Organisational Culture, according to the model, is associated with higher predicted turnover rates. Conversely, a more positive or

supportive Organisational Culture is associated with lower predicted turnover rates.

**Employee Compensation:** The coefficient for Employee Compensation is -0.162, and its statistical significance (t = -2.088, p = 0.038) implying that changes in Employee Compensation are associated with significant changes in Employee Turnover. The negative coefficient suggests that as Employee Compensation increases, the model predicts a decrease in Employee Turnover. Conversely, as Employee Compensation decreases, Employee Turnover tends to increase. This indicates that lower compensation is associated with higher turnover rates.

### b) Non-Significant Variables

**Organisational Leadership and Strategy:** The coefficient for Organisational Leadership and Strategy is -0.058, and its lack of statistical significance (t = -0.559, p = 0.576) suggests that changes in this variable are not associated with statistically significant changes in Employee Turnover in the renewable energy sector. In other words, the relationship between Organisational Leadership and Strategy and Employee Turnover, as captured by the model, is not strong enough to reject the null hypothesis. This variable may not be a significant predictor of Employee Turnover.

**Career Development:** The coefficient for Career Development is 0.098, and its lack of statistical significance (t = 1.183, p = 0.238) suggests that changes in Career Development are not associated with statistically significant changes in Employee Turnover. The lack of significance indicates that, according to the model, Career Development may not play a significant role in predicting Employee Turnover.

In summary, the significant variables (Organisational Culture and Employee Compensation) are deemed important predictors of Employee Turnover in the model, as changes in these variables are associated with statistically significant changes in Employee Turnover. On the other hand, the non-significant variables (Organisational Leadership and Strategy, Career Development) do not demonstrate statistically significant relationships with Employee Turnover,

suggesting that variations in these variables may not have a substantial impact on turnover rates in the specified context.

### *B) Model 2: Significant variables (i.e., Organisation culture and Employee Compensation) from Model 1*

Model 2 presented in table 16, 17, 18 and 19 present a scenario where only two independent variables, namely Employee Compensation and Organisational Culture, were considered to predict the dependent variable Employee Turnover as per the outcomes of model 1.

**Table 16: Model 2- Significant Variables Model**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 2 | Employee Compensation, Organisational Culture | Organisational Leadership and Strategy, Career Development). | Enter |
| **Dependent Variable**: Employee Turnover | | | |

The value of 0.510 in table 17, denoted as R, represents the degree to which the independent variables accurately predict the dependent variable. A value of 0.510 for the absolute value of "R" indicates a decent fit of the model to the data. The R Square value of 0.260 indicates that around 26.0% of the variation in Employee Turnover can be accounted for by the joint influence of Employee Compensation and Organisational Culture.

For this study, an adjusted R-squared of 0.254 in Model 2 indicates that, after considering the number of predictors (Employee Compensation and Organisational Culture), approximately 25.4% of the variance in Employee Turnover is explained by the included variables. This means that the model, with these specific predictors, accounts for a substantial portion of the variability in the dependent variable.

The standard error of the estimate (1.21134) represents the average variability in predicting Employee Turnover. These statistics collectively provide an overview of how well the predictors (Employee Compensation and Organisational Culture) collectively explain the variance in Employee Turnover in model 2.

**Table 17: Correlation Analysis for Model 2**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 2 | 0,510 | 0,260 | 0,254 | 1,21134 |
| **Predictors**: (Constant), Employee Compensation, Organisational Culture | | | | |

The ANOVA table below for the regression model (Model 2) used to assess the predictors Employee Compensation and Organisational Culture in relation to Employee Turnover reveals statistical significance. The regression model, including these predictors, is found to be highly significant ($F = 49.815$, $p < 0.001$). The sum of squares in this study helps to understand how well the factors, such as Employee Compensation and Organisational Culture, explain the ups and downs in Employee Turnover. The "Sum of Squares for Regression" (146,190) indicates that a significant chunk of the changes in Employee Turnover can be linked to these factors. On the other hand, the "Residual Sum of Squares" (416,723) represents the parts of employee turnover changes that this study's factors do not explain—essentially, what is left unaccounted for.

The F statistic of 49.815 suggests that the model is providing a better fit to the data than would be expected by chance alone. These findings contribute to the understanding that the combination of Employee Compensation and Organisational Culture significantly influences the variability observed in Employee Turnover in the specified model.

In summary, the ANOVA results indicate that the regression model with predictors (Employee Compensation and Organisational Culture) is highly significant in explaining Employee Turnover. Most of the variability in turnover is captured by the predictors, as evidenced by the substantial sum of squares in the Regression

section. The Residual section represents the portion of variability that the model does not explain, but the mean square suggests that, on average, the model performs well in capturing the observed turnover.

**Table 18: ANOVA Analysis for Model 2**

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| 2 | Regression | 146,190 | 2 | 73,095 | 49,815 | <,001 |
| | Residual | 416,723 | 284 | 1,467 | | |
| | Total | 562,913 | 286 | | | |
| **Dependent Variable**: Employee Turnover | | | | | | |
| **Predictors**: (Constant), Employee Compensation, Organisational Culture | | | | | | |

In Model 2, the regression analysis was also conducted to explore the relationships between Employee Turnover and the predictors Organisational Culture and Employee Compensation. As seen in table 19 below, the constant term was estimated at 6.345, representing the predicted mean level of Employee Turnover when both predictors are zero. Organisational Culture emerged as a highly significant predictor, with a negative coefficient of -0.470, suggesting that lower levels of Organisational Culture are associated with higher Employee Turnover. The Beta coefficient (-0.444) provides a standardized measure of the effect size. Employee Compensation, while demonstrating a negative coefficient of -0.126, did not achieve conventional statistical significance ($p = 0.069$). This suggests a suggestive association between lower Employee Compensation and higher Employee Turnover that falls just short of conventional significance levels. The findings emphasize the influential role of Organisational Culture in predicting Employee Turnover, with a more nuanced relationship observed for Employee Compensation in the specified model.

**Table 19: Regression coefficients analysis for model 2**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 2 | (Constant) | 6,345 | 0,228 | | 27,853 | <,001 |
| | Organisational Culture | -0,470 | 0,063 | -0,444 | -7,406 | <,001 |
| | Employee Compensation | -0,126 | 0,069 | -0,110 | -1,828 | 0,069 |
| **Dependent Variable**: Employee Turnover | | | | | | |

### *C) Model 3: Job Satisfaction as dependent variable with significant predictors in model 1*

Model 3 below presents regression analysis with Job Satisfaction as the dependent variable and Employee Compensation, and Organisational Culture as predictors. This test is done to help understand the relationship between the independent variable(s) and the mediator variable.

**Table 20: Model 3 -Job Satisfaction with significant predictors**

| Model | Variables Entered | Variables Removed |
|---|---|---|
| 3 | Employee Compensation, Organisational Culture | Employee turnover |
| **Dependent Variable**: Job Satisfaction | | |

Model 3 demonstrated a robust fit, with the R of 0.754 shown in table 21 below, which is a measure of how well the independent variables (Employee Compensation, Organisational culture) collectively predict the dependent variable (Job Satisfaction). The closer the absolute value of "R" is to 1 which is 0.754 implies this model fits the data well. The R Square value of 0.569 indicates that around 56.9% of the variability in Job Satisfaction can be accounted for by the predictors. The modified R Square value of 0.566, considering the number of predictors, yielded a somewhat more cautious assessment of the model's ability to explain the data. The estimate's standard error was 0.76387, indicating the typical variability in predicting Job Satisfaction. These findings collectively suggest that the combination of Employee Compensation and Organisational Culture significantly contributes to explaining the observed variance in Job Satisfaction in the specified model.

**Table 21: Model 3 Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 3 | 0,754 | 0,569 | 0,566 | 0,76387 |
| **Predictors**: (Constant), Employee Compensation, Organisational Culture | | | | |

The analysis of variance (ANOVA) table 22 for the regression model predicting Job Satisfaction based on Employee Compensation and Organisational Culture as predictors reveals a highly significant relationship ($F = 187.584$, $p < 0.001$). The sum of squares decomposition indicates substantial variability in Job Satisfaction explained by the predictors, with a regression sum of squares of 218,910 and a residual sum of squares of 165,714. The degrees of freedom associated with the predictors and residuals were 2 and 284, respectively, contributing to a total of 286 degrees of freedom. The mean square for the regression was 109,455, significantly larger than the mean square for residuals (583). The F statistic of 187.584 indicates that the regression model provides a better fit to the data than would be expected by chance alone. Overall, these findings highlight the statistical significance of the model in explaining the

variance in Job Satisfaction, with Employee Compensation and Organisational Culture playing substantial roles as predictors.

**Table 22: Model 3 ANOVA Results**

| ANOVA | | | | | | |
|---|---|---|---|---|---|---|
| **Model** | | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| 3 | Regression | 218,910 | 2 | 109,455 | 187,584 | <,001 |
| | Residual | 165,714 | 284 | 0,583 | | |
| | Total | 384,624 | 286 | | | |
| **Dependent Variable**: Job Satisfaction | | | | | | |
| **Predictors:** (Constant), Employee Compensation, Organisational Culture | | | | | | |

The coefficients table (Table 23) reveals valuable insights into the predictors of Job Satisfaction. The constant term of 0.523 represents the estimated mean level of Job Satisfaction when both Organisational Culture and Employee Compensation are zero. Notably, Organisational Culture exhibits a highly significant positive coefficient of 0.532, indicating that an increase in Organisational Culture is associated with a substantial rise in Job Satisfaction. The Beta coefficient of 0.608 emphasizes the standardized effect size of Organisational Culture. Similarly, Employee Compensation demonstrates a significant positive coefficient of 0.219, signifying that higher levels of Employee Compensation are linked with increased Job Satisfaction. The Beta coefficient of 0.230 provides a standardized measure of this effect. Together, these findings emphasize the crucial roles of Organisational Culture and Employee Compensation in predicting Job Satisfaction, emphasizing their positive impact on the employees' overall job contentment in the specified model.

**Table 23: Model 3 Coefficients**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 3 | (Constant) | 0,523 | 0,144 | | 3,640 | <,001 |
| | Organisational Culture | 0,532 | 0,040 | 0,608 | 13,310 | <,001 |
| | Employee Compensation | 0,219 | 0,044 | 0,230 | 5,028 | <,001 |
| **Dependent Variable**: Job Satisfaction | | | | | | |

The results from the regression analysis provide valuable insights into the relationship between the independent variables (Organisational Culture and Employee Compensation) and the mediator (Job Satisfaction).

### *D) Model 4: Job Satisfaction as an independent variable to employee turnover*

Model 4 presents regression analysis with Job Satisfaction as the independent variable while employee turnover was kept as a dependent variable. This test is done to analyse the relationship between the mediator and dependent variable.

**Table 24: Relationship between Mediator and Dependent Variable**

| Model | Variables Entered |
|---|---|
| 4 | Job Satisfaction |
| **Dependent Variable**: Employee Turnover | |

As shown in table 25, the R is a measure of how well the independent variable (Job satisfaction) predict the dependent variable (Employee Turnover). The closer the absolute value of "R" is to 1 which is 0.515 implies this model fits the data moderately. The coefficient of determination (R Square) was 0.265, signifying that the model explains around 26.5% of the variability in employee turnover based on job satisfaction. The Adjusted R Square adjusts the R Square value based on the number of predictors in the model. In this case, it is 0.263, which is close to the R Square. The adjustment considers the possibility of chance improvements in the model when additional predictors are included. The standard error of the estimate was 1.20476, which is the mean deviation between the observed values and the expected outcomes generated by the model. A smaller standard error value suggests a more accurate fit of the model, and in this case, it represents a modest level of predictive accuracy. These findings collectively suggest a moderate level of predictability in the model, with "Job Satisfaction contributing to the explanation of Employee Turnover.

**Table 25: Model 4 Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 4 | 0,515 | 0,265 | 0,263 | 1,20476 |
| **Predictors**: (Constant), Job Satisfaction | | | | |

The ANOVA results in table 26 revealed a highly significant overall regression model for predicting "Employee Turnover" based on the independent variables "Job Satisfaction. The model demonstrated a substantial F statistic of 102.829, surpassing the critical threshold, indicating that the variability explained by the mediator is significantly larger than expected by chance. The sum of squares decomposition showed that the regression model accounted for a considerable portion of the total variance in "Employee Turnover," as evidenced by the regression sum of squares (149.251) in comparison to the residual sum of squares (413.662). The significance level, denoted by the p-value < 0.001, affirmed the robustness of the model. These findings collectively highlight the

statistical significance of Job Satisfaction in explaining variations in "Employee Turnover," suggesting their collective influence on the outcome variable.

**Table 26: Model 4 ANOVA Results**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 4 | Regression | 149,251 | 1 | 149,251 | 102,829 | <,001 |
| | Residual | 413,662 | 285 | 1,451 | | |
| | Total | 562,913 | 286 | | | |
| **Dependent Variable**: Employee Turnover | | | | | | |
| **Predictors:** (Constant), Job Satisfaction | | | | | | |

Table 27 below shows that the intercept representing the predicted turnover when all predictors are zero, is 6,212 and highly significant. This is the baseline Employee Turnover when job satisfaction has no effect. Job satisfaction shows a negative and statistically significant impact of -0.623 with ($\beta = -0.515$, $p < 0.001$), indicating that a decrease in job satisfaction is associated with increased employee turnover. The analysis suggests that lower job satisfaction is associated with higher Employee Turnover, and this relationship is statistically meaningful. Both the starting point (constant) and the effect of job satisfaction are statistically significant. This means that the observed relationship between job satisfaction and employee turnover is unlikely to be due to random chance. This finding highlights the importance of job satisfaction in understanding and addressing employee turnover.

**Table 27: Regression Coefficients for Model 4**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 4 | (Constant) | 6,212 | 0,203 | | 30,536 | <,001 |
| | Job Satisfaction | -0,623 | 0,061 | -0,515 | -10,140 | <,001 |
| **Dependent Variable**: Employee Turnover | | | | | | |

### *E) Model 5 with the mediator*

In Model 5, "Employee Turnover" was set as the dependent variable, and the independent variables entered simultaneously were "Job Satisfaction," "Employee Compensation," and "Organisational Culture." Importantly, the inclusion of "Job Satisfaction" among the independent variables implies a mediation hypothesis, suggesting an exploration of how the relationship between "Employee Compensation" and "Organisational Culture" with "Employee Turnover" might be influenced by the mediating role of "Job Satisfaction."

**Table 28: Model 4 -Mediating Role of Job Satisfaction**

| Model | Variables Entered |
|---|---|
| 5 | Job Satisfaction, Employee Compensation, Organisational Culture |
| **Dependent Variable**: Employee Turnover | |

As shown in table 29, The R, which is a measure of how well the independent variables (Employee Compensation, Organisational culture) and mediator (Job satisfaction) collectively predict the dependent variable (Employee Turnover). The closer the absolute value of "R" is to 1 which is 0.548 implies this model fits the data moderately.

The R Square value of 0.300 indicates that around 30% of the variation in "Employee Turnover" can be explained by the predictors. The corrected R Square value of 0.293, considering the number of predictors, yielded a significantly more cautious assessment of the model's ability to explain the data. The standard error of the estimate was 1.18005, which is the mean deviation between the observed values and the projected values from the model. These findings collectively suggest a moderate level of predictability in the model, with "Job Satisfaction," "Employee Compensation," and "Organisational Culture" contributing to the explanation of "Employee Turnover."

**Table 29: Model 5 summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 5 | 0,548 | 0,300 | 0,293 | 1,18005 |
| **Predictors:** (Constant), Job Satisfaction, Employee Compensation, Organisational Culture | | | | |

The ANOVA results in table 20 below revealed a highly significant overall regression model for predicting "Employee Turnover" based on the independent variables "Job Satisfaction," "Employee Compensation," and "Organisational Culture." The model demonstrated a substantial F statistic of 40.413, surpassing the critical threshold, indicating that the variability explained by the predictors is significantly larger than expected by chance. The sum of squares decomposition showed that the regression model accounted for a considerable portion of the total variance in "Employee Turnover," as evidenced by the regression sum of squares (168,830) in comparison to the residual sum of squares (394,083). The significance level, denoted by the p-value < 0.001, affirmed the robustness of the model. These findings collectively highlight the statistical significance of the incorporated predictors in explaining variations in "Employee Turnover," suggesting their collective influence on the outcome variable.

**Table 30: Model 4 ANOVA Results**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 5 | Regression | 168,830 | 3 | 56,277 | 40,413 | <,001[b] |
| | Residual | 394,083 | 283 | 1,393 | | |
| | Total | 562,913 | 286 | | | |
| **Dependent Variable**: Employee Turnover | | | | | | |
| **Predictors:** (Constant), Job Satisfaction, Employee Compensation, Organisational Culture | | | | | | |

Table 31 below shows that the intercept representing the predicted turnover when all predictors are zero, is 6,538 and highly significant. Organisational culture shows a negative and statistically significant impact ($\beta = -0.258$, $p < 0.001$), indicating that a decrease in organisational culture is associated with increased employee turnover. Interestingly, employee compensation does not appear to have a significant effect ($\beta = -0.039$, $p = 0.519$), suggesting its limited influence on turnover. Job satisfaction, on the other hand, demonstrates a negative and significant relationship ($\beta = -0.306$, $p < 0.001$), implying that lower job satisfaction is associated with higher turnover. These findings highlight the importance of organisational culture and job satisfaction in understanding and addressing employee turnover.

**Table 31: Regression Coefficients for Model 4**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 6,538 | ,227 | | 28,798 | <0,001 |
| | Organisational Culture | -0,273 | 0,079 | -0,258 | -3,467 | <0,001 |
| | Employee Compensation | -0,045 | 0,070 | -0,039 | -,646 | 0,519 |
| | Job Satisfaction | -0,370 | 0,092 | -0,306 | -4,032 | <0,001 |
| **Dependent Variable**: Employee Turnover | | | | | | |

Examining the regression models before and after the introduction of the mediator (Job Satisfaction), the direct and indirect impacts on Employee Turnover become evident. Initially, without considering the mediator, Organisational Culture demonstrated a robust negative association with Employee Turnover ($\beta = -0.444$, $p < 0.001$), signifying a direct impact. However, Employee Compensation did not exhibit a statistically significant effect on turnover ($\beta = -0.110$, $p = 0.069$).

Comparing the coefficients for Organisational Culture before and after mediation reveals a noticeable change. Before introducing Job Satisfaction as a mediator, the coefficient for Organisational Culture was -0.444, indicating a strong negative relationship with Employee Turnover. However, after accounting for the mediating role of Job Satisfaction, the coefficient for Organisational Culture decreased to -0.258. This reduction suggests that part of the initial impact of Organisational Culture on Employee Turnover is now explained by its influence on Job Satisfaction.

The mediation effect can be understood as follows: a portion of the negative impact of Organisational Culture on Employee Turnover is now explained by its influence on Job Satisfaction. If Organisational Culture decreases, it not only directly contributes to higher turnover (as indicated by the reduced but still negative coefficient) but also indirectly through its negative impact on Job Satisfaction. In simpler terms, part of why a less positive culture leads to higher turnover is because it makes employees less satisfied with their jobs, which, in turn, contributes to the decision to leave.

Notably, Job Satisfaction emerged as a significant predictor with a negative effect on turnover ($\beta = -0.306$, $p < 0.001$), representing an indirect impact on the relationship between Organisational Culture and Employee Turnover. The results highlight the mediating role of Job Satisfaction, elucidating how it contributes to explaining the pathway through which Organisational Culture affects Employee Turnover. The non-significant impact of Employee Compensation on turnover was consistent across both models, reaffirming its limited direct influence. These results imply that improving Organisational Culture and Job Satisfaction could potentially contribute to reducing employee turnover, while Employee Compensation may not play a significant role in this context.

## 4.6 Discussion of Findings

### *4.6.1 Reliability Testing*

The Cronbach's Alpha values obtained for each construct in the study indicate the internal consistency and reliability of the measurement instruments. Organisational Culture and Organisational Leadership and Strategy exhibit exceptionally high Cronbach's Alpha values of 0.955 and 0.958, respectively, signifying excellent internal consistency. Employee Compensation and Career Development also demonstrated strong internal consistency with values of 0.916 and 0.939, respectively. Employee Turnover maintained good internal consistency with a Cronbach's Alpha of 0.886, while Job Satisfaction showed a moderate level of internal consistency with a value of 0.863. These findings affirm

the reliability of the scale items used for measuring their respective constructs in this study.

### *4.6.2 Descriptive Statistics*

Descriptive statistics served to summarize and elucidate key data characteristics such as central tendencies, variability, and distribution. This began by presenting the response rate, an essential metric that evaluates the effectiveness of data collection and sample representativeness, highlighting a robust 95.67% response rate from 287 participants out of a 300-sample size.

Additionally, demographic characteristics were analysed, encompassing elements such as gender, age, educational qualifications, work experience, and job title ranking. Figures explain these demographics, revealing noteworthy insights into respondent profiles. Furthermore, data pertaining to employee turnover and reasons were scrutinized, with a significant 80.5% contemplating leaving their current workplaces. The multifaceted nature of turnover reasons was unveiled, emphasizing leadership, culture, career advancement, and compensation as prominent factors at first glance.

Finally, the mean and standard deviation analysis across all constructs were detailed, offering insights into respondents' perspectives on organisational aspects and central tendencies across constructs. This included moderately positive perceptions in organisational culture and career development, a somewhat neutral stance in organisational leadership, and notable inclinations toward considering leaving the organisation, revealing a comprehensive view of the data's distribution and variability.

### *4.6.3 Inferential Statistics*

#### a) Factor analysis

This study employed Explanatory Factor Analysis (EFA) to identify underlying components explaining observed data patterns. Key tests like Kaiser-Meyer-

Olkin (KMO) and Bartlett's Test affirmed the dataset's suitability for factor analysis, with a high KMO score of 0.954 and a significant Bartlett's Test ($p<0.001$). The scree plot was done and revealed that most variance is captured by the first five components, validating the decision to retain only the five constructs used in this study. Additionally, the Structure Matrix highlighted variable-component relationships, elucidating how organisational culture, leadership, compensation, career development, turnover, and job satisfaction interrelate with underlying factors.

**b) Correlation Analysis**

Pearson's correlation analysis was conducted to assess the relationships between various constructs in the study. The results indicated several significant correlations:

- Organisational Culture showed strong positive correlations with Organisational Leadership and Strategy, Employee Compensation, Career Development and Job Satisfaction. It was negatively correlated with Employee Turnover.
- Organisational Leadership and Strategy exhibited strong positive correlations with Employee Compensation, Career Development, and Job Satisfaction while negatively correlated with Employee Turnover.
- Employee Compensation was moderately and positively correlated with Career Development and Job Satisfaction while negatively correlated with Employee Turnover.
- Career Development had a strong positive correlation with Job Satisfaction and a moderate negative correlation with Employee Turnover.
- Employee Turnover Intention is strongly negatively correlated with Job Satisfaction

All correlations were statistically significant ($p < 0.001$) providing insights into the relationships between these constructs.

For example, a strong positive correlation between Organisational Culture and Job Satisfaction suggested that an improvement in Organisational Culture is associated with higher Job Satisfaction. Conversely, the negative correlation between Organisational Culture and Employee Turnover Intention indicates that a better Organisational Culture is linked to reduced turnover. These findings contribute to a better understanding of the interplay between various factors in the workplace.

### c) Multiple regression

Multiple regression analysis was conducted in this study to explore the relationships among various variables. Five models were examined with key findings as follows.

**Model 1 (Multiple Regression without Mediator):** In this model, Career Development, Organisational Culture, Employee Compensation, and Organisational Leadership and Strategy were used to predict Employee Turnover. The analysis revealed that Organisational Culture and Employee Compensation had significant negative relationships with Employee Turnover. This means that a more positive Organisational Culture and higher Employee Compensation were associated with lower turnover rates. Organisational Leadership and Strategy and Career Development were not found to be significant predictors of Employee Turnover.

**Model 2 (Significant Variables from Model 1):** In this model, only the significant variables from Model 1 (Organisational Culture and Employee Compensation) were used to predict Employee Turnover. The results indicated that both Organisational Culture and Employee Compensation were significant predictors of Employee Turnover, with Organisational Culture having a stronger negative relationship.

**Model 3 (Job Satisfaction with Significant Predictors in Model 1):** Job Satisfaction was considered as the dependent variable in this model, and Employee Compensation and Organisational Culture were used as predictors. The results showed that both Employee Compensation and Organisational

Culture had significant positive relationships with Job Satisfaction, indicating that higher Employee Compensation and a more positive Organisational Culture were associated with increased Job Satisfaction.

**Model 4 (Job satisfaction as an independent variable to Employee Turnover):** this model was used to test the relationship between job satisfaction and employee turnover. The results show that job satisfaction had a significant negative relationship to employee turnover. This implied that when job satisfaction is high, turnover is reduced i.e. Employees in the renewable energy sector stay in their organisations when they are satisfied with their jobs.

**Model 5 (Mediating Role of Job Satisfaction):** In this model, Employee Turnover was set as the dependent variable, and Employee Compensation, and Organisational Culture were used as predictors while Job Satisfaction acted as a mediator. The results revealed that Organisational Culture had a significant negative relationship with Employee Turnover, both directly and indirectly through its impact on Job Satisfaction. Employee Compensation did not have a significant direct or indirect effect on Employee Turnover. This implied that when job satisfaction is high, despite cultural difficulties employees still stay in their organisations. On the other hand, when compensation packages are not adequate, employees will leave their organisations even if they are satisfied in their roles.

To summarise, these regression models yielded useful insights into the interrelationships among different variables in the study. Organisational Culture has been identified as a strong predictor of both Job Satisfaction and Employee Turnover, underscoring its crucial role in shaping these outcomes. Furthermore, it was discovered that Job Satisfaction acts as a mediator in the relationship between Organisational Culture and Employee Turnover. This implies that a favourable Organisational Culture might result in increased Job Satisfaction, which subsequently decreases Employee Turnover. The models did not find any substantial direct or indirect impact of Employee Compensation on Employee Turnover.

## 4.7 Conclusion

The findings of this study hold great significance in addressing the primary research objective of investigating the leading contributors to employee turnover in the South African renewable energy sector. Additionally, the study successfully addressed the secondary research objectives, revealing that organisational culture, Job satisfaction, and compensation significantly impact turnover across various age groups and gender profiles. These insights offer a comprehensive understanding of the factors driving turnover, providing renewable energy organisations in South Africa with valuable guidance on fostering positive cultures, refining strategies that improve job satisfaction, and enhancing compensation packages to reduce turnover rates and cultivate a more stable and satisfied workforce.

The analysis in this study makes several noteworthy contributions to the understanding of employee turnover within the South African renewable energy sector. Firstly, it identifies and quantifies the key factors influencing turnover, encompassing organisational culture and compensation. By doing so, it offers a nuanced perspective on the multifaceted nature of turnover, shedding light on how these factors interact and affect employees across different age groups and gender profiles.

Secondly, the study demonstrates the mediating role of job satisfaction, illuminating the mechanism through which organisational culture impacts turnover. This insight provides a roadmap for organisations to not only improve culture but put a strong focus on job satisfaction to subsequently reduce turnover rates. Overall, this analysis provides a comprehensive framework for addressing turnover challenges in the South African renewable energy sector, offering actionable strategies for fostering a more stable and content workforce. These findings set the stage for Chapter 5, where further discussions, research conclusions, and recommendations will be explored to help organisations address employee turnover effectively.

# 5 DISCUSSION AND CONCLUSION

## 5.1 Introduction

This chapter delves deeper into the research findings of employee turnover within South Africa's renewable energy sector. Additionally, it derives conclusions based on the research objectives and provides actionable guidance to renewable energy firms in South Africa. These suggestions are designed to mitigate employee turnover and cultivate a more resilient and prosperous workforce. The insights presented in this chapter can be instrumental for industry experts and policymakers seeking to enhance human resource management practices within the sector.

Throughout this study, the primary research objective was to investigate the most prominent factors contributing to employee turnover amongst employees in the renewable energy sector in South Africa. The study also aimed to address the following secondary research objectives.

- To determine the underlying organisational culture factors that contribute to employee turnover within renewable energy organisations in South Africa across different age groups and gender profiles.
- To examine the impact of leadership styles and strategies employed by renewable energy organisations in South Africa on employee turnover.
- To assess the relationship between employee compensation and turnover within the renewable energy sector in South Africa.

## 5.2 Discussion of Quantitative Research Findings

### *5.2.1 Primary research objective*

**Investigation of the most prominent factors contributing to employee turnover amongst employees in the renewable energy sector in South Africa.**

The research carried out within the renewable energy sector in South Africa has unveiled quantitative results that closely align with numerous studies found in the literature, as presented in Chapter 2. In an online survey within this industry, 287 out of the 300 sampled employees responded, resulting in a robust response rate of approximately 95.7%. This survey aimed to comprehensively explore the factors influencing high turnover rates in the sector. Among the respondents, a significant 80.5% expressed their intention to leave their current jobs, citing a combination of reasons, with organisational leadership, organisational culture, and career advancement being the most prominent ones at first glance. Notably, most of these respondents were male (56%) and female (44%), primarily falling within the age groups of 30-40 years (68%) and 18-29 years (17%).

Another noteworthy discovery is that many respondents possessed considerable work experience, with 63.8% having 7 years or more of professional experience, while 25.4% had 4-6 years of experience. This indicates that their responses are grounded in accumulated experiences over the years of employment.

Additionally, it is worth mentioning that the educational qualifications of the respondents were analysed to gain insights into their varying perspectives. A significant portion held bachelor's degrees (44.6%), followed by those with master’s degrees and higher qualifications at 34.8%, with the remaining individuals holding certificates or diplomas.

Analysing the distribution and variability of the 287 responses using mean scores and standard deviations, several notable trends emerged. Organisational culture was generally viewed in a moderately positive light, indicating a reasonably

favourable perception. Organisational leadership, on the other hand, garnered a more neutral stance, with respondents not strongly leaning either way. Employee compensation was seen as moderately satisfying, suggesting a level of contentment among respondents. The construct of career development appeared to have a generally positive relationship with turnover, indicating that the prospect of career advancement could influence turnover rates. Employee turnover itself showed a significant inclination towards considering leaving current organisations, signifying a potential issue within the sector. Lastly, job satisfaction was reported at a moderate level, indicating a balance between contentment and dissatisfaction among the surveyed employees. These insights shed light on how participants perceive various organisational aspects, providing an understanding of both the average opinions and the range of responses within each construct.

### a) Strength and direction assessment between constructs

Using Pearsons correlations to measure the strength and direction of the constructs used in this study, the following summary insights were gathered.

**Organisational Culture** - The study's findings demonstrate a robust and positive correlation between organisational culture and leadership, compensation, career development, and job satisfaction within the renewable energy sector organisations. Research by Gallup (2021), Kim et al. (2020), Basu & Srivastava (2021), and Sakthivel & Rajendran (2018) emphasizes that fostering a positive organisational culture, supportive work environment, and providing work-life balance, including cross-cultural training in multinational organisations, effectively reduces employee turnover and highlights the need for industry-specific studies in the renewable energy sector. This suggests that when organisations cultivate a positive culture characterized by inclusivity, work-life balance, employee support, and other favourable factors, they tend to experience stronger leadership, more effective compensation structures, enhanced career development opportunities, and increased job satisfaction among their employees. These findings align with previous research by (Mabece & Fourie, 2019; mohammad et al., 2022; Rachman, 2021)), who highlighted the significance of a positive organisational culture characterized by inclusivity, work-

life balance, and employee support in enhancing these specific aspects of employee well-being. Surveys conducted by the Society for Human Resource Management (SHRM, 2018) overemphasized organisational culture as the second most crucial factor in employee retention, emphasizing the absence of recognition and the presence of toxic workplace behaviour as prominent reasons for turnover. Addition, studies conducted by Smart & Chamberlain (2016) and Tanwar (2017) revealed that perceived mismatches between personal values and company culture increased the likelihood of employees contemplating departure.

Conversely, this study reveals a negative correlation between organisational culture and turnover. In other words, when the organisational culture is negative or unsupportive, employees are more likely to leave the organisation. The toxic workplace culture marked by bullying, harassment, or discrimination further exacerbated turnover (Tanwar (2017). This finding also resonates with the study conducted by Anderson and Smith (2018), which emphasized that a negative or unsupportive culture often results in higher turnover rates, further underscoring the critical role that a positive and inclusive organisational culture plays in retaining talent and reducing turnover rates.

These findings emphasize the importance of nurturing a healthy organisational culture as it not only enhances various aspects of employee satisfaction and development but also contributes to the overall retention of valuable employees within the renewable energy sector. In summary, in renewable energy sector, organisations having a positive work environment—where everyone feels included, work-life balance is supported, and employees are valued—leads to better leadership, fair pay, improved career opportunities, higher job satisfaction, and fewer employees leaving the organisation.

**Organisational leadership** – The analysis of this construct indicates a strong positive correlation between leadership and employee compensation, career development, and job satisfaction. Additionally, there is a negative correlation between leadership and employee turnover. In another research study, it was revealed that poor management practices, encompassing inadequate

communication and a lack of support, contribute significantly to employee turnover (Ajoke, 2020; Chen, 2020). Additionally, the absence of trust, transparency, and honesty in leadership has been identified as a key factor leading employees to leave, highlighting the crucial role of effective management in reducing turnover rates (Eisenberger et al., 2002; Edelman, 2021).

These findings suggest that effective leadership within an organisation can yield several positive outcomes:

- **Better Compensation:** Good leadership tends to result in improved compensation packages for employees, which can contribute to their overall satisfaction. Research also attests that offering better and competitive compensation, as demonstrated by studies in the hospitality industry by Nguyen et al. (2020), is associated with reduced turnover rates through heightened employee satisfaction and motivation. Similarly, in the private sector, Soltani et al. (2020) found that improved compensation, particularly through flexible benefits packages, significantly contributes to increased employee retention.

- **Advanced Career Development:** Strong leadership often translates into the implementation of more advanced and effective career development strategies, which can benefit employees in terms of their professional growth and opportunities. This is further substantiated by research conducted by Jahya et al. (2020) and Pratiwi & Lo (2020) consistently affirming that training and development initiatives significantly reduce turnover intention and enhance work commitment among employees. These initiatives, when strategically aligned with organisational goals, not only demonstrate the organisation’s dedication to employee growth but also foster job satisfaction and career development, ultimately resulting in a notable decrease in turnover intention and an increase in employee retention. Therefore, supportive leadership, characterized by a positive work environment, trust-building, and respect towards employees, has

been consistently identified as a crucial factor in increasing employee retention.

- **Enhanced Job Satisfaction:** Leadership that is effective and supportive tends to foster a positive work environment, which in turn leads to higher levels of job satisfaction among employees. Implementing strategies such as providing meaningful work and autonomy can enhance job satisfaction, as evidenced by research in the hospitality and manufacturing industries conducted by Ghani et al. (2022) and Kaur (2013), respectively. Moreover, the negative correlation between turnover and organisational leadership within the renewable energy sector highlights a critical point: when leadership within an organisation is ineffective or poor, employees are more inclined to leave the organisation in search of better working conditions and leadership elsewhere. This finding is consistent with other authors who found that poor management, characterized by issues like inadequate communication, lack of support, and unrealistic expectations, is a primary factor contributing to employee turnover (Ajoke, 2020; Chen, 2020). Additionally, a lack of trust in leadership and perceptions of insufficient transparency and honesty are associated with employee departures, as evidenced by a survey revealing that 60% of employees do not trust their employer's leadership (Eisenberger et al., 2002; Edelman, 2021). This highlights the pivotal role of leadership in shaping the employee experience and influencing their decisions regarding job satisfaction and retention.

  This emphasises the crucial significance of leadership in exerting influence on the employee experience and determining decisions related to job satisfaction and retention. Renewable energy organisations are encouraged to make investments in leadership development programmes to improve employee outcomes and cultivate a positive workplace culture. Understanding the influence of organisational leadership on employee outcomes is essential for businesses aiming to establish a favourable and efficient work environment. Organisations may enhance employee

happiness, development, and retention in the renewable energy sector by giving priority to effective leadership**.**

- **Employee compensation** – The research findings indicate a robust and positive correlation between compensation and both career development and job satisfaction. Conversely, there is a negative correlation between compensation and turnover. This simply means, employees may decide to leave an organisation if they feel they are not well or fairly compensated for their job responsibilities, especially when the compensation package is below the competitive market rate (SHRM, 2021). However, when an organisation has a well-structured compensation system in place, it is more likely that employees will experience job satisfaction and have access to enhanced career development opportunities. On the contrary, when compensation is inadequate or poorly designed, it tends to result in higher turnover rates within the organisation. Indriyani and Meria (2022) also highlighted that compensation-related issues also encompass organisational benefits, with some employees preferring comprehensive medical insurance, company vehicles, or fuel compensation, particularly in roles that involve extensive travel (Silaban & Syah, 2018). These findings highlight the critical role that compensation plays in influencing employee satisfaction, career growth, and retention within the workforce. Supported by a study conducted by Jones et al. (2016) and White and Green (2019), which specifically investigated the correlation between compensation and various aspects of employee well-being, it was revealed that inadequate compensation plays a significant role in motivating employees to leave their organisation.

- **Career development**- When evaluating the constructs related to career development, it becomes evident that there exists a significant and favourable correlation with job satisfaction, while a negative correlation is observed with employee turnover within the South African renewable energy sector. A survey by Kelly (2019) also revealed that 21% of employees consider a lack of training and development as a primary

reason for leaving their jobs, while Caulfield's (2022) study identifies a lack of career advancement as a key factor contributing to employee turnover. Therefore, organisations that actively contributes invest in the career development of their employees directly contribute to higher levels of job satisfaction among their workforces. Conversely, a lack of emphasis on career growth and development often leads to increased turnover rates, as employees may seek alternative opportunities elsewhere in search of professional growth and advancement. This highlights the importance of fostering a positive career development environment within companies, not only for employee satisfaction but also for reducing turnover and retaining valuable talent.

- **Job satisfaction** – The assessment in this study reveals a robust and negative correlation between turnover and job satisfaction. Providing growth opportunities and investing in training and development programs positively impact employee engagement, commitment, and motivation, ultimately reducing turnover intention, as demonstrated by quantitative research conducted by Aleem and Bowra (2020) and Raza et al. (2020). Insights from studies by Jahya et al. (2020) and Wahyono (2020) highlighted the critical role of fostering a positive work culture, characterized by high job satisfaction and organisational commitment, in effectively mitigating turnover. This implies that when employees are dissatisfied with their current roles or work environments, they are more inclined to seek employment opportunities in other organisations. The results suggest that offering employees meaningful work and autonomy can lead to higher job satisfaction and a decrease in turnover. These findings align with a study conducted by Wahyono and Riyanto (2020), which found that job satisfaction and organisational commitment are closely related and play a significant role in predicting employee turnover. Nevertheless, the link between job satisfaction and employee turnover, emphasizes that increased job satisfaction significantly reduces the likelihood of employees deciding to leave. This study also found that employees who express higher levels of job satisfaction and exhibit a

strong commitment to their current organisation are less likely to consider leaving for alternative employment opportunities. This highlights the interconnectedness of job satisfaction, organisational commitment, and employee turnover, emphasizing the importance of fostering job satisfaction and commitment to reduce turnover rates within an organisation. However, it's important to note that Wahyono and Riyanto (2020) primarily investigated the relationship between job satisfaction and organisational commitment and did not extensively explore the impact of job satisfaction on other specific aspects like leadership, compensation, career development, or organisational culture.

According to this study, when organisations in renewable energy have a positive and supportive work culture, it leads to better leadership, higher employee satisfaction, improved career opportunities, and lower turnover. On the other hand, a negative work culture is associated with more employees leaving. This emphasizes the importance of creating a positive work environment for employee satisfaction and retention in the renewable energy sector.

### b) Hypothesis testing and multiple regression

In this study, multiple regression analysis was employed to investigate the relationships between various variables, identify significant and non-significant factors affecting turnover within the South African renewable energy sector, test hypotheses derived from theoretical and empirical research, and extract valuable insights from the gathered data.

In accordance with the research's primary and secondary objectives and drawing from a review of various published literature, four hypotheses were formulated as presented in the table below.

**Table 32: Hypotheses revisited.**

| Independent variable | Hypothesis |
|---|---|
| **Hypothesis 1** (Organisational culture) | **H0:** There is no negative and significant relationship between Organisational culture and employee turnover<br><br>**H1:** There is a negative and significant relationship between Organisational culture and employee turnover |
| **Hypothesis 2** (Organisational Leadership) | **H0:** There is no significant relationship between Organisational leadership and employee turnover<br><br>**H1**: There is a significant relationship between Organisational leadership and employee turnover |
| **Hypothesis 3** (Employee Compensation) | **H0:** Employee compensation has no negative and significant effect on employee turnover<br><br>**H1**: Employee compensation has a negative and significant effect on employee turnover |
| **Hypothesis 4** (Job Satisfaction) | **H0:** Job Satisfaction does not mediate the relationship between the independent variables (organisational culture, organisational leadership, employee compensation) and employee turnover.<br><br>**H1:** Job Satisfaction mediates the relationship between the independent variables (organisational culture, organisational leadership, employee compensation,) and employee turnover |

The analysis involved the examination of five distinct models, yielding the following key findings.

**Model 1 (Multiple Regression without Mediator):**

In this model, Employee Turnover was predicted using four key independent variables: Career Development, Organisational Culture, Employee Compensation, and Organisational Leadership and Strategy. This model aligns with the conceptual framework developed in Chapter 2, as illustrated in Figure 10, which was designed to examine the relationships between these independent variables and turnover as the dependent variable.

Furthermore, this model served as the basis for testing Hypotheses 1, 2, and 3, allowing for the evaluation of the significance and impact of these constructs on employee turnover within the South African renewable energy sector. Through this analysis, the study aimed to assess how each of these independent variables contributes to and influences the turnover phenomenon, providing valuable insights into the dynamics of employee retention in this specific industry.

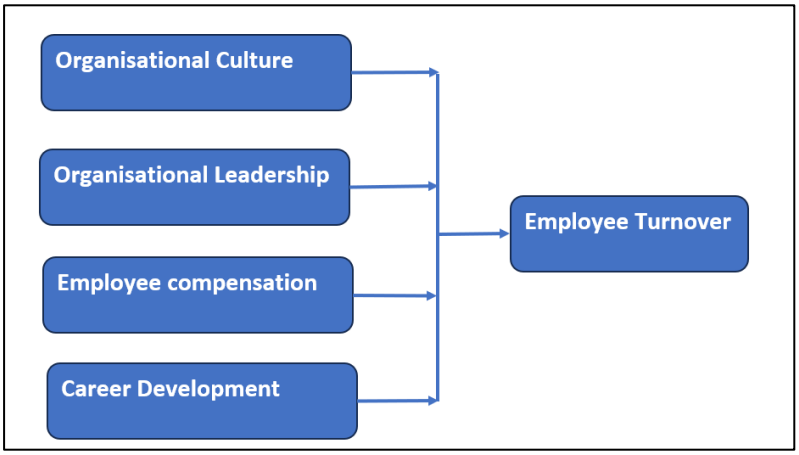


**Figure 10: Multiple regression without mediator**

The analysis yielded noteworthy findings regarding the impact of different factors on Employee Turnover within the South African renewable energy sector:

**Organisational Culture and Employee Compensation**: The study revealed significant negative correlations between Organisational Culture and Employee Compensation with Employee Turnover. These results support Hypotheses 1 (H1) and Hypothesis 3 (H1), while rejecting the null hypothesis (H0) for both variables. In essence, this suggests that when organisations prioritize the cultivation of a positive work culture and adequately compensate their employees, it contributes to a higher likelihood of retaining those employees. These factors are influential in retaining talent within the sector.

**Organisational Leadership and Strategy, and Career Development:** Contrarily, Organisational Leadership and Strategy, as well as Career Development, were not found to be significant predictors of Employee Turnover in this model.

This leads to the rejection of Hypothesis 2 (H1) and supports Hypothesis 2 (H0). Essentially, within the South African renewable energy sector, employees' decisions to stay or leave their current organisations do not appear to be substantially influenced by factors related to leadership or career development. Irrespective of the quality of these factors, employees seem to prioritize organisational culture and compensation when making decisions about their employment continuity. These findings are in line with the proposition made by Alubelkassaw (2018) of exploring turnover factors across various organisations and sectors, as these may not be consistent within different sectors.

Within the South African renewable energy sector, the findings suggest that a strong emphasis on fostering a positive organisational culture and ensuring competitive employee compensation can be effective strategies to reduce turnover rates and retain valuable talent. In contrast, while leadership and career development remain important, they may not be the primary drivers of employee retention in this specific industry.

**Model 2 (Significant Variables from Model 1)**

In this follow-up model, the analysis focused exclusively on the significant variables identified in Model 1, which were Organisational Culture and Employee Compensation. These variables were employed to predict Employee Turnover, as illustrated in Figure 11. Notably, Organisational Leadership and Career Development were excluded from this model due to their lack of statistical significance in predicting turnover within the specific context of this study.

By narrowing the model to these significant factors, the study aimed to gain a more targeted understanding of how Organisational Culture and Employee Compensation directly impact Employee Turnover within the South African renewable energy sector. This streamlined approach allows for a more precise examination of the factors that have been demonstrated to have a meaningful influence on turnover rates in this industry.

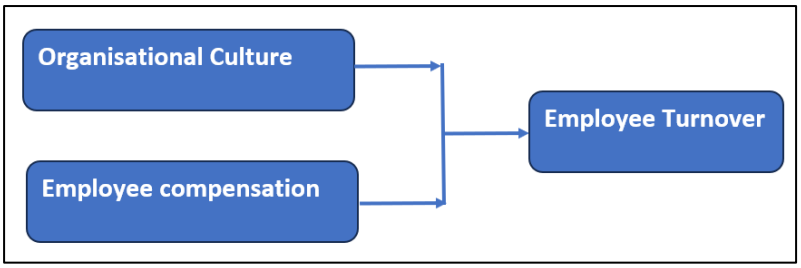


**Figure 11: Multiple regression with significant variables**

The regression coefficient for Organisational Culture was recorded at -0.462, and its statistical significance ($t = -4.731$, $p < 0.001$) indicating that changes in Organisational Culture are associated with significant changes in Employee Turnover. The negative coefficient suggests an inverse relationship, i.e. a more negative or less supportive Organisational Culture, according to the model, is associated with higher predicted turnover rates. Conversely, a more positive or supportive Organisational Culture is associated with lower predicted turnover rates. This finding in the South African context aligns with a quantitative study by (Jahya et al., 2020) amongst a generation between 18 and 40 years which concluded that when employees perceive or experience a positive work culture, they are unlikely going to resign. (Wibowo et al., 2021) also highlighted that focusing on work motivation, employee engagement, and minimizing work stress can create a positive work environment that reduces turnover rates (Wibowo et al., 2021).

The coefficient for Employee Compensation was -0.162, and its statistical significance ($t = -2.088$, $p = 0.038$) implying that changes in Employee Compensation are associated with significant changes in Employee Turnover. The negative coefficient suggests that as Employee Compensation increases, the model predicts a decrease in Employee Turnover. Conversely, as Employee Compensation decreases, Employee Turnover tends to increase. This indicates that lower compensation is associated with higher turnover rates. A study conducted by Susanti and Herminingsih (2022) also found that compensation significantly reduced turnover intention among IT workers.

The revelation of Organisational Culture and Employee Compensation being significant and negative predictors of Employee Turnover, with Organisational Culture having a stronger negative relationship further validates hypotheses 1 and 3 (H1) above.

**Model 3 (Job Satisfaction with Significant Predictors in Model 1):**

In this model, Job Satisfaction served as the dependent variable, and two significant predictors from the study, namely Employee Compensation and Organisational Culture, were used to examine their relationship with job satisfaction. The primary objective of this model was to evaluate the connection and direction of influence between these identified factors and the job satisfaction variable. This step was crucial before proceeding to test the potential mediating role of job satisfaction, as illustrated in the figure below:

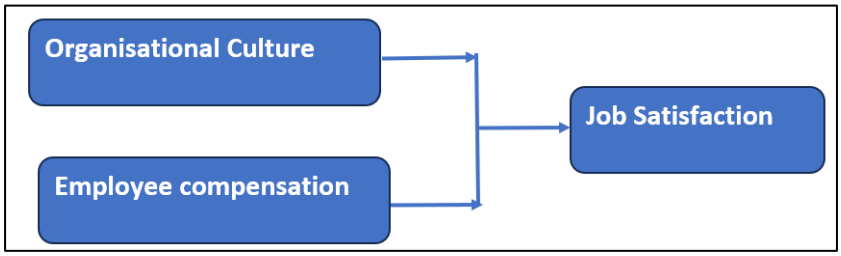


**Figure 12: Multiple regression with Job satisfaction as a dependent variable**

The results showed that both Employee Compensation and Organisational Culture had significant positive relationships with Job Satisfaction, indicating that higher Employee Compensation and a more positive Organisational Culture were associated with increased Job Satisfaction.

**Model 4 (Job Satisfaction as an independent variable to employee turnover):** In model 4 (figure 13), job satisfaction was run as an independent variable to turnover, with an intention to assess the relationship and direction between the two variables.

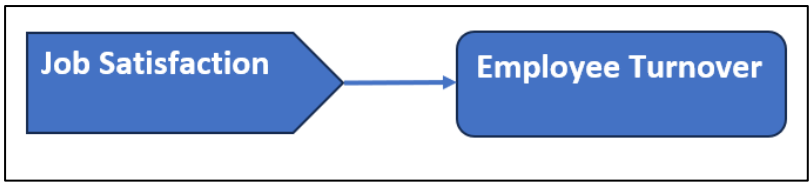


**Figure 13: Job satisfaction as an independent variable**

The findings from model 4 indicate that when job satisfaction decreases, employee turnover increases. In other words, unhappy employees are more likely to leave their jobs.

**Model 5 (Mediating Role of Job Satisfaction):** In this model, Employee Turnover was set as the dependent variable, and Employee Compensation, and Organisational Culture were used as predictors and job satisfaction acted as a mediator as illustrated below.

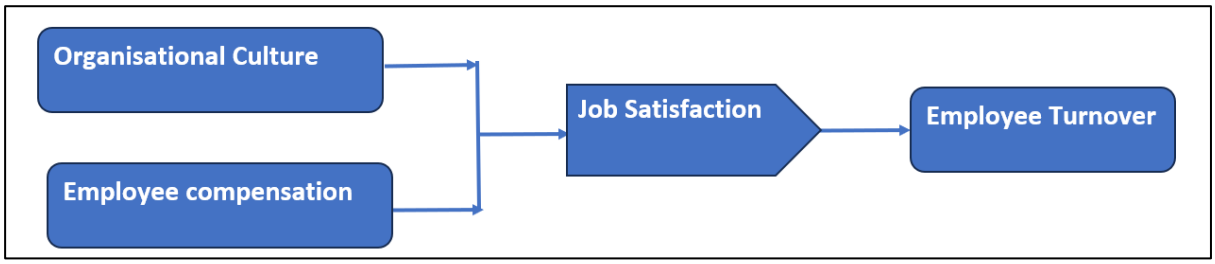


**Figure 14: Multiple regression with significant independent variables and mediator**

The results revealed that Organisational Culture had a significant negative relationship with Employee Turnover, both directly and indirectly through its impact on Job Satisfaction. This mediation role of job satisfaction suggests that within the South African renewable energy sector, turnover rates can decrease, even when organisational culture may not be exceptionally positive, as long as organisations have enhanced job satisfaction levels. This could be a case where organisations have prioritized aspects such as management guidance and support to employees, employee recognition, giving employees decision making authority amongst other job satisfaction building elements.

This mediation role is statistically confirmed by the reduction in the strength of the relationship between Organisational Culture and Employee Turnover. Without the mediating factor, the relationship was -0.462, but with Job Satisfaction as a mediator, it decreased to -0.253. This evidence highlights the substantial influence that job satisfaction can have within an organisation, even when there are existing organisation cultural challenges.

When assessing Employee Compensation, model 5 did not have a significant direct or indirect effect on Employee Turnover, this suggests that job satisfaction does not play a mediating role in the relationship between employee compensation and employee turnover. In the specific context of the South African renewable energy industry, the finding implies that employees place a high value on compensation. It suggests that even if job satisfaction is improved, employees will still leave their organisations if they are dissatisfied with their compensation packages.

In the South African renewable energy sector, the study indicates that fostering positive job satisfaction, influenced by factors like supportive management and recognition, can mitigate the impact of organisational culture challenges on employee turnover, while competitive compensation remains a crucial factor in retaining employees. Similar to Tanwar's (2017) insights, one of the elements of job satisfaction investigated in this study highlight the importance of recognition and appreciation for employees' contributions. The lack thereof can contribute to turnover rates, emphasizing the need for organisations to acknowledge and reward their employees adequately.

The findings regarding the mediating role of job satisfaction partially confirm Hypothesis 4 (H1), particularly in the context of organisational culture. However, this mediation effect is not observed for the other variables, namely compensation and leadership, leading to their rejection. Hypothesis 4 (H0) is also partially rejected, as it has been established that job satisfaction does mediate the relationship between organisational culture and employee turnover.

Based on these findings, organisational culture was found to be the most prominent factor contributing to employee turnover amongst employees in the renewable energy sector in South Africa. This result substantiates the claims made by Al-Ali et al. (2019) and Alubelkassaw (2018), who suggest that turnover can be influenced by various factors, including job satisfaction, organisational culture, opportunities, compensation, and job skills. Organisational culture plays a pivotal role, as a negative or unsupportive culture can significantly impact employee retention.

Though employee compensation was not found to have a significant impact on turnover when there's job satisfaction mediator, it is still identified as one of the significant factors leading to employee turnover in this sector. The findings are in line with the recommendations of Ngo-Henha (2017), Indriyani & Meria (2022), Chen (2020), and Akinbode et al. (2022), who emphasize the importance of improving job satisfaction and fostering a supportive organisational culture to reduce turnover intentions. Similar to Tanwar's (2017) insights, one of the elements of organisational culture investigated in this study highlight the importance of recognition and appreciation for employees' contributions. The lack thereof can contribute to turnover rates, emphasizing the need for organisations to acknowledge and reward their employees adequately.

The study reveals that organisational culture significantly affects employee turnover in the renewable energy sector in South Africa, emphasizing the need for a positive work culture. Additionally, while compensation may not directly impact turnover when job satisfaction is considered, it still plays a role, highlighting the importance of recognizing and rewarding employees to reduce turnover rates.

### *5.2.2 Secondary Objectives of the study*

a) **Underlying organisational culture factors that contribute to employee turnover within renewable energy organisations in South Africa across different age groups and gender profiles**.

Theoretical research revealed the importance of a positive organisational culture in reducing employee turnover. For instance, studies by Indriyani and Meria (2022); Jahya et al. (2020); Susanti and Herminingsih (2022) found a negative relationship between employee turnover and organisational culture. This is in line with the findings of this study where amongst 287 employees of the renewable energy sector in South Africa, organisational culture was identified as the major factor leading to employee turnover. The many respondents were asked about their perceptions on organisational culture building blocks such as inclusivity, diversity, employee respect, employee support, work life balance, value alignment between the organisation and employees, ethical behaviour, open communication, and collaboration efforts within their organisations. Each of these items / factors were found to be significant building blocks of organisational culture as a construct/variable. Organisational culture and its building blocks were also found to be important across different age groups and gender profile, implying that bad culture within this sector leads to high turnover despite the age and gender of employees.

Indriyani and Meria (2022)'s study also supports the finding of this research that positive work cultures characterized by good relationships, support, and respect create a comfortable and conducive environment that promotes employee longevity.

The findings consistently highlight that a positive organisational culture, characterized by inclusivity, diversity, employee respect, support, work-life balance, and ethical behaviour, serves as a crucial factor in reducing turnover rates.

This golden thread highlights the importance of cultivating a supportive and positive work environment to enhance employee satisfaction, promote longevity, and ultimately contribute to the overall success of organisations within the renewable energy sector.

**b) Impact of leadership styles and strategies employed by renewable energy organisations in South Africa on employee turnover.**

Using Pearsons correlation analysis**,** organisational leadership construct was found to be strongly correlated with employee compensation, career development and job satisfaction while negatively correlated with employee turnover. Assessing this correlation, when there's good leadership in an organisation, this can lead to better compensation, advanced career development strategies, and overall employee job satisfaction, the opposite is true. The negative correlation between turnover and organisational leadership simply means that when leadership is bad, employees are likely going to leave. This correlation from this study aligns closely with a quantitative study conducted by Eisenberger et al. (2002) where the researchers found that supportive leadership is an effective approach to increase employee retention. The author aligned this construct with building factors such as fostering a positive work environment, building trust, and showing respect towards employees.

The leadership traits examined in this study within the renewable energy sector in South Africa involved.

- Provision of clear business direction'
- Provision of clear guidance to employees
- Involving employees in decision making
- Motivating employees to perform at their best.
- Commitment of leaders to the success of employees
- Commitment of leaders to the well-being of employees
- Ability to encourage creative thinking amongst employees.
- Supporting innovation as leaders

Although respondents highlighted organisational leadership as one of the driving factors for turnover, and the correlation was found between leadership and turnover, multiple regression analysis showed its lack of statistical significance suggesting that changes in organisational leadership are not associated with statistically significant changes in Employee Turnover. In other words, the relationship between Organisational Leadership and Strategy and Employee Turnover is not strong enough and that the leadership styles and strategies employed by organisations within the renewable energy sector in South Africa may not be a significant predictor of Employee Turnover.

Effective organisational leadership in the renewable energy sector is strongly correlated with positive outcomes such as improved employee compensation, advanced career development, and increased job satisfaction, while also exhibiting a negative correlation with employee turnover, highlighting its crucial role in employee retention.

**c) Assessment of the relationship between employee compensation and turnover within the renewable energy sector in South Africa**

Assessing the relationship between employee compensation and turnover in the renewable energy sector in South Africa amongst 287 respondents using correlation analysis showed that changes in Employee Compensation are associated with significant changes in Employee Turnover. When Employee Compensation increases, the model predicted a decrease in Employee Turnover. Conversely, as Employee Compensation decreases, Employee Turnover tends to increase. This indicates that lower compensation is associated with higher turnover rates even when employees are satisfied with their jobs. Compensation impact on turnover intention has also been studied in different contexts, Susanti and Herminingsih (2022) found that compensation significantly reduced turnover intention among IT while on the finance sector in Malaysia, Jahya et al. (2020) examined the drivers of turnover intention among Generation Y employees and identified compensation, as one of the significant factors in alignment with the findings of this study.

Analysing the relationship between employee compensation and employee turnover in South Africa's renewable energy sector revealed a significant association, indicating that changes in employee compensation are linked to corresponding changes in employee turnover. Higher compensation is predicted to lead to lower turnover rates, while lower compensation tends to result in increased turnover.

## 5.3 Theoretical Framework Revisited

In chapter 2, a conceptual framework for this research study was developed using research findings from different studies and literature, the model in the figure below proposed that organisational culture, organisational leadership, and employee compensation are significant predictors of employee turnover, with job satisfaction as a mediator.

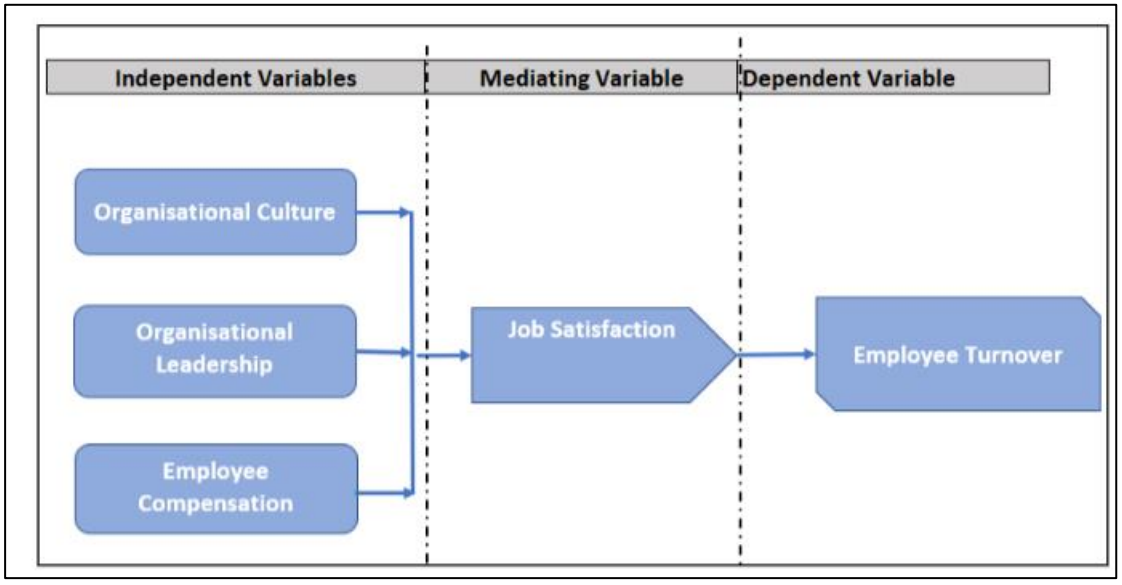


**Figure 15: Conceptual framework revisited.**

The statistical results from this study have validated and invalidated certain factors of this model for a population in the renewable energy in South Africa. As presented, organisational leadership in this sector context was found to be insignificant in predicting turnover, while employee compensation was negatively and significantly related to turnover with no notable effect when job satisfaction

mediation was introduced. Only organisational culture proved to be significant and negatively related to turnover and its relationship was also proven through job satisfaction as a mediator. Therefore, the final model that can be deduced from the study amongst 287 employees of the renewable energy sector in South Africa is as illustrated in figure 16 below.


**Figure 16: Revised model from the study**

Moreover, Table 33 provides an overview of the various measurements of variables utilized in the study to construct the final model illustrated in Figure 16. These constructs are valuable tools that renewable energy sector organisations can utilize to retain their employees and decrease turnover rates.

**Table 33: variable measures for the final model**

| Variable | Variable measures |
|---|---|
| Organisational culture | • Inclusivity, diversity, employee respect, employee support, work-life balance, employee value alignment, ethical behavior, open communication, collaboration |
| Employee compensation | • Competitive salary and benefits, Transparent compensation structure, skill vs. payment match, contribution vs. payment match, qualification vs. payment match, performance-based pay, salary growth and advancement, monetary benefits. |

| | |
|---|---|
| Job satisfaction (Mediator) | • Manager guidance, manager support, management recognition, decision making authority, challenging work, workload, excessive stress, and burnout |

## 5.4 Managerial, Policy Implications and Recommendations

### *5.4.1 Managerial implications*

The study highlights the pivotal role of organisational culture in addressing the challenge of employee turnover. For renewable energy companies in South Africa, the emphasis should be on cultivating a positive and inclusive culture. This entails actively encouraging diversity, promoting ethical behaviour, fostering open communication, and facilitating collaboration among employees. By nurturing such a culture, organisations can create a work environment that is not only appealing but also conducive to reducing turnover.

Additionally, the study identifies employee compensation as a significant factor influencing turnover. To mitigate turnover rates, companies should thoroughly evaluate and enhance their compensation structures, ensuring they remain competitive within the industry. Exploring options like performance-based pay and providing opportunities for salary growth can be instrumental in retaining valuable talent.

Recognizing that job satisfaction acts as a mediator between organisational factors and turnover, organisations should place a premium on enhancing job satisfaction levels. This can be achieved by offering clear guidance to employees, acknowledging, and appreciating their contributions, and actively addressing issues related to workload and stress. Elevating job satisfaction is essential for fostering employee contentment and, in turn, reducing turnover.

Moreover, the study reveals that organisational culture's impact on employee turnover varies across different age groups and gender profiles.

To address this diversity in turnover factors, HR strategies should be tailored to meet the distinct needs and expectations of various employee demographics. By recognizing and accommodating these differences, organisations can create a work environment that is more harmonious and satisfying for all employees, ultimately contributing to lower turnover rates.

### *5.4.2 Policy Implications*

To effectively address the challenge of employee turnover within the renewable energy sector in South Africa, a multifaceted approach can be adopted. Firstly, it is imperative for renewable energy organisations to collaborate closely with industry associations and policymakers to establish industry-wide standards for organisational culture and compensation. By doing so, companies can ensure that they adhere to best practices, which can contribute to a more stable and attractive work environment. This collaborative effort can help in setting benchmarks that promote employee satisfaction and retention across the sector.

Secondly, organisations within the renewable energy sector should prioritize investment in leadership training and development programs. While this variable may not exhibit a direct link to turnover, it plays a pivotal role in shaping other essential factors such as organisational culture. Effective leadership fosters a positive work environment, which in turn can contribute to employee satisfaction and retention. Hence, leadership training can equip leaders with the skills and knowledge needed to create a supportive and motivating atmosphere within their teams.

Additionally, the establishment of mechanisms for monitoring and reporting on turnover rates within the renewable energy sector is of paramount importance from both a policy and organisational perspective. Currently, there is a dearth of comprehensive data reporting turnover trends specific to the South African renewable energy sector. Such data can be instrumental in identifying patterns and issues related to turnover, enabling policymakers and organisations to take targeted and effective corrective actions.

Lastly, diversity and inclusion initiatives, particularly those aimed at age and gender diversity, should be actively promoted by renewable energy organisations. Embracing diversity as an integral part of organisational culture is essential in today's world. These initiatives not only promote fairness and equity but also contribute to a more inclusive and dynamic work environment, which can enhance job satisfaction and reduce turnover rates. Emphasizing sustainable business practices through diversity and inclusion initiatives can lead to a more engaged and committed workforce.

In conclusion, by collaborating on industry standards, investing in leadership development, monitoring turnover trends, and promoting diversity and inclusion, renewable energy organisations in South Africa can mitigate the challenges of employee turnover and create a more sustainable and thriving sector.

### *5.4.3 Recommendations*

Considering the substantial findings unveiled in this study and the evident repercussions of high employee turnover within the South African renewable energy sector, a set of strategic recommendations emerges to address this critical challenge. These recommendations not only draw from the specific insights garnered from this research specifically but also align with well-established best practices in employee retention found in the broader literature.

Firstly, organisations should prioritize regular of **Organisational Culture Assessments**. These assessments, incorporating tools such as surveys and feedback mechanisms could serve as crucial instruments for identifying areas requiring improvement. This aligns closely with the study's emphasis on the positive correlation between a supportive organisational culture and reduced turnover. Research by Gallup (2021) and Kim et al. (2020) indicates that a positive organisational culture can result in a supportive work environment, and it a culture that should promote work-life balance which effectively reduce employee turnover.

Research conducted by Smith et al. (2019) and Johnson and Brown (2020) highlight the paramount importance of cultivating a positive work culture characterized by inclusivity and diversity. These essential elements serve as strong foundational pillars that organisations within the South African renewable energy sector should prioritize to address the multifaceted nature of turnover stemming from organisational cultural concerns. Numerous other studies in the literature have consistently highlighted the significance of respecting employees, fostering open communication, and promoting collaboration among team members – all of which are integral components of an organisation's cultural framework, as revealed in this study. This further solidifies the rationale for employers in the renewable energy sector to accord these factors the highest degree of importance, recognizing the potential benefits that can be reaped when these aspects are effectively integrated into the organisational culture.

Secondly, **Compensation Benchmarking** stands as a vital strategy. This study highlights the importance of competitive compensation packages in retaining employees. Echoing the findings of White and Green (2019) and Jones et al. (2016), it is important for organisations to regularly benchmark employee compensation against industry standards and competitors to ensure that payment packages remain attractive and competitive. This proactive approach is instrumental in retaining top talent.

Furthermore, the implementation of **Job Satisfaction Surveys**, is another recommended strategy that can be adopted by the organisations in this sector. This recommendation aligns with findings from numerous studies emphasizing the critical role of job satisfaction in controlling turnover (Wahyono and Riyanto, 2020; Smith and Davis, 2017). Regular surveys serve to gauge employee happiness and identify areas for improvement, enabling organisations to tailor their HR policies and practices accordingly. This data-driven approach is essential for enhancing overall employee satisfaction and reducing turnover. The critical components of job satisfaction as identified by this study lies in how renewable organisations shift their business and management strategies to foster an environment where managers at different levels provide guidance, support,

and recognition to employees. These traits have been studied by many authors in literature including Eisenberger et al. (2002) who found that supportive leadership is an effective approach to increase employee retention. In the new era of management and leadership, it is also vital for renewable organisations to establishment of **Mentoring and Support Networks** within organisations, this can effectively address workload and employee burnout issues leading to job dissatisfaction and turnover. (Mabece & Fourie, 2019) also believed These networks offer employees valuable guidance and support, aiding them in navigating their careers and addressing their needs and concerns.

Finally, **Regular Evaluation of implemented policies and initiatives** is crucial for remaining adaptable in the ever-evolving renewable energy sector. The concept of continuous improvement, advocated by researchers like Alubelkassaw (2018), ensures that retention strategies stay effective and responsive to the shifting dynamics of employees and the industry.

In summary, the central recommendation for organisations in the South African renewable energy sector is to proactively focus on improving job satisfaction through the fostering of a positive work environment, improving employee compensation while giving recognition of employee contributions, and the provision of opportunities for employee decision-making. These recommendations not only reflect the research findings but are also grounded in the broader literature on employee retention, emphasizing the multifaceted nature of strategies required to reduce turnover rates and retain valuable talent in this sector.

## 5.5 Study Contribution to the Field

This study makes significant contributions to the complex environment of employee turnover in the renewable energy business, not only in South Africa, but with potential implications for a wider context. These contributions add to the existing body of knowledge in this field, intertwining with the study's findings and drawing on insights from relevant authors in the literature.

First and foremost, the identification and in-depth examination of significant factors impacting employee turnover, as demonstrated in this study, is consistent with the work of leading scholars in the field. Notably(Kim et al., 2020; Sakthivel & Rajendran, 2018) emphasised the importance of establishing a positive work culture that values inclusivity and diversity. The findings provide a practical roadmap for organisations in the renewable energy sector, highlighting specific areas that require attention to effectively minimise turnover rates. This contribution bridges the gap between academic theory and practical application, thus increasing the industry relevance of this study's findings.

Furthermore, the methodological rigour adopted in this research, including the use of regression models and factor analysis, establishes a high standard for future research in this field. This methodological precision is consistent with the recommendations of researchers such as (Jabeen et al., 2021; Kim et al., 2020) for rigorous, data-driven analyses to improve understanding of employee turnover in the renewable energy sector. By employing rigorous quantitative methodologies, this study not only strengthens the legitimacy of its conclusions, but it also provides an essential tool for researchers trying to understand the complexity of turnover.

The emphasis on organisational culture as a key factor influencing employee turnover reinforces previous study findings and increases their practical importance. This emphasis on culture as a key effect is consistent with the findings of studies by Wahyono and Riyanto (2020) and Smith and Davis (2017). This focus not only verifies past research, but also emphasises its relevance in the real world.

Furthermore, the research's policy implications, which include industry-wide standards, leadership development initiatives, and diversity and inclusion activities, highlight concrete and practical steps based on this study's findings. These findings are consistent with those made by authors such as Alubelkassaw, (2018), who emphasise the necessity of comprehensive HR policy. Such evidence-based policy suggestions have the potential to help policymakers and

industry stakeholders shape more successful HR practices and strategies, transforming this study into a useful tool for decision-making.

The practical recommendations resulting from this study for renewable energy companies, which are tailored to the South African context, provide tangible solutions for managing turnover issues and improving staff retention. These recommendations are consistent with the findings of previous research, illustrating the study's direct impact on industry practices.

Finally, this research acts as a catalyst for developing knowledge in the renewable energy sector by reiterating the importance of organisational culture and compensation in influencing employee turnover. It not only reinforces the relevance of current literature, but it also helps to clarify the conceptual framework for understanding employee turnover in this industry. By providing practical insights tailored to the South African context, this research empowers local renewable energy companies with the tools needed to confront turnover challenges unique to their region and industry, resulting in a more informed and effective approach to employee retention in line with the knowledge from previous researchers in the field.

## 5.6 Study Limitations and Future Research

Acknowledging the limitations of this quantitative data analysis is crucial for a comprehensive understanding of the findings. The limitations of this study can be summarized as follows;

- **The sample size**, consisting of 287 participants, while reasonable, may not fully represent the entire South African renewable energy sector. This could limit the generalizability of the results to a broader population.
- Additionally**, data quality**, despite meticulous preparation, could be subject to respondent bias or measurement errors, as self-reported data can sometimes lack objectivity.
- Furthermore, the **cross-sectional nature** of the study limits the ability to establish causality, as changes cannot be tracked over time.

- Moreover, the study primarily relies on **quantitative survey data**, potentially neglecting nuanced qualitative insights.
- Finally, the possibility of **social desirability bias** may have influenced participant responses, as individuals may provide answers they perceive as more socially acceptable.

These limitations highlight the need for further research and triangulation of data sources to corroborate and enhance the robustness of this study findings. These limitations suggest the need for caution when applying the findings to the entire sector and opens an opportunity for future research studies to focus on;

- Larger, more diverse samples for a more comprehensive understanding.
- Complement quantitative data with qualitative research to gain a deeper understanding of employee turnover factors. In-depth interviews and focus groups could uncover personal experiences and perceptions that quantitative data might not capture.
- Additionally, many authors recommended adopting Flexible Work Arrangements, such as remote work or flexible hours, in response to changing employee needs post covid-19 pandemic. This study did not explicitly delve into this aspect presenting an opportunity for future research.

## 5.7 Conclusions

This study provides valuable insights into the factors influencing employee turnover within South Africa's renewable energy sector. By rigorously examining various aspects related to turnover, the study has contributed to a better understanding of the challenges and opportunities facing organisations in this dynamic industry.

The primary research objective was to identify the most prominent factors contributing to employee turnover. The findings indicate that organisational culture, employee compensation, and job satisfaction play significant roles. Organisational culture emerged as a significant predictor, emphasizing the

importance of fostering a positive, inclusive, and ethical workplace environment among other traits. Employee compensation factor highlights the need for competitive and fair remuneration structures to retain talent. Job satisfaction, while not directly impacting turnover, acted as a mediator, emphasizing its role in shaping employee perceptions. Moreover, this study extended its focus to examine age and gender differences in turnover factors and it was found that these factors do not change the fundamental relationships established in the study. While the impact of leadership styles and strategies on turnover was not as significant as expected, the study contributes to the ongoing dialogue about the influence of leadership in organisational contexts. This partially supports the notion that good leadership can indirectly affect turnover through its impact on job satisfaction. The findings of this study also have important practical implications for renewable energy companies in South Africa. Therefore, a recommendation is made for a heightened focus on nurturing a positive organisational culture, revisiting compensation structures, and actively managing job satisfaction is drawn. Policymakers and industry associations can also leverage these insights to create industry-wide standards and support leadership development programs.

This study advances the understanding of employee turnover in the renewable energy sector, providing a foundation for organisations to improve their human resource practices, enhance employee retention, and foster a more sustainable and successful workforce in South Africa's growing renewable energy industry.

# REFERENCES


Adams, J. S. (1965). *Inequity In Social Exchange* (L. B. T.-A. In E. S. P. Berkowitz, Ed.; Vol. 2, pp. 267–299). Academic Press. Https://doi.org/https://doi.org/10.1016/S0065-2601(08)60108-2

Ajoke, A. (2020). *EFFECT OF LEADERSHIP SKILL ON EMPLOYEE JOB RETENTION IN THE*. *November*.

Akinbode, J. O., Adeleke, A. O., Falebita, O. A., & Olu-Ogunleye, I. I. (2022). Job Satisfaction and Bank Employees Intention to Quit the Employment of a Deposit Money Bank in Lagos State, Nigeria. *Organization and Human Capital Development*, *1*(2), 16–33. Https://doi.org/10.31098/orcadev.v1i2.1071

Al-Alawi, M., & Al-Marzooqi, N. Y. (2019). Turnover intention among nurses in public hospitals: A conservation of resources theory perspective. *Personnel Review*, *48*(7), 1833–1853.

Al-Ali, W., Ameen, Ali, I., Osama, K., A., G. S., & Shibami, A. H. (2019). The mediating effect of job happiness on the relationship between job satisfaction and employee performance and turnover intentions: A case study on the oil and gas industry in the United Arab Emirates. *Journal of Business & Retail Management Research*, *13*(04), 103–116. Https://doi.org/10.24052/jbrmr/v13is04/art-09

Aleem, M., & Bowra, Z. A. (2020). Role of training & development on employee retention and organizational commitment in the banking sector of Pakistan. *Review of Economics and Development Studies*, *6*(3), 639–650. Https://doi.org/10.47067/reads.v6i3.252

Ali, S. A. G., Al-Fayyadh, H. R. D., Mohammed, S. H., & Ahmed, S. R. (2022). A Descriptive Statistical Analysis of Overweight and Obesity Using Big Data. *HORA 2022 - 4th International Congress on Human-Computer Interaction, Optimization and Robotic Applications, Proceedings*. Https://doi.org/10.1109/HORA55278.2022.9800098

Alkhadim, G. S. (2022). Cronbach's Alpha and Semantic Overlap Between Items: A Proposed Correction and Tests of Significance. *Frontiers in Psychology*, *13*. Https://doi.org/10.3389/fpsyg.2022.815490

Alubelkassaw, B. (2018). Turnover Intention Influencing Factors of Employees: An Empirical Work Review. *Journal of Entrepreneurship & Organization Management*, *07*(03), 23–31. Https://doi.org/10.4172/2169-026x.1000253

American Psychological Association. (2017). *Work and well-being survey*.

An, S. H. (2019). Employee Voluntary and Involuntary Turnover and Organizational Performance: Revisiting the Hypothesis from Classical Public Administration. *International Public Management Journal*, *22*(3), 444–469. Https://doi.org/10.1080/10967494.2018.1549629

Babbie, E. (2017). *Survey Research Methods*. Cengage Learning.

Baker, R., Brick, J. M., Bates, N. A., & Battaglia, M. (2017). Summary Report of the AAPOR Task Force on Non-Probability Sampling. *Journal of Survey Statistics and Methodology*, *1*(2), 90–143.

Basu, S., & Srivastava, M. (2021). Effects of cross-cultural training on job satisfaction and turnover intention: A study of expatriates in multinational corporations. *International Journal of Human Resource Management*, 1–26.

Caulfield, D. (2022). *Employee Turnover 'Research'*. Linkedin Website. Https://www.linkedin.com/pulse/employee-turnover-research-dan-caulfield/

Chatzoudes, D., & Chatzoglou, P. (2022). Factors Affecting Employee Retention: Proposing an Original Conceptual Framework. *International Journal of Economics and Business Administration*, *X*(Issue 1), 49–76. Https://doi.org/10.35808/ijeba/748

Chen, J. K. C. (2020). Perspective on the influence of leadership on job satisfaction and lower employee turnover in the mineral industry. *Sustainability (Switzerland)*, *12*(14), 1–16. Https://doi.org/10.3390/su12145690

Creswell, J. (2014). Research design: qualitative, quantitative, and mixed methods approaches. *Sage Publications*.

Del Giudice, M. (2022). The Square-Root Scree Plot: A Simple Improvement to a Classic Display. *Openpsych*. Https://doi.org/10.26775/op.2022.11.19

Dillman, D. A., Smyth, J. D., & Christian, L. (2014). Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method. In *Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method*. John Wiley & Sons.

Dimaggio, P. J., & Powell, W. W. (2000). The iron cage revisited institutional isomorphism and collective rationality in organizational fields. In J. A. C. Baum & F. Dobbin (Eds.), *Economics Meets Sociology in Strategic Management* (Vol. 17, pp. 143–166). Emerald Group Publishing Limited. Https://doi.org/10.1016/S0742-3322(00)17011-1

Dwesini, N. F. (2019). Causes and prevention of high employee turnover within the hospitality industry: A literature review. *African Journal of Hospitality, Tourism and Leisure*, *8*(3), 1–15.

Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. In *Journal of Applied Psychology* (Vol. 87, pp. 565–573). American Psychological Association. Https://doi.org/10.1037/0021-9010.87.3.565

Fan, D., Wu, S., Su, Y., & Li, Y. (2022). Managing expatriates to achieve mutual benefits: An integrative model and analysis. *Journal of International Management*, *28*(2), 100882. Https://doi.org/https://doi.org/10.1016/j.intman.2021.100882

Flexjobs. (2019). *The Flexible Job and Job Search Trend Indexes | flexjobs*. Https://www.flexjobs.com/trends

Folry, J. K. (2022). *Organizational Cultures Effect on Productivity in Manufacturing* (Issue December).

Fowler, F. J. (2013). Survey research methods. In *Survey research methods* (5th Ed). Sage Publications.

Gadomska-Lila, K., & Rogozińska-Pawełczyk, A. (2022). The Role of Pro-Innovative HR Practices and Psychological Contract in Shaping Employee Commitment and Satisfaction: A Case from the Energy Industry. *Energies*, *15*(1). Https://doi.org/10.3390/en15010255

Gallup. (2021). *How to Improve Employee Engagement in the Workplace - Gallup*. Gallup Website. Https://www.gallup.com/workplace/285674/improve-employee-engagement-workplace.aspx

GEBREMICHAEL, G. (2019). *Factors Contributing To Employee Turnover Intention: in Case of Selected Departments of the Ministry of National Defence* [St Marry Universitty]. Http://197.156.93.91/handle/123456789/4824%0Ahttp://197.156.93.91/bitstream/123456789/4824/1/GUESH_THESIS_FINAL_EDITED_AFTER_DEFENCE.pdf

Gebremichael, G. (2019). *STUDIES FACTORS CONTRIBUTING TO EMPLOYEE TURNOVER INTENTION: IN CASE OF SELECTED DEPARTMENTS OF THE MINISTRY OF NATIONAL DEFENCE ADDIS ABABA, ETHIOPIA*.

Herzberg, F. (1968). One More Time: How Do You Motivate Employees? *Harvard Business Review*, *46*(1), 53–62.

Indriyani, D., & Meria, L. (2022). Influence of Work Environment and Work Characteristics on Turnover Intention System with Mediation Role of Work Engagement. *International Journal of Cyber and IT Service Management*, *2*(2), 127–138. Https://doi.org/10.34306/ijcitsm.v2i2.108

Intelligence, M. (2021). *South Africa Renewable Energy Market Analysis - Industry Report - Trends, Size & Share*. Mordor Intelligence. Https://www.mordorintelligence.com/industry-reports/south-africa-renewable-energy-market

Jabeen, F., Arif, M., & Saeed, B. B. (2021). Predicting employee turnover intention in healthcare: A conservation of resources perspective. *Journal of Health Organization and Management*, *35*(no2), 305–321.

Jahya, A., Azlin, S. N. I., Othman, R., & Romaiha, N. R. (2020). Turnover Intention among Gen-Y: The Role of Training and Development, Compensation and Organizational Culture. *International Journal of Academic Research in Business and Social Sciences*, *10*(10), 765–782. Https://doi.org/10.6007/ijarbss/v10-i10/7975

Jeung, C. W., & Jeong Yeon Lee. (2021). Examining the influence of perceived stress on job satisfaction, burnout, and turnover intention among hotel employees in South Korea. *Journal of Human Resources in Hospitality & Tourism*, *20*(1), 83–106.

Kelly, A. (2019). *Employees are split on how they feel about their current job*. Https://press.careerbuilder.com/2019-07-23-Survey-from-careerbuilder-Reveals-Half-of-Employees-Feel-They-Have-Just-a-Job-Amid-Heightened-Career-Expectations

Kim, H., Yeon, J., Kim, J., & Kim, H. (2020). The effects of work-life balance and a supportive work environment on employee turnover: A quantitative study in the hospitality industry. *Sustainability*, *12*(no5).

Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individual's fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology*, *58*, 281–342. Https://doi.org/10.1111/j.1744-6570.2005.00672.x

Lee, J.-O. (2018). Survey methods in social research. In *Survey methods in social research* (2nd Ed). John Wiley & Sons.

Lee, & Mitchell, T. R. (2021). The mediating role of person–organization fit and person–job fit in the relationship between leadership and employee turnover intention. *Journal of Organizational Behavior*, *42*(1), 60–77.

Lee, S. J., Seo, H. J., Kim, K. H., Kim, J., Kim, H., & Park, J. M. (2023). Transcultural adaptation and validity of the nurse professional competence scale Korean version for graduating nursing students: An explanatory factor analysis. *Nursing Open*, *10*(2). Https://doi.org/10.1002/nop2.1324

Li, Q., Lourie, B., Nekrasov, A., & Shevlin, T. (2019). Hiring Disclosure and Sharedholder Value: Evidence from Job Postings. In *Paper Knowledge . Toward a Media History of Documents*.

Li, Zhang, W., & Wang, X. (2019). How supervisor humor style influences subordinates' turnover intention: The mediating roles of emotional exhaustion and job satisfaction. *International Journal of Environmental Research and Public Health*, *16*(5), 845.

Liu, J., Long, Y., Fang, M., He, R., Wang, T., & Chen, G. (2018). Analyzing employee turnover based on job skills. *ACM International Conference Proceeding Series*, 16–21. Https://doi.org/10.1145/3224207.3224209

Liu, Y., & Liu, X. (2020). The relationship between job satisfaction and turnover intention among Chines nurses: a cross sectional survey study. *Journal of Nursing Management*, *28*(2), 367–375.

Maangi, J., & Wambalaba, F. (2017). Factors_Contributing_To_High_Growth_in_S. *Journal of Modern Law and Policy*, *1*(1), 25.

Mabece, N. S., & Fourie, L. C. (2019). Factors contributing to job satisfaction and employee turnover among renewable energy professionals in South Africa. *Journal of Energy in Southern Africa*, *30*(1), 54–63.

Mamun, C. A. Al, & Hasan, M. N. (2017). Factors affecting employee turnover and sound retention strategies in business organization: A conceptual view. *Problems and Perspectives in Management*, *15*(1), 63–71. Https://doi.org/10.21511/ppm.15(1).2017.06

Maree, K., & Pietersen, J. (2010). First steps in research. In *First steps in RESEARCH* (pp. 171–181). Van Schaik Publishers.

Mathis, R. L., & Jackson, J. H. (2011). *Human Resource Management: Essential Perspectives*. Cengage Learning. Https://books.google.co.za/books?Id=Ee8zRSWUjJ8C

Mihail, D., & Liminosu, C. (2020). The role of job satisfaction in the relationship between Herzberg's Two-Factor Theory and employee turnover intentions. *Sustainability*.

Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablynski, C. J., & Erez, M. (2001). Why People Stay: Using Job Embeddedness to Predict Voluntary Turnover. *The Academy of Management Journal*, *44*(6), 1102–1121. Https://doi.org/10.2307/3069391

Mobley, W. H., Horner, S. O., & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. In *Journal of Applied Psychology* (Vol. 63, pp. 408–414). American Psychological Association. Https://doi.org/10.1037/0021-9010.63.4.408

Mohammad, A. Jawhar, Abdulrahman, B. S., Qader, K. S., Jamil, D. A., Sabah, K. K., Gardi, B., & Anwer, S. A. (2022a). The mediation role of organizational culture between employee turnover intention and job satisfaction. *International Journal of Teaching, Learning and Education*, *1*(4), 24–35. Https://doi.org/10.22161/ijtle.1.4.3

Mohammad, A. Jawhar, Abdulrahman, B. S., Qader, K. S., Jamil, D. A., Sabah, K. K., Gardi, B., & Anwer, S. A. (2022b). The mediation role of organizational culture between employee turnover intention and job satisfaction. *International Journal of Teaching, Learning and Education*, *1*(4), 24–35. Https://doi.org/10.22161/ijtle.1.4.3

Ngo-Henha, P. (2017). A review of Existing Turnover Intention Theories. *International Journal of Economics and Management Engineering*, *11*(11).

Nguyen, T. T., Nguyen, T. L. H., & Nguyen, Q. N. (2020). Effects of compensation package on employee turnover intention in Vietnamese commercial banks. *Journal of Asian Finance, Economics and Business*, *7*(no7), 207.

Nhende, N. (2023). *South Africa: Factors Hindering Renewable Energy Expansion*. Energy Capital and Power. Https://energycapitalpower.com/barriers-renewable-energy-south-africa/

Prah, K. K., Owusu, P. A., & Eshun, J. (2021). An investigation into the factors influencing employee turnover intention among wind energy professionals in South Africa. *International Journal of Energy Sector Management. Advance Online Publication*.

Pratiwi, F., & Lo, J. S. (2020). Job Satisfaction As a Mediator of Effect Job Stress and Career Development on Employee Turnover Intention Pt Pkss. *Dinasti Internasional Journal of Digital Business Management*, *1*(4), 580–592. Https://doi.org/10.31933/DIJDBM

Priya, R. (2020). Theory of employee retention strategies. *Journal of Interdisciplinary Cycle Research*.

Rachman, M. M. (2021a). The Impact of Work Stress and the Work Environment in the Organization: How Job Satisfaction Affects Employee Performance? *Journal of Human Resource and Sustainability Studies*, *09*(02), 339–354. Https://doi.org/10.4236/jhrss.2021.92021

Rachman, M. M. (2021b). The Impact of Work Stress and the Work Environment in the Organization: How Job Satisfaction Affects Employee Performance? *Journal of Human Resource and Sustainability Studies*, *09*(02), 339–354. Https://doi.org/10.4236/jhrss.2021.92021

Raza, M. A., Khan, N. A., Iqbal, M. J., & Ali, A. (2020). The relationship between growth opportunities, engagement, and turnover intention: A study of the banking sector of Pakistan. *Journal of Asia Business Studies*, *14*(4), 575–592.

Rozos, T. (2022). *THE ELEMENT OF EMPLOYEE TURNOVER AND ITS PROJECTION WITHIN THE ENERGY INDUSTRY*.

Saeed, F. (2022). *STUDY ON DETERMINANTS , IMPACT AND APPROACH TO REDUCE EMPLOYEE STUDY ON DETERMINANTS , IMPACT AND APPROACH TO REDUCE EMPLOYEE TURNOVER*. *August*.

Sakthivel, P. B., & Rajendran, C. (2018). )Cross-cultural training and expatriate turnover intentions: A study among expatriates in multinational corporations. *Journal of Global Mobility: The Home of Expatriate Management Research*, *6*(No 2), 129–147.

Samovar, L. A. P., Richard E. Mcdaniel, E., & R. Roy, C. S. (2015). *Enhance your intercultural communication learning experience !*

Sand, A. (2022). Inferential Statistics Is an Unfit Tool for Interpreting Data. *Applied Sciences (Switzerland)*, *12*(15). Https://doi.org/10.3390/app12157691

Saputra, F., & Dwikotjo Sri Sumantyo, F. (2022). The Role of Marketing Management in Information Industry: Corporate Image, Brand Awareness and Promotion (Case Study at PT Lensa Potret Mandiri). *Journal of Applied Management and Business (JAMB)*, *3*(2). Https://doi.org/10.37802/jamb.v3i2.267

Sekaran, U., & Bougie, R. (2016). *Research Methods for Business* (7th ed.). John Wiley & Sons.

SHRM. (2021). *Employee Job Satisfaction and Engagement: The Road to Economic Recovery*. SHRM Website. Https://www.shrm.org/search/pages/default.aspx#k=Employee+Job+Satisfaction+and+Engagement%3A+The+Road+to+Economic+Recovery&filters=

Silaban, N., & Syah, T. Y. R. (2018a). The Influence of Compensation and Organizational Commitment on Employees' Turnover Intention. *IOSR Jounal of Business and Management*, *20*(3), PP 01-06. Https://doi.org/10.9790/487X-2003010106

Silaban, N., Yanuar, T., & Syah, R. (2018). *The Influence of Compensation and Organizational Commitment on Employees' Turnover Intention*. *20*. Https://doi.org/10.9790/487X-2003010106

Silaban, & Syah, M. (2018b). Antecedents of employee turnover in service industry. *Journal of Management Development*, *37*(7), 549–559.

Singh, S., & Sant, S. (2021). Dynamics of Employee Turnover Intention-. *Bi-Lingual International Research Journal*, *Vol. 11, I*(August), 108–113.

Smart, M., & Chamberlain, A. (2016). Why do workers quit? The factors that predict employee turnover. *Glassdoor Research Report Whitepaper*, *February*, 1–19. Www.glassdoor.com/research/more-money-change-value-at-work/.

Soltani, S., Pourjavad, E., & Samaei, S. E. (2020). Investigating the relationship between flexible benefits and employee retention: The mediating role of organizational commitment. *Journal of Organizational Behavior Research*, *5*, 147–160.

South African, G. (2022). *Renewable Independent Power Producer Programme | South African Government*. South African Government. Https://www.gov.za/about-government/government-programmes/renewable-independent-power-producer-programme

Srivastava, U. R. (2015). Multiple Dimensions of Organizational Justice and Work-Related Outcomes among Health-Care Professionals. *American Journal of Industrial and Business Management*, *05*(11), 666–685. Https://doi.org/10.4236/ajibm.2015.511067

Susanti, D., & Herminingsih, A. (2022). Organizational Culture, Compensation, and Work Motivation Have a Significant Influence on Turnover Intention. *Dinasti International Journal of Education Management And Social Science*, *3*(2), 240–256. Https://doi.org/10.31933/dijemss.v3i2.1069

Tajfel, H., & Turner, J. (2001). An integrative theory of intergroup conflict. In *Intergroup relations: Essential readings.* (pp. 94–109). Psychology Press.

Tanwar, A. (2017). Impact of Employee Engagement on Performance. *International Journal of Advanced Engineering, Management and Science*, *3*(5), 510–515. Https://doi.org/10.24001/ijaems.3.5.16

Tietjen, M. A., & Myers, R. M. (1998). Motivation and job satisfaction. *Management Decision*, *36*(4), 226–231. Https://doi.org/10.1108/00251749810211027

Wahyono, I., & Riyanto, S. (2020). Effect of Organizational Commitment, Job Stress, And Job Satisfaction on Turnover Intention. *International Journal for Innovation Education and Research*, *8*(10), 286–316. Https://doi.org/10.31686/ijier.vol8.iss10.2682

Wibowo, A., Setiawan, M., & Yuniarinto, A. (2021). The Effect of Workloads on Turnover Intention With Work Stress As Mediation and Social Support As Moderated Variables. *Jurnal Aplikasi Manajemen*, *19*(2), 404–412. Https://doi.org/10.21776/ub.jam.2021.019.02.16

# APPENDIX A: Research Instrument


**Dear Participant**

You are kindly invited to participate in a research study conducted by Dumsile Nondumiso Ngema, a Master of Business Administration Student from the University of Witwatersrand. This research is conducted as part of the requirements for the completion of a Master of Business Administration.

**1. PURPOSE OF THE STUDY**

The purpose of this study is to investigate the key **factors contributing to employee turnover within the renewable energy industry in South Africa**. By undertaking this investigation, the aim is to offer comprehensive insights and valuable recommendations to human resource management, organizational leadership, and policymakers. These findings will assist in prioritizing the crucial factors that should be considered when formulating effective employee retention strategies.

**2. WHY HAVE I BEEN INVITED TO PARTICIPATE IN THIS STUDY?**

As an employee likely affected by the various factors leading to turnover in this industry, you have been invited to take part in this study due to your extensive knowledge and experiences in the industry.

**3. PROCEDURES**

If you volunteer to participate in this study, you will be directed to a survey link to complete the online questionnaire which encompasses different factors of the study.

**3.1 COMPLETION OF THE SURVEY**

You will be requested to undertake the digital questionnaire, which is anticipated to require approximately 10-15 minutes for completion. However, there are no constraints on the timeframe within which you can finish the survey. It is important to note that there are no accurate or wrong responses in this questionnaire.

**3.2. DATA COLLECTION**

After you complete the questionnaire, the electronic system will automatically record the data. No information will be shared with your organisation or any other persons. Your responses will be completely anonymous and confidential. The information will only be used for research purposes.

**4. CONFIDENTIALITY**

Stringent confidentiality measures will be implemented to safeguard all collected data and maintain the privacy of all participants. Your personal information will be anonymized, ensuring that any identifying details are removed. Only aggregated and de-identified data will be utilized in research reports or publications to uphold confidentiality. To enhance your confidentiality further, you are not required to disclose personal particulars such as your name or the name of your organisation.

**5. PARTICIPATION AND WITHDRAWAL**

Your participation in this study is entirely voluntary. You have the right to withdraw from the study at any time without providing a reason. Your decision to participate or withdraw will not affect any current or future relationship with your organisation.

**6. CONSENT**

By proceeding to the online survey, you acknowledge that you have read and understood the information provided above, and voluntarily agree to participate in the study. You may print or save a copy of this consent form for your records.

**6. IDENTIFICATION OF RESEARCHERS**

Thank you for your participation. Please do not hesitate to use the contacts below should you have any questions pertaining to the research.

**Student**: Dumsile Nondumiso Ngema

Cell phone: 078 706 5727

Email: 2625028@students.wits.ac.za)

**Supervisor:** Dr Grant Seiff

Email: grant.sieff@wits.ac.za

**Part I: Demographic Information**

1. How do you identify yourself?

| **Please Tick** | |
|---|---|
| Male | |
| Female | |
| Non-Binary | |
| Prefer not to say | |

2. What is your age in years?

| **Please Tick** | |
|---|---|
| 18-29 | |
| 30-40 | |
| 41-60 | |
| Over 60 | |

3. What is your race?

| **Please Tick** | |
|---|---|
| Black | |
| White | |
| Indian | |
| Coloured | |

4. What is your highest educational qualification?

| **Please Tick** | |
|---|---|
| National Certificate (Matric) | |
| Certificate or Diploma | |
| Bachelor's Degree | |
| Master's degree or higher | |

5. How many years of experience do you have?

| **Please Tick** | |
|---|---|
| Less than 1 year | |
| 1-3 years | |
| 4-6 years | |
| 7 years or more | |

6. How do you rank your current position?

| **Please tick the appropriate ranking** | |
|---|---|
| Management | |
| Technical | |
| Administrative | |

**Part II: Reasons for leaving.**

1. Have you considered leaving your organization in the last 12 months?

| **Please Tick** | | | |
|---|---|---|---|
| Yes | | No | |

2. If you answered yes above, please tick the reasons behind the consideration.

| **Please tick all appropriate reasons** | |
|---|---|
| Organisational Culture | |
| Organisational Leadership | |
| Employee compensation | |
| Training and Development | |
| Job dissatisfaction | |

**Part III: Questions Related to Factors Contributing to Employee turnover.**

**Instructions:** Please use the scale provided to answer the following questions (1=strongly disagree, 2= Disagree, 3= Somewhat disagree, 4=Somewhat Agree, 5=Agree and 6= Strongly Agree)

| **A** | **Organisational Culture** | **1** | **2** | **3** | **4** | **5** | **6** |
|---|---|---|---|---|---|---|---|
| 1 | The culture in my organisation is inclusive | | | | | | |
| 2 | The culture in my organisation values diversity | | | | | | |
| 3 | I feel that my organisation respects employees | | | | | | |
| 4 | I feel that my organisation supports employees | | | | | | |
| 5 | My company encourages work-life balance | | | | | | |
| 6 | The culture in my organisation aligns with my values | | | | | | |
| 7 | My organisation emphasizes ethical behaviour | | | | | | |
| 8 | My organisation promotes open communication | | | | | | |
| 9 | My organisation promotes collaboration amongst employees | | | | | | |
| **B** | **Organisational leadership and strategy** | **1** | **2** | **3** | **4** | **5** | **6** |
| 1 | Leaders in my organisation provide a clear business direction | | | | | | |
| 2 | Leaders in my organisation provide a clear guidance to employees | | | | | | |
| 3 | Leaders in my organisation involve employees in decision making | | | | | | |
| 4 | Leaders or managers often motivate employees to perform at their best | | | | | | |
| 5 | Leaders in my organisation are committed to the success of the employees | | | | | | |
| 6 | Leaders in my organisation are committed to the well-being of the employees | | | | | | |
| 7 | Leaders in my company encourage creative thinking amongst employees | | | | | | |
| 8 | Leaders in my company support innovation | | | | | | |
| **C** | **Employee Compensation** | **1** | **2** | **3** | **4** | **5** | **6** |
| 1 | I feel that my compensation is competitive to other companies in the renewable energy sector | | | | | | |
| 2 | My organisation provides a transparent compensation structure | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | My compensation reflects my skills | | | | | | |
| 4 | My compensation matches my qualifications | | | | | | |
| 5 | My compensation reflects my contributions | | | | | | |
| 6 | My organisation provides a regular performance-based salary adjustment | | | | | | |
| 7 | I believe there are opportunities for salary growth and advancement in my organization | | | | | | |
| 8 | My organisation offers attractive benefits | | | | | | |
| **D** | **Career Development** | **1** | **2** | **3** | **4** | **5** | **6** |
| 1 | My organisation provides adequate opportunities to enhance my skills | | | | | | |
| 2 | My organisation provides adequate opportunities to enhance my knowledge | | | | | | |
| 3 | Employees in my organisation receive constructive feedback on performance | | | | | | |
| 4 | The performance feedback I have received has helped me grow in my career | | | | | | |
| 5 | My organisation offers adequate investment into employee professional development | | | | | | |
| 6 | I have access to resources that support my learning and development | | | | | | |
| 7 | My organisation has clearly defined training and development plans for employees | | | | | | |
| **E** | **Employee turnover** | **1** | **2** | **3** | **4** | **5** | **6** |
| 1 | I am actively looking for employment outside of my organisation | | | | | | |
| 2 | I am likely going to seek other opportunities outside my organization in the near future | | | | | | |
| 3 | I am actively looking for roles outside the renewable energy sector | | | | | | |
| 4 | I have made a decision to leave my organization | | | | | | |
| 5 | I have recently submitted job applications in other organisations | | | | | | |
| 6 | I have attended interviews to explore other opportunities | | | | | | |
| 7 | I have attended networking events to explore other job opportunities outside of my organisation | | | | | | |
| **F** | **Job Satisfaction** | **1** | **2** | **3** | **4** | **5** | **6** |
| 1 | I am currently satisfied in my job | | | | | | |
| 2 | My manager provides me with sufficient guidance | | | | | | |
| 3 | My manager provides me with support | | | | | | |
| 4 | I feel recognized by my manager | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5 | I am satisfied with the decision-making authority provided to me by my organization | | | | | | |
| 6 | I am satisfied with the amount of challenging work I often receive | | | | | | |
| 7 | My workload is manageable in relation to the time available | | | | | | |
| 8 | I experience excessive stress or burnout in my job | | | | | | |

**Thank you for completing the survey.**

# APPENDIX B: Reliability Testing

## a) Organisational Culture

| Subconstruct | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| The culture in my organisation is inclusive | 32.07 | 144.293 | 0.798 | 0.684 | 0.950 |
| The culture in my organisation values diversity | 31.91 | 145.722 | 0.755 | 0.631 | 0.952 |
| I feel that my organisation respects employees | 32.08 | 141.070 | 0.840 | 0.775 | 0.949 |
| I feel that my organisation supports employees | 32.13 | 142.822 | 0.845 | 0.787 | 0.949 |
| My company encourages work-life balance | 32.00 | 145.913 | 0.735 | 0.676 | 0.953 |
| My company supports employee wellness | 31.86 | 145.106 | 0.779 | 0.730 | 0.951 |
| The culture in my organisation aligns with my values | 32.14 | 141.039 | 0.859 | 0.759 | 0.948 |
| My organisation emphasizes ethical behaviour | 31.63 | 141.339 | 0.773 | 0.667 | 0.952 |
| My organisation promotes open communication | 32.01 | 139.392 | 0.854 | 0.790 | 0.948 |
| My organisation promotes collaboration amongst employees | 31.75 | 143.183 | 0.806 | 0.717 | 0.950 |

## b) Organisational Leadership

| SubConstruct | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Leaders in my organisation provide a clear business direction to employees | 22.78 | 87.282 | 0.810 | 0.815 | 0.954 |
| Leaders in my organisation provide a clear guidance to employees | 22.87 | 86.250 | 0.861 | 0.852 | 0.950 |
| Leaders in my organisation involve employees in decision making | 23.29 | 87.452 | 0.792 | 0.643 | 0.955 |
| Leaders often motivate employees to perform at their best | 22.51 | 86.691 | 0.853 | 0.775 | 0.951 |
| Leaders in my organisation are committed to the success of the employees | 22.74 | 86.788 | 0.873 | 0.802 | 0.950 |
| Leaders in my organisation are committed to the well-being of the employees | 22.47 | 88.705 | 0.816 | 0.693 | 0.953 |
| Leaders in my company encourage creative thinking amongst employees | 22.52 | 86.768 | 0.858 | 0.805 | 0.951 |
| Leaders in my company support innovation | 22.50 | 85.104 | 0.849 | 0.793 | 0.951 |

## c) Employee Compensation

| Subconstruct | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| I feel that my compensation is competitive to other companies in the renewable energy sector | 21.85 | 72.480 | 0.788 | 0.659 | 0.900 |
| My organisation provides a transparent compensation structure | 22.55 | 74.087 | 0.676 | 0.488 | 0.909 |

| | | | | | |
|---|---|---|---|---|---|
| My compensation reflects my skills" | 22.10 | 70.912 | 0.834 | 0.794 | 0.896 |
| My compensation matches my qualifications | 22.09 | 72.002 | 0.805 | 0.764 | 0.899 |
| My compensation reflects my contributions | 22.22 | 70.985 | 0.844 | 0.775 | 0.895 |
| My organisation provides performance-based salary adjustment | 21.96 | 74.366 | 0.639 | 0.464 | 0.913 |
| I believe there are opportunities for salary growth and advancement in my organization | 21.50 | 78.132 | 0.508 | 0.348 | 0.923 |
| My organisation offers attractive monetary benefits | 22.13 | 74.539 | 0.723 | 0.533 | 0.905 |

### d) Career Development

| Subconstruct | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| My organisation provides adequate opportunities to enhance my skills | 17.43 | 41.217 | 0.845 | 0.818 | 0.924 |
| My organisation provides adequate opportunities to enhance my knowledge | 17.22 | 41.130 | 0.842 | 0.789 | 0.925 |
| Employees in my organisation receive constructive feedback on performance | 17.51 | 41.118 | 0.802 | 0.760 | 0.930 |
| The performance feedback I have received has helped me grow in my career | 17.48 | 40.691 | 0.826 | 0.787 | 0.927 |
| I have access to resources that support my learning and development | 17.30 | 41.160 | 0.842 | 0.746 | 0.925 |
| My organisation has clearly defined training and development plans for employees | 17.64 | 42.378 | 0.749 | 0.571 | 0.936 |

### e) Employee Turnover

| Subconstruct | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| I am actively looking for employment outside of my organisation | 21.22 | 49.680 | 0.786 | 0.724 | 0.853 |
| I am likely going to seek other opportunities outside my organization in the near future | 20.74 | 54.713 | 0.672 | 0.581 | 0.872 |
| I have made a decision to leave my organization | 21.48 | 47.775 | 0.776 | 0.632 | 0.853 |
| I have recently submitted job applications in other organisations | 21.21 | 46.590 | 0.812 | 0.708 | 0.846 |
| I have attended interviews to explore other opportunities | 21.50 | 48.335 | 0.734 | 0.610 | 0.860 |

### f) Job Satisfaction

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| I am currently satisfied in my job | 21.79 | 68.266 | 0.680 | 0.497 | 0.840 |
| My manager provides me with sufficient guidance | 22.04 | 61.415 | 0.835 | 0.811 | 0.819 |
| My manager provides me with support | 21.87 | 59.802 | 0.863 | 0.888 | 0.814 |
| I feel recognised by my manager | 21.83 | 59.622 | 0.846 | 0.825 | 0.816 |
| I am satisfied with the decision-making authority provided to me by my organisation | 22.05 | 61.690 | 0.824 | 0.695 | 0.820 |
| I am satisfied with the amount of challenging work I receive | 21.54 | 64.955 | 0.712 | 0.523 | 0.834 |

| | | | | | |
|---|---|---|---|---|---|
| My workload manageable in relation to the time available | 21.64 | 70.649 | 0.498 | 0.430 | 0.858 |
| I experience excessive stress or burnout in my job | 20.99 | 91.119 | -0.253 | 0.215 | 0.926 |

# APPENDIX C: Respondent's reasons for Leaving.

| Reasons | Frequency | Percent |
|---|---|---|
| Career advancement | 27 | 9% |
| Organisational Culture, Organisational Leadership | 21 | 7% |
| Organisational Leadership | 18 | 6% |
| Employee compensation | 13 | 5% |
| Employee compensation, Career advancement | 11 | 4% |
| Organisational Culture | 11 | 4% |
| Organisational Culture, Organisational Leadership, Job dissatisfaction | 9 | 3% |
| Job dissatisfaction | 8 | 3% |
| Organisational Leadership, Employee compensation | 8 | 3% |
| Organisational Leadership, Job dissatisfaction | 8 | 3% |
| Organisational Culture, Organisational Leadership, Employee compensation, Training and Development, Job dissatisfaction, Career advancement | 7 | 2% |
| Organisational Culture, Organisational Leadership, Employee compensation | 6 | 2% |
| Training and Development, Career advancement | 6 | 2% |
| Organisational Culture, Job dissatisfaction | 5 | 2% |
| Organisational Culture, Organisational Leadership, Employee compensation, Career advancement | 5 | 2% |
| Job dissatisfaction, Career advancement | 4 | 1% |
| Organisational Culture, Employee compensation | 4 | 1% |
| Organisational Culture, Employee compensation, Career advancement | 4 | 1% |
| Organisational Culture, Organisational Leadership, Career advancement | 4 | 1% |
| Organisational Culture, Organisational Leadership, Employee compensation, Job dissatisfaction | 4 | 1% |
| Organisational Culture, Organisational Leadership, Training and Development, Job dissatisfaction, Career advancement | 4 | 1% |

| | | |
|---|---|---|
| Employee compensation, Job dissatisfaction | 3 | 1% |
| Employee compensation, Job dissatisfaction, Career advancement | 3 | 1% |
| Employee compensation, Training and Development, Career advancement | 3 | 1% |
| Organisational Culture, Organisational Leadership, Job dissatisfaction, Career advancement | 3 | 1% |
| Organisational Culture, Organisational Leadership, Training and Development | 3 | 1% |
| Organisational Leadership, Career advancement | 3 | 1% |
| Organisational Culture, Career advancement | 2 | 1% |
| Organisational Culture, Organisational Leadership, Employee compensation, Job dissatisfaction, Career advancement | 2 | 1% |
| Organisational Culture, Organisational Leadership, Employee compensation, Training and Development, Job dissatisfaction | 2 | 1% |
| Organisational Culture, Organisational Leadership, Training and Development, Job dissatisfaction | 2 | 1% |
| Organisational Leadership, Employee compensation, Career advancement | 2 | 1% |
| Organisational Leadership, Employee compensation, Job dissatisfaction | 2 | 1% |
| Organisational Leadership, Employee compensation, Training and Development, Job dissatisfaction | 2 | 1% |
| Organisational Leadership, Job dissatisfaction, Career advancement | 2 | 1% |
| Organisational Leadership, Training and Development | 2 | 1% |
| Employee compensation, Training and Development, Job dissatisfaction, Career advancement | 1 | 0% |
| Organisational Culture, Employee compensation, Job dissatisfaction | 1 | 0% |
| Organisational Culture, Employee compensation, Job dissatisfaction, Career advancement | 1 | 0% |
| Organisational Culture, Employee compensation, Training and Development | 1 | 0% |
| Organisational Culture, Organisational Leadership, Employee compensation, Training and Development, Career advancement | 1 | 0% |
| Organisational Culture, Training and Development, Career advancement | 1 | 0% |
| Organisational Leadership, Training and Development, Career advancement | 1 | 0% |

| | | |
|---|---|---|
| Training and Development | 1 | 0% |
| Total | 287 | 100% |

# APPENDIX D: Principal component Analysis

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 21,697 | 47,168 | 47,168 | 21,697 | 47,168 | 47,168 |
| 2 | 3,632 | 7,895 | 55,063 | 3,632 | 7,895 | 55,063 |
| 3 | 2,955 | 6,424 | 61,487 | 2,955 | 6,424 | 61,487 |
| 4 | 1,811 | 3,938 | 65,425 | 1,811 | 3,938 | 65,425 |
| 5 | 1,559 | 3,390 | 68,815 | 1,559 | 3,390 | 68,815 |
| **6** | **1,238** | **2,692** | **71,506** | **1,238** | **2,692** | **71,506** |
| 7 | 1,059 | 2,303 | 73,809 | 1,059 | 2,303 | 73,809 |
| 8 | ,959 | 2,085 | 75,894 | | | |
| 9 | ,830 | 1,805 | 77,700 | | | |
| 10 | ,720 | 1,565 | 79,264 | | | |
| 11 | ,610 | 1,327 | 80,591 | | | |
| 12 | ,604 | 1,313 | 81,904 | | | |
| 13 | ,566 | 1,230 | 83,134 | | | |
| 14 | ,530 | 1,152 | 84,286 | | | |
| 15 | ,485 | 1,054 | 85,339 | | | |
| 16 | ,469 | 1,019 | 86,358 | | | |
| 17 | ,453 | ,985 | 87,343 | | | |
| 18 | ,427 | ,929 | 88,272 | | | |
| 19 | ,409 | ,888 | 89,161 | | | |
| 20 | ,372 | ,808 | 89,968 | | | |
| 21 | ,342 | ,743 | 90,711 | | | |
| 22 | ,323 | ,702 | 91,414 | | | |
| 23 | ,318 | ,691 | 92,105 | | | |
| 24 | ,286 | ,622 | 92,727 | | | |
| 25 | ,263 | ,572 | 93,299 | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 26 | ,251 | ,547 | 93,846 | | | |
| 27 | ,244 | ,531 | 94,377 | | | |
| 28 | ,219 | ,477 | 94,854 | | | |
| 29 | ,204 | ,443 | 95,297 | | | |
| 30 | ,198 | ,431 | 95,728 | | | |
| 31 | ,195 | ,423 | 96,151 | | | |
| 32 | ,186 | ,404 | 96,555 | | | |
| 33 | ,174 | ,379 | 96,933 | | | |
| 34 | ,163 | ,354 | 97,288 | | | |
| 35 | ,152 | ,331 | 97,618 | | | |
| 36 | ,137 | ,298 | 97,916 | | | |
| 37 | ,133 | ,288 | 98,205 | | | |
| 38 | ,128 | ,278 | 98,483 | | | |
| 39 | ,119 | ,258 | 98,740 | | | |
| 40 | ,107 | ,232 | 98,972 | | | |
| 41 | ,096 | ,208 | 99,180 | | | |
| 42 | ,092 | ,200 | 99,380 | | | |
| 43 | ,090 | ,196 | 99,576 | | | |
| 44 | ,079 | ,173 | 99,749 | | | |
| 45 | ,063 | ,137 | 99,886 | | | |
| 46 | ,053 | ,114 | 100,000 | | | |