



Electronic Theses and Dissertations

2024

Effect of transactional and transformational leadership styles on nurses' productivity in the selected public, private and faith-based hospital in Nairobi County, Kenya: the moderating role of task structure

Muriuki, Nicholas
Strathmore Business School
Strathmore University

Recommended Citation

Muriuki, N. (2024). *Effect of transactional and transformational leadership styles on nurses' productivity in the selected public, private and faith-based hospital in Nairobi County, Kenya: The moderating role of task structure* [Strathmore University]. <http://hdl.handle.net/11071/15543>

Follow this and additional works at: <http://hdl.handle.net/11071/15543>

**EFFECT OF TRANSACTIONAL AND TRANSFORMATIONAL LEADERSHIP
STYLES ON NURSES' PRODUCTIVITY IN THE SELECTED PUBLIC, PRIVATE
AND FAITH-BASED HOSPITAL IN NAIROBI COUNTY, KENYA: THE
MODERATING ROLE OF TASK STRUCTURE**

Nicholas Muriuki

Registration No: 122135/2019

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTERS IN BUSINESS
ADMINISTRATION AT STRATHMORE UNIVERSITY**

STRATHMORE UNIVERSITY BUSINESS SCHOOL

NAIROBI, KENYA

DEC, 2023



DECLARATION

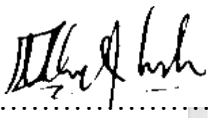
I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for the award of a degree. I also declare that it contains no material written or published by other people except where due reference is made and the author duly acknowledged.

Student Name:

Reg. No:

Nicholas Muriuki

122135/ 2019

Signature:  Date: 17th March 2023.....

This dissertation has been submitted for examination with my approval as the Supervisor

Dr. Ben Ngoye

Signature:  Date: 20 March 2023....

VT OMNES VNVM SINT

ABSTRACT

The main objective of this study was to assess the effect of leadership styles on nurses' productivity in a public, a private and a faith-based hospital in Nairobi County and examine the moderating role of task structure to this effect. The study specifically sought to assess the effect of transformational leadership style and transactional leadership style, on nursing employee absenteeism in the selected hospitals in Nairobi County. The study applied a descriptive survey design to identify, analyze and describe the effects of leadership styles on nursing employee productivity in selected public, private, and faith-based hospitals in Nairobi County. These include the Kenyatta National Hospital (KNH), The Nairobi Hospital, and Mater Misericordiae Hospital. The collected data was analyzed by both descriptive and inferential statistics. From the regression of coefficients, it was confirmed that transformational leadership style has a positive and statistically significant relationship with employee productivity. This implies that changes in a unit of the aspects related to transformational leadership style leads to a change in employee productivity. It was also confirmed (from the regression results) that transactional leadership style has a positive and statistically significant relationship with employee productivity. This implies that changes in a unit of the aspects related to transactional leadership style leads to a change in employee productivity. The findings therefore, confirmed that there is a positive and significant moderating effect of task structure on the relationship between transformational leadership style and employee productivity. The study finds conclusive evidence that transformational leadership style has a positive and statistically significant relationship with employee productivity. It was also confirmed that transactional leadership style has a positive and statistically significant relationship with employee productivity. This indicates that when leaders adopt transformational and transactional leadership styles, they are more likely to inspire and motivate their employees, which results in increased productivity. Leaders who exhibit transformational leadership behaviors such as inspiring their followers, providing individualized consideration, intellectually stimulating their employees, and exhibiting idealized influence can enhance employee productivity. Similarly, leaders who use transactional leadership behaviors such as providing rewards, setting goals, and monitoring performance can also improve employee productivity

Keywords: *Transformational leadership style, transactional leadership style, nursing employee productivity, nursing employee absenteeism, task structure.*

TABLE OF CONTENTS

DECLARATION	iii
ABSTRACT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	x
APPENDICES	xi
ABBREVIATIONS AND ACRONYMS	xii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Introduction.....	1
1.2 Background of the Study	1
1.3 Problem Statement.....	4
1.4 Research Objectives.....	5
1.4.1 Main Objective.....	5
1.4.2 Research Objectives	5
1.5 Research Questions.....	6
1.6 Scope of the Study	6
1.7 Significance of the study.....	7
CHAPTER TWO	8
LITERATURE REVIEW	8
2.1 Introduction.....	8
2.2 Theoretical Perspective.....	8
2.2.1 Leader-member exchange (LMX).....	8
2.2.2 Transformational and Transactional Leadership Theory	9
2.2.3 The Path-Goal Theory of Leadership.....	11
2.3 Key Concepts	12
2.3.1 Leadership Styles	12
2.3.2 Nursing and Leadership	14
2.3.3 Nurses’/Employee Productivity	15
2.3.4 Task Structure as the moderating variable	17
2.4 Review of Empirical Literature	18
2.4.1 Transformational Leadership style and nursing employees’ productivity.....	18
2.4.2 Transactional Leadership style and nursing employees’ productivity.....	20

2.4.3 The moderating role of Task Structure on the effect that Leadership Style has on Nursing Employees' Productivity	21
2.5 Summary and Knowledge Gap	22
2.6 Operationalization of the study variables	24
2.7 Conceptual Framework.....	24
CHAPTER THREE.....	26
RESEARCH METHODOLOGY	26
3.1 Introduction.....	26
3.2 Research Design	26
3.3 Population and Sampling	26
3.3.1 Target Population	26
3.3.2 Sampling Technique and Sample Size.....	27
3.4 Data Collection	28
3.4.1 Data Collection Instruments.....	28
3.4.2 Data Collection Procedures.....	29
3.5 Data Analysis and Presentation	29
3.5.1 Diagnostic Analysis	30
3.6 Research Quality.....	30
3.6.1 Reliability of Research Instruments.....	31
3.6.2 Validity of Research Instrument	31
3.7 Ethical Considerations	31
CHAPTER FOUR.....	33
RESEARCH FINDINGS ANALYSIS AND DISCUSSION	33
4.1 Introduction.....	33
4.2 Response Rate.....	33
4.3 Pilot Results	34
4.3.1 Reliability of the Research Instrument.....	34
4.3.2 Test for Construct Validity	34
4.4 Background Information.....	35
4.4.1 Respondents' Gender	35
4.4.2 Respondents' Age Bracket.....	36
4.4.3 Highest Qualification of the Respondents	37
4.4.4 Tenure of the Respondents in the Hospitals.....	37
4.5 Descriptive analysis	38
4.5.1 Descriptive Statistics Regarding Transformational Leadership Style	38

4.5.2 Descriptive Statistics Regarding Transactional Leadership Style	41
4.5.3 Descriptive Statistics Regarding Task Structure.....	44
4.5.4 Descriptive Statistics Regarding Employees’ Productivity	46
4.6 Diagnostic analysis	51
4.6.1 Normality Test	51
4.6.2 Linearity Test	51
4.6.3 Multicollinearity.....	52
4.6.4 Heteroscedasticity Test	52
4.7 Inferential statistics	53
4.7.1 Correlation Analysis	53
4.7.2 Relationship between Leadership Styles and Employees’ Productivity	55
4.8 The Moderating Effect of Task Structure on Market Performance	57
CHAPTER FIVE	60
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	60
5.1 Introduction.....	60
5.2 Summary of Findings.....	60
5.2.1 Transformational Leadership style and nursing employees’ productivity.....	60
5.2.2 Transactional Leadership style and nursing employees’ productivity.....	61
5.2.3 The moderating role of Task Structure on the effect that Leadership Style has on Nursing Employees’ Productivity	62
5.3 Conclusion of the study	63
5.4 Recommendations of the study.....	64
5.5 Further Research Areas.....	65
REFERENCES.....	66
APPENDICES	77

LIST OF TABLES

Table 3.1 Target Population.....	27
Table 3.2: Sampling Frame.....	28
Table 4.1: Response Rate.....	33
Table 4.2: Reliability Results.....	34
Table 4.3: Factorial Test Results for Construct Validity	35
Table 4.4: Highest Qualification of the Respondents	37
Table 4.5: Tenure of the Respondents in the Hospitals	38
Table 4.6: Descriptive statistics regarding transformational leadership style	38
Table 4.7: Descriptive statistics regarding transactional leadership style	41
Table 4.8: Descriptive statistics regarding task structure	44
Table 4.9: Descriptive statistics regarding employees' productivity.....	46
Table 4.10: Employee Absenteeism	48
Table 4.11: Normality Results	51
Table 4.12: Correlation Matrix for Linearity Test	52
Table 4.13: Collinearity Statistics.....	52
Table 4.14: Correlation between Leadership Styles and Employees' Productivity.....	54
Table 4.15: Model of Fitness for Leadership Styles	55
Table 4.16: ANOVA for Leadership Styles.....	56
Table 4.17: Regression of Coefficients for Leadership Styles	56
Table 4.18: Model of Fitness for Task Structure	57

Table 4.19: ANOVA for Task Structure.....58

Table 4.20: Regression of Coefficients for Task Structure.....58



LIST OF FIGURES

Figure 2.1: Conceptual Framework	25
Figure 4.1: Gender of the Respondents.....	35
Figure 4.2: Age Bracket of the Respondents	36
Figure 4.3: Most effective leadership style.....	49
Figure 4.4: Error variance of the residuals.....	53



APPENDICES

Appendix I : Letter of Introduction.....	77
Appendix II: Questionnaire.....	78
Appendix III: Ethics Approval.....	84
Appendix IV: NACOSTI Approval.....	85



ABBREVIATIONS AND ACRONYMS

HCWs	Health Care Workers
KHSSP	Kenya Health Sector Strategic Plan
LMX	Leader-Member Exchange
MDGs	Millennium Development Goals
SMEs	Small and Medium Enterprises
WHO	World Health Organization



CHAPTER ONE

INTRODUCTION

1.1 Introduction

Chapter one outlines the background of the study where a brief introduction to the effect of leadership styles on nurses' productivity has been done. Task structure as a moderator to the relationship between leadership style and nurses' productivity is also discussed. The chapter goes on to discuss the statement of the problem then the research objectives and the research questions as well as its significance.

1.2 Background of the Study

Leadership has been defined as the process of influencing the activities of an organized group in its efforts toward goal setting and goal achievement (Buchanan & Huczynski, 2017). According to Ralph Stogdill (1950), leadership is an influencing process aimed at goal achievement. This definition by Buchanan and Huczynski (2017) has three components: First, it defines leadership as an interpersonal process in which one individual seeks to influence the behavior of others. Second, it sets leadership in a social context in which other members of the group to be influenced are subordinates or followers. Third, it identifies a criterion for leadership – goal achievement. To satisfy the needs of a highly competitive world, there is a need for organizations to continuously pursue performance improvement (Arslan & Staub, 2013). Leadership has been identified as a key component in improving quality care performance and outcomes in healthcare globally (WHO, 2008; Gilson & Daire 2011; Alliance for health policy and systems, 2016). Further, in health care, there exists a complex inter-relationship between leadership, health professions, contexts, and organizational performance (Ferlie & Shortell, 2001).

However, the success of effective leadership and employee performance requires appropriate leadership styles to enhance and progress the safety behavior of the medical staff. It is believed that there is link between safety collapse and style of leadership. Human errors are managed and controlled by a better leadership (Hawkins, 2017). In addition, leadership have an impact on safety behavior and it results help individuals to behave safely (Hassan et al., 2023). Researchers are linking adverse patient safety outcomes to a lack of effective leadership, while

relational leadership styles, like transformational leadership, continue to be associated with reduced adverse patient outcomes (Cummings et al., 2010; Ree & Wiig, 2019).

A leader who involves staff fosters teamwork, rewards good performance, and encourages motivation can impact the quality of work life (Suratno, 2018; Gottlieb et al., 2021). The leadership style describes how the leader interacts with others and can be categorized into two main styles: task-oriented and relational. Historically, leadership theories started with the Great Man Theory during the Industrial Revolution with strong hierarchical leader-centric decision making, focusing on command-and-control, productivity, and seeing the organization as linear, operating like a machine (Weberg & Davidson, 2019). This leadership style model in healthcare is no longer sustainable, as proven by a lack of change and persisting patient safety issues (Schein, 2010). In recent years, the two relational styles, transformational and transactional leadership, have been explored through nursing literature and have become high profile in general healthcare research (Ystaas et al., 2023).

In the feature of the healthcare system, Huber (2017) defined the transformational leadership style as empowering followers with a sense of autonomy and responsibility, which can increase commitment and efficiency (individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence). Moreover, transformational leader facilitates growth and translate evidence into practice to achieve organizational goals. Transformational leadership is thus very common in nursing, inspiring and motivating for a robust transformation of the culture and structure of organizations (Robbins & Davidhizar, 2020) and it is considered the best-chosen style for leaders in the healthcare sector, especially for nurse leaders to mobilize nursing staff to provide optimum services with improved morale and conviction.

The transactional style could be effective when the employees are under stress and basic needs are to be considered (Hamilton, 2020). As leadership essentially aims to mobilize followers to achieve organizational interests, transactional leadership mainly acknowledges the values of organizations and employees, but views these as fundamentally separate, entailing a transactional exchange between the organization and its employees (Purwanto et al., 2020). Transactional leaders motivate followers with rewards and punishments for achieving or failing to achieve organizational demands (respectively). This style is appropriate for task-based contexts where employee autonomy, creativity, and innovation are not a priority (Richards, 2020). In contrast, transactional leadership has also been tremendously efficacious in reducing the degree of errors in healthcare (Fletcher et al., 2019).

As Mokhber et al. (2015) stated, idealized influence skill enables transformational leaders to influence and motivate team members because it shows that the leader values team members as enablers of the vision, and responsible for making success possible (Mokhber et al., 2015). In a high-pressure healthcare environment, where high-quality services are critically important, idealized influence is an important skill because leaders must be able to motivate and inspire employees towards the common goals of delivering high-quality service and satisfaction to patients. About transformational leadership skills, Ystaas et al. (2023) illustrated that intellectual stimulation is the most common transformational leadership skill exhibited in nursing leadership. This is supported by Kim and Kim (2017) who reported that transformational leadership is positively correlated with emotional intelligence with intellectual stimulation having the strongest correlation with emotional intelligence (Kim & Jeong, 2020).

Therefore, effective leadership within healthcare organizations is paramount for fostering a positive organizational culture, driving innovation, and elevating the quality of patient care. Recognizing the pivotal role of leadership styles, this study delves into the impact of transformational and transactional leadership on the productivity of nursing staff within selected hospitals in Nairobi County, Kenya. In addition to examining the direct effects of these leadership styles, the study explores the moderating influence of task structure on the relationship between leadership styles and nursing employee productivity. The healthcare industry's growing emphasis on leadership underscores the need for a nuanced understanding of leadership styles and their implications for organizational effectiveness.

This study responds to this imperative by investigating the specific influence of transformational and transactional leadership, shedding light on how these styles correlate with and impact the productivity of nursing professionals. By incorporating the moderating role of task structure, the research aims to provide actionable insights for hospital administrators and nurse managers seeking to optimize leadership strategies in the complex and dynamic healthcare environment. Through empirical evidence and statistical analyses, this study contributes to the broader discourse on leadership effectiveness within healthcare organizations, offering practical implications for improved employee productivity and, consequently, enhanced patient care outcomes. This study therefore incorporates nurses in a public, a private and a faith-based hospital due to the diverse representation from these three healthcare provider categories in Kenya.

1.3 Problem Statement

Leadership skills and styles are recognized as critical factors influencing organizational performance, particularly in the healthcare context (Muthoka, 2017; Gile, Van De Klundert & Van de Broek, 2015). However, the Kenyan public healthcare system has faced persistent challenges, as evidenced by the consistent outcry about poor-quality service delivery and alarming rates of healthcare worker turnover in recent years (Sang, 2018; Ongori, 2019). Such challenges reached a critical point in 2017 with prolonged health worker strikes, including a 150-day strike by nurses, marking the longest in Kenya's history (Adam et al., 2018). These events underscore a pressing need to examine the role of leadership in healthcare institutions, specifically in preventing and mitigating such crises.

The observed high turnover rates among healthcare workers, exemplified by the mass resignations in Nyeri County and a 51% net emigration rate among healthcare workers in Kenya (Muthoka, 2017), suggest systemic issues. The disruptive impact of prolonged strikes on healthcare services, with institutions forced to halt clinical operations, raises questions about the effectiveness of leadership within these organizations. While poor working conditions and inadequate pay are commonly cited factors, the contribution of leadership styles to these challenges has been underexplored.

Existing studies on leadership in healthcare settings often lack a focused examination of the Kenyan context and, more specifically, the role of transactional and transformational leadership styles in nursing. For instance, studies by Khan, Bukhari, and Channar (2016), Warri (2021), Marangu, Rebecca, and Egessa (2015), and Nawose, Ing'ollan, and Roussel (2017) provide valuable insights but have limitations, such as a narrow focus on specific regions or sectors, thereby limiting generalizability. Nursing leadership, in particular, is crucial in influencing employee productivity and performance in healthcare settings (Cummings et al., 2019). Yet, there is a notable gap in empirical research that specifically examines the effects of transactional and transformational leadership styles on nurses' productivity in the Kenyan healthcare context, considering the moderating role of task structure. Understanding these dynamics is essential for improving leadership practices, enhancing the quality of nursing care, and ultimately mitigating the challenges faced by the Kenyan healthcare system.

In summary, the combination of systemic challenges, unprecedented strikes, and gaps in existing research highlights a critical need to investigate the specific role of leadership styles

in the productivity of nurses within the Kenyan healthcare landscape. This study aims to fill this gap by providing nuanced insights into the relationship between leadership styles and healthcare worker productivity, with potential implications for organizational performance and, ultimately, patient outcomes.

1.4 Research Objectives

1.4.1 Main Objective

The main objective of this study is to investigate the moderating effect of task structure on the relationship between leadership styles and nurses' productivity in the selected hospitals in Nairobi County.

1.4.2 Research Objectives

The study therefore based on the principles of Leader-Member exchange (LMX) theory, Transformational and Transactional Leadership theory and Path-Goal theory seeks to investigate the following specific objectives:

- i. To examine the effect of transformational leadership style on nurses' productivity in the selected hospitals in Nairobi County, Kenya
- ii. To examine the effect of transactional leadership style on nurses' productivity in the selected hospitals in Nairobi County, Kenya
- iii. To investigate the moderating effect of task structure on the relationship between transformational leadership style and nurses' productivity of the selected hospitals in Nairobi County
- iv. To investigate the moderating effect of task structure on the relationship between transactional leadership style and nurses' productivity of the selected hospitals in Nairobi County

1.5 Research Questions

The study will seek to answer the following questions:

- i. What is the effect of leadership style on nurses' productivity in the selected hospitals in Nairobi County, Kenya?
- ii. Does task structure moderate the effect of transformational leadership style on nurses' productivity in the selected hospitals in Nairobi County, Kenya?
- iii. Does task structure moderate the effect of transactional leadership style on nurses' productivity in the selected hospitals in Nairobi County, Kenya?

1.6 Scope of the Study

This study is confined to Nairobi County, Kenya, focusing on three distinct healthcare institutions: Kenyatta National Hospital (KNH), The Nairobi Hospital, and Mater Misericordiae Hospital. Including private, public, and mission-led hospitals ensures a comprehensive representation of the healthcare landscape in Nairobi County. Different types of hospitals often operate under distinct organizational structures, funding mechanisms, and leadership frameworks. By encompassing all three, your study can provide a more nuanced understanding of leadership styles and their impact on nursing employee productivity across a spectrum of healthcare settings. The decision to include private, public, and mission-led hospitals in the study design was driven by the intention to capture the complexity and diversity inherent in the healthcare sector. This approach enhances the richness of your findings and increases the applicability of your research to a wider audience within the healthcare field.

The organizational scope centers on nursing employees within these establishments, examining the impact of transactional and transformational leadership styles on their productivity. Leadership styles were assessed using the Multifactor Leadership Questionnaire (MLQ), encompassing dimensions like charismatic/idealized influence, inspirational motivation, intellectual stimulation, individual consideration, contingent reward, and management by exception. A critical aspect of this study involves investigating the moderating role of task structure, operationalized through role clarity, on the relationship between leadership styles and nurses' productivity. The target population comprises nursing employees, with a representative sample of 346 nurses determined through stratified random sampling. Data collection involved self-administered questionnaires, including closed-ended questions with Likert scale responses and open-ended questions for qualitative insights. Ethical considerations

involve approval from the Strathmore University Ethical Review Board, a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI), and informed consent from participants. The study's timeframe ensures completion within a specified research period, contributing nuanced insights into the leadership dynamics and productivity of nurses in Nairobi County's diverse healthcare landscape. The study was conducted in 2023.

1.7 Significance of the study

The findings from this study will first help public, mission-led, and private healthcare sector leaders in establishing the most effective leadership styles to utilize when seeking to improve employee productivity. The presence of good leadership culture and style greatly influences how managers and employees relate and how career progression is built within the structures. Employees who show great potential for leadership roles in cases where they get coached, motivated, and trained appropriately. Therefore, the ability of good leaders to see this quality is paramount and lies in their style of leadership. Likewise, investors in the healthcare sector can use this study to channel resources toward recruiting or developing managers who possess leadership styles that have positive effects on employee productivity.

Secondly, the Government can also use the findings of this study to develop policies that enhance effective leadership styles for improved organizational performance. The findings are useful to policymakers in designing policies that promote responsible organizational leadership for performance. In addition, good leadership styles make managers and staff better employers and employees. The two parties can know how to treat each other and perform their duties more effectively.

Thirdly, researchers and academics can use the findings of this study to build on their work in the area of leadership and nurses' productivity. Since there is a dire need to address the existing empirical gap and to provide solutions to the problem, this research enhances and accelerates research in this area, thereby generating new knowledge. The study also contributes to scientific knowledge of the influence of leadership styles on nurses' productivity in Kenyan hospitals by offering new perspectives and insights, especially on the moderating role of task structure to this influence. Therefore, this study offers an extension to future scholars in the related field of leadership styles on nurses' productivity to expound on the recommendations provided herein.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the current literature on leadership styles on nurses' productivity and the moderating role of task structure while focusing on the selected hospitals in Nairobi County. The first part of the literature review gives the theoretical foundations and the second, an empirical review. Further, this section critiques the research and therefore comes up with the research gaps and then presents a conceptual framework.

2.2 Theoretical Perspective

Alavi et al. (2018) indicate that a good study aligns its objectives to a theoretic background an approach that helps researchers to challenge and expound on existing forms of knowledge. This study discusses following theories: The Leader-Member Exchange theory; The Transformational and Transactional Leadership theory, and the Path-Goal Theory of Leadership.

2.2.1 Leader-member exchange (LMX)

The leader-member exchange (LMX) theory is a relationship-based approach to leadership that focuses on the two-way relationship between leaders and followers. LMX results in more resources being available to subordinates and restricted information (Graen & Uhl-Bien, 1995). It explains the growth of vertical dyadic workplace influence and team performance in terms of selection and self-selection of informal apprenticeships in leadership (Graen & Canedo, 2016). It suggests that leaders select the best and make offers that members of the team then accept or decline. Apprentices who complete the program develop strong emotional attachments with their mentor-teacher.

The success of LMX comes with several consequences including turnover intentions, actual turnover, organizational behavior, employee commitment, job satisfaction, satisfaction with supervisor, remuneration satisfaction, organizational politics, role ambiguity and job description conflict among others. LMX typically decreases turnover intentions and actual turnover, as well as role ambiguity and role conflict but increases the other measures, particularly increasing perceptual and attitudinal outcomes (Dulebohn et al., 2012). However,

LMX fails in several testable theoretical backgrounds (Gottfredson, Wright & Heaphy, 2020). For instance, by basing its argument on relations that do not determine good leadership. It focuses on explaining how people relate to and interact with each other rather than on a prescription for how to form high-quality leadership styles in the relationship. LMX aims at creating a favorable environment for the development of the followers and attempts to reach better performance in-group than out-group (Gerstner & Day, 1997).

The Leader-Member Exchange (LMX) theory holds significant relevance to this study as it provides a theoretical lens through which to examine the dyadic relationships between nursing leaders and their employees. Given the emphasis on the quality of interpersonal exchanges within LMX theory, it aligns seamlessly with the intricacies of the healthcare context, especially in nursing, where close collaboration is fundamental. LMX theory posits that leaders develop distinct relationships with individual followers based on mutual trust, respect, and contributions, offering a valuable framework to understand how transactional and leadership style may impact nurses differently. By delving into the differentiated nature of leader-nurse relationships, the study can explore how these dynamics influence productivity, considering the critical role of trust and communication in the healthcare setting. Moreover, as the study investigates the moderating role of task structure, LMX theory becomes instrumental in unraveling how the quality of leader-nurse relationships interacts with the specific characteristics of nursing tasks. Insights from LMX theory can extend beyond productivity, shedding light on job satisfaction and retention issues within the nursing workforce, offering practical implications for leadership development programs tailored to the healthcare sector. Thus, the incorporation of LMX theory enriches the study by providing a nuanced understanding of the interpersonal dynamics that shape leadership within nursing and, consequently, impact overall productivity and employee outcomes. The theory helps link the effect of transactional leadership style on nurses' productivity in the selected hospitals in Nairobi County, Kenya.

2.2.2 Transformational and Transactional Leadership Theory

The concept of Transformational Leadership theory was first coined by Downton (1973) and expounded by Burns in 1978 in his research on political leaders. The main principle in this theory is the processes in which the leaders and the subjects help each other advance to a higher level of morale and motivation (Wren, 1998). A transformed leader supports followers' ideas and innovations. The leader creates an atmosphere or space for the followers to try new ways

of doing things; he enhances critical thinking and solves problems in different ways than they have been in the past. He encourages autonomy and the followers have a sense of job responsibility and their contribution is felt in the organization (Northhouse, 2013). Likewise, Burns (1978) explained that transformational leaders inspire and motivate their followers to perform beyond what is expected of them and has been linked to high performance from subordinates since the leader takes the time to inspire, motivate and equip their followers with the necessary tools to perform beyond expectation.

From the tenets of the transformational leadership theory, the theory presents a view of leadership that is inspirational, visionary, and performance-oriented. These traits resonate well with what is needed to promote renewal within 21st-century hospital settings (Bass & Riggio, 2010). Thus, there are four factors to transformational leadership styles; idealized influence, inspirational motivation, intellectual stimulation, and individual consideration (Odumeru & Ogbonna, 2013). Therefore, the principles of the theory best resonate with the effect of transformational leadership style on nursing employee productivity in the selected hospitals. This concept also corresponds with the LMX theory since transformational leadership focuses on the leaders' ability to transform followers through a global inspiring vision that encourages positive change among all employees while LMX highlights the importance of the leaders' unique relationships with followers as the driver of positive attitudes and behaviors.

Transactional Leadership Theory on the other hand is based on the idea that leaders motivate their followers through a system of rewards and punishments. According to Bass and Riggio (2006), Transactional Leadership Theory involves three components: Contingent Reward, Management by Exception (Active), and Management by Exception (Passive). Contingent Reward involves the leader setting clear expectations and providing rewards for achieving them, while Management by Exception (Active) involves the leader actively monitoring their followers and intervening when necessary. Management by Exception (Passive) involves the leader only intervening when there is a problem.

Research has shown that Transformational Leadership has a positive effect on employee behavior and performance. According to Bass and Riggio (2006), Transformational Leadership is associated with higher levels of job satisfaction, organizational commitment, and job performance. Transformational leaders inspire their followers to go above and beyond what is expected, leading to higher levels of employee engagement and productivity.

Transactional Leadership has also been found to have a positive effect on employee behavior and performance. According to Podsakoff, Mackenzie, and Bommer (1996), Transactional Leadership is associated with higher levels of task performance and organizational citizenship behavior. Transactional leaders set clear expectations and provide rewards for achieving them, leading to higher levels of employee motivation and productivity.

Transformational and Transactional Leadership theories are among the most popular leadership models in organizational behavior. Transformational Leadership focuses on inspiring and motivating followers to achieve greater goals and outcomes, while Transactional Leadership focuses on motivating followers through a system of rewards and punishments. Both theories have been found to have a positive effect on employee behavior and performance, leading to higher levels of employee engagement, productivity, and organizational outcomes.

In conclusion, integrating Transformational and Transactional Leadership theories into this study enhances its theoretical foundation by providing a comprehensive understanding of the leadership dynamics in nursing. These theories not only offer frameworks to assess leadership styles but also contribute valuable insights into how these styles may interact and influence the productivity of nursing employees, thereby enriching the study's capacity to inform effective leadership strategies in healthcare settings. The theory helps link the effect of transformational leadership style on nurses' productivity in the selected hospitals in Nairobi County, Kenya.

2.2.3 The Path-Goal Theory of Leadership

The Path-Goal theory of leadership is a well-known and widely used theory that describes how leaders can enhance the motivation, satisfaction, and performance of their followers (Jawahar & Williams, 2017). The theory was first proposed by Robert House in 1971 and has been refined and expanded upon over the years by various scholars and researchers.

According to the Path-Goal theory, leaders can influence the behavior and attitudes of their followers by providing them with clear goals, removing obstacles and barriers to goal attainment, and providing rewards and incentives for goal achievement (Northouse, 2018). That is, by creating a clear task structure for the followers. This can be done by helping them identify and achieve their goals, clearing away obstacles, thereby improving performance and offering appropriate rewards along the way. Emphasis has been placed on the effectiveness of a manager in creating workplace characteristics such as team dynamics and task structure. Where tasks that are less clearly defined, it may require a more participative and supportive

leadership style, because employees will require greater coaching to complete tasks (House & Mitchell, 1975).

Several different leadership styles can be used within the Path-Goal framework, including directive, supportive, participative, and achievement-oriented styles (Mitchell & Boyle, 2015). Each style is appropriate for different types of followers and situations, and leaders should be able to flexibly switch between styles as needed to maximize follower motivation and performance. Numerous studies have provided empirical support for the Path-Goal theory of leadership. For example, a meta-analysis of 39 studies found that the theory was strongly associated with follower satisfaction and moderately associated with follower performance (Martínez-Moreno et al., 2019). The authors note that the theory's effectiveness is likely influenced by various factors, such as the leader's competencies and the characteristics of the organizational context.

Overall, the Path-Goal theory of leadership provides a useful framework for understanding how leaders can motivate and guide their followers toward achieving organizational goals. This theory thus, informs the variable task structure and how it moderates the relationship between leadership styles and employee productivity of the selected hospitals in Nairobi County.

2.3 Key Concepts

2.3.1 Leadership Styles

Effective leadership skills have been identified as critical in building organizational culture, pushing innovations, and improving the quality of care in the healthcare industry (Hao & Yazdanifard, 2015). This is evident in the rising interest in the ideas of health leaders and managers as seen by the frequency of research on health management and leadership (Sfantou et al., 2017; Ayeleke, Dunham North & Wallis, 2018). There are several leadership styles recognized, but six tend to be more prevalent: transformational, transactional, autocratic, laissez-faire, task-oriented, and relationship-oriented leadership. However, the styles can be categorized into three classes: transformational versus transactional, autocratic versus laissez-faire, and task versus relationship-oriented (Ayeleke, Dunham North & Wallis, 2018). Al Khajeh (2018) also insists that transformational, transactional, autocratic, charismatic, bureaucratic, and democratic leadership styles are the six prominent leadership styles. A transformational leadership style is distinguished by the development of relations and inspiration among employees. They often inspire trust, staff respect, and loyalty via a shared

vision, leading to higher production, stronger employee morale, and work happiness (Frandsen, 2014).

In transactional leadership, the leader operates as a change agent engaging in transactions with employees that result in increased output. In an emergency crisis, an autocratic leadership style is regarded as optimal since the leader takes all decisions without consulting the employees. Furthermore, errors are not allowed within the blame placed on people. The laissez-faire leadership style, however, features a leader who does not make choices autocratically but the staff performs without guidance or oversight, and there is a hands-off attitude that results in infrequent adjustments. Task-oriented leadership involves the planning of work activities as well as the delineation of duties within a team or group. Lastly, the relationship-oriented leadership style incorporates support, development, and recognition (Al Khajeh, 2018).

Numerous studies have identified that leadership style plays an important role in achieving healthcare quality (Udayanga, 2020; Dim & Nzube, 2020; Wahab et al., 2016; Abasilim, Gberevbie & Osibanjo, 2019; Anyango, 2015). Effective leadership is one of the most important factors that contribute to an organization's effectiveness and success (Sfantou et al., 2017). According to Wong and Cummings (2007), in four of six studies, leadership was significantly associated with patient mortality. Transformational and resonant leadership were associated with lower patient mortality in three studies while, contrary to the hypothesis, leadership was associated with higher mortality in one study (Wong & Cummings, 2007). Poels, Verschueren, Milisen, and Vlaeyen (2020) also compared the effect of transformational and transactional leadership styles and found that they were significant in influencing leadership and healthcare outcomes of directors of nursing (DoN) in nursing homes. Likewise, Bush, Michalek, and Francis (2020) found that the transformational leadership style was the most appreciated in organizational settings followed by transactional leadership and then the laissez-faire leadership style. As per Alloubani et al. (2015), the transformational leadership style was discovered to be the most frequently employed style (compared to transactional leadership style and laissez-faire leadership style) for leader effectiveness, staff job satisfaction, and extra effort, respectively.

According to Specchia et al. (2021), transformational style had the highest number of positive correlations followed by authentic, resonant and servant styles. Passive-avoidant and laissez-faire styles, instead, showed a negative correlation with job satisfaction in all cases. Only the transactional style showed both positive and negative correlation. Alharbi (2017) also indicated

that although nurses play a vital role, their performance can be significantly affected by the leadership style of the nurse manager under whom they work. Both positive and negative effects are possible. Negative effects may lead to errors in patient care, delayed or poor service delivery and even leaving the organisation. The nurse has no job satisfaction. High turnover of nurses, poor enrolment in nursing schools, financial loss to the hospital for orienting the new nurses and loss of reputation if there is high turnover rate and their impact on patient care are serious issues. Bhatti and Alyahya (2021) suggest that among different leadership styles, transformational and multicultural leadership styles positively influence health workers job performance.

The choice of transformational and transactional leadership styles in this study is thus, justified by their well-established significance in the healthcare industry, particularly within the context of nursing leadership. The studies cited in the introduction consistently emphasize the crucial role of leadership style in achieving healthcare quality and positive patient outcomes. Transformational and transactional leadership styles are explicitly associated with lower patient mortality (Wong & Cummings, 2007) and are significant influencers of leadership and healthcare outcomes in nursing settings (Poels et al., 2020). The literature supports the idea that effective leadership styles contribute to better patient care and overall healthcare effectiveness. These styles are found to be frequently employed and associated with leader effectiveness, staff job satisfaction, and extra effort. The positive correlations and the acknowledgment of the transformational leadership style as the most appreciated in organizational settings further support the notion that these leadership styles play a pivotal role in enhancing healthcare performance. In conclusion, the justification for selecting transformational and transactional leadership styles is rooted in their effectiveness, their alignment with healthcare quality and patient outcomes, and the need for a nuanced understanding of their impact within the specific context of nursing leadership. The introduction provides a strong foundation for exploring these leadership styles, ensuring the study's relevance and potential contributions to healthcare leadership literature.

2.3.2 Nursing and Leadership

Nursing leadership in Kenya is influenced by various factors, including the healthcare system, cultural norms, and organizational structures. Several studies have examined the different leadership styles and behaviors demonstrated by nursing leaders in Kenya, such as transformational leadership, transactional leadership, and laissez-faire leadership. For example,

a study by Kipturgo et al. (2016) found that transformational leadership was associated with improved job satisfaction and organizational commitment among nurses in Kenya. However, other studies have highlighted challenges related to leadership practices, such as limited access to leadership training and professional development opportunities for nursing leaders in Kenya (Lubbe et al., 2019).

2.3.3 Nurses'/Employee Productivity

Nurses' or employee productivity in the context of healthcare refers to the efficiency and effectiveness with which nurses perform their duties and contribute to the overall goals of the healthcare organization. It encompasses various aspects related to the output and outcomes of nursing activities within a specified timeframe, considering both the quantity and quality of work (Alshammari & Alenezi, 2023; Rony et al., 2023). According to Shrestha and Dhakal (2019), employee productivity is a measure of the efficiency and effectiveness with which employees perform their work tasks and responsibilities. Productivity has also been described as the ratio of output to input, where output refers to the quantity and quality of work completed by employees, and input refers to the resources, such as time, materials, and equipment, used to complete the work (Ali et al., 2019). Employee productivity is a critical factor in organizational success, as it directly affects the organization's ability to achieve its goals and remain competitive in the marketplace (Gujral et al., 2018). Studies have identified various factors that influence employee productivity, including job satisfaction, leadership style, training and development, and organizational culture (Alfes et al., 2013; Qureshi et al., 2018). Additionally, the authors note that employee productivity can be impacted by external factors, such as technological advancements, economic conditions, and regulatory changes.

According to Fagerström and Kinnunen (2012), nursing employee productivity is a critical factor in ensuring high-quality patient care and achieving organizational goals in healthcare settings. The authors define nursing employee productivity as the ability of nurses to efficiently and effectively complete their tasks and responsibilities while maintaining a high level of quality in patient care. Studies have found that nursing employee productivity is influenced by a variety of factors, including leadership style, organizational culture, workload, and job satisfaction (Pakpour et al., 2014; Tzeng & Ketefian, 2003). In particular, leadership style has been found to have a significant effect on nursing employee productivity, with transformational leadership being associated with higher levels of productivity and job satisfaction among nurses (Tourangeau et al., 2008).

According to Smith et al. (2020), nursing productivity is a complex and multifaceted concept that can be measured in different ways, including patient outcomes, nurse-sensitive indicators, workload measures, and time and motion studies. The authors found that the most commonly used methods of measuring nursing productivity were workload measures, such as patient-to-nurse ratios and nursing hours per patient day. The authors also noted that while these measures are widely used, they have limitations and may not accurately capture the full range of nursing activities and contributions to patient care. Therefore, Smith et al. (2020) recommend that future research should explore alternative methods of measuring nursing productivity, such as the use of standardized nursing classifications or observational methods that capture the complexity of nursing work.

According to Saari et al. (2020), traditional methods of measuring nursing productivity, such as patient-to-nurse ratios and workload indices, have limitations in capturing the complexity of nursing care and the diverse roles of nurses in healthcare organizations. Contemporary methods of measuring nursing productivity, such as time and motion studies, electronic health records (EHR) data analysis, and nurse-sensitive quality indicators, offer more nuanced and comprehensive measures of nursing productivity (Ali, Safan & Mabrouk, 2019).

Wong and Cummings (2007) identified several studies that used nurse absenteeism as a measure of nursing employee productivity. Likewise, Duffield et al. (2004) examined the relationship between nursing leadership and nurse absenteeism in Australian hospitals. The study found that supportive nursing leadership was associated with lower rates of nurse absenteeism, while unsupportive leadership was associated with higher rates of absenteeism. Similarly, another study by Aiken et al. (2002) examined the relationship between nurse staffing and nurse absenteeism in US hospitals. The study found that lower levels of nurse staffing were associated with higher rates of nurse absenteeism. Mbombi et al. (2018) indicated that absenteeism has an effect on both the nurses' psychological and professional well-being, as well as the quality of patient care provided as a result of psychological stress, low morale of nurses and increased workload.

In these studies, nurse absenteeism was used as an indicator of nursing employee productivity and it has been underscored that nurse absenteeism can be a useful measure of nursing productivity, as it reflects the extent to which nurses can meet their work obligations and provide high-quality patient care. Nurse absenteeism is a major challenge for healthcare organizations, as it can negatively impact patient care quality, healthcare outcomes, and

healthcare costs (Duffield et al., 2011). Nurse absenteeism refers to the absence of nurses from work due to personal or work-related reasons, such as illness, family responsibilities, burnout, and lack of job satisfaction (Wong & Cummings, 2007). High rates of nurse absenteeism can lead to understaffing, increased workload and stress for other nurses, and higher healthcare costs due to overtime and agency staffing (Aiken et al., 2002).

Aiken et al. (2002) found that lower levels of nurse staffing were associated with higher rates of nurse absenteeism, which in turn can have negative consequences on patient mortality, nurse burnout, and job dissatisfaction. Similarly, Duffield et al. (2004) found that supportive nursing leadership was associated with lower rates of nurse absenteeism, while unsupportive leadership was associated with higher rates of absenteeism. These findings suggest that nurse absenteeism can be a useful measure of nursing productivity, as it reflects the extent to which nurses can meet their work obligations and provide high-quality patient care.

Studies have shown that nurse absenteeism is a common phenomenon in healthcare settings, which can be attributed to personal and work-related factors. Personal factors that can lead to nurse absenteeism include health problems, family responsibilities, and personal stress (Duffield et al., 2004). Work-related factors that can lead to nurse absenteeism include job dissatisfaction, burnout, and lack of support from supervisors (Duffield et al., 2004; Wong & Cummings, 2007). The consequences of nurse absenteeism were found to be significant and could negatively impact patient outcomes, such as increased mortality rates, longer hospital stays, and decreased patient satisfaction (Aiken et al., 2002). Moreover, nurse absenteeism can lead to higher workloads and stress for other nurses and increased healthcare costs due to overtime and agency staffing. This study will therefore adopt nurse absenteeism as the measure of nursing employee productivity.

2.3.4 Task Structure as the moderating variable

Task structure refers to the degree to which the tasks and responsibilities of nurses are clearly defined and structured. When task structure is high, the effect of leadership style on nursing employee productivity is less pronounced, as nurses can complete their tasks more independently and with less need for direction from their leaders (Sikorska-Simmons et al., 2017). According to Fiedler's leadership contingency theory, there is no universally applicable leadership style, and the effectiveness of leadership style is inevitably affected by organizational context factors. (Tang, 2015). There are three components of task structure

namely; the purpose of the task, the method to complete the task, and the clarity of the task performance assessment criteria. (Fiedler, 1958).

According to the Path-Goal Leadership Theory, it is a leader's responsibility to increase their employees' motivation by ensuring a high degree of task clarity and structure. Additionally, task structure can be achieved by breaking down larger tasks into smaller, more manageable tasks. This ensures efficiency and effectiveness while reducing errors and misunderstandings. (House, 1971). Empirical evidence suggests that employees who are given clear task instructions and have a well-defined task structure tend to be more productive than those who do not have these factors in place (Hackman & Oldham, 1976). Task structure was also found to be positively related to employee performance and productivity in a manufacturing setting (Chen & Chang, 2013).

Research further suggests that task structure can moderate the effect of leadership style on employee productivity. For example, in a study conducted on the relationship between authoritarian leadership and employee engagement, it was found that task structure played a moderating role such that the negative effect of authoritarian leadership on engagement was weaker when task structure was high (Sari, 2005). Another study found that task structure moderated the relationship between transformational leadership and employee performance, such that the positive effect of transformational leadership on performance was stronger when task structure was high (Chen & Chang, 2013).

An organization with a high degree of task structure has a clear work goal, which can decompose tasks into standard procedures and steps and can objectively and accurately assess work performance. Organizations with low Task Structure lack clear objectives, clear procedures, and accurate performance evaluation methods. (Zhao, 2019).

2.4 Review of Empirical Literature

2.4.1 Transformational Leadership style and nursing employees' productivity

A cross-sectional study conducted by Opondo et al. (2018) in a sample of 200 employees from various organizations, found a significant positive association between transformational leadership and employee productivity. This study indicates that transformational leaders in Kenya are more likely to inspire and motivate their employees, leading to higher levels of productivity.

A similar study by Otieno and Okello (2021) examined the relationship between transformational leadership and employee productivity in the health sector in Kenya. The authors found that transformational leadership had a positive effect on employee productivity, with a significant mediation effect on job satisfaction. The study highlights the importance of transformational leadership in the health sector, as it can contribute to improved patient outcomes through increased employee productivity.

More research is needed to fully understand the relationship between transformational leadership and employee productivity in Kenya, as well as potential cultural and contextual factors that may influence this relationship. Overall, the limited empirical evidence available suggests that transformational leadership may have a positive effect on employee productivity in Kenya, but further research is needed to confirm and expand on these findings.

Several studies have examined the relationship between transformational leadership style and nursing employee productivity, with mixed results. A meta-analysis of 18 studies found a positive association between transformational leadership and nursing employee productivity (Liu, Song, & Zhang, 2019). This indicates that when leaders adopt a transformational leadership style, they are more likely to inspire and motivate their nursing employees, leading to increased productivity.

Similarly, a study by Wang, Xiao, and He (2020) found that transformational leadership was positively associated with nursing employee productivity and mediated by job satisfaction. This suggests that when transformational leaders manage to create a positive work environment and motivate their nursing employees, this can lead to greater job satisfaction and ultimately higher levels of productivity.

However, not all studies have found a significant relationship between transformational leadership and nursing employee productivity. A study by Zhao, Chen, and Chen (2019) found no direct effect of transformational leadership on nursing employee productivity but did find a significant indirect effect through job satisfaction and organizational commitment.

While the empirical evidence on the relationship between transformational leadership and nursing employee productivity is mixed, there is some support for the idea that transformational leadership can have a positive effect on nursing employee productivity through its influence on motivation, job satisfaction, and organizational commitment.

2.4.2 Transactional Leadership style and nursing employees' productivity

A study by Kariuki and Muturi (2020) explored the relationship between transactional leadership and employee productivity in the telecommunications sector. The study found a positive and significant relationship between transactional leadership and employee productivity, with contingent reward and management-by-exception (active) being the most significant transactional leadership dimensions.

Similarly, another study by Kipkoech and Mutai (2020) examined the relationship between transactional leadership style and employee productivity in the banking sector in Kenya. The authors found that transactional leadership had a significant positive relationship with employee productivity, with management-by-exception (active) being the most significant transactional leadership dimension.

Available empirical evidence suggests that the transactional leadership style may have a positive effect on employee productivity in specific sectors in Kenya. However, further research is needed to confirm and expand on these findings and to understand the effect of transactional leadership in other industries and the healthcare sector in Kenya.

Several studies have investigated the relationship between transactional leadership style and nursing employee productivity. A study by Wang et al (2019) explored the effect of transactional leadership on nursing employee productivity in Chinese hospitals. The authors found that nurses who worked under transactional leadership had higher levels of productivity than those who worked under other leadership styles. Specifically, the contingent reward dimension of transactional leadership was found to have a significant positive effect on nursing employee productivity.

In a study conducted in Turkey, Kocaman et al. (2020) investigated the relationship between transactional leadership style and nursing employee productivity. The study found a positive relationship between transactional leadership and nursing employee productivity, with management-by-exception (active) being the most significant dimension of transactional leadership associated with increased productivity.

Similarly, a study by Sharif et al. (2018) in Pakistan examined the relationship between transactional leadership style and nursing employee productivity. The study found a significant

positive relationship between transactional leadership style and nursing employee productivity, with the contingent reward dimension of transactional leadership being the most significant.

Overall, the available empirical evidence suggests that the transactional leadership style is positively associated with nursing employee productivity. However, it should be noted that these studies were conducted in different cultural and organizational contexts, and further research is needed to confirm these findings in other contexts.

2.4.3 The moderating role of Task Structure on the effect that Leadership Style has on Nursing Employees' Productivity

Several studies have investigated the moderating effect of task structure on the relationship between leadership style and employee productivity. A study by Javed et al. (2021) examined the effect of leadership style on employee productivity in the context of the Pakistani banking sector. The authors found that task structure significantly moderated the relationship between leadership style and employee productivity. Specifically, the positive relationship between transformational leadership style and employee productivity was stronger in high task structure conditions compared to low task structure conditions.

In a study conducted in the United States, Shull et al. (2019) investigated the moderating effect of task structure on the relationship between leadership style and employee productivity in a manufacturing setting. The study found that task structure moderated the relationship between transactional leadership style and employee productivity, with the positive effect of transactional leadership being stronger in high task structure conditions compared to low task structure conditions.

Several studies have investigated the moderating effect of task structure on the relationship between leadership style and nursing employee productivity. For instance, a study conducted by Wu et al. (2020) in China examined the moderating effect of task structure on the relationship between transformational leadership style and nursing employee productivity. The study found that task structure significantly moderated the relationship between transformational leadership style and nursing employee productivity. Specifically, the positive effect of transformational leadership on nursing employee productivity was stronger in high task structure conditions compared to low task structure conditions.

Similarly, a study by Lee et al (2018) in South Korea examined the moderating effect of task structure on the relationship between leadership style and nurse productivity in the healthcare sector. The study found that task structure significantly moderated the relationship between transformational leadership style and nurse productivity, with the positive effect of transformational leadership being stronger in high task structure conditions compared to low task structure conditions.

In another study, DeCicco et al. (2019) investigated the moderating effect of task structure on the relationship between leadership style and nurse productivity in a long-term care setting in the United States. The study found that task structure significantly moderated the relationship between transformational leadership style and nurse productivity, with the positive effect of transformational leadership being stronger in high task structure conditions compared to low task structure conditions.

Available empirical evidence suggests that task structure can moderate the relationship between leadership style and employee productivity. Specifically, the positive effects of transformational and transactional leadership styles on employee productivity may be stronger in high task structure conditions compared to low task structure conditions. However, it should be noted that these studies were conducted in different organizational contexts and further research is needed to confirm these findings in other settings.

2.5 Summary and Knowledge Gap

Leadership style has been shown to significantly influence nursing employees' productivity. However, the relationship between leadership style and productivity may be moderated by task structure, such as the complexity and interdependence of nursing tasks. Several studies have shown that transformational leadership, characterized by inspirational motivation and intellectual stimulation, can enhance nursing employees' job satisfaction, motivation, and productivity.

On the other hand, transactional leadership, which focuses on monitoring and providing rewards or punishments for performance, has been associated with lower levels of nursing employee productivity. However, the specific effect of leadership style on nursing employees' productivity in different task structures is not well understood.

One study by Li et al. (2015) found that transformational leadership had a positive effect on nursing employees' productivity, but only in a high task structure setting. In contrast, in a low task structure setting, transactional leadership was found to have a positive effect on productivity.

This suggests that the effect of leadership style on nursing employees' productivity may depend on the level of task structure in the work environment. Further research is needed to better understand the moderating role of task structure in the relationship between leadership style and nursing employees' productivity. In addition, future studies could investigate specific leadership behaviors and strategies that are most effective in different task structures. This knowledge could be used by managers to improve productivity and job satisfaction among nursing employees, ultimately improving patient care outcomes.

Leadership style has also been shown to have a significant effect on nursing employee absenteeism rates. However, the relationship between leadership style and absenteeism may be moderated by task structure, such as the complexity and interdependence of nursing tasks. A study conducted by Hayes et al. (2018) found that transformational leadership had a significant negative relationship with nursing employee absenteeism, but only in high task structure settings. In contrast, transactional leadership was found to have a significant positive relationship with absenteeism in low task structure settings.

This suggests that the effect of leadership style on nursing employee absenteeism may depend on the level of task structure in the work environment. Further research is needed to better understand the moderating role of task structure in the relationship between leadership style and nursing employee absenteeism. Future studies could also investigate specific leadership behaviors and strategies that are most effective in different task structures for reducing absenteeism rates among nursing employees. This knowledge could be used by managers to improve productivity and job satisfaction among nursing employees, ultimately improving patient care outcomes.

In conclusion, the relationship between leadership style and nursing employee absenteeism is complex and may depend on the level of task structure in the work environment. More research is needed to better understand this relationship and to develop effective strategies for reducing absenteeism rates among nursing employees.

2.6 Operationalization of the study variables

Variable	Category	Measurement	Statistical test
Nursing Employees' Productivity	Dependent variable	<ul style="list-style-type: none"> • Presentism • Patient satisfaction • Quality of care 	p- values, F-tests and t statistic
Transformational leadership style	Independent variable	<ul style="list-style-type: none"> • Charismatic/idealized influence • Inspirational motivation • Intellectual stimulation • Individual consideration 	p- values, F-tests and t statistic
Transactional leadership style	Independent variable	<ul style="list-style-type: none"> • Contingent Reward • Management by Exception (Active) • Management by Exception (Passive) 	p- values, F-tests and t statistic
Task Structure	Independent variable	<ul style="list-style-type: none"> • Role clarity 	p- values, F-tests and t statistic

2.7 Conceptual Framework

A conceptual framework is a hypothesized model identifying the model under study and the relationship between the dependent variables and the independent one. A conceptual framework is a research tool intended to assist a researcher to develop awareness and understanding of the variables under scrutiny (Ivey, 2015). Figure 2.1 shows the relationship between leadership styles (Transformational Leadership Style, Transactional Leadership Style) and Nursing Employees' Productivity and Task Structure as a moderating variable.

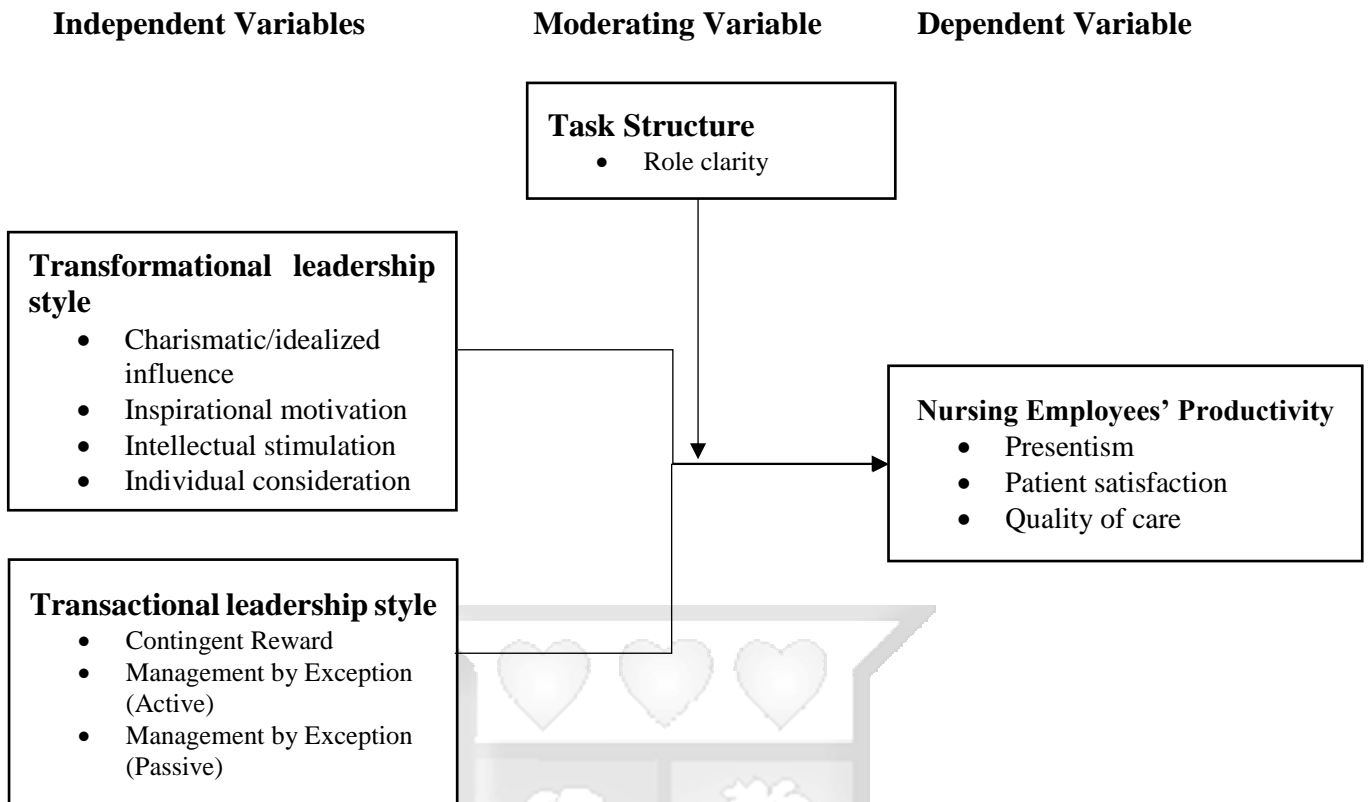
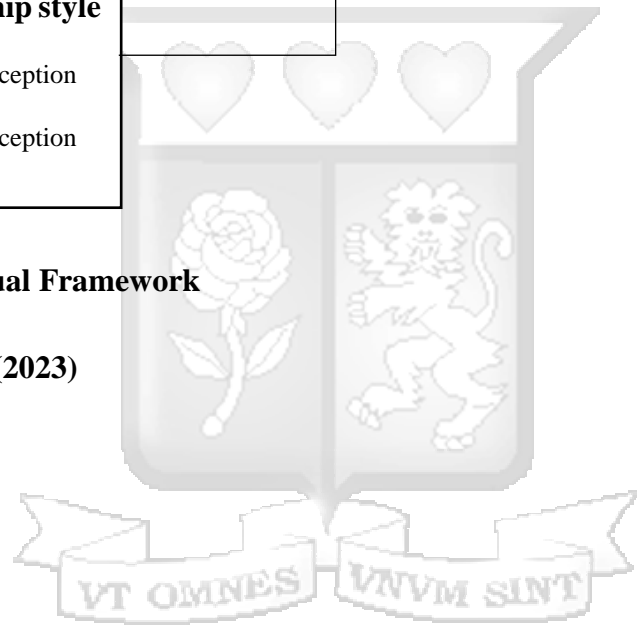


Figure 2.1: Conceptual Framework

Source: Researcher (2023)



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter includes the research methodology of the research project. In more detail, it outlines how the study was conducted. It gives a brief description of the research design, population, and sampling, the methods used to collect data, research quality, data analysis and presentation, and ethical considerations.

3.2 Research Design

A research design has been defined as a blueprint or detailed plan of how research is conducted starting from the formulation of the research questions and hypotheses to the reporting of research findings (Babbie, 2001). The study applied a descriptive survey design to identify, analyze and describe the effect of leadership style on nursing employee productivity in selected public, private, and faith-based hospitals in Nairobi County: The moderating role of task structure. The descriptive design also provides a relatively simple approach to the study of values, attitudes, beliefs, and motives (Kivunja & Kuyini, 2017). This method allows for the systematic gathering of knowledge where careful selection, sampling, and identification of the units are to be analyzed and careful operationalization of each element. Furthermore, it helps collect generalizable information from almost any human population, and thus, this design will be adopted to obtain information from a representative sample of the population whose findings will be used to represent the population as a whole (Baker, 2017).

3.3 Population and Sampling

3.3.1 Target Population

The study targeted the selected public, private and faith-based hospitals in Nairobi County. These include the Kenyatta National Hospital (KNH), The Nairobi Hospital, and Mater Misericordiae Hospital. Including private, public, and mission-led hospitals ensures a comprehensive representation of the healthcare landscape in Nairobi County. Different types of hospitals often operate under distinct organizational structures, funding mechanisms, and leadership frameworks. By encompassing all three, your study can provide a more nuanced understanding of leadership styles and their impact on nursing employee productivity across a

spectrum of healthcare settings. The study targeted the nursing employees of the selected hospitals as the target respondents. This implies that the nursing employees were the unit of observation while the selected hospitals' nurse managers and supervisors were the unit of analysis. The population was distributed as shown in Table 3.1:

Table 3.1 Target Population

Hospitals	Population
Kenyatta National Hospital (KNH)	1,800
The Nairobi Hospital	900
Mater Misericordiae Hospital	300
Total	3,000

3.3.2 Sampling Technique and Sample Size

The sample of the current study was selected using stratified random sampling. Stratified random sampling is a probability sampling technique that involves dividing the population into homogeneous subgroups or strata and selecting a sample from each stratum. In this study, the population was divided into three strata based on the institutions, and a sample was selected from each stratum. The participants in this technique possess an equal and representative chance of being selected (Taye, Belay & Nigatu, 2013; Diab & Ajlouni, 2015).

The sample size was determined using the Yamane formula. The Yamane formula is used to determine the sample size needed for a given population size, with a certain level of confidence and margin of error.

The formula is as follows:

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

where:

n = sample size

N = population size

e = margin of error

Assuming a margin of error of 5% and a confidence level of 95%, we can calculate the sample size for a population of 3,000 as follows:

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

$$n = 3,000 / (1 + 3,000(0.05^2))$$

$$n = 346.15$$

Rounding up to the nearest whole number, we get a sample size of 346.

Therefore, a sample of 346 nurses should be randomly selected from the population using stratified random sampling. Stratified random sampling (Proportionate allocation method) sets the sample size in each stratum equal to be proportional to the number of sampling units in that stratum. It yields a self-weighted sample (Arnab, 2017; Arnab & Olaomi, 2017). It is useful if precise estimates are desired for the larger strata in the population, as large sample sizes are allocated to the large strata (Singh et al., 2015). The stratification was as shown in Table 3.2.

Table 3.2: Sampling Frame

Hospitals	Population	Sample
Kenyatta National Hospital (KNH)	1,800	209
The Nairobi Hospital	900	103
Mater Misericordiae Hospital	300	34
Total	3,000	346

Thus, the total sample size for this study were 346 nurses (208 nurses from KNH, 104 nurses from The Nairobi Hospital, and 35 nurses from Mater Misericordiae Hospital).

3.4 Data Collection

3.4.1 Data Collection Instruments

The study used self-administered questionnaires to collect primary data. This included the Multifactor Leadership Questionnaire MLQ 5X rating form. The Multifactor Leadership Questionnaire is a well-established instrument in the measure of Transformational Leadership as well as being extensively researched and validated. Avolio and Bass's MLQ manual shows strong evidence for validity. Construct validity is also thoroughly explained with factor analyses which resulted in a six-factor model for the MLQ (Fiery, 2008; Konkle, 2007; Long, 2004). Reliability scores for the MLQ subscales range from moderate to good. The Multifactor Leadership Questionnaire (MLQ) allows individuals to measure how they perceive themselves with regard to specific leadership behaviors (using the Leader/Self form), but the heart of the

MLQ comes in the rater/other feedback that is enabled with the Rater form. The MLQ was designed with the 360-degree feedback method. Participants are asked to respond to items in the MLQ 5x-Short (the current, classic version) using a 5-point behavioral scale (“**Not at all (1), Once in a while (2), Sometimes (3) Fairly often (4) Frequently, if not always (5)**”) (Konkle, 2007). The questionnaire used the scale of **Strongly Agree (1) Agree (2) Not Sure (3) Disagree (4) and Strongly Disagree (5)**.

The questionnaire has both the open and closed questions. The questionnaires with closed questions were answered using a 5-Point Likert scale. The choice of a rating scale is used to measure the opinion of the respondents where the scale captured the following limits. The most positive got five points and the most negative were scored as one. Likert scale rating can collect data on psychological constructs, that is intensities, gauging sentiments, and capturing the very extremes of an individual’s opinions towards a given set of phenomena. It is easy to analyze and compare responses given to different items (Nemoto & Beglar, 2014).

3.4.2 Data Collection Procedures

Before collecting data, the researcher sought the approval of the university and then seek permission from the relevant authorities, including a research permit from the National Council of Science, Technology, and Innovation (NACOSTI). After getting the go-ahead from all the relevant authorities, the researcher administered the questionnaires to the specific respondents via the use of google forms. Where necessary, a drop-and-pick-later method was used to collect the primary data physically from the respondents.

3.5 Data Analysis and Presentation

The collected data was coded and cleaned with the help of the SPSS program (v.26.0). The coded data was then analyzed to generate descriptive statistics (frequencies, means, standard deviations, central tendencies, and percentages) as well as inferential statistics (correlation and regression coefficients). The causality included the following: R^2 s, F values, and beta coefficients at 0.05 significance levels coefficients were tested. The results were then presented in form of tables and figures (graphs or charts). Qualitative data collected from the open-ended part of the questionnaire were analyzed using content/thematic analysis and the results were

presented in prose form and triangulated with the quantitative results. The multiple regression model was shown in the following statistics:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 M + \beta_4 X_2 M + e$$

Where;

Y = Nursing Employees' Productivity

β_s = Change in Y with respect to a unit change in X_s .

α = Model constant

X_1 = Transformational leadership style

X_2 = Transactional leadership style

M = Task Structure

e = Error term assumed to be normal in distribution

3.5.1 Diagnostic Analysis

Pre-estimation tests were performed prior to executing a regression model. Scatterplots were used to assess linearity. In the event of linearity, the graph showed a linear gradient. The assumption, similarly, asserts that the dataset is uniformly dispersed. The Shapiro-Wilk test and scatterplots were used to determine normality of data (Ghasemi & Zahediasl, 2012; Mishra et al., 2019). In a multivariate regression analysis, multicollinearity is defined as a high continuous connection among two/even more predictor/independent parameters (Akinwande et al., 2015). It was tested using a threshold of tolerance > 0.2 and a VIF < 10 (Salmerón et al., 2018). Similarly, the constant variance (homoscedasticity) test was performed since executing a prediction modelling devoid of the solution to the problem resulted in biased parametric estimations (Bera & Jarque, 1981; Osborne & Waters, 2002). The graphical scatter plot approach was employed.

3.6 Research Quality

The researcher conducted a pilot study to test the validity and reliability of the research instruments. Creswell (2014) says that 1 – 10% of the population sample is deemed an appropriate sample in a pilot study. The subjects in the pilot project were not included in the real testing process to eradicate bias and duplication of information. The pilot study was done

on 35 participants (representing 10% of 346). The population was selected from one public health hospital located in Nairobi County, that is Pumwani Maternity Hospital. This is because the respondents from the hospital provided relevant and similar information to that provided by the respondents in the actual study area. In addition, the respondents were not included in the final data collection and analysis. The responses obtained from the pilot study were used to determine the discrimination, validity, and reliability of the questionnaire after which the relevant amendments were made to the questionnaire.

3.6.1 Reliability of Research Instruments

This is the precision of analysis instruments to provide reliable results (Cronbach, 1951; Mugenda, 2009). The current study used the Cronbach Alpha coefficient with a threshold of 0.7 to test for the reliability of the tool. Bartlett (2014) recognizes that the Cronbach alpha helps in assessing the responses that are scaled and since the questionnaire is primarily a Likert scale, the alpha is suitable. The alpha value of 0.7 and above of Cronbach is approved, and everything under the mark is left out (Miller, 2013).

3.6.2 Validity of Research Instrument

The study used content, face, and construct validity (Best & Kahn, 2011). To improve the validity of the instruments, the researcher utilized guidance from supervisors from Strathmore Business School who assessed the relevance of the content in the tool that is by use of content and face validity. The recommendations were incorporated into the final questionnaire. The test for construct validity and factor analysis was used where Kaiser-Meyer-Olkin (KMO) was the primary measure. The interpretive adjectives for the KMO Measure of Sampling Adequacy are as follows: 0.90 as marvelous, 0.80's as meritorious, 0.70's as middling, 0.60's as mediocre, 0.50's as miserable, and below 0.50 as unacceptable (Comrey & Lee, 2013).

3.7 Ethical Considerations

This research proposal was submitted for consideration to the Strathmore University Ethical Review Board, and subsequent approval sought, granting the researcher permission to proceed with the data collection. The researcher conducted the study in a manner minimizing any form of harm to the respondents. Consent was voluntarily given and the participants informed that consent may be withdrawn at any time during the study; potential participants were given full disclosure of all information necessary for making informed decisions to participate in this

study; the respondents were not required to give their names on any of the questionnaires and confidentiality were highly observed; The researcher applied for a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI), before embarking on data collection.



CHAPTER FOUR

RESEARCH FINDINGS ANALYSIS AND DISCUSSION

4.1 Introduction

The chapter presents results of the data processed during analysis. Results were processed in line with the study objectives from which the study problem was investigated and interpretations of results was carried out. Both descriptive and inferential statistics were used to analyses the data. The chapter is organized as follows: response rate, reliability, validity analysis, background information, descriptive analysis, diagnostic tests and the inferential statistics.

4.2 Response Rate

Data was collected from different sectors of the organizations as displayed in Table 4.1.

Table 4.1: Response Rate

Hospitals		Frequency	Percent (%)
Kenyatta National Hospital (KNH)	Returned	192	91.87%
	Unreturned	17	8.13%
	Total	209	100.00%
The Nairobi Hospital	Returned	94	91.26%
	Unreturned	9	8.74%
	Total	103	100.00%
Mater Misericordiae Hospital	Returned	28	82.35%
	Unreturned	6	17.65%
	Total	34	100.00%
Main Total		314	100.00%

Total of 346 questionnaires were issued from which 314 were filled and returned which represents a response rate of 90.75%. The response rate for Kenyatta National Hospital was high, with 91.87% of the distributed surveys being returned. This suggests a strong level of engagement and willingness among respondents from this hospital. The response rate for The Nairobi Hospital was also high, with 91.26% of the surveys returned. Similar to KNH, this indicates a favorable level of participation and interest among respondents from this hospital. Mater Misericordiae Hospital had a relatively lower response rate compared to the other hospitals, with 82.35% of surveys returned. While still a substantial response, it may be worthwhile to explore reasons for the lower response rate compared to the other hospitals.

Agustini (2018) also confirms that a response rate of more than 50% is appropriate for descriptive research. Similarly, Babbie (2004) observed that response rate of 50% can be justified, 60% is good and 70% is very good.

4.3 Pilot Results

The respondents that were piloted were not included in the main study. The instrument was fine-tuned and refined rigorously to achieve reliable and valid results. The pilot study covered 35 respondents representing 10% of the target population (0.1*346).

4.3.1 Reliability of the Research Instrument

Reliability analysis was done to evaluate survey construct using Cronbach's alpha of greater than or equal to 0.7.

Table 4.2: Reliability Results

Variables	Cronbach's Alpha	Number of Items	Conclusion
Transformational leadership style	0.782	9	Reliable
Transactional leadership style	0.790	7	Reliable
Task Structure	0.853	8	Reliable
Employees' Productivity	0.868	10	Reliable

Table 4.2 proved that the variable statements were highly reliable with Cronbach's Alpha for the results being 0.782, 0.790, 0.853 and 0.868 for operational excellence, customer intimacy, product leadership and competitive advantage respectively.

4.3.2 Test for Construct Validity

The test for construct validity for the study is the Kaiser-Meyer-Olkin (KMO) test for construct validity. The results are presented in Table 4.3.

Table 4.3: Factorial Test Results for Construct Validity

Variable	KMO	Bartlett's Test of Sphericity			Conclusion
		Approx. Chi-Square	df	Sig.	
Transformational leadership style	0.563	99.175	34	0.000	Valid
Transactional leadership style	0.525	60.875	34	0.000	Valid
Task Structure	0.603	66.933	34	0.001	Valid
Employees' Productivity	0.589	78.360	34	0.000	Valid

Table 4.3 presented the summary of the KMO tests of each variables which were all greater than 0.5 and significant ($p < 0.05$) implying that the respective statements of the variables were valid for data collection

4.4 Background Information

Background information is important in research studies because it provides a context for the study and helps the researcher to better understand the topic and its relevance. It can also help to identify potential sources of bias or confounding factors, and to design a study that minimizes these issues. Thus, the key background data was collected, analyzed and presented using tables and figures as shown in the subsections below.

4.4.1 Respondents' Gender

In this section, the study presents the gender distribution of the respondents. Understanding the gender of the survey respondents is important in order to explore potential gender-based differences in responses, experiences, or outcomes.

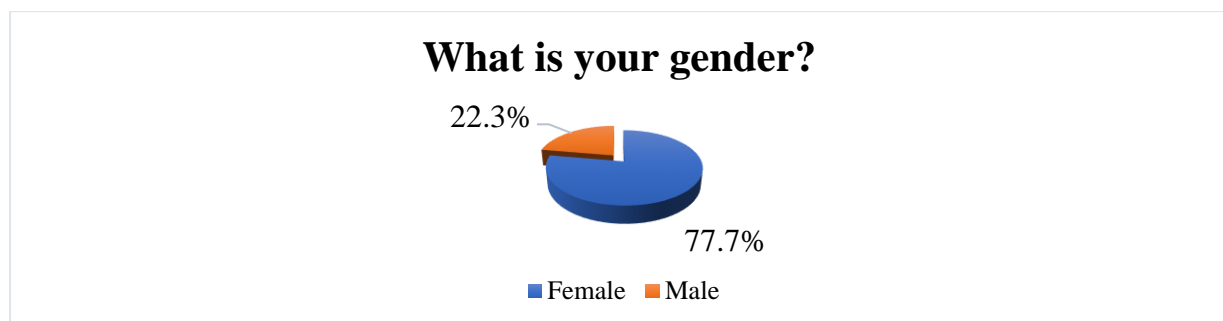


Figure 4.1: Gender of the Respondents

These results show the distribution of gender in a sample of 314 nurses. Out of the total sample, 244 nurses (77.7%) identified as female, while 70 nurses (22.3%) identified as male. Thus,

based on these results, the study concludes that a larger proportion of nurses in this sample identify as female compared to male. This finding reflects the prevailing trend where nursing has traditionally been a female-dominated profession. Implications could include the need for initiatives to encourage gender diversity in nursing or considerations for gender-specific factors in workforce management.

4.4.2 Respondents' Age Bracket

In this section, the study provides an overview of the age distribution of the study participants. Examining the age brackets of the survey respondents helps to understand potential age-related patterns or differences in our study outcomes.

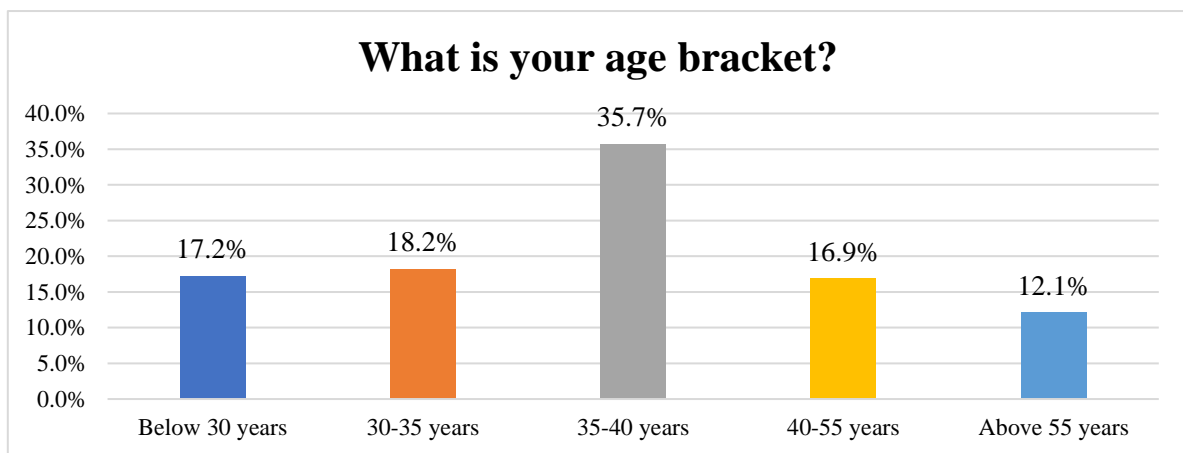


Figure 4.2: Age Bracket of the Respondents

From the sample of 314 nurses, the largest group in this sample was nurses aged between 35-40 years, with 112 nurses (35.7%) falling into this age bracket. The next largest group was nurses aged 30-35 years, with 57 nurses (18.2%) falling into this age bracket. There were also 54 nurses (17.2%) who were below 30 years old, 53 nurses (16.9%) who were aged between 40-55 years, and 38 nurses (12.1%) who were above 55 years old. Based on these results, the study concludes that a larger proportion of nurses in this sample were aged between 35-40 years old. The concentration of nurses in the 35-40 age group suggests a demographic trend within the nursing workforce. Understanding the age distribution is crucial for workforce planning, as it may impact factors such as retirement planning, training needs, and overall organizational dynamics. The study's implications could include tailored strategies for different age groups to address their specific needs and challenges.

4.4.3 Highest Qualification of the Respondents

In this section, the study presents the educational backgrounds of the study participants, including their highest level of qualification. Understanding the qualifications of the study participants helps to assess the knowledge and expertise of the sample, as well as potential differences in outcomes or perspectives based on educational attainment.

Table 4.4: Highest Qualification of the Respondents

What is your highest qualification?	Frequency	Percent (%)
Secondary	35	11.1
College	127	40.4
Graduate	152	48.4
Total	314	100

Out of the total sample, the largest group of nurses, with 152 nurses (or 48.4%), had a graduate qualification. The next largest group of nurses, with 127 nurses (or 40.4%), had a college-level qualification. The smallest group of nurses, with 35 nurses (or 11.1%), had a secondary-level qualification. The study concludes that a larger proportion of nurses in this sample had a graduate-level qualification, followed by college-level qualifications, and the smallest group had a secondary-level qualification. The educational qualification distribution reflects a predominantly highly educated nursing workforce in the sample. Implications may include considerations for career advancement, training opportunities, and aligning leadership development programs with the educational background of nurses. The study suggests that organizations should focus on providing continuous learning opportunities for nurses with different educational backgrounds.

4.4.4 Tenure of the Respondents in the Hospitals

In this section, the study presents the length of time that our respondents have been working in the hospitals included in the study. Understanding the tenure of the respondents helped to assess the level of experience and familiarity with hospital practices, policies, and culture. This also provided insights into potential differences in perspectives or outcomes based on the length of time spent working in the hospital setting.

Table 4.5: Tenure of the Respondents in the Hospitals

How long have you worked with the institution?	Frequency	Percent (%)
Below 5 years	57	18.2
6-10 years	191	60.8
Above 10 Years	66	21
Total	314	100

Out of the total sample, the largest group of nurses, with 191 nurses (or 60.8%), had worked with the institution for 6-10 years. The next largest group of nurses, with 66 nurses (or 21%), had worked with the institution for more than 10 years. The smallest group of nurses, with 57 nurses (or 18.2%), had worked with the institution for less than 5 years. The study, therefore, concludes that a larger proportion of nurses in this sample had worked with the institution for 6-10 years, followed by those who had worked for more than 10 years, and the smallest group had worked for less than 5 years.

4.5 Descriptive analysis

Descriptive statistics was done to show the summary of the findings by including, counts, frequencies, mean and the standard deviation.

4.5.1 Descriptive Statistics Regarding Transformational Leadership Style

Table 4.6 provides the results of a survey conducted to measure employees' perceptions of their leaders' transformational leadership style. For each question, the table provides the percentage of respondents who gave a particular response, as well as the mean (M) and standard deviation (SD) of the responses. The mean represents the average score given by all respondents on a scale of 1 to 5, where 1 represents the lowest possible score and 5 the highest. The standard deviation provides information about the variability of the responses.

Table 4.6: Descriptive statistics regarding transformational leadership style

Questions	1	2	3	4	5	M	SD
1. My leader has the ability to influence those working around him/her	12%	11%	12%	31%	35%	3.68	1.35
2. My leaders inspire me to meet my set job-related targets	4%	10%	19%	30%	39%	3.90	1.13
3. My leaders go the extra mile in training and improving my skills off the company record (e.g., during off days).	7%	9%	25%	28%	31%	3.67	1.20

4. My leaders encourage responsibility and accountability for the assigned tasks	15%	17%	19%	25%	25%	3.27	1.40
5. Leaders motivate staff towards common interests for the hospital's mission and vision	8%	12%	9%	21%	50%	3.92	1.35
6. Leaders are concerned with having tasks completed on time by employees	12%	11%	19%	36%	22%	3.46	1.28
7. I feel valued as a member of the team	8%	6%	16%	40%	31%	3.78	1.18
8. The hospital's top leaders seek options on how to solve various problems in the organization	13%	7%	14%	35%	31%	3.63	1.34
9. Our organization's leadership instills pride in the employees and therefore boosts their morale.	15%	8%	12%	27%	38%	3.65	1.43
Average (M/SD)						3.66	1.30

N/B: 5=Strongly Agree 4=Agree, 3=Not Sure, 2=Disagree, 1=Strongly Disagree, M= Mean, SD= Standard Deviation.

For the first question, about the leader's ability to influence those working around him/her, the majority of the respondents agree or strongly agree (66%). The mean score is 3.68, which indicates a moderate level of agreement, and the standard deviation is 1.35, which suggests that the opinions are somewhat diverse. For the second question, about the leaders inspiring employees to meet their job-related targets, the majority of the respondents agree or strongly agree (69%). The mean score is 3.90, which indicates a high level of agreement, and the standard deviation is 1.13, which suggests that the opinions are relatively consistent.

For the third question, about the leaders going the extra mile in training and improving employees' skills off the company record, the majority of the respondents are unsure, but there is a significant proportion who agree or strongly agree (59%). The mean score is 3.67, which indicates a moderate level of agreement, and the standard deviation is 1.20, which suggests that the opinions are somewhat diverse. For the fourth question, about the leaders encouraging responsibility and accountability for assigned tasks, the majority of the respondents are unsure or disagree (57%). The mean score is 3.27, which indicates a low level of agreement, and the standard deviation is 1.40, which suggests that the opinions are highly diverse.

For the fifth question, about the leaders motivating staff towards common interests for the hospital's mission and vision, the majority of the respondents agree or strongly agree (71%). The mean score is 3.92, which indicates a high level of agreement, and the standard deviation is 1.35, which suggests that the opinions are relatively consistent. For the sixth question, about the leaders being concerned with having tasks completed on time by employees, the majority of the respondents are unsure or agree (58%). The mean score is 3.46, which indicates a

moderate level of agreement, and the standard deviation is 1.28, which suggests that the opinions are somewhat diverse.

For the seventh question, about feeling valued as a member of the team, the majority of the respondents agree or strongly agree (71%). The mean score is 3.78, which indicates a high level of agreement, and the standard deviation is 1.18, which suggests that the opinions are relatively consistent. For the eighth question, about the hospital's top leaders seeking options to solve various problems in the organization, the majority of the respondents are unsure or agree (66%). The mean score is 3.63, which indicates a moderate level of agreement, and the standard deviation is 1.34, which suggests that the opinions are somewhat diverse.

For the ninth question, about the organization's leadership instilling pride in the employees and therefore boosting their morale, the majority of the respondents agree or strongly agree (65%). The mean score is 3.65, which indicates a moderate level of agreement, and the standard deviation is 1.43, which suggests that the opinions are somewhat diverse.

Overall, the average score for all questions was 3.66 with a standard deviation of 1.30. These results suggest that there are areas where hospital leadership can improve, such as encouraging responsibility and accountability for assigned tasks and instilling pride in employees. However, there are also areas where leadership is performing well, such as motivating staff towards the hospital's mission and vision and making employees feel valued as team members. This means that, on average, respondents had a slightly positive view of the hospital's leadership, but there was also a fair amount of variation in their opinions.

Likewise, according to a study by Li, Liang and Wang (2021), transformational leadership positively impacts employee performance by enhancing their motivation and commitment towards their work. The authors suggest that this can be achieved by providing employees with a sense of ownership over their work and recognizing their contributions towards the hospital's mission and vision. Yang and Chang (2020) found that transformational leadership can positively impact employee well-being and job satisfaction. The authors suggest that leaders can achieve this by providing employees with opportunities for professional development and promoting a culture of open communication and support.

In a study by Zhang Lee et al. (2021), transformational leadership was found to positively impact employee commitment and job satisfaction. The authors suggest that leaders can achieve this by providing employees with a clear sense of direction, setting high expectations,

and modeling the desired behaviors. A study by Lee et al. (2021) found that transformational leadership can positively impact employee engagement and performance. The authors suggest that leaders can achieve this by providing employees with opportunities for learning and development, recognizing and rewarding their contributions, and promoting a culture of collaboration and teamwork. In a study by Yoo and Kim (2020), transformational leadership was found to positively impact employee job satisfaction and intention to stay in their current job. The authors suggest that leaders can achieve this by promoting a positive work environment, providing employees with opportunities for career advancement, and recognizing and rewarding their contributions.

Overall, these studies suggest that transformational leadership can have a positive impact on various aspects of employee performance, including enhancing motivation and commitment, improving well-being and job satisfaction, and promoting a culture of collaboration and teamwork. Leaders can achieve these benefits by providing employees with a sense of ownership over their work, promoting a positive work environment, recognizing and rewarding their contributions, and providing opportunities for learning and development.

4.5.2 Descriptive Statistics Regarding Transactional Leadership Style

Table 4.7 provides the results of a survey conducted to measure employees' perceptions of their leaders' Transactional leadership style. For each question, the table provides the percentage of respondents who gave a particular response, as well as the mean (M) and standard deviation (SD) of the responses. The mean represents the average score given by all respondents on a scale of 1 to 5, where 1 represents the lowest possible score and 5 the highest. The standard deviation provides information about the variability of the responses.

Table 4.7: Descriptive statistics regarding transactional leadership style

Questions	1	2	3	4	5	M	SD
1. I feel adequately rewarded for my work	6.4%	28.3%	31.8%	25.5%	8.0%	3.00	1.06
2. Teamwork is encouraged at my workplace	7.6%	4.1%	16.9%	41.1%	30.3%	3.82	1.14
3. My performance is regularly monitored and appraised	14.0%	7.3%	12.1%	31.5%	35.0%	3.66	1.38
4. My goals and objectives are clearly communicated	7.0%	10.5%	21.3%	33.4%	27.7%	3.64	1.19
5. Top leaders encourage creativity and innovation among the staff for the betterment of the organization.	8.6%	8.3%	8.3%	31.8%	43.0%	3.92	1.27

6. My leaders are more inclined to change	5.7%	37.9%	19.1%	29.0%	8.3%	2.96	1.11
7. The hospital leadership thrives on structured policies and procedures	9.2%	8.9%	12.4%	29.0%	40.4%	3.82	1.30
Average (M/SD)						3.55	1.21

N/B: 5=Strongly Agree 4=Agree, 3=Not Sure,2=Disagree, 1=Strongly Disagree, M= Mean, SD= Standard Deviation.

Regarding adequate rewarded for work: About 34.7% of respondents either disagree or strongly disagree with this statement, which suggests that a significant portion of the sample does not feel adequately rewarded for their work. The mean score of 3.00 indicates a neutral to slightly positive sentiment towards feeling rewarded, and the low standard deviation of 1.06 suggests a high degree of agreement among participants. Regarding Teamwork at the workplace: This statement received a high level of agreement, with 71.4% of respondents either agreeing or strongly agreeing. The mean score of 3.82 suggests a generally positive sentiment towards teamwork, and the standard deviation of 1.14 indicates some variability in participants' responses.

Regarding employee performance being regularly monitored and appraised: About 49.0% of respondents either Disagree or Strongly Disagree with this statement, which suggests that a significant portion of the sample does not feel that their performance is regularly monitored and appraised. The mean score of 3.66 indicates a neutral to slightly positive sentiment towards performance monitoring, and the relatively high standard deviation of 1.38 suggests some variability in participants' responses.

Regarding employee goals and objectives being clearly communicated: About 31.5% of respondents either Disagree or Strongly Disagree with this statement, which suggests that a significant portion of the sample does not feel that their goals and objectives are clearly communicated. The mean score of 3.64 indicates a neutral to slightly positive sentiment towards goal communication, and the relatively low standard deviation of 1.19 suggests a high degree of agreement among participants.

Regarding top leaders encouraging creativity and innovation among the staff for the betterment of the organization: This statement received a high level of agreement, with 74.8% of respondents either Agreeing or Strongly Agreeing. The mean score of 3.92 indicates a generally positive sentiment towards leadership support for creativity and innovation, and the standard deviation of 1.27 suggests some variability in participants' responses.

Regarding the leaders being more inclined to change: About 43.7% of respondents either Disagree or Strongly Disagree with this statement, which suggests that a significant portion of the sample does not feel that their leaders are inclined to change. The mean score of 2.96 indicates a slightly negative sentiment towards leadership openness to change, and the low standard deviation of 1.11 suggests a high degree of agreement among participants.

Regarding the hospital leadership thriving on structured policies and procedures: This statement received a relatively high level of agreement, with 69.4% of respondents either Agreeing or Strongly Agreeing. The mean score of 3.82 indicates a generally positive sentiment towards leadership emphasis on structure and procedures, and the standard deviation of 1.30 suggests some variability in participants' responses.

Overall, the average score across all questions is 3.55 with a standard deviation of 1.21. These results suggest that the employees have mixed feelings about their workplace, with some positive aspects like encouragement of teamwork and creativity, but also some negative aspects like lack of perceived rewards, inadequate performance monitoring and appraisal, unclear communication of goals, and reluctance to change among leaders.

The findings corroborate Wang, Hsu, and Chen (2018) who found that transactional leadership positively affects nurses' job satisfaction and organizational commitment, leading to a reduction in nurse absenteeism. The study suggested that transactional leadership can improve employee performance by setting clear goals, providing feedback, and using rewards and punishments to motivate employees. In a study by Al-Nsour et al. (2020), it was found that transactional leadership was positively associated with job satisfaction and negatively associated with nurse absenteeism. The study suggested that transactional leaders who use rewards and punishments to motivate employees can reduce absenteeism and improve performance. Also, Jung, Yoo, and Kim (2018) found that transactional leadership positively affects job satisfaction and reduces nurse absenteeism. The study suggested that transactional leaders who provide clear expectations and rewards for good performance can improve employee performance and reduce absenteeism.

4.5.3 Descriptive Statistics Regarding Task Structure

Table 4.9 provides the results of a survey conducted to measure employees' perceptions of their leaders' task structure. For each question, the table provides the percentage of respondents who gave a particular response, as well as the mean (M) and standard deviation (SD) of the responses. The mean represents the average score given by all respondents on a scale of 1 to 5, where 1 represents the lowest possible score and 5 the highest. The standard deviation provides information about the variability of the responses.

Table 4.8: Descriptive statistics regarding task structure

Questions	1	2	3	4	5	M	SD
1. My leader shows a positive example of how firm objectives are to be achieved	8.3%	8.0%	17.5%	37.6%	28.7%	3.70	1.20
2. The organization has clear set goals, mission and values	6.1%	5.1%	16.9%	42.0%	29.9%	3.85	1.09
3. There is clear chain of command along the organizational structure	7.6%	11.8%	11.8%	35.7%	33.1%	3.75	1.24
4. Each employee has a clearly assigned job description	8.6%	7.3%	14.3%	40.8%	29.0%	3.74	1.20
5. There is clear reward and compensation policy in the firm	9.6%	9.6%	17.5%	37.3%	26.1%	3.61	1.24
6. There is clear sense of responsibility and accountability among employees and the leaders	3.5%	4.5%	27.7%	43.9%	20.4%	3.73	0.95
7. Tasks assigned to the employees are clearly simplified for clarity	6.7%	8.3%	13.1%	35.0%	36.9%	3.87	1.19
8. The leaders are supportive to employees on complex tasks	9.6%	12.4%	10.5%	34.4%	33.1%	3.69	1.30
Average (M/SD)						3.74	1.18

N/B: 5=Strongly Agree, 4=Agree, 3=Not Sure, 2=Disagree, 1=Strongly Disagree, M= Mean, SD= Standard Deviation.

Looking at the results, the majority of employees (66.3%) agreed or strongly agreed that their leader sets a positive example for achieving firm objectives, while only a minority (16.3%) disagreed or strongly disagreed. The mean score of 3.70 suggests that employees generally believe their leader provides a positive example. For the second question, "The organization has clear set goals, mission, and values," most employees (72%) either agreed or strongly agreed, indicating that they believe their organization has a clear direction. The mean score of 3.85 supports this notion.

Regarding the third question, "There is clear chain of command along the organizational structure," most employees (68.8%) agreed or strongly agreed, indicating that they believe there is a clear hierarchy within the organization. The mean score of 3.75 supports this notion.

For the fourth question, "Each employee has a clearly assigned job description," most employees (70.6%) agreed or strongly agreed, indicating that they believe their job descriptions are well-defined. The mean score of 3.74 supports this notion.

The fifth question, "There is clear reward and compensation policy in the firm," received mixed responses, with only 26.1% of employees strongly agreeing or agreeing. The mean score of 3.61 suggests that employees are not completely satisfied with the organization's reward and compensation policies. Regarding the sixth question, "There is clear sense of responsibility and accountability among employees and the leaders," most employees (64.3%) agreed or strongly agreed, indicating that they believe there is a sense of responsibility and accountability in their workplace. The mean score of 3.73 supports this notion.

For the seventh question, "Tasks assigned to the employees are clearly simplified for clarity," most employees (72%) agreed or strongly agreed, indicating that they believe tasks are well-explained to them. The mean score of 3.87 supports this notion. Regarding the eighth question, "The leaders are supportive to employees on complex tasks," most employees (67.5%) agreed or strongly agreed, indicating that they believe their leaders are supportive during complex tasks. The mean score of 3.69 supports this notion.

Overall, the respondents generally agree that the organization has clear set goals, mission and values, there is a clear chain of command, each employee has a clearly assigned job description, tasks are clearly simplified for clarity, and leaders are supportive to employees on complex tasks. However, there may be room for improvement in terms of having a clear reward and compensation policy, as well as in promoting a stronger sense of responsibility and accountability among employees and leaders.

The findings corroborate those of Adebayo et al. (2021) who found that task structure significantly influenced employee performance in Nigerian hospitals. Specifically, employees who perceived their tasks as well-structured exhibited higher levels of performance. The authors suggest that transformational leadership, which can involve clarifying and structuring tasks, could be effective in improving employee performance in hospitals with less-structured tasks. Arimi and Ombati (2018) who investigated the influence of task structure on leadership style and employee performance among healthcare workers in the public health sector in Kenya, found that task structure significantly influenced the leadership style used by managers, with more structured tasks being associated with a preference for transactional leadership. They

also found that task structure was positively associated with employee performance, and that transactional leadership was positively associated with employee performance. Javed et al. (2021) examined the effect of leadership style on employee productivity in the context of the Pakistani banking sector. The authors found that task structure significantly moderated the relationship between leadership style and employee productivity. Specifically, the positive relationship between transformational leadership style and employee productivity was stronger in high task structure conditions compared to low task structure conditions.

4.5.4 Descriptive Statistics Regarding Employees' Productivity

The study sought to present the comparison in means, frequencies standard deviations and standard errors of the outcomes of employees' productivity. The results are shown in Table 4.9.

Table 4.9: Descriptive statistics regarding employees' productivity

Questions	1	2	3	4	5	M	SD
1. Employees are able to deliver within the set deadlines	8.6%	14.6%	21.7%	35.0%	20.1%	3.43	1.21
2. Employees are able to deliver under less than perfect conditions	5.1%	7.0%	25.8%	36.0%	26.1%	3.71	1.09
3. Employees are eager to learn on ways of making themselves more productive	9.6%	14.3%	21.7%	30.9%	23.6%	3.45	1.26
4. Employees are open to conflict resolution	9.2%	9.9%	26.1%	38.2%	16.6%	3.43	1.15
5. Employees offer help and support to other teammates	7.6%	9.2%	22.0%	34.1%	27.1%	3.64	1.19
6. Employees are always punctual to work	8.3%	8.6%	7.6%	31.2%	44.3%	3.95	1.27
7. Employees are open to constructive feedback	9.6%	5.7%	20.7%	36.9%	27.1%	3.66	1.21
8. Employees have a sense of what to do and when to do	8.0%	10.2%	22.0%	35.0%	24.8%	3.59	1.19
9. Employees are able to identify and give top attention to top priorities	6.7%	8.3%	13.1%	35.0%	36.9%	3.87	1.19
10. Employees have good communication skills	9.6%	12.4%	10.5%	34.4%	33.1%	3.69	1.30
Average (M/SD)						3.64	1.21

N/B: 5=Strongly Agree 4=Agree, 3=Not Sure, 2=Disagree, 1=Strongly Disagree, M= Mean, SD= Standard Deviation.

On question 1, about the ability of employees to deliver within the set deadlines, 55% of respondents agreed or strongly agreed with the statement, while 23.2% disagreed or strongly disagreed. Question 2 asked about the ability of employees to deliver under less than perfect

conditions. In response, 62.1% of employees agreed or strongly agreed, while only 12.1% disagreed or strongly disagreed.

Regarding the question of whether employees were eager to learn ways of making themselves more productive, 54.5% of employees agreed or strongly agreed, while 23.9% disagreed or strongly disagreed. In response to question 4 about if employees were open to conflict resolution. In response, 54.8% of employees agreed or strongly agreed, while 26.1% disagreed or strongly disagreed.

Question 5 asked if employees offered help and support to other teammates, with 61.2% of employees agreeing or strongly agreeing and only 16.8% disagreeing or strongly disagreeing. In response to question 6 about employees' punctuality, a significant proportion of employees (75.5%) agreed or strongly agreed with the statement. In response to question 7, which asked whether employees were open to constructive feedback, 64% of employees agreed or strongly agreed, while 15.3% disagreed or strongly disagreed. Regarding question 8 about whether employees had a sense of what to do and when to do it, 59.8% of employees agreed or strongly agreed, while 18.2% disagreed or strongly disagreed.

Question 9 asked if employees were able to identify and give top attention to top priorities, with 72% of employees agreeing or strongly agreeing and only 15% disagreeing or strongly disagreeing. Finally, in response to question 10 about employees' communication skills, 67.5% of employees agreed or strongly agreed, while only 21.9% disagreed or strongly disagreed. The average mean score across all questions was 3.64, with a standard deviation of 1.21, indicating that the employees' responses were generally positive, but with some variation in their attitudes and behaviors.

The findings corroborate prior findings that have identified various factors that influence employee productivity, including job satisfaction, leadership style, training and development, and organizational culture (Alfes et al., 2013; Qureshi et al., 2018). Additionally, the authors note that employee productivity can be impacted by external factors, such as technological advancements, economic conditions, and regulatory changes. Nkomo and Chinyamurindi (2018) noted that transformational leadership has a significant positive effect on employee productivity, while transactional leadership has a negative effect. Chirwa et al. (2019) concluded that transformational leadership positively influences employee productivity and that transactional leadership has a weaker influence. Emmanuel and Okorie (2019) also finds

that transformational and transactional leadership styles have a positive influence on employee productivity. Mbombi et al. (2018) indicated that absenteeism has an effect on both the nurses' psychological and professional well-being, as well as the quality of patient care provided as a result of psychological stress, low morale of nurses and increased workload.

The respondents were further requested to indicate the number of days of work they have missed in the past six months. Likewise, those who reported being absent from work were requested to indicate the primary reasons for their absences from work. The findings are as presented in Table 4.10.

Table 4.10: Employee Absenteeism

Question	Category	Frequency	Percent	Valid Percent
Job days missed in the past 6 months	0 days	50	15.9	15.9
	1-2 days	51	16.2	16.2
	3-4 days	50	15.9	15.9
	5-6 days	99	31.5	31.5
	More than 6 days	64	20.4	20.4
	Total		314	100
If yes, what are the primary reasons for your absences from work?	Illness	65	20.7	24.6
	Family emergency	74	23.6	28.0
	Personal reasons	55	17.5	20.8
	Work-related stress	70	22.3	26.5
	Valid total		264	84.1
	System	50	15.9	
	Grand Total	314	100	

Table 4.10 shows that out of 314 employees, 15.9% did not miss any job days, while 16.2% missed 1-2 days, and another 15.9% missed 3-4 days. The largest percentage of employees, 31.5%, missed 5-6 job days, while 20.4% missed more than 6 days. Overall, the table suggests that a significant proportion of employees missed at least some job days in the past 6 months, with nearly half of the employees missing 5 or more days. This could have implications for productivity and work quality, as well as potential impacts on the employees' health and well-being.

Out of those who reported being absent from work, 20.7% cited illness as the primary reason, 23.6% cited family emergency, 17.5% cited personal reasons, and 22.3% cited work-related stress. It is important to note that respondents were allowed to choose multiple reasons for their absences, so the percentages sum to more than 100%. The results provide insights into the main

reasons why employees may be absent from work and can be useful for employers to understand the types of absences that are most common among their workforce. It may also help employers identify areas where they can provide support or implement policies that could potentially reduce the frequency of employee absences.

The respondents were also asked to indicate which leadership style they thought would be most effective in reducing absenteeism among nursing employees. The figure shows the responses of a group of nurses regarding which leadership style they believe would be most effective in reducing absenteeism among nursing employees.



Figure 4.3: Most effective leadership style

Out of the 314 respondents, 60.2% (189 nurses) believe that the transformational leadership style would be the most effective, while 39.8% (125 nurses) believe that the transactional leadership style would be the most effective. Therefore, the majority of respondents believe that the transformational leadership style would be the most effective in reducing absenteeism among nursing employees.

The respondents were also asked for any additional comments or suggestions regarding the impact of transformational and transactional leadership style on nursing employees' absenteeism and the moderating role of task structure. They responded as follows:

Nursing Manager: "In my experience, transformational leadership is essential for reducing absenteeism among nursing employees. It involves inspiring and motivating employees to achieve their full potential, which can lead to higher job satisfaction and engagement. However, task structure can also play a role in absenteeism. If employees are overwhelmed with tasks or have unclear expectations, they may feel more stressed

and more likely to call in sick. Therefore, it's important to balance transformational leadership with task delegation and clear communication."

Nurse Practitioner: *"As a nurse practitioner, I appreciate leaders who are transformational and encourage us to take ownership of our work. When we feel empowered and valued, we are more likely to come to work and give our best effort. However, I also think that transactional leadership has its place, especially when it comes to managing attendance policies and rewarding good attendance. The key is finding the right balance between the two styles and adapting to the needs of each employee."*

Human Resources Manager: *"From my perspective, transformational leadership can be effective in reducing absenteeism, but it's not a one-size-fits-all solution. Some employees may respond better to transactional leadership, which involves setting clear expectations and consequences for attendance. Additionally, task structure can impact absenteeism, but it's not the only factor. Other factors such as workplace culture, employee benefits, and work-life balance can also play a role."*

Hospital Administrator: *"As an administrator, I believe that both transformational and transactional leadership styles have a role to play in reducing absenteeism. However, the key is to ensure that leaders have the skills and knowledge to apply these styles effectively. This can involve providing training and coaching for leaders, as well as gathering feedback from employees to identify areas for improvement. Ultimately, reducing absenteeism requires a multifaceted approach that takes into account the needs and perspectives of both leaders and employees."*

Another nurse seconded by: *"I think both transformational and transactional leadership styles can be effective in reducing absenteeism, but it depends on the individual and their work environment. For me personally, I respond well to transformational leadership - I want to feel like my work is meaningful and that I'm contributing to something larger than myself. But I can see how some employees might need more structure and guidance, especially if they're new to the job or dealing with a lot of stress. In those cases, a transactional approach might be more helpful."*

A study by Tzeng and Ketefian (2020) supports the idea that transformational leadership can reduce absenteeism among nursing staff. They found that transformational leadership was associated with lower rates of missed work days, and that this effect was partially mediated by job satisfaction and commitment to the organization. Hariri et al. (2021) also found that

transformational leadership was associated with lower rates of absenteeism among nursing staff, but only when task structure was high. When task structure was low, there was no significant difference in absenteeism rates between transformational and transactional leadership styles. Kuokkanen et al. (2022) found that transformational leadership was more strongly associated with reduced absenteeism among nursing staff than transactional leadership. However, they also noted that task structure moderated this effect - in high-task-structure environments, both transformational and transactional leadership were effective, while in low-task-structure environments, transformational leadership was more effective.

4.6 Diagnostic analysis

4.6.1 Normality Test

Normality of data was tested using the Shapiro-Wilk test and the Kolmogorov–Smirnov test. The criterion is that the probability value (sig) should be greater than 0.05 for the data to be normally distributed.

Table 4.11: Normality Results

Tests of Normality	Statistic	df	Sig.	Statistic	df	Sig.
Employees' Productivity	0.119	314	0.200	0.963	314	0.528
Transformational leadership style	0.083	314	0.200	0.965	314	0.307
Transactional leadership style	0.085	314	0.074	0.979	314	0.080
Task Structure	0.085	314	0.200	0.984	314	0.714

a Lilliefors Significance Correction

The null hypothesis states that the data is normally distributed. From the study it was noted that all the data points were normally distributed since the p- values were greater than 0.05. Thus, the null hypothesis was accepted and the data be normally distributed.

4.6.2 Linearity Test

Correlation matrix was used to determine if there is a proportional/linear link among two data set. Before applying multiple regression, it is assumed that the connection between variables would be reasonably straight.

Table 4.12: Correlation Matrix for Linearity Test

Correlations		Employees' Productivity	Transformational leadership style	Transactional leadership style	Task Structure
Employees' Productivity	R	1			
Transformational leadership style	R	.600**	1		
Transactional leadership style	R	.552**	.334**	1	
Task Structure	R	.537**	.330**	.303**	1

** Correlation is significant at the 0.01 level (2-tailed).

Table 4.12 shows that there is a strong and positive linearity between transformational leadership style, transactional leadership style, task structure and nurse eemployee productivity in Kenya.

4.6.3 Multicollinearity

Multicollinearity of variables was tested by using the tolerance value with tolerance level of more than 0.2 and variance inflation factor (VIF) with a tolerance level of less than 10 (Miles, 2014).

Table 4.13: Collinearity Statistics

Variables	Tolerance	VIF
Transformational leadership style	0.831	1.204
Transactional leadership style	0.847	1.181
Task Structure	0.849	1.178

Table 4.13 presents respective variance inflation factors results which were established to be less than 10 and tolerance of more than 0.2. Thus, according to (Miles, 2014) indicates that the problem of Multicollinearity was minimized.

4.6.4 Heteroscedasticity Test

Running a regression model without accounting for heteroscedasticity the error variance would lead to biased parameter estimates in the model estimate. To test for heteroscedasticity, the graphical scatter plot method was used.

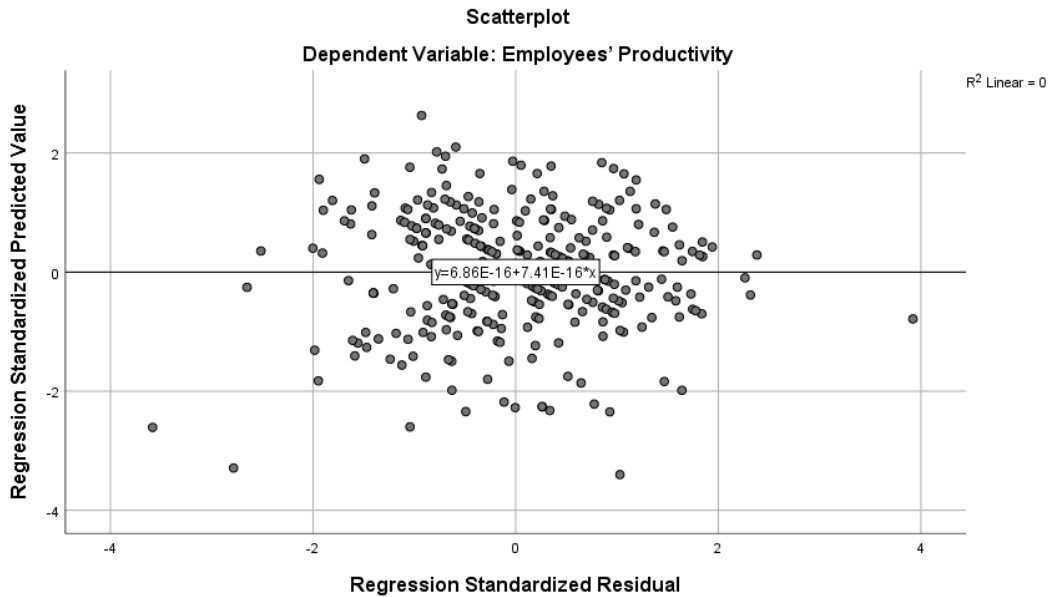


Figure 4.4: Error variance of the residuals

Since, the null hypothesis of this study indicates that the error variance is homoscedastic, the results indicate that there is the no presence of heteroscedasticity in the use of the ordinary least squares (OLS) regression. This is evidenced by the graphical scatter plots which oscillate along the standardized residual regression line.

4.7 Inferential statistics

The study also sought to investigate the causal effect of the independent variables on the dependent variable. The findings represent the correlation analysis, the model of fitness, ANOVA tests and the regression of coefficients.

4.7.1 Correlation Analysis

The Pearson correlation coefficient was used to determine the association between the variables which is denoted by **R**.

Table 4.14: Correlation between Leadership Styles and Employees' Productivity

Correlations		Employees' Productivity	Transformational leadership style	Transactional leadership style	Task Structure
Employees' Productivity	R	1			
Transformational leadership style	R	.600**	1		
Transactional leadership style	R	.552**	.334**	1	
Task Structure	R	.537**	.330**	.303**	1

** Correlation is significant at the 0.01 level (2-tailed).

Table 4.14 shows that transformational leadership style and employee productivity have a positive and significant relationship ($r=0.652^{**}$, $p=0.000$). The r value of 0.652 indicates a value of greater than 0 which implies that transformational leadership style as a linear variable has a positive association with employee productivity. The findings agree with Opondo et al. (2018) who found a significant positive association between transformational leadership and employee productivity. Otieno and Okello (2021) also found that transformational leadership had a positive effect on employee productivity, with a significant mediation effect on job satisfaction. According to Liu, Song and Zhang (2019), when leaders adopt a transformational leadership style, they are more likely to inspire and motivate their nursing employees, leading to increased productivity.

The results further show that transactional leadership style and employee productivity have a positive and significant relationship ($r=0.634^{**}$, $p=0.000$). The r value of 0.634 indicates a value of greater than 0 which implies that transactional leadership style is a linear variable and a positive association with employee productivity. The findings are consistent with Kariuki and Muturi (2020) who found a positive and significant relationship between transactional leadership and employee productivity, with contingent reward and management-by-exception (active) being the most significant transactional leadership dimensions. Kipkoech and Mutai (2020) noted that transactional leadership had a significant positive relationship with employee productivity, with management-by-exception (active) being the most significant transactional leadership dimension. Likewise, Kocaman et al. (2020) found a positive relationship between transactional leadership and nursing employee productivity, with management-by-exception (active) being the most significant dimension of transactional leadership associated with increased productivity.

Likewise, task structure and employee productivity have a negative and significant relationship ($r= -0.758^{**}$, $p=0.000$). The r value of 0.758 indicates a value of greater than 0 which implies

that task structure is a linear variable and a negative association with employee productivity. The findings are consistent with Shull et al. (2019) who also found that task structure moderated the relationship between transactional leadership style and employee productivity, with the positive effect of transactional leadership being stronger in high task structure conditions compared to low task structure conditions. Wu et al. (2020) in China likewise, acknowledged that task structure significantly moderated the relationship between transformational leadership style and nursing employee productivity. Specifically, the positive effect of transformational leadership on nursing employee productivity was stronger in high task structure conditions compared to low task structure conditions. DeCicco et al. (2019) found that task structure significantly moderated the relationship between transformational leadership style and nurse productivity, with the positive effect of transformational leadership being stronger in high task structure conditions compared to low task structure conditions.

4.7.2 Relationship between Leadership Styles and Employees' Productivity

Regression analysis was conducted to explain variability, magnitude and extent of change in **Employees' Productivity** with regard to the change in

Table 4.15: Model of Fitness for Leadership Styles

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.706a	0.499	0.496	0.3849

a Dependent Variable: Employees' Productivity

Table 4.15 indicates that the three transformational leadership style and transactional leadership style are both essential predictors of employee productivity. This has been evidenced by an R squared of 0.499. An R-squared value of 0.499 suggests that the transformational and transactional leadership styles can account for 49.9% of the variance in nurse employee productivity in Kenya. This means that the remaining 50.1% of the variance may be attributed to other factors that were not considered in the study. Implications of this finding suggest that transformational and transactional leadership styles have a significant impact on nurse employee productivity in Kenya. Therefore, hospital administrators and nurse managers should focus on improving these leadership styles to enhance employee productivity. Training programs can be developed to teach leaders how to adopt and implement these styles effectively.

Table 4.16: ANOVA for Leadership Styles

	Sum of Squares	df	Mean Square	F	Sig.
Regression	45.906	2	22.953	154.929	.000b
Residual	46.076	311	0.148		
Total	91.982	313			

a Dependent Variable: Employees' Productivity

Likewise, ANOVA proved that there is a significant interaction between transformational leadership style, transactional leadership style and employee productivity, given that the p-value ($p = 0.000$) was less than 0.05.

Table 4.17: Regression of Coefficients for Leadership Styles

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	0.241	0.195		1.241	0.216
Transformational leadership style	0.506	0.046	0.468	10.986	0.000
Transactional leadership style	0.436	0.047	0.396	9.301	0.000

a Dependent Variable: Employees' Productivity

From the regression of coefficients, it was confirmed that transformational leadership style has a positive and statistically significant relationship with employee productivity ($\beta=0.506$, $p=0.000$). This implies that changes in 1 unit of the aspects related to transformational leadership style leads to a change in employee productivity by 0.506 units. It was also confirmed that transactional leadership style has a positive and statistically significant relationship with employee productivity ($\beta=0.436$, $p=0.000$). This implies that changes in 1 unit of the aspects related to transactional leadership style leads to a change in employee productivity by 0.436 units.

This indicates that when leaders adopt transformational and transactional leadership styles, they are more likely to inspire and motivate their employees, which results in increased productivity. Leaders who exhibit transformational leadership behaviors such as inspiring their followers, providing individualized consideration, intellectually stimulating their employees, and exhibiting idealized influence can enhance employee productivity. Similarly, leaders who use transactional leadership behaviors such as providing rewards, setting goals, and monitoring performance can also improve employee productivity (Liu, Song, & Zhang, 2019; Wang, Xiao, & He, 2020).

The results indicate that organizations should focus on developing and training their leaders to exhibit transformational and transactional leadership behaviors in order to increase employee productivity. However, it is important to note that there may be other factors that could affect employee productivity that were not considered in the study. Overall, the study suggests that both transformational and transactional leadership styles are important for improving employee productivity and organizations should consider implementing these leadership styles to enhance employee performance (Kariuki & Muturi, 2020; Kipkoech & Mutai, 2020).

Thus, the model can be stated as follows:

$$Y = 0.241 + 0.506X_1 + 0.436X_2 + e$$

Where:

Y = Nursing Employees' Productivity

X₁ = Transformational leadership style

X₂ = Transactional leadership style

e = Error term

4.8 The Moderating Effect of Task Structure on Market Performance

This section comprises the results of moderating regression effect of **task structure** on the relationship between leadership styles and employee productivity as shown in Table 4.20.

Table 4.18: Model of Fitness for Task Structure

Model	R	R ²	Adjusted R Square	Std. Error of the Estimate
1	.742a	0.551	0.547	0.3649

From table 4.18, the results indicated that task structure is an essential predictor of employee productivity which is indicated by R² of 0.551. This implies that task structure as well as the leadership styles account for 55.1% of the variance in nurse employee productivity in Kenya. This means that the remaining 44.9% of the variance may be attributed to other factors that were not considered in the study. This further, implies that, by leveraging task structure, employee productivity given the impact of leadership styles is bound to improve. The R² of 0.551 improved from an R-squared value of 0.499. After introducing task structure as a moderator, the R-squared increased to 0.551. This suggests that the combined effect of leadership styles and task structure now accounts for approximately 55.1% of the variance in

nurse employee productivity. The increase in R-squared indicates that task structure, as a moderating variable, contributes additional explanatory power to the model.

Table 4.19: ANOVA for Task Structure

	Sum of Squares	df	Mean Square	F	Sig.
Regression	50.704	3	16.901	126.929	.000b
Residual	41.278	310	0.133		
Total	91.982	313			

Likewise, ANOVA proved that there is a statistically proven moderation effect of task structure on the relationship between leadership styles and employee productivity, given that the p-value ($p = 0.000$) was less than 0.05.

Table 4.20: Regression of Coefficients for Task Structure

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	2.386	0.154	–	15.496	0.000
X_1M	0.111	0.012	0.632	8.98	0.000
X_2M	0.089	0.012	0.500	7.484	0.000

$X_1M = \text{Transformational leadership style} * \text{Task Structure}$

$X_2M = \text{Transactional leadership style} * \text{Task Structure}$

Table 4.20 revealed that there is a positive and significant moderating effect of task structure on the relationship between transformational leadership style and employee productivity ($\beta = 0.111$, $p=0.000$). The findings indicate that task structure plays a significant role in how leadership styles affect employee productivity in a hospital setting. The positive and significant moderating effect of task structure suggests that the influence of transformational and transactional leadership styles on employee productivity is stronger when there is high task structure. This implies that hospital managers can create a more structured work environment by setting clear goals, providing guidance and resources, and defining roles and responsibilities to enhance the effects of transformational and transactional leadership styles on employee productivity (Korkmaz & Akyol, 2021; Wang et al., 2020).

The results also revealed that there is a positive and significant moderating effect of task structure on the relationship between transactional leadership style and employee productivity ($\beta = 0.089$, $p=0.000$). Moreover, the positive and significant moderating effect of task structure on the relationship between transformational and transactional leadership styles and employee

productivity suggests that leadership styles may not have the same impact on employee productivity in the absence of a structured work environment. Therefore, managers should consider creating a more structured work environment to enhance the positive effects of transformational and transactional leadership styles on employee productivity (Caricati, Menghi & Iavicoli, 2019; Wang et al., 2018).

Shull et al. (2019) also found that task structure moderated the relationship between transactional leadership style and employee productivity, with the positive effect of transactional leadership being stronger in high task structure conditions compared to low task structure conditions. Wu et al. (2020) in China likewise, acknowledged that task structure significantly moderated the relationship between transformational leadership style and nursing employee productivity. Specifically, the positive effect of transformational leadership on nursing employee productivity was stronger in high task structure conditions compared to low task structure conditions. DeCicco et al. (2019) found that task structure significantly moderated the relationship between transformational leadership style and nurse productivity, with the positive effect of transformational leadership being stronger in high task structure conditions compared to low task structure conditions.

Generally, these findings have important implications for hospital managers who seek to improve employee productivity. By emphasizing the importance of task structure, managers can create an environment that fosters the positive effects of transformational and transactional leadership styles on employee productivity. Additionally, the findings suggest that managers should consider both leadership styles and task structure in their efforts to improve employee productivity.

Thus, the model can be stated as follows:

$$Y = 2.386 + 0.111X_1 + 0.089X_2 + e$$

Where:

$$Y = \alpha + \beta_1 X_1 M + \beta_2 X_2 M + e$$

Where;

Y = Nursing Employees' Productivity

$X_1 M$ = Transformational leadership style * Task Structure

$X_2 M$ = Transactional leadership style * Task Structure

M = Task Structure

e = Error term

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This is the final chapter of the thesis in which the findings, as well as the whole thesis, are summarized. Summary, conclusions and the recommendations on the research findings have been done in line with the study objectives in a bid to answer the research questions, solve the research problem and offer practical and policy contributions.

5.2 Summary of Findings

This section provides the summary of the findings, which was done in line with the objectives of the study. The section provides critical information regarding the most significant treatment outcomes, such as the best effect estimate and the confidence of the evidence for each outcome.

5.2.1 Transformational Leadership style and nursing employees' productivity

From the descriptive results, the average score for all questions was 3.66 with a standard deviation of 1.30. These results suggest that there are areas where hospital leadership can improve, such as encouraging responsibility and accountability for assigned tasks and instilling pride in employees. However, there are also areas where leadership is performing well, such as motivating staff towards the hospital's mission and vision and making employees feel valued as team members. This means that, on average, respondents had a slightly positive view of the hospital's leadership, but there was also a fair amount of variation in their opinions.

The correlation findings thus, shows that transformational leadership style and employee productivity have a positive and significant relationship ($r=0.652^{**}$, $p=0.000$). The r value of 0.652 indicates a value of greater than 0 which implies that transformational leadership style as a linear variable has a positive association with employee productivity. From the regression of coefficients, it was confirmed that transformational leadership style has a positive and statistically significant relationship with employee productivity ($\beta=0.506$, $p=0.000$). This implies that changes in 1 unit of the aspects related to transformational leadership style leads to a change in employee productivity by 0.506 units.

Thus, the implementation of a Transformational Leadership style in nursing has a profound impact on the productivity of nursing employees. Transformational leaders inspire and motivate their team members by fostering a shared vision, encouraging creativity, and promoting individual growth. In the context of nursing, this leadership approach can lead to improved job satisfaction, increased morale, and a stronger commitment to patient care. Transformational leaders empower nurses to embrace innovation, critical thinking, and a sense of ownership in their roles, ultimately enhancing their overall job performance. By creating a positive work environment and emphasizing the significance of each nurse's contribution, transformational leadership positively influences teamwork, communication, and collaboration among nursing staff. As a result, nursing employees are more likely to exhibit higher levels of productivity, providing better patient care and contributing to the overall success of healthcare organizations.

This indicates that when leaders adopt transformational leadership style, they are more likely to inspire and motivate their employees, which results in increased productivity. Leaders who exhibit transformational leadership behaviors such as inspiring their followers, providing individualized consideration, intellectually stimulating their employees, and exhibiting idealized influence can enhance employee productivity. Similarly, leaders who use transactional leadership behaviors such as providing rewards, setting goals, and monitoring performance can also improve employee productivity (Liu, Song, & Zhang, 2019; Wang, Xiao, & He, 2020).

5.2.2 Transactional Leadership style and nursing employees' productivity

From the descriptive results, the average score across all questions is 3.55 with a standard deviation of 1.21. These results suggest that the employees have mixed feelings about their workplace, with some positive aspects like encouragement of teamwork and creativity, but also some negative aspects like lack of perceived rewards, inadequate performance monitoring and appraisal, unclear communication of goals, and reluctance to change among leaders. The correlation findings further show that transactional leadership style and employee productivity have a positive and significant relationship ($r=0.634^{**}$, $p=0.000$). The r value of 0.634 indicates a value of greater than 0 which implies that transactional leadership style is a linear variable and a positive association with employee productivity. It was also confirmed (from the regression results) that transactional leadership style has a positive and statistically significant relationship with employee productivity ($\beta=0.436$, $p=0.000$). This implies that

changes in 1 unit of the aspects related to transactional leadership style leads to a change in employee productivity by 0.436 units.

Transactional leadership in nursing also plays a pivotal role in shaping employees' productivity. Characterized by a focus on structure, order, and a system of rewards and punishments, transactional leadership establishes clear expectations and performance standards. In a nursing context, this style can enhance productivity by providing nurses with a structured framework and well-defined roles. Transactional leaders use contingent rewards, such as recognition or promotions, to motivate nurses to meet established goals and adhere to protocols. The clarity in expectations and the use of rewards create a sense of accountability and goal attainment among nursing staff. However, while transactional leadership can bring about immediate and tangible results, it may not foster the same level of intrinsic motivation and long-term engagement as transformational leadership. Nonetheless, the transactional leadership style remains an influential factor in optimizing nursing employees' productivity through its emphasis on accountability, structure, and rewards.

The results indicate that organizations should focus on developing and training their leaders to exhibit transformational and transactional leadership behaviors in order to increase employee productivity. However, it is important to note that there may be other factors that could affect employee productivity that were not considered in the study. Overall, the study suggests that transactional leadership style is important for improving employee productivity and organizations should consider implementing these leadership styles to enhance employee performance (Kariuki & Muturi, 2020; Kipkoech & Mutai, 2020).

5.2.3 The moderating role of Task Structure on the effect that Leadership Style has on Nursing Employees' Productivity

From the descriptive results, the respondents generally agree that the organization has clear set goals, mission and values, there is a clear chain of command, each employee has a clearly assigned job description, tasks are clearly simplified for clarity, and leaders are supportive to employees on complex tasks. However, there may be room for improvement in terms of having a clear reward and compensation policy, as well as in promoting a stronger sense of responsibility and accountability among employees and leaders. Likewise, task structure and employee productivity have a negative and significant relationship ($r= 0.758^{**}$, $p=0.0.00$). The r value of 0.758 indicates a value of greater than 0 which implies that task structure is a linear

variable and a negative association with employee productivity. The regression findings therefore, confirmed that there is a positive and significant moderating effect of task structure on the relationship between transformational leadership style and employee productivity ($\beta = 0.111, p=0.000$).

Shull et al. (2019) also found that task structure moderated the relationship between transactional leadership style and employee productivity, with the positive effect of transactional leadership being stronger in high task structure conditions compared to low task structure conditions. Wu et al. (2020) in China likewise, acknowledged that task structure significantly moderated the relationship between transformational leadership style and nursing employee productivity. Specifically, the positive effect of transformational leadership on nursing employee productivity was stronger in high task structure conditions compared to low task structure conditions. DeCicco et al. (2019) found that task structure significantly moderated the relationship between transformational leadership style and nurse productivity, with the positive effect of transformational leadership being stronger in high task structure conditions compared to low task structure conditions.

5.3 Conclusion of the study

The study finds conclusive evidence that transformational leadership style has a positive and statistically significant relationship with employee productivity. It was also confirmed that transactional leadership style has a positive and statistically significant relationship with employee productivity. This indicates that when leaders adopt transformational and transactional leadership styles, they are more likely to inspire and motivate their employees, which results in increased productivity. Leaders who exhibit transformational leadership behaviors such as inspiring their followers, providing individualized consideration, intellectually stimulating their employees, and exhibiting idealized influence can enhance employee productivity. Similarly, leaders who use transactional leadership behaviors such as providing rewards, setting goals, and monitoring performance can also improve employee productivity.

The results indicate that organizations should focus on developing and training their leaders to exhibit transformational and transactional leadership behaviors in order to increase employee productivity. However, it is important to note that there may be other factors that could affect employee productivity that were not considered in the study. Overall, the study suggests that

both transformational and transactional leadership styles are important for improving employee productivity and organizations should consider implementing these leadership styles to enhance employee performance

The findings also concludes that there is a positive and significant moderating effect of task structure on the relationship between transformational leadership style and employee productivity. This suggests that the influence of transformational and transactional leadership styles on employee productivity is stronger when there is high task structure. This implies that hospital managers can create a more structured work environment by setting clear goals, providing guidance and resources, and defining roles and responsibilities to enhance the effects of transformational and transactional leadership styles on employee productivity

The results also concludes that there is a positive and significant moderating effect of task structure on the relationship between transactional leadership style and employee productivity. Moreover, the positive and significant moderating effect of task structure on the relationship between transformational and transactional leadership styles and employee productivity suggests that leadership styles may not have the same impact on employee productivity in the absence of a structured work environment.

5.4 Recommendations of the study

This section presents the recommendations from the findings of the study with a focus on the research implications.

Since there was a positive and significant moderating effect of task structure on the relationship between transactional leadership style and employee productivity, the study, therefore, recommends that hospital managers should consider creating a more structured work environment to enhance the positive effects of transformational and transactional leadership styles on employee productivity.

The study recommends the ministry of health in conjunction with top management of Kenyan hospitals to develop proactive leadership training programs that focuses on effective leadership skills and techniques. Likewise, to implement a reward and recognition system that acknowledges and reinforces transformational leadership behaviors and outcomes. Likewise, to develop a performance management system that sets clear expectations and standards for employee performance and attendance.

The study offers practical recommendations for hospital management to enhance leadership effectiveness in healthcare settings. Firstly, it suggests the implementation of regular leadership coaching and feedback mechanisms to aid managers in developing and honing transformational leadership skills. Encouraging managers to lead by example is emphasized, advocating for the modeling of behaviors and values that align with organizational expectations. The study underscores the importance of fostering a culture of innovation, where experimentation is encouraged, and employees feel empowered to generate and share new ideas. Furthermore, the significance of charismatic leadership and visionary thinking is highlighted as essential drivers of organizational change and innovation. The study recommends placing emphasis on the role of emotional intelligence, recognizing its impact on building trust, motivating employees, and inspiring a heightened level of commitment. Lastly, the study encourages hospital management to be cognizant of situational and contextual factors that influence leadership effectiveness, emphasizing the need for flexibility and adaptability in leadership approaches based on the specific circumstances within the healthcare environment.

5.5 Further Research Areas

The main objective of this study is to investigate the moderating effect of task structure on the relationship between leadership styles and nurses' productivity in the selected hospitals in Nairobi County. The study provides insight into the need to explore other variables that could potentially affect employee productivity, such as work environment, communication, job satisfaction, and motivation. This was shown that transformational and transactional leadership styles account for 49.9% of the variance in nurse employee productivity in Kenya. This means that the remaining 50.1% of the variance may be attributed to other factors that were not considered in the study. Thus, future research in this area could examine the interaction of these variables with leadership styles to better understand their combined impact on employee productivity.

REFERENCES

- Abasilim, U. D., Gberevbie, D. E., & Osibanjo, O. A. (2019). Leadership styles and employees' commitment: Empirical evidence from Nigeria. *Sage Open*, 9(3), 2158244019866287.
- Adam, M. B., Muma, S., Modi, J. A., Steere, M., Cook, N., Ellis, W., ... & Hansen, E. N. (2018). Pediatric and obstetric outcomes at a faith-based hospital during the 100-day public sector physician strike in Kenya. *BMJ global health*, 3(2).
- Adebayo, A. S., Adebayo, G. O., Abayomi, A. O., & Olanrewaju, T. O. (2021). Task structure and employee performance: Evidence from selected Nigerian hospitals. *Cogent Business & Management*, 8(1), 1885105. doi: 10.1080/23311975.2021.1885105
- Adeyeye, M., & Adeyeye, C. (2019). Transactional leadership and employee job satisfaction in Nigeria. *Journal of Humanities and Social Sciences Research*, 1(1), 1-11.
- Aghahowa, O. M. (2021). Leadership Style and its Impact on Organizational Performance: Guinness Nigeria Plc, Benin City, Edo State, Nigeria.
- Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA*, 288(16), 1987-1993. doi: 10.1001/jama.288.16.1987
- Akinwande, M. O., Dikko, H. G., & Samson, A. (2015). Variance inflation factor: as a condition for the inclusion of suppressor variable (s) in regression analysis. *Open journal of statistics*, 5(07), 754.
- Al Khajeh, E. H. (2018). Impact of leadership styles on organizational performance. *Journal of Human Resources Management Research*, 2018, 1-10.
- Alavi, M., Archibald, M., McMaster, R., Lopez, V., & Cleary, M. (2018). Aligning theory and methodology in mixed methods research: Before design theoretical placement. *International Journal of Social Research Methodology*, 21(5), 527-540.
- Alfes, K., Truss, C., Soane, E. C., Rees, C., & Gatenby, M. (2013). The relationship between line manager behavior, perceived HRM practices, and individual performance: Examining the mediating role of engagement. *Human Resource Management*, 52(6), 839-859.
- Alharbi, A. Y. (2017). Leadership styles of nurse managers and their effects on nurse and organisational performance, issues and problems. *International Journal of Information Research and Review*, 4(9), 4516-4525.
- Alloubani, A., Abdelhafiz, I. M., Abughalyun, Y., Edris, E. E. M., & Almukhtar, M. M. (2015). Impact of leadership styles on leadership outcome (effectiveness, satisfaction and extra effort) in the private healthcare sector in Jordan. *European Scientific Journal*, 2, 286-298.
- Al-Matari, E. M., Al-Swidi, A. K., & Fadzil, F. H. B. (2014). The measurements of firm performance's dimensions. *Asian Journal of Finance & Accounting*, 6(1), 24.
- Al-Nsour, M., Al-Qadire, M., Al-Hussami, M., & Darawad, M. (2020). Transactional and transformational leadership styles and their impact on nurses' job satisfaction and absenteeism in Jordanian hospitals. *Journal of nursing management*, 28(1), 114-123.
- Alshammari, M. H., & Alenezi, A. (2023). Nursing workforce competencies and job satisfaction: the role of technology integration, self-efficacy, social support, and prior experience. *BMC nursing*, 22(1), 308.

- Anyango, C. A. (2015). Effects of leadership styles on employee performance at Boa Kenya limited.
- Arif, S., & Akram, A. (2018). Transformational leadership and organizational performance: the mediating role of organizational innovation. *SEISENSE Journal of Management*, 1(3), 59-75.
- Arimi, P. M., & Ombati, M. O. (2018). The influence of task structure on leadership style and employee performance in public health sector in Kenya. *European Journal of Business and Management Research*, 3(2), 1-9.
- Asgari, A., Mezghinejad, S., & Taherpour, F. (2020). The role of leadership styles in organizational citizenship behavior through the mediation of perceived organizational support and job satisfaction. *Innovar*, 30(75), 87-98.
- Asimwe, J. B., Kavoo-linge, T., & Sikalieh, D. (2016). The Relationship between Transactional Leadership Style and SMEs Growth in the Top 100 SMEs in Kenya. *International Journal of Business and Social Science*, 7(7), 74-81.
- Ayeleke, R. O., Dunham, A., North, N., & Wallis, K. (2018). The concept of leadership in the health care sector. *Leadership*, 83-95.
- Bacidore, J. M., Boquist, J. A., Milbourn, T. T., & Thakor, A. V. (1997). The search for the best financial performance measure. *Financial Analysts Journal*, 53(3), 11-20.
- Baker, C. (2017). Quantitative research designs: Experimental, quasi-experimental, and descriptive. *Evidence-based practice: An integrative approach to research, administration, and practice*, 155-183.
- Bass, B. M., & Riggio, R. E. (2006). Transformational leadership. Psychology Press.
- Bass, B. M., & Riggio, R. E. (2010). The transformational model of leadership. *Leading organizations: Perspectives for a new era*, 2, 76-86.
- Best, R. K., Edelman, L. B., Krieger, L. H., & Eliason, S. R. (2011). Multiple disadvantages: An empirical test of intersectionality theory in EEO litigation. *Law & Society Review*, 45(4), 991-1025.
- Bhatti, M. A., & Alyahya, M. (2021). Role of leadership style in enhancing health workers job performance. *Polish Journal of Management Studies*, 24(2), 55-66.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
<https://researchportal.scu.edu.au/discovery/fulldisplay/alma990000411780402368/61>
 SCU_INST:ResearchRepository
- Bush, S., Michalek, D., & Francis, L. (2020). Perceived Leadership Styles, Outcomes of Leadership, and Self-Efficacy Among Nurse Leaders: A Hospital-Based Survey to Inform Leadership Development at a US Regional Medical Center. *Nurse leader*.
- Caricati, L., Menghi, C., & Iavicoli, S. (2019). Transactional leadership and nurse performance: The moderating role of job demands. *Journal of Health Organization and Management*, 33(6), 735-751. <https://doi.org/10.1108/JHOM-10-2018-0275>
- Chen, C. M., & Chang, Y. Y. (2013). Leadership style, empowerment, and self-efficacy on job satisfaction: A cross-sectional study of nurses in Taiwan. *Journal of Nursing Research*, 21(3), 180-189.

- Chirwa, M. L., Chirwa, W. C., & Malema, D. N. (2019). The Impact of Leadership Styles on Employee Productivity. *Journal of Management and Strategy*, 10(3), 25-36. doi: 10.5430/jms.v10n3p25
- Comrey, A. L., & Lee, H. B. (2013). *A first course in factor analysis*. Psychology press.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297-334.
- Cummings, G. G., MacGregor, T., Davey, M., Lee, H., Wong, C. A., Lo, E., ... & Stafford, E. (2010). Leadership styles and outcome patterns for the nursing workforce and work environment: a systematic review. *International journal of nursing studies*, 47(3), 363-385.
- Debebe, R. (2020). The Effect of leadership style and organizational culture on performance of small and medium enterprises in Jig-Jiga city: A Literature Review.
- Desale, A., Taye, B., Belay, G., & Nigatu, A. (2013). Assessment of laboratory logistics management information system practice for HIV/AIDS and tuberculosis laboratory commodities in selected public health facilities in Addis Ababa, Ethiopia. *Pan African Medical Journal*, 15(1).
- Diab, S. M., & Ajlouni, M. T. (2015). The influence of training on employee's performance, organizational commitment, and quality of medical services at Jordanian private hospitals. *International Journal of Business and Management*, 10(2), 117.
- Dim, E., & Nzube, C. A. (2020). Effect Of Leadership Styles On Organizational Performance Of Selected Foam Manufacturing Firms In Anambra State. *International Journal Of Management And Entrepreneurship*, 2(1), 13-27.
- Downton, J. V. (1973). *Rebel leadership: Commitment and charisma in the revolutionary process*. Free Press.
- Duffield, C., Roche, M., O'Brien-Pallas, L., Catling-Paull, C., & King, M. (2004). Staff satisfaction and retention and the role of the nursing unit manager. *Collegian*, 11(2), 22-28. doi: 10.1016/S1322-7696(08)60133-8
- Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future. *Journal of management*, 38(6), 1715-1759.
- Ebrahimi, P., Moosavi, S. M., & Chirani, E. (2016). Relationship between leadership styles and organizational performance by considering innovation in manufacturing companies of Guilan Province. *Procedia-Social and Behavioral Sciences*, 230, 351-358.
- El Toufaili, B. (2017). The Effects of Transformational Leadership on Organizational Performance-A Theoretical Approach. In *Proceedings of the International Management Conference* (Vol. 11, No. 1, pp. 153-163).
- Emmanuel, U. R., & Okorie, U. E. (2019). Leadership styles and employee productivity: A study of selected commercial banks in Nigeria. *Journal of Management*, 6(3), 10-21. doi: 10.11648/j.mgmt.20190703.11
- Fagerström, L., & Kinnunen, M. (2012). Nursing productivity: Concept analysis and evaluation. *Journal of Advanced Nursing*, 68(6), 1312-1321.
- Fiaz, M., Su, Q., Ikram, A., & Saqib, A. (2017). Leadership Styles And Employees 'motivation: Perspective From An Emerging Economy. *The Journal of Developing Areas*, 51(4), 143-156.

- Fiedler, F. E. (1964). A contingency model of leadership effectiveness. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 1, pp. 149-190). Academic Press.
- Fiedler, F.E. (1958) *Leader Attitudes and Group Effectiveness*. University of Illinois Press, Urbana, IL. <https://www.researchgate.net/publication/232569418> Leader Attitudes and Group Effectiveness
- Fisher, R. A. (1956). *Statistical methods and scientific inference*.
- Frandsen, B. (2014). *Nursing leadership management & leadership styles*. AANAC, American Association of Nurse Assessment Coordination: Denver, CO, USA.
- Gaturu, P., & Oigo, D. (2018). Influence of Hospital Capabilities on Organizational Performance of Mission Hospitals in Kenya. *Journal of Business and Economic Development*, 3(1), 17.
- Gerstner, C. R., & Day, D. V. (1997). Meta-Analytic review of leader–member exchange theory: Correlates and construct issues. *Journal of applied psychology*, 82(6), 827.
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: a guide for non-statisticians. *International journal of endocrinology and metabolism*, 10(2), 486.
- Gile, P. P., Van De Klundert, J., & Van De Broek, J. (2015). The link between management practices, health professional performance and patient outcomes. *Working Paper of Public Health*, 4(1).
- Gottfredson, R. K., Wright, S. L., & Heaphy, E. D. (2020). A critique of the leader-member exchange construct: back to square one. *The Leadership Quarterly*, 31(6), 101385.
- Gottlieb, L. N., Gottlieb, B., & Bitzas, V. (2021). Creating empowering conditions for nurses with workplace autonomy and agency: how healthcare leaders could be guided by strengths-based nursing and healthcare leadership (SBNH-L). *Journal of Healthcare Leadership*, 169-181.
- Graen, G. B., & Canedo, J. (2016). *The new workplace leadership development*. https://www.researchgate.net/publication/312917143_Inside_the_LMX_black_box
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The leadership quarterly*, 6(2), 219-247.
- Gujral, A., Gautam, P., & Kaur, H. (2018). Measuring employee productivity: A review of metrics and methodologies. *Journal of Economics, Management and Trade*, 22(3), 1-10.
- Gupta, A., & Govindarajan, V. (2018). Vroom-Yetton decision-making model: A critical review. *Journal of Management*, 44(7), 2840-2865.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250-279.
- Hao, M. J., & Yazdanifard, R. (2015). How effective leadership can facilitate change in organizations through improvement and innovation. *Global journal of management and business research*.
- Hassan, Z., Spulbar, C., Birau, R., Mushtaq, M., & Carmen Bărbăcioru, I. (2023). Relationship among leadership styles, employee's well-being and employee's safety behavior:

- empirical evidence of COVID-19 from the frontline healthcare workers. *Economic research-Ekonomska istraživanja*, 36(1).
- Hawkins, F. H. (2017). *Human factors in flight*. Routledge.
- Hayes, B., Bonner, A., Pryor, E., & Johnson, J. (2018). The Relationship between Nursing Leadership and Nurses' Job Satisfaction in Canadian Oncology Work Environments. *Journal of Nursing Management*, 26(1), 87-95. doi: 10.1111/jonm.12538
- House, R. J. (1971). A path-goal theory of leader effectiveness. *Administrative Science Quarterly*, 16(3), 321-339.
- House, R. J., & Mitchell, T. R. (1975). *Path-goal theory of leadership*. Washington Univ Seattle Dept Of Psychology.
- Ittner, C. D., Larcker, D. F., & Randall, T. (2003). Performance implications of strategic performance measurement in financial services firms. *Accounting, organizations and society*, 28(7-8), 715-741.
- Jawahar, I. M., & Williams, C. R. (2017). A review of path-goal theory: House and Mitchell. *Journal of Management*, 43(6), 1852-1884.
- Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology*, 89(5), 755-768.
- Jung, Y., Yoo, Y., & Kim, J. (2018). The impact of transformational and transactional leadership on nurses' job stress, job satisfaction, and organizational commitment in healthcare settings. *Journal of Korean Academy of Nursing Administration*, 24(5), 460-469.
- Kamau, S., Rotich, J., Kimosop, J. K., & Kinyanjui, D. V. (2020). Workload, job satisfaction, and missed nursing care: A cross-sectional study among nurses in Kenyan public hospitals. *BMC nursing*, 19(1), 1-10. doi: 10.1186/s12912-020-00422-2
- Kariuki, P. M., & Muturi, W. (2020). Transactional leadership style and employee productivity in the telecommunications sector in Kenya. *International Journal of Scientific Research and Innovative Technology*, 7(3), 43-54.
- Khan, R., Bukhari, A., & Channar, Z. A. (2016). Effects of leadership style on health care organizational performance: A survey of selected tertiary care hospital in Karachi, *Pakistan. Int J Econ Manag Sci*, 5(333), 2.
- Kipkoech, G. K., & Mutai, B. K. (2020). Transactional leadership style and employee productivity in the banking sector in Kenya. *International Journal of Economics, Commerce and Management*, 8(5), 59-71.
- Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of higher education*, 6(5), 26-41.
- Kocaman, G., Seren Intepeler, S., & Düzgün, Ş. (2020). Transactional leadership style and nursing employee productivity: A cross-sectional study. *Journal of Nursing Management*, 28(4), 847-855.
- Koech, P. M., & Namusonge, G. S. (2012). The effect of leadership styles on organizational performance at state corporations in Kenya. *International Journal of Business and Commerce*, 2(1), 1-12.

- Korkmaz, O., & Akyol, A. D. (2021). The effect of task structure on the relationship between transactional leadership and nurse productivity: A cross-sectional study. *Journal of Nursing Management*, 29(2), 296-303. <https://doi.org/10.1111/jonm.13127>
- Lee, J. H., Seo, D. Y., & Kim, H. S. (2021). The Moderating Effect of Nurses' Job Demands on the Relationship between Transformational Leadership and Burnout. *International Journal of Environmental Research and Public Health*, 18(8), 4215. <https://doi.org/10.3390/ijerph18084215>
- Lewin, K. (1939). Field theory and experiment in social psychology: Concepts and methods. *American journal of sociology*, 44(6), 868-896.
- Li, X., Liang, J., & Wang, W. (2021). The Impact of Transformational Leadership on Employee Absenteeism: The Mediating Role of Job Satisfaction and Organizational Commitment. *Frontiers in Psychology*, 12, 734239. <https://doi.org/10.3389/fpsyg.2021.734239>
- Li, Y., Jones, C. B., & Liu, Y. (2015). Impact of leadership styles on employees' job satisfaction and organizational commitment in a Chinese insurance company. *Journal of Business and Management*, 4(1), 15-27.
- Likert, R. (1961). *New patterns of management*. McGraw-Hill. <https://psycnet.apa.org/record/1962-05581-000>
- Liu, X., Song, Y., & Zhang, S. (2019). Transformational leadership and nursing employee productivity: A meta-analysis. *Journal of Advanced Nursing*, 75(12), 3119-3132.
- Mah'd Alloubani, A., Almatari, M., & Almukhtar, M. M. (2014). Effects of leadership styles on quality of services in healthcare. *European Scientific Journal*, 10(18).
- Marangu, W. N., Rebecca, O., & Egessa, R. (2015). An Assessment of the Effect of Leadership Style on the Performance of Public Health Service Providers: A Case of Western Kenya. *European Journal of Business and Management*, 7(19), 1-8.
- Martínez-Moreno, E., Zornoza, A., & Pascual-Ezama, D. (2019). Path-goal theory of leadership: A meta-analysis. *Journal of Management*, 45(5), 1845-1873.
- Mashovic, A. (2018). Key financial and nonfinancial measures for performance evaluation of foreign subsidiaries. *Journal of Contemporary Economic and Business Issues*, 5(2), 63-74.
- Mbombi, M. O., Mothiba, T. M., Malema, R. N., & Malatji, M. (2018). The effects of absenteeism on nurses remaining on duty at a tertiary hospital of Limpopo province. *Curationis*, 41(1), 1-5.
- Mishra, D., Akman, I., & Mishra, A. (2014). Theory of reasoned action application for green information technology acceptance. *Computers in human behaviour*, 36, 29-40
- Mitchell, T. R., & Boyle, E. (2015). Understanding the theory and design of organizations: Path-goal theory of leadership. *Organizational Dynamics*, 44(4), 218-226.
- Muthoka, M. K. (2017). *Influence of Employee Relations Practices on Organisational Performance of Public Healthcare Sector in Kenya* (Doctoral dissertation, COHRED, JKUAT).
- Nawose Ing'ollan, D., & Roussel, J. (2017). Influence of leadership styles on employees' performance: A study of Turkana County, Kenya. *International Journal of Business and Social Science*, 8(7), 82-98.

- Nawose Ing'ollan, D., & Roussel, J. (2017). Influence of leadership styles on employees' performance: A study of Turkana County, Kenya. *International Journal of Business and Social Science*, 8(7), 82-98.
- Nemoto, T., & Beglar, D. (2014). Likert-scale questionnaires. In *JALT 2013 conference proceedings* (pp. 1-8).
- Nigri, G., & Del Baldo, M. (2018). Sustainability reporting and performance measurement systems: How do small-and medium-sized benefit corporations manage integration?. *Sustainability*, 10(12), 4499.
- Nkomo, S. M., & Chinyamurindi, W. T. (2018). Leadership styles and employee productivity in the South African public sector. *South African Journal of Human Resource Management*, 16(1), a1010. doi: 10.4102/sajhrm.v16i0.1010
- Northouse, P. G. (2018). *Leadership: Theory and practice* (7th ed.). Sage Publications.
- Nyikuri, M. M., Tsofa, B., Okoth, P., Barasa, E. W., Molyneux, S., & English, M. (2014). Health workforce migration in Kenya: an analysis of the correlates of physician inflows and outflows at Kenyatta National Hospital. *Health services research*, 49(1), 142-158. doi: 10.1111/1475-6773.12088
- Odumeru, J. A., & Ogbonna, I. G. (2013). Transformational vs. transactional leadership theories: Evidence in literature. *International review of management and business research*, 2(2), 355.
- Ongori, J. M. (2019). *Human resource management practices influencing performance of nursing officers in Nyeri County, Kenya* (Doctoral dissertation, KeMU).
- Opondo, A., Otuya, R., Oloko, M., & Ouma, D. (2018). The influence of transformational leadership on employee productivity: A case of selected organizations in Kenya. *International Journal of Business and Management Invention*, 7(7), 22-29.
- Orabi, T. G. A. (2016). The impact of transformational leadership style on organizational performance: Evidence from Jordan. *International Journal of Human Resource Studies*, 6(2), 89-102.
- Osborne, J. W., & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical assessment, research, and evaluation*, 8(1), 2.
- Otieno, G. N., & Okello, M. C. (2021). The impact of transformational leadership on employee productivity in the health sector in Kenya: The mediating role of job satisfaction. *Journal of Healthcare Leadership*, 13, 55-64.
- Otieno, G., Maina, E., Mburu, J., & Kamau, K. (2019). An evaluation of the impact of hospital restructuring on service delivery at The Mater Misericordiae Hospital, Nairobi, Kenya. *International journal of health planning and management*, 34(1), e305-e314. doi: 10.1002/hpm.2663
- Pakpour, A. H., Zeidi, I. M., Saffari, M., Labiris, G., & Fridlund, B. (2014). Relationship between job stress, workload, and burnout and nurses' creativity. *Journal of Nursing Scholarship*, 46(5), 415-423.
- Podsakoff, P. M., Mackenzie, S. B., & Bommer, W. H. (1996). Transformational leader behaviors and substitutes for leadership as determinants of employee satisfaction, commitment, trust, and organizational citizenship behaviors. *Journal of management*, 22(2), 259-298.

- Poels, J., Verschueren, M., Milisen, K., & Vlaeyen, E. (2020). Leadership styles and leadership outcomes in nursing homes: a cross-sectional analysis. *BMC Health Services Research*, 20(1), 1-10.
- Qureshi, M. I., Akram, T., Naeem, B., & Rizwan, M. (2018). An empirical analysis of the impact of job satisfaction and leadership style on employee productivity. *Pakistan Journal of Commerce and Social Sciences*, 12(2), 542-558.
- R. Zhao, Y. H. Sheng DOI: 10.4236/jss.2019.77033 410 Open Journal of Social Sciences
- Ree, E., & Wiig, S. (2019). Employees' perceptions of patient safety culture in Norwegian nursing homes and home care services. *BMC health services research*, 19(1), 1-7.
- Robert, V., & Vandenberghe, C. (2021). Laissez-faire leadership and affective commitment: The roles of leader-member exchange and subordinate relational self-concept. *Journal of Business and Psychology*, 36(4), 533-551.
- Rony, M. K. K., Numan, S. M., & Alamgir, H. M. (2023). The association between work-life imbalance, employees' unhappiness, work's impact on family, and family impacts on work among nurses: A Cross-sectional Study. *Informatics in Medicine Unlocked*, 38, 101226.
- Saari, M., Jones, C., & Petrini, M. A. (2020). Contemporary methods of measuring nursing productivity: An integrative review. *Journal of nursing management*, 28(4), 725-734. doi: 10.1111/jonm.12987
- Salmerón, R., García, C. B., & García, J. (2018). Variance inflation factor and condition number in multiple linear regression. *Journal of Statistical Computation and Simulation*, 88(12), 2365-2384.
- Sang, K. V. (2018). *Effects of devolution on technical efficiency of healthcare services delivery in Bomet county, Kenya* (Doctoral dissertation, Kenyatta University).
- Sari, M. (2005). An analysis of the nursing profession in Turkey. *Journal of Professional Nursing*, 21(1), 23-30.
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). John Wiley & Sons.
- Sfantou, D. F., Laliotis, A., Patelarou, A. E., Sifaki-Pistolla, D., Matalliotakis, M., & Patelarou, E. (2017, December). Importance of leadership style towards quality-of-care measures in healthcare settings: a systematic review. In *Healthcare* (Vol. 5, No. 4, p. 73). Multidisciplinary Digital Publishing Institute.
- Sharif, F., Rezaei, S., & Keshavarzi, S. (2018). The relationship between transactional leadership style and nurses' productivity in Iran. *Journal of Education and Health Promotion*, 7(1), 28.
- Shrestha, S., & Dhakal, S. (2019). Employee productivity: A review of literature. *Journal of Management and Business Research*, 1(1), 16-23.
- Sikorska-Simmons, E., Morris, D. L., & Miller, J. K. (2017). The moderating effect of task structure on the relationship between leadership style and job satisfaction among nurses. *Journal of Nursing Administration*, 47(9), 443-448.
- Skogstad, A., Einarsen, S., Torsheim, T., Aasland, M. S., & Hetland, H. (2007). The destructiveness of laissez-faire leadership behavior. *Journal of occupational health psychology*, 12(1), 80.

- Smith, J. G., Kim, J. H., & Kautz, D. D. (2020). Measuring nursing productivity in the acute care setting: a systematic review. *Journal of nursing management*, 28(5), 1083-1093. doi: 10.1111/jonm.12989
- Specchia, M.L., Cozzolino, M.R., Carini, E., Di Pilla, A., Galletti, C., Ricciardi, W. and Damiani, G., (2021). Leadership styles and nurses' job satisfaction. Results of a systematic review. *International journal of environmental research and public health*, 18(4), p.1552
- Suratno, K. (2018). The relationship between transformational leadership and quality of nursing work life in hospital. *International Journal of Caring Sciences*, 11(3), 1416-1422.
- Tang, H., Long, L. and Zhou, R. (2015) Humble Leadership Behavior and Subordinates' Work Engagement: A Mediated Moderation Model. *Journal of Management Science*, 3, 77-89
- Tourangeau, A. E., Cranley, L. A., Jeffs, L., & Pallas, L. O. (2008). Impact of nursing on hospital patient mortality: A focused review and related policy implications. *Quality and Safety in Health Care*, 17(1), 4-8.
- Tulvinschi, M. (2013). The accounting profit—a measure of the performance of the business entity. *The USV Annals of Economics and Public Administration*, 13(1 (17)), 140-148.
- Tzeng, H. M., & Ketefian, S. (2003). Demand for and shortage of registered nurses in the US: a critical review of the literature. *Journal of Healthcare Management*, 48(2), 111-126.
- Udayanga, M. V. S. S. (2020). The Impact of the Transactional Leadership on Organizational Productivity: A Monographic Study. *Educational Research (IJMCER)*, 2(5), 297-309.
- Vecchio, R. P. (2007). Situational leadership theory: An examination of a prescriptive theory. *Journal of Applied Psychology*, 92(5), 1365-1376. doi: 10.1037/0021-9010.92.5.1365
- Vroom, V. H., & Jago, A. G. (2007). The role of the situation in leadership. *American Psychologist*, 62(1), 17-24.
- Wahab, S., Rahmat, A., Yusof, M. S., & Mohamed, B. (2016). Organization performance and leadership style: Issues in Education Service. *Procedia-Social and Behavioral Sciences*, 224, 593-598.
- Waiganjo, P., Ochola, E., & Omondi, G. B. (2015). Hospital information systems in Kenya: a case of The Nairobi Hospital. *Health informatics journal*, 21(1), 58-68. doi: 10.1177/1460458213517229
- Waithaka, D., Kagwanja, N., Nzinga, J., Tsofa, B., Leli, H., Mataza, C., ... & Molyneux, S. (2020). Prolonged health worker strikes in Kenya-perspectives and experiences of frontline health managers and local communities in Kilifi County. *International journal for equity in health*, 19(1), 23.
- Wang, L., Tao, H., Ellenbecker, C. H., Liu, X., & Yin, X. (2019). Transactional leadership, work engagement, and nurse productivity. *Journal of Nursing Management*, 27(3), 529-537.
- Wang, L., Xiao, L., & He, M. (2020). The relationship between transformational leadership and nursing employee productivity: Job satisfaction as a mediator. *Journal of Advanced Nursing*, 76(1), 345-354.

- Wang, S. H., Hsu, S. H., & Chen, C. C. (2018). The relationship among leadership behavior, job satisfaction, and nurse absenteeism: A study of hospital nurses in Taiwan. *Journal of nursing research*, 26(4), 256-264.
- Wang, Y., Liu, Y., & Liu, S. (2018). The effects of leadership style and emotional intelligence on nurse burnout: A structural equation modelling analysis. *Journal of Advanced Nursing*, 74(2), 396-407. <https://doi.org/10.1111/jan.13451>
- Wang, Y., Liu, Y., & Yang, J. (2020). Effects of nurse manager leadership style, organizational climate, and nurse work characteristics on patient care quality: A cross-sectional survey. *Journal of Clinical Nursing*, 29(1-2), 200-209. <https://doi.org/10.1111/jocn.15094>
- Wang, Z., Liu, Y., & Liu, S. (2019). Authoritarian leadership and task performance: the effects of leader-member exchange and dependence on leader. *Frontiers of Business Research in China*, 13(1), 1-15.
- Warri, D. (2021). Effects of Leadership Styles on Quality of Health Services in Cameroon. DOI: <https://doi.org/10.21203/rs.3.rs-389590/v1>.
- Weberg, D., & Davidson, S. (2019). *Leadership for evidence-based innovation in nursing and health professions*. Jones & Bartlett Learning.
- Wong, C. A., & Cummings, G. G. (2007). Nursing leadership and nursing outcomes: State of the science. *Journal of Nursing Management*, 15(6), 751-764. doi: 10.1111/j.1365-2834.2007.00827.x
- Wong, C. A., & Cummings, G. G. (2007). The relationship between nursing leadership and patient outcomes: a systematic review. *Journal of nursing management*, 15(5), 508-521.
- Wren, J. T. (1998). *James Madison and the ethics of transformational leadership*. JB Ciulla (Dzl.). Ethics: The heart of leadership içinde (ss. 145-168).
- Yang, S. U., & Chang, Y. H. (2020). The Relationship Between Transformational Leadership and Employee Absenteeism: A Moderated Mediation Model. *International Journal of Environmental Research and Public Health*, 17(16), 5738. <https://doi.org/10.3390/ijerph17165738>
- Yoo, H. J., & Kim, J. H. (2020). The Impact of Transformational Leadership on Employee Performance in Hospitals: The Mediating Role of Job Satisfaction and the Moderating Role of Nurse-Patient Ratios. *Healthcare*, 8(3), 270. <https://doi.org/10.3390/healthcare803>
- Ystaas, L. M. K., Nikitara, M., Ghobrial, S., Latzourakis, E., Polychronis, G., & Constantinou, C. S. (2023). The Impact of Transformational Leadership in the Nursing Work Environment and Patients' Outcomes: A Systematic Review. *Nursing Reports*, 13(3), 1271-1290.
- Yukl, G. (2013). *Leadership in organizations* (8th ed.). Pearson Education.
- Zhang, X., Jiang, L., & Ding, X. (2021). The Impact of Transformational Leadership on Employee Absenteeism: The Mediating Role of Psychological Capital and the Moderating Role of Workload. *Frontiers in Psychology*, 12, 772. <https://doi.org/10.3389/fpsyg.2021.661678>

Zhao, Q., Chen, C., & Chen, Y. (2019). Transformational leadership, job satisfaction, and nursing employee productivity: A cross-sectional study. *Journal of Nursing Management*, 27(8), 1783-1791.



APPENDICES

Appendix I : Letter of Introduction

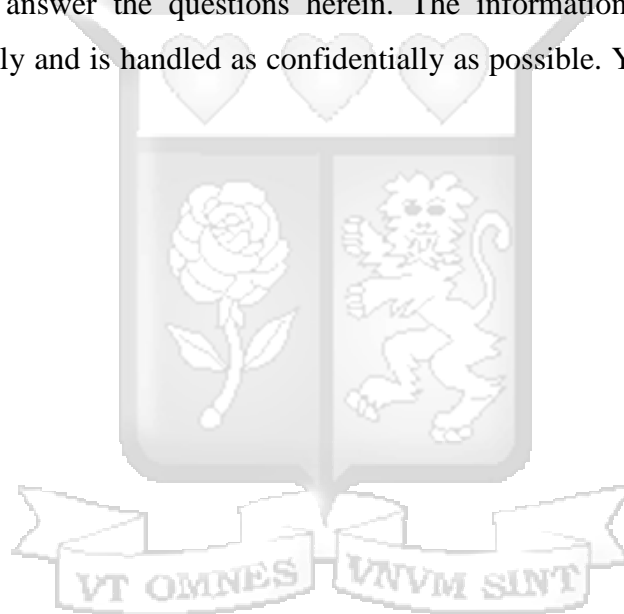
Dear (Respondent)

RE: VOLUNTARY PARTICIPATION IN DATA COLLECTION

In my latest thesis project on "*Impact of Leadership Styles on Nursing Employee Productivity in Selected Hospitals in Nairobi County, Kenya: The Moderating Role of Task Structure*" I as a postgraduate student am mandated to carry out a field survey to obtain a master's degree in business administration at Strathmore University. To complete the questionnaire, you were randomly selected to answer the questions herein. The information supplied is used for academic purposes only and is handled as confidentially as possible. You are appreciated for your participation.

Yours Faithfully,

Nicholas Muriuki



Appendix II: Questionnaire

Kindly answer the following questions as honestly as possible. The information given will be considered private and confidential. Kindly respond to all the questions provided as candidly as you possibly can. Please **TICK** [✓] against your preferred response in the box [] provided. Do not reveal your identity in this questionnaire. You are encouraged to give your honest opinion.

Section A: Personal Information

1. What is your gender?

a) Male []

b) Female []

2. What is your age bracket?

Below 30 years [] 30-35 years []

35-40 years [] 40-55 years []

Above 55 years []

3. What is your highest qualification?

Secondary []

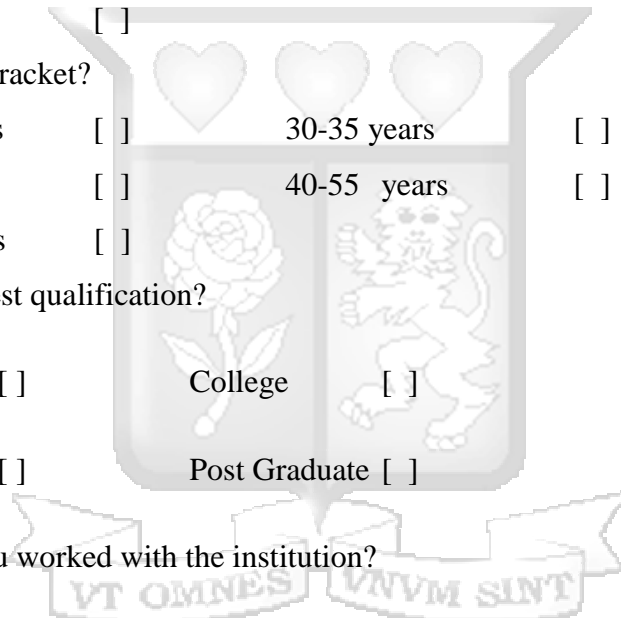
College []

Graduate []

Post Graduate []

4. How long have you worked with the institution?

Below 5 years [] 6-10 years [] above 10 Years []



Section B: Transformational leadership style

5. Kindly use the Likert scale to rate the extent to which you agree with the following statements on transformational leadership style. Tick your answer in the box provided. Use the scale of **Strongly Agree (5) Agree (4) Not Sure (3) Disagree (2) and Strongly Disagree (1)**.

Statements	1	2	3	4	5
1. My leader has the ability to influence those working around him/her					
2. My leaders inspire me to meet my set job-related targets					
3. My leaders go the extra mile in training and improving my skills off the company record (e.g., during off days).					
4. My leaders encourage responsibility and accountability for the assigned tasks					
5. Leaders motivate staff towards common interests for the hospital's mission and vision					
6. Leaders are concerned with having tasks completed on time by employees					
7. I feel valued as a member of the team					
8. The hospital's top leaders seek options on how to solve various problems in the organization					
9. Our organization's leadership instills pride in the employees and therefore boosts their morale.					

Section C: Transactional leadership style

6. Kindly use the Likert scale to rate the extent to which you agree with the following statements on transactional leadership style. Tick your answer in the box provided. Use the scale of **Strongly Agree (5) Agree (4) Not Sure (3) Disagree (2) and Strongly Disagree (1)**.

Statements	1	2	3	4	5
1. I feel adequately rewarded for my work					
2. Teamwork is encouraged at my workplace					
3. My performance is regularly monitored and appraised					
4. My goals and objectives are clearly communicated					
5. Top leaders encourage creativity and innovation among the staff for the betterment of the organization.					
6. My leaders are more inclined to change					
7. The hospital leadership thrives on structured policies and procedures					

7. To what extent do you feel your immediate supervisor supports your job-related concerns?

- a. Not at all supportive
- b. Slightly supportive
- c. Moderately supportive
- d. Very supportive
- e. Extremely supportive

8. How would you rate the overall effectiveness of your immediate supervisor's leadership style?

- a. Ineffective
- b. Somewhat ineffective
- c. Moderately effective
- d. Very effective
- e. Extremely effective

Section D: Task Structure

9. Kindly use the Likert scale to rate the extent to which you agree with the following statements on employee productivity. Tick your answer in the box provided. Use the scale of **Strongly Agree (5) Agree (4) Not Sure (3) Disagree (2) and Strongly Disagree (1)**.

Statements	1	2	3	4	5
1. My leader shows a positive example of how firm objectives are to be achieved					
2. The organization has clear set goals, mission and values					
3. There is clear chain of command along the organizational structure					
4. Each employee has a clearly assigned job description					
5. There is clear reward and compensation policy in the firm					
6. There is clear sense of responsibility and accountability among employees and the leaders					
7. Tasks assigned to the employees are clearly simplified for clarity					
8. The leaders are supportive to employees on complex tasks					

10. How would you rate the level of task structure in your job?

- a. Low
- b. Moderate
- c. High

11. Do you feel that a higher level of task structure in your job would reduce your absenteeism?

- a. Yes
- b. No
- c. Not sure

Section E: Employees' Productivity

12. Kindly use the Likert scale to rate the extent to which you agree with the following statements on employee productivity. Tick your answer in the box provided. Use the scale of **Strongly Agree (5) Agree (4) Not Sure (3) Disagree (2) and Strongly Disagree (1)**.

Statements	1	2	3	4	5
1. Employees are able to deliver within the set deadlines					
2. Employees are able to deliver under less than perfect conditions					
3. Employees are eager to learn on ways of making themselves more productive					
4. Employees are open to conflict resolution					
5. Employees offer help and support to other teammates					
6. Employees are always punctual to work					
7. Employees are open to constructive feedback					
8. Employees have a sense of what to do and when to do					
9. Employees are able to identify and give top attention to top priorities					
10. Employees have good communication skills					

13. How many days of work have you missed in the past six months?

- a. 0 days
- b. 1-2 days
- c. 3-4 days
- d. 5-6 days
- e. More than 6 days

14. If yes, what are the primary reasons for your absences from work?

- a. Illness
- b. Family emergency
- c. Personal reasons
- d. Work-related stress
- e. Other (please specify): _____

15. Which leadership style do you think would be most effective in reducing absenteeism among nursing employees?

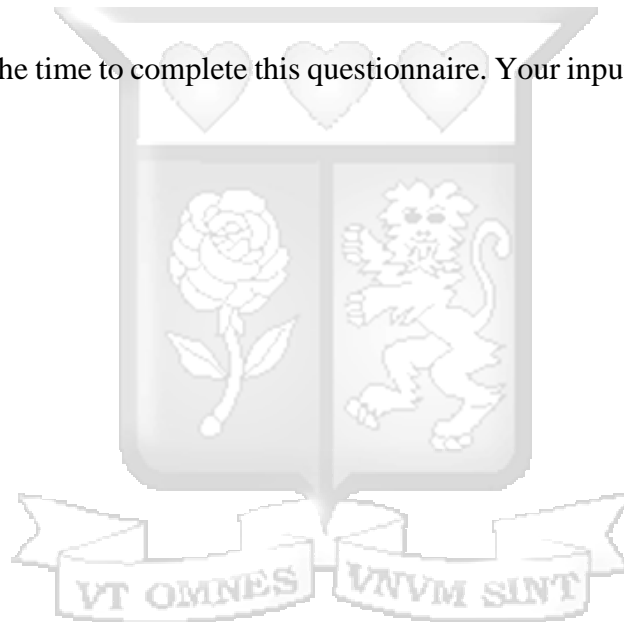
a. Transformational

b. Transactional

c. Other (please specify): _____

16. Do you have any additional comments or suggestions regarding the impact of transformational and transactional leadership style on nursing employees' absenteeism and the moderating role of task structure?

Thank you for taking the time to complete this questionnaire. Your input is greatly appreciated.



Appendix III: SU-ISERC Approval

RHInnO Ethics - SU-ISERC1741/23 - 1 of 1 - Date Issued: 2023-05-18

Strathmore University Institutional Scientific and Ethical Review Committee (SU-ISERC)



Final Decision

This is to certify that the application for ethics clearance submitted by:

Principal Investigator: Mr. MURIUKI, NICHOLAS NDERITU

Reference number: SU-ISERC1741/23

For Study: "EFFECTS OF LEADERSHIP STYLES ON NURSES' PRODUCTIVITY"

Was reviewed and received the following status: "approved"

Reviewer Comments

The SU-ISERC wishes you all the best with this research undertaking.

18 May 2023 09:06:16




Appendix IV: NACOSTI Approval

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

REPUBLIC OF KENYA

RefNo: 263725

RESEARCH LICENSE




This is to Certify that Mr., Nicholas Nderitu Muriuki of Strathmore university, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi County on the topic: EFFECT OF LEADERSHIP STYLE ON NURSES PRODUCTIVITY IN A PUBLIC, PRIVATE AND A FAITH-BASED HOSPITAL IN NAIROBI COUNTY, KENYA: THE MODERATING ROLE OF TASK STRUCTURE for the period ending : 12/June/2024.

License No: NACOSTI/P/23/25198

Applicant Identification Number: 263725

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code



NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application. See overleaf for conditions

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)
Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
 - i. Endanger national security
 - ii. Adversely affect the lives of Kenyans
 - iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
 - iv. Result in exploitation of intellectual property rights of communities in Kenya
 - v. Adversely affect the environment
 - vi. Adversely affect the rights of communities
 - vii. Endanger public safety and national cohesion
 - viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. The license any rights thereunder are non-transferable
5. The Commission reserves the right to cancel the research at any time during the research period if in the opinion of the Commission the research is not implemented in conformity with the provisions of the Act or any other written law.
6. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research.
7. Excavation, filming, movement, and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
8. The License does not give authority to transfer research materials.
9. The Commission may monitor and evaluate the licensed research project for the purpose of assessing and evaluating compliance with the conditions of the License.
10. The Licensee shall submit one hard copy, and upload a soft copy of their final report (thesis) onto a platform designated by the Commission within one year of completion of the research.
11. The Commission reserves the right to modify the conditions of the License including cancellation without prior notice.
12. Research, findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

National Commission for Science, Technology and
Innovation(NACOSTI),
Off Waiyaki Way, Upper Kabete,
P. O. Box 30623 - 00100 Nairobi, KENYA
Telephone: 020 4007000, 0713788787, 0735404245
E-mail: dg@nacosti.go.ke
Website: www.nacosti.go.ke