

**ANTECEDENTS OF ORGANISATIONAL EFFECTIVENESS
OF PUBLIC UNIVERSITIES
IN UGANDA**

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DECLARATION

This dissertation is my original work and has never been presented for a degree in any other university.

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APPROVAL

We as university supervisors confirm the work done by the candidate under our supervision.

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Dr. Wilson Mugizi

DEDICATION

I dedicate this piece of work to my beloved people. First, to my beloved Dad, the late Dan William Turyagenda and my beloved Mum Joy Kamajugo Turyagyenda for the great academic inspiration and the moral and financial support extended especially at the early age of my life. Secondly, to my beloved darling wife Peace Nuwamanya Turyahikayo for the moral, spiritual, financial and academic advice and other forms of support you extended to me throughout the entire journey of my PhD studies. To my beloved children Linton Mugabe, Leonie Muheki, Lynet Mbabazi, Levi Mwebesa, Lamson Mwesigwa and Leah Muhebwa for the spiritual moral support during my studies.

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TABLE OF CONTENTS

| | |
|--|-------|
| DECLARATION | ii |
| APPROVAL | iii |
| DEDICATION | iv |
| ACKNOWLEDGEMENT | v |
| TABLE OF CONTENTS | vii |
| LIST OF FIGURES | xvi |
| LIST OF TABLES | xix |
| ABSTRACT | xxiii |
| CHAPTER ONE: INTRODUCTION | 1 |
| 1.0 Introduction..... | 1 |
| 1.1Background | 1 |
| 1.1.1 Historical Background. | 1 |
| 1.1.2 The Theoretical Background..... | 9 |
| 1.1.3 The Conceptual Background..... | 11 |
| 1.1.4 The Contextual Background | 12 |
| 1.2 Statement of the Problem..... | 16 |
| 1.3 Purpose of the Study | 19 |
| 1.4 Objectives of the Study | 19 |
| 1.5 Hypotheses | 20 |
| 1.6 Scope of the Study | 20 |
| 1.6.1 Geographical Scope. | 20 |

| | |
|--|-----------|
| 1.6.2 Content Scope..... | 21 |
| 1.6.3 Time Scope..... | 21 |
| 1.7 Significance of the study..... | 22 |
| 1.8 Conceptual Framework..... | 23 |
| 1.9 Definition of Terms..... | 24 |
| CHAPTER TWO: LITERATURE REVIEW..... | 26 |
| 2.0 Introduction..... | 26 |
| 2.1 Theoretical Review..... | 26 |
| 2.2 Conceptual Review of Organisational Effectiveness..... | 30 |
| 2.2.1 Productivity..... | 33 |
| 2.2.2 Adaptability..... | 34 |
| 2.2.3 Flexibility..... | 35 |
| 2.3 Review of Related Literature..... | 36 |
| 2.3.1 Leadership Styles and Organisational Effectiveness..... | 36 |
| 2.3.1.1 Transformational leadership Style and Organisational Effectiveness..... | 40 |
| 2.3.1.1.1 Idealised influence leadership style and organisational effectiveness..... | 47 |
| 2.3.1.1.2 Inspirational motivation leadership style and organisational effectiveness..... | 51 |
| 2.3.1.1.3 Intellectual stimulation leadership style and organisational effectiveness..... | 54 |

| | |
|--|-----|
| 2.3.1.1.4 Individualised consideration leadership style and organisational effectiveness. | 56 |
| 2.3.1.2 Transactional Leadership Style and Organisational effectiveness..... | 59 |
| 2.3.1.2.1 Contingent reward and organisational effectiveness. | 64 |
| 2.3.1.2.2 Management by exception (active) and organisational effectiveness. | 66 |
| 2.3.1.2.3 Management by Exception (Passive) and Organisational Effectiveness..... | 72 |
| 2.3.2 Institutional culture and Organisational effectiveness | 75 |
| 2.3.2.1 Cultural Artefacts and Organisational Effectiveness. | 82 |
| 2.3.2.2 Espoused values and organisational effectiveness..... | 85 |
| 2.3.2.3 Basic underlying assumptions and organisational effectiveness. | 87 |
| 2.3.3 Leadership styles and communication | 88 |
| 2.3.4 Communication and Organisational effectiveness..... | 91 |
| 2.3.4.1 Communication climate and organisational effectiveness..... | 97 |
| 2.3.4.2 Communication flow and organisational effectiveness. | 100 |
| 2.3.4.3 Communication structure and organisational effectiveness. | 101 |
| 2.3.4.4 Message characteristics and organisational effectiveness. | 102 |
| 2.3.5 Leadership Styles, Institutional Culture and Organisational Effectiveness. | 105 |
| 2.3.6 Leadership Styles and Organisational Effectiveness mediated by communication | 108 |

| | |
|---|------------|
| CHAPTER THREE: METHODOLOGY | 112 |
| 3.0 Introduction..... | 112 |
| 3.1 Research Philosophy | 112 |
| 3.2 Research Approach | 113 |
| 3.3 Research Design..... | 113 |
| 3.4 Study Population..... | 114 |
| 3.5 Sample Size Determination..... | 114 |
| 3.6 Sampling Procedures | 115 |
| 3.7 Measurement of Variables | 116 |
| 3.8 Data Collection Instruments | 117 |
| 3.9 Research Procedure..... | 118 |
| 3.10 Data Quality Control..... | 118 |
| 3.10.1 Validity. | 119 |
| 3.10.2 The Reliability. | 121 |
| 3.11 Data Management | 123 |
| 3.11.1 Data Processing..... | 123 |
| 3.11.1.1 Missing Data Analysis. | 123 |
| 3.11.2 Outlier Analysis. | 127 |
| 3.11.3 Multicollinearity. | 131 |
| 3.11.4 Normality and Linearity..... | 132 |
| 3.12 Data Analysis | 133 |

3.13 The Research Ethical Considerations134

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND

INTERPRETATION136

4.0 Introduction.....136

4.1 The Response Rates136

4.2 Demographic Characteristics136

4.3 Organisational Effectiveness142

4.3.1 Productivity Effectiveness.142

4.3.1.1 Instructional Effectiveness.....142

4.3.1.2 Research Effectiveness.146

4.3.1.3 Extension Services Effectiveness.151

4.3.1.4 Financial Effectiveness.155

4.3.2 Adaptability Effectiveness159

4.3.2.1 The Change Focus Effectiveness.159

4.3.2.2 Customer Focus Effectiveness.....164

4.3.2.3 Organisational Learning Effectiveness.....168

4.3.3 Flexibility Effectiveness172

4.3.3.1 Operational Flexibility Effectiveness.172

4.3.3.2 Structural Flexibility Effectiveness.....176

4.3.3.3 Strategic Flexibility Effectiveness.180

4.3.3.4 Organisational Effectiveness Index184

4.3.3.5 The Structural Equation Model for Organisational Effectiveness.....186

| | |
|---|-----|
| 4.4 Leadership Style and Organisational Effectiveness..... | 188 |
| 4.4.1 Transformational Leadership Styles. | 189 |
| 4.4.1.1 The Idealised Influence-Attributed..... | 189 |
| 4.4.1.2 Idealised Influence-Behaviour. | 192 |
| 4.4.1.3 Inspirational Motivation..... | 195 |
| 4.4.1.4 Intellectual stimulation..... | 199 |
| 4.4.1.5 The Individualised Consideration. | 202 |
| 4.4.2 The Transactional Leadership Styles. | 205 |
| 4.4.2.1 Contingent Reward Leadership Style. | 205 |
| 4.4.2.2 Active Management-by-Exception Leadership Style | 208 |
| 4.4.2.3 The Passive-Avoidant Leadership Style. | 212 |
| 4.4.2.4 The Leadership style Index | 216 |
| 4.4.2.5 The Structural Equation Model for Leadership Styles. | 218 |
| 4.4.2.6 The Structural Equation Model for Leadership Styles and Organisational Effectiveness. | 220 |
| 4.5 The Institutional Culture and Organisational Effectiveness | 224 |
| 4.5.1 Artefacts..... | 224 |
| 4.5.2 Espoused Values and Beliefs..... | 227 |
| 4.5.3 The Basic Underlying Assumptions. | 231 |
| 4.5.4 Institutional Culture Index. To..... | 235 |
| 4.6 Institutional Culture and Organisational Effectiveness | 239 |
| 4.7 Leadership Styles and Communication | 241 |

| | |
|---|------------|
| 4.7.1 Communication flow. | 241 |
| 4.7.2 Communication Climate. | 245 |
| 4.7.3 Message Characteristics. | 249 |
| 4.7.4 Communication Structure. | 253 |
| 4.7.5 Communication Index. | 257 |
| 4.7.6 The Structural Equation Model for Communication. | 258 |
| 4.7.7 The Structural Equation Model for Leadership Styles and Communication. | 260 |
| 4.8 Communication and Organisational Effectiveness. | 263 |
| 4.9 Leadership Style and Organisational Effectiveness Moderated by Institutional Culture. | 266 |
| 4.10 Leadership Styles and Organisational Effectiveness Mediated by Communication. | 269 |
| 4.11 Predictors of organisational effectiveness. | 273 |
| CHAPTER FIVE: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS OF THE FINDINGS. | 277 |
| 5.0 Introduction. | 277 |
| 5.1 Discussion of the Findings. | 277 |
| 5.1.1 Organisational Effectiveness of Public Universities. | 277 |
| 5.1.2 Leadership styles and organisational effectiveness of public universities. | 279 |

| | |
|--|------------|
| 5.1.3 Institutional Culture and Organisational Effectiveness of the Public | |
| Universities..... | 283 |
| 5.1.4 Leadership styles and communication | 285 |
| 5.1.5 Communication and Organisational Effectiveness of the Public | |
| universities. | 286 |
| 5.1.6 Leadership styles and Organisational Effectiveness moderated by | |
| Institutional Culture in public universities. | 287 |
| 5.1.7 Leadership styles and Organisational Effectiveness mediated by | |
| communication in public universities. | 288 |
| 5.2 Conclusions..... | 289 |
| 5.3 Recommendations..... | 292 |
| 5.4 Contribution of the Study..... | 294 |
| 5.5 Limitation of the Study | 296 |
| REFERENCES..... | 298 |
| APPENDICES | 353 |
| Appendix A: Table for Determining Sample Size from a Given Population | 353 |
| Appendix B: Questionnaire Survey for Administrative and Academic | |
| Heads as University Officials..... | 354 |
| Appendix C: Research Ethics Committee (REC) Approval | 369 |
| Appendix D: National Council for Science and Technology Approval | 371 |
| Appendix E Recommendation for Data Collection | 373 |
| Appendix F: Certificate of Editing | 376 |

| | |
|---------------------------------------|-----|
| Appendix G: Similarity Index..... | 377 |
| Appendix H: Article Publications..... | 379 |

LIST OF FIGURES

| | |
|---|-----|
| Figure 3. 1-3.3 :Overall Summary of Missing Values..... | 124 |
| Figure 3. 4: Missing Value Patterns..... | 125 |
| Figure 3. 5 -3.6: Boxplots for Productivity Effectiveness showing outliers.. | 128 |
| Figure 3. 7-3.8 :Boxplots for Adaptability effectiveness showing outliers ... | 128 |
| Figure 3. 9-3.10: Boxplots for Transformational Leadership showing outliers | 129 |
| Figure 3. 11-3.12: Boxplots for Transactional Leadership showing outliers | 129 |
| Figure 3. 13-3.14: Boxplots for Institutional Culture showing outliers..... | 130 |
| Figure 3. 15-16: Boxplots for Communication showing outliers | 130 |
| Figure 3. 17- 3.18: Linearity for leadership styles and organisational effectiveness, Leadership styles and communication..... | 132 |
| Figure 3. 19- 3.20: Linearity for Institutional culture, Organisational effectiveness and communication..... | 133 |
| Figure 4 1: Histogram for Instructional effectiveness | 146 |
| Figure 4 2: Histogram for Research effectiveness..... | 151 |
| Figure 4 3 :Histogram for Extension Services Effectiveness | 155 |
| Figure 4 4: Histogram for Financial Effectiveness | 159 |
| Figure 4 5: Histogram for Change Focus Effectiveness | 164 |
| Figure 4 6: Histogram for Customer Focus Effectiveness..... | 168 |
| Figure 4 7: Histogram for Organisational Learning Effectiveness..... | 172 |
| Figure 4 8: Histogram for Operational Flexibility Effectiveness | 176 |
| Figure 4 9: Histogram for Structural Flexibility Effectiveness | 180 |
| Figure 4 10: Histogram for Strategic Flexibility Effectiveness..... | 184 |
| Figure 4 11: Histogram for Organisational Effectiveness | 186 |

| | |
|--|-----|
| Figure 4 12: Structural Equation Model for Organisational Effectiveness.... | 187 |
| Figure 4 13 :Histogram for Idealised Influence-Attributed Leadership | 192 |
| Figure 4 14 :Histogram for Idealised Influence-Behaviour..... | 195 |
| Figure 4 15: Histogram for Inspirational Motivation Leadership..... | 199 |
| Figure 4 16: Histogram for Intellectual Stimulation..... | 202 |
| Figure 4 17: Histogram for Individual Consideration..... | 205 |
| Figure 4 18: Histogram for Contingent Reward | 208 |
| Figure 4 19 :Histogram for Active Management-by-Exception | 212 |
| Figure 4 20: Histogram for Passive-Avoidant Leadership Style | 216 |
| Figure 4 21: Histogram for Leadership Styles..... | 218 |
| Figure 4 22: Structural Equation Model for Leadership styles..... | 219 |
| Figure 4.23:Structural Equation Model for Leadership Styles and Organisational Effectiveness | 221 |
| Figure 4 24: Histogram for Cultural Artefacts..... | 227 |
| Figure 4 25 :Histogram for Espoused Beliefs and Values..... | 231 |
| Figure 4 26: Underlying Assumptions..... | 235 |
| Figure 4 27: Histogram for Institutional Culture | 237 |
| Figure 4 28: Structural Equation Model for Institutional Culture | 238 |
| Figure 4 29: Structural Equation Model for Institutional Culture and Organisational Effectiveness | 239 |
| Figure 4 30: Histogram for Communication Flow | 245 |
| Figure 4 31:Histogram for Communication Climate | 249 |
| Figure 4 32: Histogram for Message Characteristics..... | 253 |
| Figure 4 33: Histogram for Communication Structure | 256 |
| Figure 4 34: Histogram for Communication..... | 258 |

| | |
|---|-----|
| Figure 4 35: Structural Model for Communication | 259 |
| Figure 4 36: Structural Equation Model for leadership and Communication | 260 |
| Figure 4 37 : Structural Equation Model for Communication and Organisational Effectiveness | 264 |
| Figure 4 38 :Structural Equation Model for Leadership Styles Moderated by Institutional Culture..... | 267 |
| Figure 4 39 :Structural Equation Model for Leadership Styles and Organisational Effectiveness Mediated by communication..... | 270 |
| Figure 4 40: Predictors of Organisational Effectiveness of Public Universities..... | 273 |

LIST OF TABLES

| | |
|---|-----|
| Table 3. 1:Population and Sample Size | 115 |
| Table 3. 2: Operationalization of Variables, Instrument, their Sources and Reliability | 117 |
| Table 3. 3: AVE and Heterotrait Monotrait (HTMT) Discriminant Validity assessment | 120 |
| Table 3. 4:Composite Reliability and Cronbach's Alpha for the Study Constructs | 122 |
| Table 3. 5: Multicollinearity for organisational effectiveness, leadership styles, institutional culture and communication | 131 |
| Table 4. 1: Demographic Characteristics of administrative and academic heads | 137 |
| Table 4. 2: Students' –Test Results for Gender and organisational Effectiveness | 139 |
| Table 4. 3: ANOVA Results for Age and Organisational Effectiveness | 139 |
| Table 4. 4: ANOVA Results for Highest Level of Education and Organisational Effectiveness | 140 |
| Table 4. 5: Results for Working Experience and Organisational Effectiveness | 141 |
| Table 4. 6 Descriptive Results for Instructional effectiveness | 143 |
| Table 4. 7: Summary Table for Cognitive Activation | 145 |
| Table 4. 8: Descriptive Results for Research effectiveness | 147 |
| Table 4. 9: Summary Table for Research effectiveness | 150 |
| Table 4. 10: Descriptive Results for Extension Services Effectiveness | 152 |
| Table 4. 11: Summary table for Extension Services Effectiveness | 154 |

| | |
|---|-----|
| Table 4. 12: Descriptive Results for Financial Effectiveness | 156 |
| Table 4. 13 :Summary Table for Financial Effectiveness..... | 158 |
| Table 4. 14: Descriptive Results for Change Focus Effectiveness | 160 |
| Table 4. 15: Summary Table for Change Focus Effectiveness..... | 163 |
| Table 4. 16 : Descriptive Results for Customer Focus Effectiveness..... | 165 |
| Table 4. 17 : Customer Focus Effectiveness..... | 167 |
| Table 4. 18: Descriptive Results for Organisational Learning Effectiveness | 169 |
| Table 4. 19: Summary Table for Organisational Learning Effectiveness | 171 |
| Table 4. 20 :Descriptive Results for Operational Flexibility Effectiveness .. | 173 |
| Table 4. 21: Summary Table for Operational Flexibility Effectiveness | 175 |
| Table 4. 22: Descriptive Results for Structural Flexibility Effectiveness | 177 |
| Table 4. 23 :Summary Table for Structural Flexibility Effectiveness | 179 |
| Table 4. 24 :Descriptive Results for Strategic Flexibility effectiveness..... | 181 |
| Table 4. 25 Summary Table for Strategic Flexibility Effectiveness..... | 183 |
| Table 4. 26 :Summary Results for Organisational Effectiveness | 185 |
| Table 4. 27: Descriptive Results for Idealised Influence- Attributed | 189 |
| Table 4. 28 :Summary Table for Idealised Influence-Attributed Leadership | 191 |
| Table 4. 29 Idealised Influence- Behaviour | 193 |
| Table 4. 30: Summary Tables for Idealised Influence-Behaviour..... | 194 |
| Table 4. 31 :Inspirational Motivation | 196 |
| Table 4. 32: Summary Tables for Inspirational Motivation Leadership..... | 198 |
| Table 4. 33: Descriptives Results for Intellectual stimulation..... | 200 |
| Table 4. 34 :Summary Table for intellectual Stimulation..... | 201 |
| Table 4. 35:Descriptive Results for Individualised Consideration | 203 |
| Table 4. 36 :Summary Table for Individual Consideration | 204 |

| | |
|---|-----|
| Table 4. 37: Descriptive Results for Contingent Reward | 206 |
| Table 4. 38 Summary Table for Contingent Reward..... | 207 |
| Table 4. 39 :Descriptive Results for Active Management-by-Exception | 209 |
| Table 4. 40: Summary Table for Active Management-by-Exception..... | 211 |
| Table 4. 41 Descriptives for Passive-Avoidant Leadership..... | 213 |
| Table 4. 42 :Summary Table for Passive-Avoidant Leadership Style..... | 215 |
| Table 4. 43 :Summary Results for leadership style | 217 |
| Table 4. 44 :Leadership Styles and Organisational Effectiveness Path Estimates | 222 |
| Table 4. 45: Descriptive Results for Summary Results for Artefacts..... | 224 |
| Table 4. 46 Summary Table for Artefacts | 226 |
| Table 4. 47: Descriptive Results for Espoused Beliefs and Values..... | 228 |
| Table 4. 48: Summary Table for Espoused Beliefs and Values | 230 |
| Table 4. 49 Descriptive Results for Basic Underlying Assumptions..... | 232 |
| Table 4. 50 :Summary Table for Underlying Assumptions..... | 234 |
| Table 4. 51: Summary Results for Institutional Culture | 236 |
| Table 4. 52: Institutional Culture and Organisational Effectiveness Path Estimates | 240 |
| Table 4. 53: Summary Results for Communication Flow | 242 |
| Table 4. 54 :Summary Table for Communication Flow | 244 |
| Table 4. 55 Communication Climate..... | 246 |
| Table 4. 56: Summary Table for Communication Climate..... | 248 |
| Table 4. 57: Message Characteristics..... | 250 |
| Table 4. 58: Summary Table for Message Characteristics | 252 |
| Table 4. 59: Communication Structure..... | 254 |

| | |
|---|-----|
| Table 4. 60 :Summary Table for Communication Structure..... | 255 |
| Table 4. 61: Summary Results for Communication..... | 257 |
| Table 4. 62: Leadership and Communication Path Estimates | 262 |
| Table 4. 63:Communication and Organisational Effectiveness Path Estimates..... | 265 |
| Table 4. 64 Structural Model for 1 Leadership Styles and Organisational Effectiveness Moderated by Institutional Culture | 268 |
| Table 4. 65: Mediating Effect of Communication on Leadership and Organisational Effectiveness Path Estimates..... | 272 |
| Table 4. 66 Significant predictors of Organisational Effectiveness of Public Universities | 275 |

ABSTRACT

This study investigated the antecedents of organisational effectiveness in public universities in Uganda. Basically, the study examined whether leadership styles were antecedents' organisational effectiveness and the moderating and mediating effects of institutional culture and communication respectively. Thus, the study also assessed whether institutional culture was an antecedent organisational effectiveness; examined whether leadership styles were antecedents of communication; and analysed whether communication was an antecedent of organisational effectiveness. The study used a correlational research design while employing the quantitative research approach. The data was collected using a self-administered questionnaire on a sample of 265 administrative and academic heads of public universities. The findings indicated that while leadership styles and communication were positive significant antecedents of organisational effectiveness of public universities, institutional culture was a positive but insignificant antecedent of organisational effectiveness of public universities. The study also revealed that the leadership styles were positive significant antecedents of organisational communication and that organisational communication was a positive significant antecedent of organisational effectiveness. The results further revealed that organisational culture had a positive and significant moderating role on the influence of leadership styles on organisational effectiveness. Furthermore, the results revealed that communication had a positive and significant moderating effect on the relationship between the leadership styles and organisational effectiveness. It was thus concluded that transformational and transactional leadership styles were imperative for organisational effectiveness of public universities; in addition, institutional culture was essential for organisational effectiveness of public universities; then, leadership styles were vital for communication in public universities; and, communication was essential for organisational effectiveness of public universities, further still, the interaction between leadership styles and institutional culture was important for organisational effectiveness of public universities, and that, the mediation effect of communication was important on the influence of leadership styles on organisational effectiveness of public universities. Therefore, it was recommended that university managers should emphasise appropriate leadership styles to enhance organisational effectiveness; the university managers should promote institutional culture; the university leaders should establish effective communication for organisational effectiveness; then, the university managers should promote organisational culture for organisational effectiveness; university managers should combine effective leadership styles and institutional culture to enhance organisational effectiveness of public universities; and, the university managers besides using appropriate leadership styles, they should put in place effective communication to enhance organisational effectiveness.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Organisational effectiveness (OE) is important as far as organisations such as universities are concerned. This is because OE leads to customer satisfaction, employee relationships, it also improves business processes, learning and growth and profitability (Lo et al., 2017). OE plays an important role in accelerating organisational development because it is the net satisfaction of all constituents in the process of gathering and transforming inputs into outputs in an efficient manner (Singh, 2015). OE also helps organisations to become efficient and effective (Zand et al, 2018). Owing to the importance of OE, it was imperative to establish factors that led to it. Therefore, this study investigated the influence of leadership styles on organisational effectiveness of public universities in Uganda moderated and mediated by institutional culture and communication respectively.

1.1 Background

The background of the study covered the historical, theoretical, conceptual and contextual background of the study.

1.1.1 Historical Background. Organisational effectiveness was a subject that had attracted the attention of different scholars including economists, organisation theorists, management philosophers, financial analysts, management scientists, consultants, educationists and practitioners (Pandya & Srivastava, 2017). In this case, Anderson (2023) asserted that the concept of organisational effectiveness was one of the most elusive and controversial issues in organisational literature. And, in the 1950s, Georgopoulos and

Tannenbaum (1957) indicated that OE was one of the most complex but least tackled problems in the study of social organisations. They noted that OE dated back to industrialisation and the era of scientific management and at that time organisational effectiveness was primarily measured as productivity and/or profits. The organisational effectiveness construct was also called organisational “success” or “worth” and was mainly referring to achievement of goals. In addition, Mott (1972) referred OE as the organisation’s ability to organise its constituents for action, production and adaptation and suggested four models of OE as rational goal, system resource, internal process and participant satisfaction with three major OE measures as productivity, adaptability and flexibility (Kataria et al., 2013) and therefore, organisation effectiveness had been connoted as one aspect of organisation performance. Furthermore, Cameron (1978) proposed a model for organisational effectiveness of 4-year Colleges and developed nine dimensions to explain organisational effectiveness of higher education institutions and these were based on the careful study of the criteria, institutions and constituencies. They included students’ education satisfaction, students’ academic development, students career development, student’s personal development, faculty and administrator employment satisfaction, professional development and quality of faculty, system openness and community interaction, ability to secure resources and organisational health.

Cameron and Whetten (1983) observed that the term OE was synonymous with terms such as performance, success, ability, efficiency, improvement, productivity and accountability. However, Goodman et al (1983) indicated that there was need for a moratorium on traditional studies of OE

because the empirical literature available was inadequate in helping to bring out the understanding of OE. Accordingly, the problems in the traditional studies included inadequacy in identifying indicators of OE, over-reliance on single indicators, ignoring the relationships among multiple indicators under specified models and over generalisation to unlike organisations or subunits. They thus proposed the need for a completely different kind of research if OE was to be comprehended. This was in agreement with Pandya and Srivastava (2017) who observed that the concept of organisational effectiveness was one of the most elusive and controversial issues in organisational literature. Later, Enriquez (2019) in a study on organisational effectiveness of the Naval State University in the Philippines conceptualised organisational effectiveness of universities in terms of instruction or teaching, research and extension services.

Since OE was of great concern to nations, at the beginning of the 1980s the ranking of universities first in the US and then to the rest of the world started. The Journal of U.S. News and World Reports from 1983 started to publish America's best universities. This phenomenon triggered the start of global ranking system of universities all around the world (Merisotis et al., 2007). The academic Ranking of World Universities (ARWU) was regarded as one of the most popular international ranking systems that ranked universities all over the world based on research effectiveness (Alma et al., 2016). Further, Quacquarelli Symonds (QS) World University Rankings Produced by the British Quacquarelli Symonds had been published annually since 2004. The methodology of QS World University Rankings consisted of a comparison of top 8- universities across four broad areas of interest to prospective students as: research, teaching, employability and international outlook (Siwinski et al.,

2021). Nonetheless, over the years the ranking had shown that top performing universities had been from the Western world suggesting that OE was higher in the Western World.

Taking the example of the Global 2000 by the centre for World University Rankings, between 2022/2023, 80% of the top 20 universities (16 universities) were from the United States, 10% (2 universities) from the United Kingdom, 5% (1 university) from Japan and 5% (1 university) from France. In the first 100 universities, there were also few universities from Germany, France, Netherlands, Canada, Switzerland, Sweden, China, Australia, Norway, Israel, Singapore and Taiwan (Benito et al., 2020). This was supported by Antoniuk et al. (2019) who reported that the most competitive national higher education systems were those of the developed countries (USA, UK, Australia, Germany, the Netherlands, France, Switzerland, Canada, and Japan), as well as of the new industrialized countries, which had managed to achieve significant results in terms of building their own intellectual capital over the past two decades (Singapore, Hong Kong, Republic of South Korea and China).

With respect to Africa, the Global 2000 by the Centre for World University Ranking in 2022/2023 ranked the University of Cape Town in South Africa as the 270th, University of the Witwatersrand from South Africa ranked 292, Stellenbosch University from South Africa ranked 441, University of KwaZulu-Natal from South Africa ranked 484. Further, Cairo University from Egypt ranked 531, University of Pretoria from South Africa ranked 555, University of Johannesburg from South Africa ranked 629, Ain Shams University from Egypt ranked 784, North-West University from South Africa ranked 880. And still, Mansoura University from Egypt ranked 932,

Mohammed V University from Morocco ranked 950, Makerere University from Uganda ranked 955 and Alexandria University from Egypt was ranked 991. The global ranking above showed that none of the universities in Africa appeared in the top 200 universities and only 12 universities appeared between 200 to 1000 an indication of organisational ineffectiveness among African universities on the global scale. In the ranking by Times higher education in 2014/2015, the best performing African university was the university of Cape Town in South Africa which ranked 124th (Khamala et al., 2018).

In the same world ranking above by the Centre for World University Rankings in 2022/2023, Cape Town in South Africa which was ranked 270th was the first in Africa followed by other three South African universities ranked in the first 500 world universities, Egypt had two universities between 500 and 1000 while Morocco had one. Makerere University which was ranked 955th globally was the 12th among the best African universities and no any other university in Uganda appeared in the top 2000 world universities. In the Times Higher Education World University Rankings released on September 2, 2021, the best universities in Uganda were Makerere University ranked at 1540 in the world, Kampala International University at 3573, Uganda Christian University at 4863, Mbarara University of Science and Technology at 7137, International University of East Africa at 7339, Kyambogo University at 7566, and Gulu University at 8015.

Universities in Africa were also characterised by low productivity, adaptability and flexibility in terms of teaching, service delivery to students, research supervision and community service (Belayneh, 2021). In Africa, the pace at which quality research output was generated was still low. For example,

Africa had stagnated at 1 per cent for decades which was much less compared to the world's research output (Marincola & Kariuki, 2020). At most universities, a Master's programme scheduled for duration of two years took an average of between three to four years and a three-year PhD took, on average, nine years (Waweru & Kyakuha, 2020). Taking the example of Ghana, higher education research was slow, theoretical and there was less research engagement culture with the industry and for that reason, the research products did not inform industrial development hence low effectiveness with regard to research productivity. Also, the academic staff in Ghanaian universities hardly published in reputable journals with research works rejected by reputable publishers (Asamoah & Mackin 2015). Then, in Northern African universities, a number of universities had positioned themselves as teaching universities with less priority given to research hence ineffectiveness in terms of research productivity (Sawahel, 2017).

Like other universities in Africa, the universities in Uganda were ineffective. For instance, the universities had not fully interested themselves to adapting to the business sector customer attraction practices unlike those in the Western World and Asia (Kisaka et al., 2019). Many university students failed to register in time as they were tossed up and down by staff of the universities and there was delay in releasing examination results as well as issuance of transcripts and certificates (Anyeko, 2016). In addition, in the Uganda universities, some academic staff faked marks and cheated examinations for students, and those involved in supervising post-graduate research showed low commitment by failing to supervise students to graduate on time, with the average completion rates of Master's students standing at less than 30% (Kato

et al., 2023a). Concerning community service, much as universities in Uganda considered it as part of the university function, the number of academic and administrative staff engaged in it was very low (Barifaijo, 2020). Notwithstanding the iterative call for and discourses on community involvement and outreach in universities, even research on the subject in Uganda was rare in literature (Kasule et al., 2023).

In the same vein, in a study involving academic staff in higher education institutions, Nyanzi et al. (2021) revealed that in Uganda, faculty members rarely got involved in community support services because of the many course units they taught and other related teaching activities, including handling coursework as well as administering tests and examinations. In relation to teaching effectiveness, a number of academic staff was not committed to excellent service delivery as they failed to accurately and timely mark students' course works and end-of-semester examinations (Kasule et al., 2022). Similarly, the study by Kakulu (2016) indicated that, 78% of the academic staff could not teach all the lectures assigned to them, 67% of them could not adequately prepare their teaching prior to delivering most of the lectures to students, 56% of them did not timely evaluate students with course works and tests during the course of the semester and revealing low levels of organisational effectiveness.

Furthermore, organisational effectiveness was low in terms of productivity indicated by low graduation rates. For instance, while the number of students enrolling in universities on PhDs had been increasing, the graduation rates were low due to weaknesses in supervision among other factors. For instance, for doctoral students' cohort of 2000-2005 students at Makerere University, out of 294 only 15% completed within the period of five years,

48.6% had extended candidature beyond five years and 36.4% had withdrawn from the program (Lunyolo et al., 2019). Further, while Makerere University admission records suggested that the doctoral students expected to graduate were 282 in 2019, 194 in 2020, 228 in 2021 and 224 in 2022, those that graduated were 56(19.9%) in 2019, 61(31.3%) in 2020, 108(47.7%) in 2021, and 100 (44.6%) in 2022. For those students doing PhD by research and course work, they virtually had completed the coursework and the challenge was research completion.

At Kyambogo University, Oyugi (2020) reported that out of 83 PhD students admitted at the university since the 2014/15 academic year, none had graduated by 2020. While in the academic year 2018/2019 Kyambogo University admitted 20 PhD students (records from the Directorate of Postgraduate Studies and Training, 2018/2019) expected to graduate in 2022, none graduated. In the years 2018 to 2022 those who graduated from previous years were only four (4.8%) out 83 students admitted since 2014/2015 academic year. Roughly, while 1277 Masters' students were admitted in years 2018 to 2022, those that graduated in those years were 65(2018), 151(2019), 187(2021), and 39(2022) that was a total of 442 (34.6%) (Graduation Books 2018-2022). This suggested a low graduation rate of postgraduate students which pointed to low levels in organisational effectiveness in Ugandan public universities.

In this case, previous studies on OE suggested that the factors relating to it among others included leadership styles (Rukmani et al., 2010; Oyerinde, 2020), knowledge management (Chiu & Chen, 2016; Lo et al, 2017; Tang, 2017), organisational sustainability (Batista & Carlos de Francisco, 2018; Nwanzu & Babalola, 2019), human resource practices (Ahmad et al., 2020;

Rasoolo, 2019; Teimouri et al., 2018) moderated and mediated by organisational culture (Aktas et al.2011) and communication (Hargie, 2016) respectively. Nonetheless, none of these studies was carried out in the context of a university in Uganda and therefore, the contextual situations for universities in Uganda were not captured. Thus, basing on the theories that were, namely, Transformational and Transactional Leadership Theories, Schein's Theory of institutional Culture and Gate Keeping Theory of communication, this study related the factors that were leadership styles moderated and mediated by institutional culture and communication respectively to OE.

1.1.2 The Theoretical Background.

This study was informed by three theories namely: Transformational-Transactional Theory, Schein's Model of Institutional Culture and Gate keeping Theory of Communication. The Transformational-Transactional Leadership Theory was advanced by Burns (1978) whereby The Transformational leadership Theory asserts that a transformational leadership represents a leader who helps the employees to find new ways to meet organisational challenges and this occurs when employees are equally motivated to meet a shared vision (Hoxha, 2019). Four facets and factors of transformational leadership are: idealised influence, inspirational motivation, intellectual stimulation, and individualized consideration (Korejan & Shahbazi, 2016). On the other hand, the Transactional Leadership Theory emphasizes the leadership style that promotes compliance of the subordinates through both rewards and punishment (Tziner & Shkoler, 2018). The transactional leadership style is premised on three behavioural domains namely: contingency rewards, active management by exception and passive-avoidant leadership (Avolio et al., 1999).

Significantly, the Transformational and Transactional Theories pointed out two leadership styles which were transformational and transactional and this study related the two leadership styles to organisational effectiveness.

Secondly, the Schein's Theory of Institutional Culture developed by Schein in 1985 informed the study on the effects of institutional culture on OE. Schein (2010) asserts that institutional culture is a set of beliefs that are primary to and learned by a group of people to address their problems through adaptation from outside the group and integration within the group after the beliefs have been adequately ascertained to be regarded valid hence can be taken up by new members as the correct way to perceive, think and feel as cited in Wei and Miraglia (2017). In addition, Schein (2004) clarified that institutional culture could be divided into three levels namely: artefacts, espoused beliefs and values, as well as basic underlying assumptions. This study investigated how all the three constructs of Schein's theory of institutional culture namely cultural artefacts, espoused values and underlying assumptions contributed towards the achievement of OE.

Further, the Theory of Gatekeeping was first coined by a social psychologist Lewin (1947). The theory is about the processes of reducing countless information to the few messages that are delivered. Gatekeeping is concerned with selecting events, shaping news items and disseminating them as quoted in Shoemaker and Vos (2014). This theory points out the role of top management in communication which may include determining communication flow, communication climate, message characteristics and communication structure (Bakar and Mustaffa, 2013). Therefore, this theory was used to

examine how communication took place in universities and how it related to organisational effectiveness.

1.1.3 The Conceptual Background.

The main concepts in the study were antecedents and organisational effectiveness. The term antecedents derives from two Latin words: ante, which means “before” or “to proceed”, and cedere, which means “to yield” (Hiire et al., 2020). The term therefore refers to the existing factors that led to the happening of something. The antecedents in this study were organisational effectiveness (dependent variable), leadership styles (independent variable), organisational culture (moderating variable) and communication (mediating variable). As defined by (Lo et al., 2017), organisational effectiveness refers to how well an organisation is able to access the essential resources and achieve its objectives via core strategies. They further indicate that organisational effectiveness is the ability of an organisation to acquire critical resources and achieve its goals and objectives through fundamental methods. Iwu et al. (2015) explained that the effective organisation should attain organisational learning, apply high-performance practices, and fulfil the needs of its key stakeholders. In this study, organisational effectiveness was defined basing on Mott (1972) who suggested four aspects of OE as rational goal, system resource, internal process and participant satisfaction with three major OE measures as productivity, adaptability and flexibility.

Productivity comprises of financial outputs, education outputs, research outputs and extension services; adaptability comprises of change focus, customer focus and organisational learning; whereas flexibility denotes

operational, structural and strategic flexibility (Kataria et al., 2013). The leadership styles are the ways in which subordinates/followers are directed and motivated by a leader to achieve the expected organisational goals and objectives (Al Khajeh, 2018). In this study, leadership style was defined according to the conceptualisation by Avolio et al. (1999), as referring to transformational and transactional leadership styles. The transformational leadership was operationalized in terms of idealised influence, inspirational motivation /charismatic, intellectual stimulation, and individualised consideration. On the other hand, transactional leadership comprised of contingent reward, active management-by-exception, and passive-avoidant leadership (laissez-faire) management.

Institutional culture is the collective effect of the common beliefs, behaviours, and values of the people within an organisation (Ahmady, et al 2016). In this study, organisational culture was defined basing on Schein (1984) who clarified that organisations can be divided into three levels namely: artefacts, espoused beliefs and values, and basic underlying assumptions (Lehman, 2017). For communication, according to Seitan (2018) refers to everything an organisation speaks and does as well as everyone who is affected by the existence and effectiveness of the organisation. In this study, communication was defined basing on Bakar and Mustaffa (2013) as referring to information flow, communication climate, message characteristics, and communication structure.

1.1.4 The Contextual Background

The study was carried out on public universities in Uganda. Uganda had nine public universities that were Busitema, Gulu, Kabale, Kyambogo, Lira,

Makerere, Mbarara University of Science and Technology, Muni, and Soroti (National Council for Higher Education (NCHE, 2021). Cognisant of the importance of OE, the universities in Uganda had attempted to promote it in terms of teaching, research and community services. For instance, to enhance research productivity, Kyambogo University had implemented the annual competitive research grant (Okaka, 2019). Makerere University had as well increased its research and innovations funding to academic staff (MAK Strategic plan, 2008/09-2018/19). In terms of teaching productivity, universities had engaged in capacity building of teaching staff to enhance their pedagogical abilities (Naamanya, et al 2017), continuous appraisal to evaluate their teaching quality (Rwothumio et al., 2021; Tizikara & Mugizi, 2017), and established quality assurance units to monitor teaching quality (Kakembo & Barymak, 2017; Neema-Abooki, 2016).

In addition, the government of Uganda had committed itself to enhancing salaries of staff of public universities in order to increase their teaching motivation (Ssebwami, 2020). Still, with the then current new normal of online teaching as a result of Covid-19 lockdowns, universities had trained their teaching staff in use of online teaching platforms to equip them with the necessary online teaching skills (Nannyange, 2021). With respect to community extension, universities had engaged in community services through a cluster of activities that included service learning, problem-based teaching and research addressing specific wants and needs of communities (Mugizi, 2018). The universities had also carried out community social responsibility through philanthropic (Ddungu & Edopu, 2016). To achieve their mission of improved organisational effectiveness, the universities had increased the numbers of both

teaching and non-teaching staff including full time, part-time and temporally staff to meet the demands of increased university activities due to increased student enrolments. For example, Kyambogo University had employed a reasonable number of academic staff including 415 full time academic staff in order to improve service delivery to clients (Kyambogo University, 2022).

In terms of adaptability, the Uganda National Council for Higher Education (NCHE) which was the body that regulated the universities' effectiveness had adopted a Strategic Plan embedded in a framework of global, regional and national economic, social and political trends that affected the universities. The plan considered the prevailing working environment, the internal as well as the external environments in a way of adapting to the changing world economies (NCHE Strategic Plan, 2020/2021-2024/2025). With respect to flexibility, the universities in Uganda had reacted to global higher education demands by adjusting their operational, structural and strategic activities like developing market-driven curriculum, increasing emphasis on ICT, orientation towards sustainable development, shifting from a traditional term to a semester system, gendered choice of courses in universities and adopting to new globalized communication techniques like zoom, e-learning and various social media networking (Twinamasiko et al., 2021).

Despite the above effort by the universities, there were still complaints about ineffectiveness of the public universities in Uganda manifested by the decline in the quality of university education with the quality of teaching and research as well as competencies related to open learning being low (Neema-Abooki, 2016). Concerning community service, much as universities in Uganda considered it as part of the university function, the number of academic and

administrative staff engaged in it was very low (Barifaijo, 2020). Notwithstanding the iterative calls for and discourses on community involvement and outreach in universities, even research on the subject in Uganda was rare in literature (Kasule et al., 2022). In a study involving academic staff in higher education institutions, Nyanzi et al. (2021) revealed that in Uganda, faculty members rarely got involved in community support services because of the many course units they taught and other teaching-related activities, including handling coursework as well as administering tests and examinations. In relation to teaching effectiveness, a number of academic staff, for instance at Kyambogo University, was not committed to excellent service delivery as they failed to accurately and timely mark students in the course and end-of-semester examinations (Kasule et al., 2022).

Furthermore, some academic staff faked marks and cheated examinations for students, and those involved in supervising post-graduate research showed low commitment by failing to supervise the students to graduate on time, with the average completion rates of Master's students standing at less than 30% (Kato et al., 2023a). Similarly, the study by Kakulu (2016) indicated that, 78% of the academic staff did not teach all the lectures assigned them, 67% of them did not adequately prepare their teaching prior to delivering the lectures, while 56% did not evaluate students course works and tests in time. Worse still, Nakayiwa (2018) indicated that some academic staff failed to set examinations in time, delayed to start lectures and failed to carry out timely marking as well as release of examination results. With regard to research productivity, the effectiveness of the academic staff in Uganda

universities was also low with limited academic research publication and inability to attract and win research projects (Rwothumio et al., 2020).

In addition, in Uganda, the high-performing university in terms of research productivity was Makerere University whose academic staff produced an average of two publications per staff in 10 years out of the total number of permanent staff, which was still very low (Kasule et al., 2022). In the world ranking of Universities of January 2021 (www.webometrics.info > [africa](#) > [uganda](#)), in terms of impact, openness and excellence in the world, the best universities in Uganda were Makerere University ranked at 1,100 in the world, Mbarara University of Science and Technology at 2,856, Kampala International University at 3,573, Kyambogo University at 4048, and Gulu University at 4,649. However, this was still very low as none of the Uganda universities appeared in the top 1000 universities globally. The above contextual evidence showed that organisational effectiveness of the public universities in Uganda was low. This attracted the study to explore the factors affecting the problem specifically looking at leadership styles moderated and mediated by institutional culture and organisational communication respectively.

1.2 Statement of the Problem

Organisational Effectiveness (OE) is a key issue in the socio-economic transformation of organisations. Effective universities enjoy high levels of student satisfaction, employee relationships, business processes improvement, and learning and growth (Lo et al., 2017). Effective universities have the capacity of accelerating their development because they provide net satisfaction of all constituents in the process of gathering and transforming inputs into output in an efficient manner (Maki et al., 2015). Cognisant of the importance

of OE, universities in Uganda had attempted to promote it. For instance, the universities had tried to increase research output through annual competitive research grants, increased funding for research and innovations, implementing talent development programmes and emphasising quality assurance (Kakembo & Barymak, 2017; Neema-Abooki, 2016; Rwothumio et al., 2021; Tizikara & Mugizi, 2017) as well as engaging staff and students in community engagement through philanthropic services (Ddungu & Edopu, 2016).

In the same vain, the universities in Uganda had also reacted to the global higher education demands by adjusting their operational, structural and strategic activities as well as developing market-driven curriculum, increasing emphasis on ICT, working towards sustainable development, shifting from a traditional term to a semester system, gendered choice of courses in universities and adopting to new globalised communication techniques like zoom, e-learning and various social media networking (Kagoda, 2019; Namatovu & Arinaitwe, 2024). Despite the effort by the public universities in Uganda to promote their organisational effectiveness, it remained low and this was because the quality of teaching and research was low (Neema-Abooki, 2016). In the universities, there was limited commitment to quality teaching and limited time given to research and academics in the universities scarcely took part in community engagements (Muriisa, 2014). Further, some academic staff failed to set examinations in time, delayed to start the lectures, and failed to carry out timely marking and release of examination results (Kato et al., 2023b). Further still, the academic staff showed less commitment to innovation in teaching, failed to supervise students and did not engage in community outreach (Nabunya et al., 2018), leading to low organisational effectiveness.

In the same vain, some academic staff faked marks and cheated examinations for students, and those involved in supervising post-graduate research showed low commitment by failing to supervise students and to graduate on time, with the average completion rates of Master's students standing at less than 30% (Kato et al., 2023a). In the same vain, the study by Kakulu (2016) indicated that, 78% of the academic staff did not teach all the lectures assigned to them, 67% of them did not adequately prepare their teaching prior to delivering the lectures, while 56% did not evaluate students course work and tests in time. Worse still, Nakayiwa (2018) indicated that some academic staff failed to set examinations in time, delayed to start lectures, and, failed to carry out timely marking and release of examination results. With regard to research productivity, the effectiveness of academic staff in Ugandan universities was also low, with limited academic research publication and inability to attract and win research projects (Rwothumio et al., 2020).

In Uganda, the high-performing university in terms of research productivity was Makerere University whose academic staff produced an average of two publications per staff in 10 years out of the total number of permanent staff, which was still very low (Kasule et al., 2022). In the world ranking of Universities of January 2021 (www.webometrics.info > africa > uganda), in terms of impact, openness and excellence in the world, the best universities in Uganda were Makerere University ranked at 1,100 in the world, Mbarara University of Science and Technology at 2,856, Kampala International University at 3,573, Kyambogo University at 4048, and Gulu University at 4,649. However, this was still very low as none of the Uganda universities appeared in the top 1000 universities globally.

Furthermore, in the recent Times Higher Education World University rankings released in September 2021, the public universities did not fare well. This was because none of the Ugandan universities appeared in the 1000 best universities in the world with Makerere the best University in Uganda at 1540, Mbarara University of Science and Technology at 7137 ranked fourth best University in Uganda behind private universities that are Kampala International University (3573) and Uganda Christian University (4863) in the second and third positions respectively. Then, Kyambogo University (7566) was the 6th position and Gulu University (8015) in the seventh. This poor show of Uganda public universities globally and locally called for this study to suggest how to enhance organisational effectiveness of the public universities in Uganda.

1.3 Purpose of the Study

The purpose of the study was to investigate the antecedents of organisational effectiveness in public universities in Uganda.

1.4 Objectives of the Study

The specific objectives of the study were:

- i. To examine whether leadership styles were antecedents of organisational effectiveness in public universities in Uganda.
- ii. To assess whether institutional culture was an antecedent of organisational effectiveness in public universities in Uganda.
- iii. To examine whether leadership styles were antecedents of communication in public universities in Uganda.
- i. To analyse whether communication was an antecedent of organisational effectiveness in public universities in Uganda.

- ii. To examine the moderating effect of institutional culture on the influence of leadership styles on organisational effectiveness in public universities in Uganda.
- iii. To assess the mediating effect of communication on the influence of leadership styles on organisational effectiveness of public universities in Uganda.

1.5 Hypotheses

The study tested the following hypotheses;

- i. Leadership styles are positive significant antecedents of organisational effectiveness in public universities.
- ii. Institutional culture is a positive significant antecedent of organisational effectiveness in public universities.
- iii. Leadership styles are positive significant antecedents of organisational communication in public universities.
- iv. Communication is a positive significant antecedent of organisational effectiveness in public universities.
- v. Institutional culture has a significant moderating role on the influence of leadership styles on organisational effectiveness in public universities.
- vi. Communication has a significant mediating role on the influence of leadership styles on organisational effectiveness in public universities.

1.6 Scope of the Study

1.6.1 Geographical Scope. The geographical scope covered public universities in the four regions in Uganda that included Central, Northern, Western and

Eastern. The universities were four in number with one university from each region. The study considered Kyambogo University in the Central Region, Busitema University in the Eastern Region, Gulu University in the Northern Region and Mbarara University of Science and Technology in the Western Region. These universities were selected because while they enjoyed government and donor support in terms of funding compared to the private universities, they continued to exhibit poor organisational effectiveness.

1.6.2 Content Scope. The content scope was on leadership styles, organisational effectiveness, institutional culture and communication. The leadership styles were studied in terms of idealised influence, inspirational motivation/charisma, intellectual stimulation and individualised consideration. Then transactional leadership was studied in terms of contingent reward, active management-by-exception, and passive-avoidant leadership (*laissez-faire*) management. And, institutional culture was studied in terms of artefacts, espoused beliefs and values, and basic underlying assumptions whereas communication was studied in terms of communication flow, communication climate, communication structure and message characteristics. On the other hand, the concept of organisational effectiveness was studied in terms of productivity which covered instruction, research, financial and extension services; adaptability that covered change focus, customer focus and organisational learning; and, flexibility which covered operational flexibility, structural flexibility and strategic flexibility.

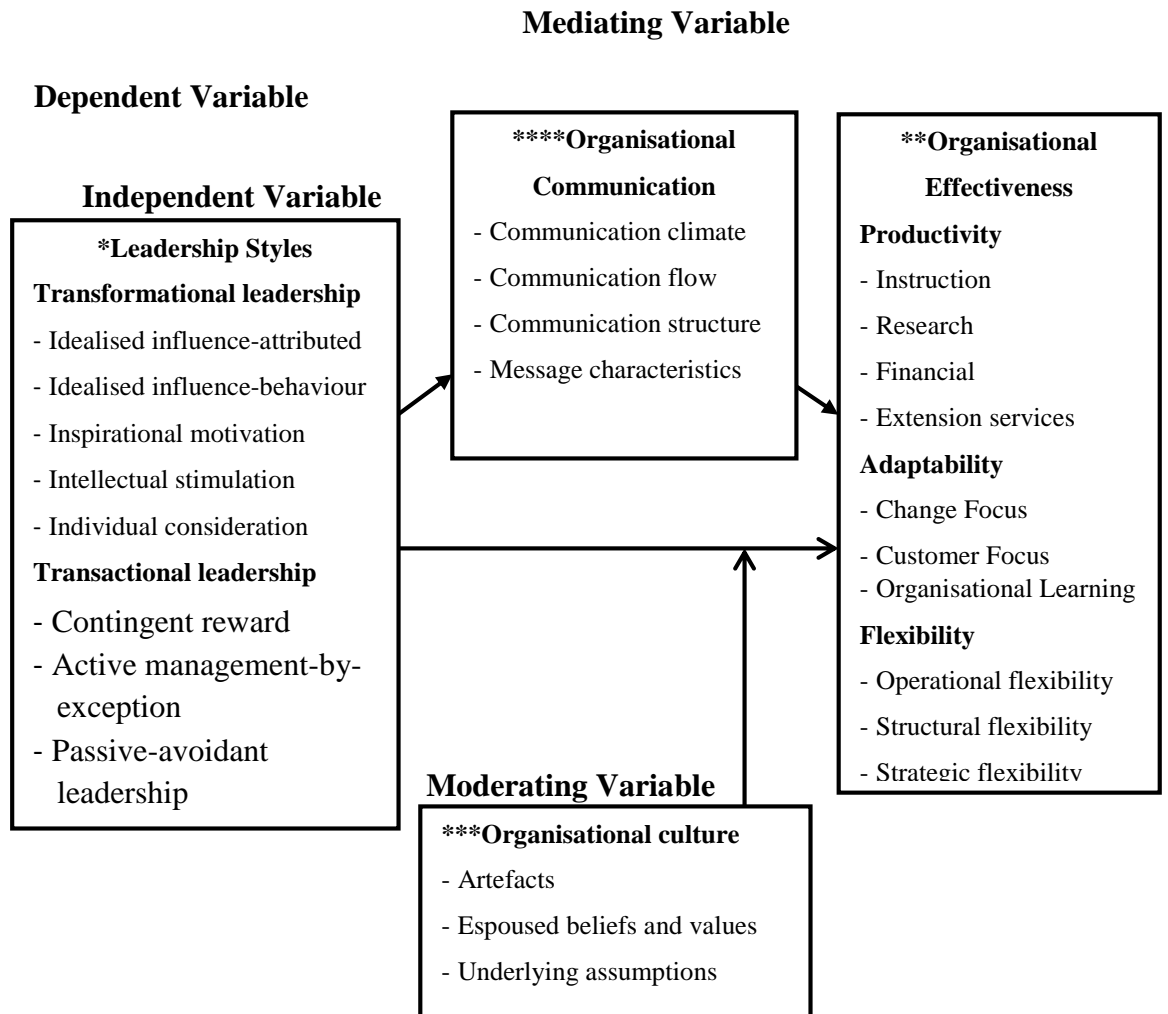
1.6.3 Time Scope. The time scope of the study was basically cross sectional (Saunders et al., 2019); in a way that the study collected data on what was going on in the universities. Cross-sectional studies are defined as observational

studies which analyse data from a population at a single point in time. They are most times used to measure the prevalence of research outcomes, understand determinants of a research problem, and to describe the features of a population. Unlike other types of observational studies, cross-sectional studies do not follow individuals up over time and they are usually less expensive and easy to carry out. They are also helpful for determining preliminary evidence in planning a future advanced study (Wang & Cheng, 2020). Therefore, this study covered only one year that was 2023.

1.7 Significance of the study

The study might significantly contribute to policy making in the higher education institutions, and by the managers of universities as well as adding to the body of knowledge in various ways. To the policy makers such as the cabinet, parliament and University Councils; the findings of this study might provide them a basis for formulation and implementation of leadership, cultural and communication related policies in a bid to enhance institutional effectiveness. The study findings might also help the higher education institutions to adopt appropriate leadership, cultural and communication best practices that would enhance their effectiveness. The study might as well help the university managers to enhance OE through implementing appropriate leadership, institutional culture and communication policies in a way that enhanced effectiveness. Further, this study might contribute to the body of knowledge by providing researchers and academics with new knowledge about OE and its predictors hence provoking further research.

1.8 Conceptual Framework



Source: Survey data (2023)

Figure 1. 1: Conceptual framework showing linkages between

Organisational Effectiveness and its antecedents

Concepts adapted from: *Avolio et al. (1999), ***Bakar and Mustaffa (2013), *Kanste, Miettunen and Kyngäs (2007). ** Mott (1972), and *** Schein (1998)

The conceptual framework (Fig 1.1) showed that the independent variable was leadership styles in terms of transformational leadership and transactional leadership. The framework conjectured that transformational leadership included idealised influence, inspirational motivation, intellectual stimulation and individual consideration. Then the transactional leadership covered

contingent reward, active management-by-exception, and passive-avoidant leadership. In addition, the framework postulated that the relationship between leadership styles and organisational effectiveness was moderated by institutional culture which was in terms of artefacts, espoused beliefs and values as well as underlying assumptions. Furthermore, the framework suggested that the relationship between leadership styles and organisational effectiveness was mediated by communication which covered communication flow, communication climate, communication structure, and message characteristics. Then, the dependent variable of organisational effectiveness was in terms of productivity with constructs such as instruction, research, financial and extension services; adaptability in terms of change focus, customer focus and organisational learning; and flexibility which was in terms of operational flexibility, structural flexibility and strategic flexibility.

1.9 Definition of Terms

Adaptability: Adaptability meant change focus, customer focus and organisational learning.

Antecedents: Antecedents refers to the existing factors that led to the happening of something.

Communication: Organisational communication in this study included determining communication flow, communication climate, message characteristics, and communication structure.

Flexibility: Flexibility referred to operational flexibility, structural flexibility and strategic flexibility.

Institutional culture: Institutional culture denoted to artefacts, espoused beliefs and values, and basic underlying assumption.

Leadership styles: Leadership styles operationally referred to transformational and transactional leadership style.

Organisational effectiveness: Organisational effectiveness meant productivity, adaptability and flexibility.

Productivity: Productivity implied instruction, research, financial and extension services.

Transactional leadership: Transactional leadership implied contingent reward, active management- by -exception, and passive –avoidant leadership (laissez-faire) management.

Transformational leadership: Transformational leadership explained the idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter covered the theoretical review and the review of related literature. The review of literature was presented basing on the study themes derived from the objectives of the study. It also involved analysing of empirical findings of previous studies and emphasis was put on identification of gaps that were filled by this study.

2.1 Theoretical Review

The theoretical basis of this study was three theories that were Transformational- Transactional Theory, Schein's Model of Organisational Culture and Gatekeeping Theory of Organisational Communication. The Transformational-Transactional Leadership Theory comprises of two theories that are Transformational and Transactional and this theory was advanced by Burns (1978) and advanced by Avolio et al. (1999). The Transformational Leadership Theory posits that a transformational leader is one who helps employees to find new ways to meet organisational challenges (Hoxha, 2019). The core focus of transformational leadership is to induce employees to transcend their own self-interest for the sake of the organisation (Jensen et al., 2019). Four facets and factors of transformational leadership are: idealised influence which means a leader's confidence to win the trust of the followers; inspirational motivation which is the ability of the leader to create hope among subordinates; intellectual stimulation which refers to the ability of the leader to encourage subordinates. In the same way, individualized consideration refers to the respect and care for subordinates (Korejan & Shahbazi, 2016).

On the other hand, the Transactional Leadership Theory emphasizes the leadership style that promotes compliance of the subordinates through both rewards and punishment. This kind of leadership represents an exchange-based relationship where self-interest is dominant (Tziner & Shkoler, 2018). The transactional leadership entails the use of rewards and sanctions to make individuals to contribute to the achievement of the organisation goals (Jensen et al., 2019). Furthermore, the transactional leadership style involves contingency reward, active management-by-exception and passive-avoidant leadership (Graves et al., 2019). The contingency reward refers to the application of a reward system (i.e. those that enhance extrinsic motivation) by leaders in exchange for the achievement of the expected output from subordinates (Xenikou, 2017) and, management by exception includes active and passive (*laissez-faire*). In this case, active management by exception is the application of micromanagement style by leaders while handling subordinates (Darthey, 2015).

Furthermore, passive leadership by exception refers to transactional leadership behaviours that give employees some supervisory space to enable them to carry out their functions, but only demands for intervention when there exists mistakes or performance below expected standards (Bazzoli, et al., 2020). In the same vain, the Transformational-Transactional Leadership Theories had been used by previous scholars as a basis for their studies (e.g. Lan et al., 2019; Sirin et al., 2018; Hoxha, 2019; McCleskey, 2014; Xenikou, 2017). The weaknesses of the theory were that the transformational aspect conceptually confused leadership actions and their effects. That conceptual problem led to an operationalization problem where leadership effects were measured rather than

expressing leadership behaviour (Jensen et al., 2019). For the Transactional Leadership Theory, the weakness was that leaders used power to provide rewards and punishments to the followers as part of leader-follower relationships which limited the opportunity to capture the complexity of leadership processes in the modern organisation settings (Yukl, 2012).

Similarly, transactional leadership was only motivating on a base level and failed to motivate individuals beyond the set goal; nor did it advance individual development. The employees might not be encouraged to strive for higher achievements just because of lack of praise or greater achievement by the leader, which might be a disadvantage to most organisations (Khan, 2017). However, significantly, the Transformational and Transactional Theories pointed out that leadership practices were namely, transformational and transactional. This study related the two leadership styles to organisational effectiveness basing on the theory.

In the same way, the Schein's Theory of Institutional Culture explains that culture in organisations is not adopted in a single day but it is formed in a course of time as employees go through various changes and adopting to the external environment that determines their problem-solving ability and hence effectiveness (Schein, 2004). Schein's theory of organisational culture suggested that organisations with a strong culture of knowledge acquisition and with a universal commitment to a shared vision, mission, goal and objectives were expected to achieve organisational effectiveness (Tedla, 2016). The institutional culture included artefacts, espoused beliefs and values, and basic underlying assumptions (Lehman, 2017). Artefacts were easily observable in the physical spaces of the organisations, the apparent behaviours of employees,

and in how work was organised and done such as participation, attitude to risk, action orientation, power distance and openness.

On the other hand, espoused beliefs and values could be observed in the organisation's stated vision, mission, goals and objectives not excluding individual ideals, principles and personal aspirations. Then the basic underlying assumptions were the base level of institutional culture representing the deeply imbedded, unconscious, taken for granted, unstated thoughts, feelings and perceptions that influenced decision making actions and employee behaviour (Lehman, 2017) such as openness and trust. Schein's theory laid a foundation for the understanding of institutional culture and its complexities. In this case, different scholars (Brenyah & Obuobisa-Darko, 2017; Hogan & Coote, 2014; Martinez et al., 2015) had used Schein's Theory of Organisational Culture. However, the weakness of Schein's Theory was that it emphasised the importance of symbols and values while underestimating other elements of the organisation which might misrepresent the reality of organisations (Hofsted & Bond, 1988). Nevertheless, Schein's Theory identified important cultural aspects in an organisation which were cultural artefacts, espoused values and underlying assumptions which were thus studied in relation to organisational effectiveness.

Then, the Gatekeeping Theory of communication was about the processes of reducing countless information to the few messages that were delivered. Gatekeeping is concerned with selecting events, shaping news items, and disseminating them (Shoemaker & Vos, 2014). The theory emphasized a solid framework for analysing the selection and control of information delivered. It denoted assuming control over what information went out to the

public. The gatekeepers enhanced or restrained the diffusion of information as they decided which messages should be let out past the gates (Wallace, 2018). In addition, gatekeeping was concerned with withholding, display, channelling, shaping, manipulating and timing among others (Potnis & Tahamtan, 2021). According to Schwalbe et al. (2015), gatekeepers were personnel who were in strategic decision-making positions involved in selecting, shaping and presenting information. The gatekeepers acted as mediators determining what appropriate information was and fit to becoming a public message thereby contributing to individual's construction of social reality and their personal world view (Shoemaker & Vos, 2014).

The major limitation of the gatekeeping theory was that it propagated the role of gatekeeping which might prevent certain information from being communicated (Wallace, 2018). In addition, technology advancement and digital media had challenged the traditional gatekeeping theory because communication might not be easily controlled (Pearson & Kosicki, 2017). However, the importance of the Gatekeeping Theory was that it pointed out the role of top management in communication which might include determining the communication flow, the communication climate, the message characteristics, and the communication structure (Bakar & Mustaffa (2013). Therefore, the theory was used to examine how communication took place in universities and how that related to organisational effectiveness.

2.2 Conceptual Review of Organisational Effectiveness

The concept of organisational effectiveness (OE) is one of the most elusive and controversial one in organisational literature. As such, there has been effort to define the concept by different scholars. For example, Sharma and Singh (2019)

defined organisational effectiveness as the degree of achievement of participants led integrated goals, measured comprehensively through a mix of financial, operational, structural and attitudinal/ behavioural measures that lead to their satisfaction and enable the long-term survival and sustainability of the organisation. In the same way, Ngwangwama et al. (2019) defined OE as the extent to which organisations attain their intended objectives detailing that it denotes the efficiency with which organisations attain their intended purposes and outcomes compared to actual outputs. They etymologically defined OE as the study of processes, activities and practices of how organisations attain their intended objectives and outcomes through a range of variables at the micro (industry and organisational) levels and macro levels (socio-political environments) concluding that the level of outcome can either be below par, ordinary or extraordinary.

Organisational effectiveness refers to the ability of an organisation to acquire critical resources and achieves its goals and objectives through fundamental methods (Lo et al., 2017). Tomassini and Baggio (2021) contended that organisational effectiveness was concerned with doing the right thing, identifying the values and beliefs according to which it is possible to define what is wrong and what is right. On their part, Jha et al. (2019) pointed out that organisational effectiveness explains the amount to which an organisation realizes its goals. In an effort to conceptualise the concept, Cameron and Whetten (1983) observed that the term OE was synonymous with terms such as performance, success, ability, efficiency, improvement, productivity or accountability. On the other hand, Enriquez (2019) indicates that organisational effectiveness covers instruction or teaching, research and extension services.

Organisation effectiveness according to Lo et al. (2017) leads to customer satisfaction, employee relationships, improves business processes, learning and growth and profitability. Singh (2015) explains that organisation effectiveness plays an important role in accelerating organisational development because it is the net satisfaction of all constituents in the process of gathering and transforming inputs into output in an efficient manner. Kimutai and Kwambai (2018) opine that organisational effectiveness helps to ensure that there is a spirit of cooperation, sense of commitment, satisfaction and effective motivation within the sphere of its influence and evidenced by a good strategic alignment between the mission, the structures and the subsequent human resource management policies and procedures which support people in achieving the goals of the organisation.

According to Zand et al. (2018), OE has the components which when applied correctly by the organisation undoubtedly makes it achieve the goal of high efficiency in terms of; organisational innovation and health. Mohamud et al. (2018) indicate that organisational effectiveness plays an important role in accelerating organisational development. According to Nwanzu and Babalola (2019), organisations that are effective are orderly, grow and develop. On their part, Tahsidari and Shahnaei (2015) assert that organisational effectiveness influences organisation's ability to perform at optimal levels. Furthermore, Rahmawati et al. (2017) opine that OE yields results, enhances satisfaction level, establishes conducive work environment and increases the level of work intensity. Additionally, Bartuševičienė and Šakalytė (2013) argue that OE helps to assess the progress towards mission fulfilment and goal achievement. Iwu et al. (2015) argue that OE results in the full achievement of organisational

mandate, and the ability to run business projects in a sustainable manner. They further indicate that OE leads to improvement in facilities, innovativeness, legal compliance, social responsibility, ability to attract customers, satisfaction of strategic constituencies, reduces the number of complaints from clients and ensures quality of service.

Further, Jiang et al. (2023) asserts that OE enables the organization to attain profitability, leads to employee satisfaction, and contributes to societal value. Therefore, the importance of organisational effectiveness is enhancing customer satisfaction, and improving customer relationships, business processes, learning and growth and profitability. It also leads to organisational development, innovation, effective motivation, and sense of commitment. Further, it leads to organisational orderliness, growth and development, legal compliance, social responsibility, customer attraction, employee satisfaction, and profitability. In this study, OE was defined basing on Mott (1972) who suggested a four-dimensional model (comprising resource acquisition, goal accomplishment, strategic constituencies satisfaction and internal processes) describing it in terms of productivity, adaptability and flexibility. These are explained here under.

2.2.1 Productivity. Productivity comprises of financial outputs, education outputs and research outputs (Kataria et al., 2013). Hua and Wang (2023) define productivity as a measure of the amount of output produced by a given level of inputs. This stresses the fact that the higher the level of productivity, the greater is the amount of goods and services that can be produced by an organisation's workers, capital, and natural resources. Moore et al.,(2018) defined productivity of institutions as the ratio of institutional outputs to inputs clarifying that

universities use multiple inputs to produce multiple outputs. He observed that the ability to define clear inputs and outputs for higher education remains a limitation of productivity study for universities though there are key performance indicators already in use such as staff and student data, graduate completions, publications, and citations which allow for output-input ratios to be calculated and able to serve as proxies for performance. Productivity is a major aspect of organisation behaviour because it greatly relates with organisation effectiveness or efficiency or otherwise. The conceptual reference for the effective performance of an organisation in its statutory functions is productivity as opined above (Kalra et al., 2023). Kataria et al. (2013) indicates that productivity of universities measures instruction, research, financial and extension services effectiveness.

2.2.2 Adaptability. Adaptability means putting the demands of business environment into action. Organisations as open systems are existent in an environment that is complex and uncertain. Further, for organisations to survive and make profit, they need to adapt continuously to the different levels of environmental uncertainty (Amah & Baridam, 2012). Adaptability is the degree to which an organisation has the ability to alter behaviour, structures; and systems in order to survive in the wake of the environmental change (Denison, 2007). Adaptability comprises of symbolic adaptability and behavioural adaptability (Kataria et al., 2013) as per the study conceptual framework. Adaptability is defined by the American Psychological Association as “the capacity to make appropriate responses to changed or changing situations; the ability to modify or adjust one’s behaviour in meeting different circumstances or different people,” (Marrtin et al.,2017). This definition stresses that

adaptability includes the; behavioural, cognitive and emotional regulations. This is known as the “tripartite” perspective on adaptability.

Namugumya et al. (2022) defines systems adaptability as the ability of the system to adapt to ever-changing circumstances so as to fit into the dynamic environment to meet the present and future demands. They explain that this kind of adaptability relates to systems adaptability which is a component of complex adaptive systems theory and go on to say that competition in today’s world of work requires public universities to have systems that are adaptable as cited in (Uhl-Bien & Arena, 2017). These systems are open, dynamic and enable parties to self-organise, interact with each other, learn and adapt to changes (Namugumya et al. (2022). Amah and Baridam (2012) clarifies that adaptability is measured by creating change, customer focus and organisation learning. Adaptability thus comprises of change focus, customer focus and organisational learning.

2.2.3 Flexibility. Flexibility is composed of operational, structural and strategic flexibility (Kataria et al., 2013). Bengono (2022) defined organisational flexible governance as an organisation’s ability to make organisations adequately manage the environmental constraints. Accordingly, there are four types of organisational flexibility, namely: optimisation flexibility (low variety and speed); structural flexibility (high variety, low speed); operational flexibility (low variety, high speed) and strategic flexibility (high variety and speed). In this context, flexible organisations can help to quickly change strategies, apply new techniques and completely renew their products. The relationship between sustainability and organisational flexibility is therefore the subject of theoretical confrontations that are examined through

current debates. Oglesby et al. (2023) explains that strategic flexibility refers to an organisation's proactive and reactive abilities to manage change and developing it allows an organisation confront change in its environment with speed and resolve. According to Saeed et al (2017), flexibility is measured in terms of structural, operational and strategic flexibility.

2.3 Review of Related Literature. This section is a review of literature. The review of related literature shows the association between leadership styles and organisational effectiveness. Further, it presents the moderating and mediating influences of institutional culture and communication respectively on leadership styles and organisational effectiveness. The review analyses empirical studies and identifies gaps that justify the need for the study.

2.3.1 Leadership Styles and Organisational Effectiveness. Leadership styles refer to the manner in which people are directed and motivated by a leader to achieve organisation goals (Al Khajeh, 2018). Further, Akparep et al. (2019) expound that leadership styles are behaviours employed by a leader in an organisation to motivate employees towards achievement of the goals of the organisation. Beakana (2017) defines a leadership style as the leader's style of providing direction, implementing plans, and motivating people. Chege and Gakobu (2017) revealed that many research results indicate that leadership style has a noticeable relation with the organisation performance, and certain leadership behaviours may positively or negatively correlate with a firm performance, depending on the variables used by researchers implying that different leadership styles may affect organisational effectiveness differently whereby the success or failure of proper organisations is largely credited to the nature of the leadership style employed by the leader. The leadership style used

by the leader to enhance effectiveness in organisations depends on a number of factors such as situational factors, personality traits and experience.

Different leaders lead differently using different leadership styles but assessing which style that produces the best results depends on situational factors and experience of the leader at any one given time (Beakana, 2017). There are two leadership style that are explored in this research namely transactional and transformational leadership style. Transactional leadership refers to a leader, who emphasises normative rules and regulations, strict discipline and systematic control, whereas a transformational leader is a leader who stimulates and inspires (transform) followers to achieve extraordinary outcomes. By implementing transactional or transformational leadership style, it is hoped that the workers get satisfaction such as physical, social or psychological satisfaction. This increases the morale of workers motivating them to work harder hence organisational effectiveness (Zunaeda & Herlina, 2022).

In their study, Abbas and Cross (2019) studied the impact of leadership styles on organisational effectiveness with employees of Coca Cola Company in Abuja, Nigeria. Their regression analysis revealed that leadership styles had a positive impact on organisational effectiveness of any given organisations. In relation to the above, Sethibe (2018) assessed the relationship between leadership styles and organisational performance using employees in South African companies as the unit of analysis. The structural equation modelling findings showed that transformational and transactional leadership style directly influenced organisational performance which implied organisational effectiveness. However, from the literature above, contextual gaps emerged as

the two studies were done outside Uganda hence may not address the needs of organisations in the local context. Still, the studies were done in organisations other than Universities yet their leadership dynamics might be different. This thus called the need for this study in the context of Uganda and in universities.

In their study, Shoraj and Mametaj (2017) examined the relationship between transformational, transactional and laissez-faire leadership styles and organisational effectiveness based on employees in the banking sector in Albania. Their econometric model results indicated that transformational leadership influenced organisational effectiveness. However, this study raised methodological gaps as it employed econometrics which may not answer the methodological designs of current study that used structural equation modelling. Further, the same study raised a contextual gap since it was done outside Uganda and in the banking sector. This study was conducted in the local context of Uganda in public universities. In a study done in Kenya, Mwai et al. (2018) studied the influence of leadership styles on organisational effectiveness using project managers of NGOs. Their exploratory and descriptive results indicated that leadership styles had significant influence on organisational effectiveness. However, the study above was done in NGOs whose operating environment might greatly be different from that of academic institutions hence the need for this study.

Further, Oyerinde (2020) investigated the influence of leadership styles on organisational effectiveness with personnel from polytechnic libraries in South-west Nigeria. The findings revealed that leadership style had a positive and significant influence on organisational effectiveness. However, the sample for this study comprised only library staff excluding other staff of the

polytechnics. Thus, the current study involved administrative and academic heads from different departments in the universities to obtain generalizable inferences.

In their study, Hasan and Islam (2022) explored the leadership (transformational and transactional leadership) effects on organisation effectiveness using employees of Dhaka Stock Exchange listed organisations in Bangladesh. The Structural Equation Modelling analysis results revealed that transformational, distributive, and servant leadership significantly influenced organisation effectiveness whereas transactional leadership failed to associate with organisation effectiveness. However, the study created a contextual gap since it was conducted outside Uganda in a stock exchange enterprise. This study was carried out in Uganda and in public universities. Consistent with the above, Won et al. (2017) examined the effect of leadership styles on organisation effectiveness using employees from social welfare organisations in Malaysia. The regression analysis findings established that leadership style significantly influenced organisational effectiveness. However, this study considered only two leadership styles that are namely transformational and transactional leadership ignoring laissez-faire. Therefore, to test the complete model of leadership styles as conceptualised by Avolio et al. (1999) in relation to organisational effectiveness, this study was carried out. Still, this study raised contextual gaps as it was carried out outside Uganda and in organisations other than Universities. This study was thus carried out in Uganda and in universities.

In addition, the study done by Nazarian et al. (2021) tested the influence of transformational leadership, transactional leadership and laissez-faire on organisational effectiveness through the market and adhocracy organisational

culture using managers of independent hotels in Iran. The Structural Equation Modelling findings revealed that the three leadership styles had an indirect influence on organisational effectiveness through the different organisational culture types that is transformational leadership style which was through market and adhocracy culture, transactional leadership style was through market culture and laissez-faire leadership style that was through adhocracy –culture type. However, the literature above created a contextual gap as it was conducted outside Uganda and in a hotel and this may not address the needs of organisations in the local context since this study was carried out in Uganda and in a university setting. Generally, leadership styles were studied in terms of transformational and transactional leadership style. The literature on the same in relation to organisational effectiveness follows;

2.3.1.1 Transformational leadership Style and Organisational Effectiveness. Balwant et al. (2019) defined transformational leadership style as involving a leader who clearly articulates a realistic vision of the future that is shared, intellectually stimulating to employees and highly considers employee subordinate differences. He went ahead to opine that transformational leadership style highly applies to university teaching in form of transformational instructor leadership though this research varies across diverse educational fields. The transformational leadership style was defined by Avolio et al. (1998) as having five behavioural patterns of Transformational leadership namely; idealised influence (attributed charisma), idealised influence (behavioural charisma), inspirational motivation, intellectual stimulation and individualized consideration (Gozukara, 2016). Magasi (2021) regarded transformational leadership styles as one where employees desire beyond their self-interest, and

focus on the higher level of inspiration for the organisation which ultimately enhances its effectiveness.

Mekonnen and Bayissa (2023) suggested that transformational leadership style is in several aspects the extension of transactional leadership style, is direct or participatory and shares some common characteristics with charismatic leadership though charisma is a component of transformational leadership. Additionally, Chen et al (2022) posited that transformational leadership theory assumes that leaders should respect and trust their subordinates so that they may gain their loyalty and make them believe in universal contributions to the organisational goals achievement through commitment, creativity and innovativeness in solving work related problems that result to organisational effectiveness. This is supported by Abdelaliem and Zeid (2023) who clarified that transformational leadership is the most desirable leadership style since it deals with emotions, values, and creativity of followers and it generates innovation plus obtaining employee commitment and creating higher work quality and creative problem-solving processes. With transformational leadership, superiors inspire followers to achieve beyond expectation by emphasizing followers' values and helping them to match their values with organisational values.

Bojovic and Jovanovic (2020) clarified that transformational leadership style is where leaders use their vision and personality to inspire followers to adjust their expectations, perceptions, and motivations to work towards achieving the common organisational goals and objectives. All the above support the view that transformational leaders encourage followers to work towards a universal organisational vision and inspiring them to transcend

their self-interests and engage in decisions that lead to achievement of organisational common goals and objectives (Kuntz et al., 2019). In a study carried out in North India, Tayal et al. (2022) empirically investigated the relationship between transformational leadership and organisational effectiveness using employees of various branches of banks in North India. The regression analysis revealed that there was a significant relationship between transformational leadership style and organisational effectiveness. However, this study raised contextual gaps since it was done outside Uganda in a banking sector which has different operating conditions to those of universities where this current study was carried out. This current study was carried out in Uganda and in universities to close the contextual gap created.

In another study done at Ubudiyah University in Aceh, Alfanda and Suhartanti (2018) investigated the relationship between transformational leadership and performance using lecturers and other college staff emphasising issues related to women in leadership. Their regression analysis showed existence of a significant relationship between transformational leadership and performance. Much as this study was carried out in a university setting like this current one, it created a contextual gap since it was done outside Uganda. Still, a conceptual gap was created since it was concerned with organisational performance contrary to organisational effectiveness. In the study carried out in some of the banks operating in Jordan, Orabi (2016) investigated the impact of transformational leadership style on organisational performance in terms of efficiency and efficacy which pointed to organisational effectiveness. The results indicated that transformational leadership style had a positive influence on organisational performance with inspirational motivation, intellectual

stimulation, and individual consideration having a statistically significant and positive influence on organisational performance whereas idealised influence had no significant influence on organisational performance which implies organisational effectiveness. However, however, this study raised a knowledge gap as it revealed that while all the other aspects of organisational leadership lead to organisational effectiveness, idealised influence did not. This thus called the need for this study to ascertain the findings.

In another study carried out in Iraq public universities, Al-Husseini et al.,(2021) assessed the linkage between transformational leadership style and organisational innovation using academic staff. Their structural modelling equation results revealed a positive direct linkage between transformational leadership style and innovation which pointed to organisational effectiveness. However, the study raised a contextual gap since it was carried outside Uganda though in the same public university setting. This current study was however done in Uganda public universities organisational effectiveness construct as per the conceptual framework.

Further, Mwai et al. (2018) assessed the impact of leadership styles on organisational effectiveness using project managers from NGOs in Kenya. Their linear regression model results showed that leadership style has a significant impact on organisational effectiveness. However, this study raised a conceptual gap since both variables used constructs that differ from the ones used in the current study. Still, the study raises contextual gaps since it was done outside Uganda in a non-government organisational setting. The current study was carried out in Uganda and in public universities with certain parameters quite different from the ones used by reviewed study. However, this

raises contextual gaps since it was carried outside Uganda and in healthy institutions. In their study conducted in Iraq, Al- Husseini and Elbeltagi (2016) assessed the influence of transformational leadership style on organisational effectiveness in terms of product and process innovation using academics and leaders of both public and private higher education institutions. The multi-group structural equation modelling results indicated that transformational leadership style played a significant role in influencing organisational product and process innovation that is organisational effectiveness. However, the constructs of OE in the above study were limited to only product and process innovation presenting a conceptual gap. This study considered organisational effectiveness with all its aspects as indicated on the conceptual framework. The study also presented a contextual gap since it was conducted in both private and public higher education institutions outside Uganda. This was done in Uganda and strictly in public universities.

Similarly, the study carried out in Central Java Province in Indonesia, Rafia et al., (2020) examined the impact of transformational leadership on employee performance, job satisfaction and employee engagement using employees of Public Housing and Settlement areas. The findings of the Partial Least Square revealed that transformational leadership had no direct significant impact on employee performance but had a direct impact on job satisfaction and employee engagement. However, this study implied organisational effectiveness indirectly in terms of organisational performance which could be a cause for differing results. This therefore makes this study necessary to study organisational effectiveness basing on its aspects as indicated in the conceptual framework.

Still, Chau et al. (2022) investigated the impact of transformational leadership style on organisational performance using public service organisations in Vietnam. The partial least square structural equation modelling analysis results indicated that transformational leadership style had a significant positive impact on organisational performance. The study however presents a conceptual gap since organisational performance was studied instead of organisational effectiveness the basis for this study. Further, the study created a contextual gap since it was conducted in public organisations in Vietnam. This therefore necessitated carrying out this study in the context of Ugandan universities.

In another vein, Tayal et al. (2022) examined the impact of transformational leadership style on organisational performance using bank employees from North India. The SPSS analysis revealed that transformational leadership style had a significant impact on organisational performance. However, the study above was conducted in a banking sector where leadership styles may differ from those of universities due to nature of working environments hence not explaining what is pertaining in universities in regard to organisational effectiveness. Still, the study created a conceptual gap as it was done on organisational performance which may not fill the conceptual gaps of the current study that used organisational effectiveness hence the need for this study. Doghri et al. (2022) investigated the effect of transformational leadership on organisational performance using employees from Tunisian enterprises, Tunisia. The structural equation modelling analysis results revealed that transformational leadership had a significant positive relationship effect on organisational performance.

Additionally, Hasan and Islam (2022) explored the transformational leadership effects on organisational effectiveness using employees of Dhaka stock exchange listed organisations in Bangladesh. Structural equation modelling analysis results revealed that transformational leadership significantly influenced organisation effectiveness. Kurniasih et al. (2022) investigated the correlation of transformational leadership and performance of public health centre using employees of hospitals in Indonesia through social media. The structural equation modelling (SEM) analysis result revealed that transformational leadership has a positive and not significant effect on motivation of public health centre employees. However, the study by Hasan and Islam (2022) was conducted in the context of a stock exchange organisation while that of Kurniasih et al. (2022) was carried out in a health sector context presenting contextual and population gaps since the employees in both settings operate under different leadership dynamics. Still, both studies were conducted outside Uganda and may not precisely present the operating conditions influencing organisational effectiveness in universities in Uganda hence need for this study.

Further, Ejike (2023) examined the relationship between leadership styles and organisation effectiveness using employees of Zenith bank. The correlation and Pearson product moment coefficient statistics findings showed that transformational leadership correlated significantly with organisation effectiveness. However, the above study was carried out outside Uganda and in the banking, sector hence raising contextual gaps. This study was conducted in Uganda and in public universities. Generally, transformational leadership styles were studied in terms of idealised influence attributed. Transformational

leadership comprises of idealised-influence behaviour, inspirational motivation, intellectual stimulation and individual consideration leadership style. The literature on the same in relation to organisational effectiveness follows;

2.3.1.1.1 Idealised influence leadership style and organisational effectiveness. Idealised influence refers to the charismatic characteristic leaders who tend to act as role models for others where the subordinates admire, respect and trust the leaders (Mathende & Karim, 2022). Ultimately, subordinates identify with their leaders' goals, interests and values. Idealised influence implies the charismatic leader's actions that emphasize beliefs, and the importance attached to the mission. Idealised influence also signifies the level to which the followers view their leader in full respect and go ahead to identify with him or her. Further, leaders act as role models, respected, admired and trusted. The leaders are consistent, share risks with others, show ethical behaviours and also emphasize the needs of others over their own (Chan et al., 2019). Idealised influence is the leader's behaviour that inspires trust, admiration and respect among group workers to the point that members endeavour to identify with him/her. It entails leading by example in all aspects that influence and shape the opinions of subordinates (Nyakomitta, 2021). The idealised influence dimension has two aspects namely: idealised influence attributed and idealised influence behaviour (Bass & Avolio, 1997).

To note is that idealised influence covers idealised influence-behaviour and attributed. Idealised influence-behaviour is defined with respect to both the leader's behaviour and the followers' attributions about the leader (Kariuki, 2021). Idealised influence-attributed refers to a situation where transformational leaders develop confidence and instil emotions (such as

dignity, integrity, and honour), a sense of selflessness, and respect in their followers (Agyemang et al., 2017). With this dimension, followers admire and trust their leaders. Leaders have high standards for ethical and moral conduct. This engenders loyalty from followers. Attributes include instilling pride in others for being associated with the leader; going beyond self-interest for the good of the group and developing a sense of power and confidence (Avolio & Bass, 2004). With this type of behaviour, transformational leaders are goal-oriented, and they encourage the completion of work based on a collective sense of beliefs, values, purpose, and mission. Emphasis is put on behaviours including the leader talking about his/her major values and beliefs, specifying the importance of having a strong sense of purpose and considering the moral and ethical consequences of decisions (Agyemang et al., 2017).

Idealised influence- attributed explains the actual charisma, where the leader is seen as possessing supernatural traits implying that it simply refers to the perception of a leader by the followers. On the other hand, idealised influence -behaviour explains the role-modelling ability of the leader meaning that it simply refers to what the leader essentially does (Kariuki, 2021). This granular consideration suggests that these two sub-dimensions are succinct in the role each play. Rad et al. (2021) investigated the impact of idealised influence leadership on organisational innovation using school principals, expert officers and deputy managers, Department of Education, Dasht-e country, Khuzestan province, Iran. Their Structural Equation Modelling analysis revealed that idealised influence dimension had a direct influence on organisational innovation which implies organisational effectiveness. However, the study created a conceptual gap by studying organisational innovation which

is a mere component of organisational effectiveness and not emphasized by this study. Still, a contextual gap was created since the study was carried out outside Uganda and in schools. This therefore called for the need for this study to be carried out in the local context of Uganda and in universities by studying organisational effectiveness and all its aspects as per the conceptual framework.

In their study done in Kenya, Linge and Sikalieh (2019) investigated the impact of idealised influence on employee job performance using lower-level managers of insurance companies, The variance test analysis findings revealed that idealised influence had a significant influence on employee job performance which implies organisational effectiveness. However, the study indirectly implied organisational effectiveness in terms of employee job performance. Still, the study context was in insurance sector which has different leadership structures from those of universities. The above conceptual and contextual gaps called for the need for this study in the context of universities in Uganda.

Furthermore, in a study carried out in Jordan, Alsayyed et al (2020) examined the impact of idealised influence leadership on organisational performance using the administrative employees at the University of Jordan. The multiple regression findings indicated that idealised influence leadership had a significant impact on organisational performance which points to organisational effectiveness. However, the study above raised conceptual gaps as it investigated organisational performance rather organisational effectiveness yet the two variables have different dimensions as per the conceptual framework. Still, the above study raised population gaps as it generally employed administrative university employees without specifying which

category yet this study specifically employed administrative and academic heads as units of analyses hence the need for this study. A contextual gap was also created since the study was conducted in Jordan University outside the Ugandan context yet the two states have differing operating structures and cultures that may alter the research outcomes hence the necessity for this study.

Additionally, a study done by Ogola et al. (2017) investigated the effect of idealised influence leadership style on employee performance using employees of small and medium enterprises in Kenya. The correlation analysis results revealed that there was a strong and significant relationship between the two variables. However, this study created a contextual gap since it was carried out in small business enterprises in Kenya outside Uganda. This study was carried out in Uganda and in public universities. On the other hand, in the study done in state owned enterprises in Kenya, Ngaithe et al. (2016) investigated the effect of idealised influence on organisational performance using senior managers of state-owned enterprises. The factor analysis results indicated that idealised influence had a positive and significant effect on staff performance which points to organisational effectiveness. However, both studies above raised a contextual gap as they were done outside Uganda hence may not meet the needs of organisations in local context. Further, the studies were conducted in organisational enterprises other than a university yet their leadership styles might be different. This thus called the need for this study in the context of Uganda and in universities. Still, both studies implied organisational effectiveness indirectly in form of employee performance and organisational performance respectively.

2.3.1.1.2 Inspirational motivation leadership style and organisational

effectiveness. Inspirational Motivation means the ability of a leader to enhance followers' emotional commitment and excitement to a mission by not only providing challenging tasks and promoting positive expectations of what needs to be done, but also, demonstrating commitment to the shared vision (Mathende & Karim, 2022). Inspiration motivation leadership style is defined by Maio et al. (2023) as a type of leadership where a leader provides meaning and challenges subordinates to excel. The characteristics of this type of leader are passion and optimistic, effective communication, realistic anticipation and establishing the commitment to shared visions of the organisation. In their study, Ameen et al. (2021) sought to find out the effect of inspirational motivation on organisational innovation (administrative, process and product innovation) using employees of the public sector in United Arab Emirates. The structural equation modelling results showed that inspirational motivation predicted innovation with varying degrees variance being high in administrative innovation followed by product innovation and lower in process innovation which implied organisational effectiveness. However, this study above was carried out outside Uganda and in the banking sector whose leadership dynamics may differ from those of universities hence need for this study to investigate organisational effectiveness in the context of universities in Uganda thereby filling the created contextual gap. Still, the study used employees of the banking sector not university lecturers which this study employed thus creating a conceptual gap that needed to be filled by this study. Further, the above studies investigated organisational innovation to imply organisational effectiveness as per the conceptual framework.

A study testing the impact of transformational leadership dimensions on organisational success conducted by Nuel et al. (2021) involved employees of tertiary institutions in Anambra state, South East Nigeria. The correlation results revealed that inspirational motivation and organisational success which points to organisational effectiveness had a strong positive and significant correlation. However, the study above raised conceptual gaps as it investigated organisational success rather organisational effectiveness which is the main basis for this study. Still, the above study raised population gaps as it generally employed university employees without specifying which category yet this study specifically employed administrative and academic heads as units of analyses hence the need for this study. In a study carried out by Mathende and Karim (2022) investigating the impact of transformational leadership on work performance hence organisational effectiveness, they used employees of Beverage's manufacturing companies in Zimbabwe during the pandemic. The statistical techniques analysis results revealed that inspirational motivation leadership predicts work performance. However, this raised contextual gaps since it was carried outside Uganda and in manufacturing companies. Further, a conceptual gap existed since it did not directly relate these leadership styles with organisational effectiveness which this study.

As study conducted by Ngaithe et al. (2016) sought to determine the influence of inspirational motivation leadership style on organisational performance using senior managers of state-owned organisations in Kenya. The descriptive and inferential analysis results revealed that inspirational motivation was positively and significantly related with staff performance which implies organisational effectiveness. Multiple linear regression results indicated that

inspirational motivation significantly predicted staff performance. However, the study created methodological gaps since it stopped at a preliminary level of analysis by ignoring Structural Equation Modelling. Still, the study context was in state owned organisations not specifically universities and outside Uganda. Further, organisational effectiveness was indirectly implied in organisational performance yet the two are different aspects with different psychometric measures. The above methodological, contextual and conceptual gaps necessitated the need for this study for confirmatory analysis methods, studying organisational effectiveness basing on its dimensions as shown in the conceptual framework and in the context of universities in Uganda.

Tajasom et al. (2015) investigated the impact of inspirational motivation on innovation performance using staff of small-and medium-sized enterprises in Malaysia. The results show that inspirational motivation had no significant positive effect on innovation performance which points out organisational effectiveness. However, the above study raised conceptual gaps since organisational effectiveness was indirectly implied in terms of innovation performance. Still, the study was conducted outside Uganda in the context of Malaysian enterprises other than universities. This study was carried out in the context public universities in Uganda to cover antecedents of organisational effectiveness as per the conceptual framework. In their study, Muthimi et al (2021) sought to establish the influence of inspirational motivation on the academic performance of selected universities in Kenya using school deans and chairmen of departments. The explanatory and descriptive analysis established a significant positive effect of inspirational motivation on academic performance of universities which points to organisational effectiveness.

However, the study was conducted outside Uganda raising contextual gaps due to different operating university structures. This study was carried out in the local context of Ugandan public universities.

2.3.1.1.3 Intellectual stimulation leadership style and organisational effectiveness. Intellectual stimulation is the ability of the leader to empower followers to visualize on their own, by challenging them through questioning and developing their beliefs, assumptions and values then subordinates are encouraged to be creative and innovative in problem solving (Mathende & Karim, 2022). Intellectual stimulation refers to the frequency with which leaders encourage employees to be innovative in problem solving and solutions (Agyemang et al., 2017). Intellectual stimulation is the leader's capability to inspire followers to "think out of the box" when solving problems which results into creativity and innovation. Leaders kindle their followers' effort to be innovative and creative by questioning assumptions, reframing problems and approaching old situations in new ways (Avolio & Bass, 2004).

With intellectual stimulation, there is no public criticism of individual members' mistakes hence new ideas and creative problem solutions are solicited from followers, who are included in the process of addressing problems and finding solutions. Followers are encouraged to try new approaches, and their ideas are not criticized simply because they differ from the leaders' ideas (Akpapere et al., 2019). Intellectual stimulation is concerned with the superior's capability to challenge subordinates to re-examine their anticipation in the first place and encourage them to think creatively and innovatively through problem reformulation, intellectual curiosity, imagination, and novel approaches.

Furthermore, individualized consideration emphasizes followers' individual accomplishment, evolution, support, and development (Chan et al, 2019).

The study conducted by Alsayed et al. (2020) examined the impact of intellectual stimulation leadership on organisational performance using administrative employees at the University of Jordan, Amman, Jordan. The multiple regression analysis results showed that intellectual stimulation had a significant impact on organisational performance which implies organisational effectiveness'. Chan et al. (2019) using administrative level staff determined the level of intellectual stimulation for employees in the Malaysian manufacturing industry, Batu Pahat, Johor, Malaysia. The inferential analysis results indicated that Intellectual Stimulation was the highest level for employees in the manufacturing industry. However, the above studies raised methodological gaps since they stopped at multiple regression and inferential analyses respectively which are preliminary levels of analyses. However, the studies above were carried out the university context that has different work dynamics. This thus called for this study.

In their study, ALmahasneh et al. (2022) used employees of Jordan to determine the effect of intellectual stimulation on organisation performance utilizing transformational leadership theory and perspective theory. The Partial least Squares Structural Equation Modelling (PLS-SEM) analysis results indicated that Intellectual stimulation and individualized consideration had a positive significant impact on organisation performance. However, the above study raised a conceptual gap since it utilised organisational performance in place of organisational effectiveness. Still, the above study was conducted outside Uganda on IT companies other than universities. This called for this

study to determine the effect of intellectual stimulation on organisational effectiveness of public universities in the local context of Uganda.

Ogola et al. (2017) examined the influence of intellectual stimulation leadership behaviour on employee performance using managers of Small and Medium Enterprises in Kenya. The findings of the Pearson's correlation, multiple regression and chi-square techniques showed that intellectual stimulation leadership behaviour and Employee Performance had a strong positive and significant correlation and a positive and significant relationship. However, the above study created a conceptual gap since organisational effectiveness was obliquely implied in employee performance yet the two dimensions have different psychometric measures. Therefore, this study looked at organisational effectiveness in public universities in Uganda. Tajasom et al. (2015) investigated the impact of intellectual stimulation and innovation performance of small-and medium-sized enterprises in Malaysia. The results show that intellectual stimulation, and individual consideration had significant positive effect innovation performance. However, the study created conceptual gaps since organisational effectiveness was indirectly implied in terms of innovation performance. Further, the study was carried out outside Uganda in the context of Malaysian enterprises other than universities. This necessitated a study in the context of Uganda and in universities.

2.3.1.1.4 Individualised consideration leadership style and organisational effectiveness.

Individualised consideration refers to assistance given by the leader to the followers to become fully actualized by providing personalised career guidance (Mathende & Karim, 2022). Hilton et al (2023) refer to individualized

consideration as a leadership style where leaders give special attention to each individual follower's needs for achievement and growth by acting as a coach or mentor. The leader tries to achieve by enthusiastically listening and recognising members' personal needs for growth, learning and recognition. Hence, individual consideration involves mentoring and coaching. This process also provides continuous feedback to the follower and links the follower's current needs to the organisation's mission (Puni et al., 2021). Reza (2019) asserts that with individual consideration, transformational leaders pay special attention to each individual follower's needs for achievement and growth by playing the roles of a coach or mentor. Individualized consideration is practiced when new learning opportunities are created along with a supportive climate. Individualized consideration considers employees have different strengths and weaknesses, likes and dislikes. Individualized consideration recognises followers' needs and leaders are prepared to encourage the development of appropriate work place behaviour.

Hilton et al. (2021) examined the influence of transformational leadership dimensions on organisational performance using employees of selected commercial banks in Ghana. Their analysis revealed that individualised consideration was the most dominant dimension used by managers and supervisors of the selected commercial banks and had a positive effect on organisational performance. However, both studies above indirectly implied organisational effectiveness in form of knowledge sharing and organisational performance respectively citing a conceptual gap. Further, the studies raised a contextual gap since they were carried outside Uganda and in industrial and banking sectors respectively. These conceptual and contextual gaps called for

this study to investigate antecedents of organisational effectiveness in the context of universities in Uganda.

In a study by ALmahasneh et al. (2022) carried out on IT companies on the Jordanian Information Technology and Communications Association, Jordan, they used management-level staff to determine the effect of individual consideration on organisation performance utilizing transformational leadership theory and perspective theory. The Partial least squares structural equation modelling (PLS-SEM) analysis results indicated that Intellectual stimulation and individualized consideration were found to impact organisation performances positively. However, the above study was conducted outside Uganda on IT companies other than universities. This called for this study to be carried out of public universities in the local context of Uganda to determine the effect of individual consideration on organisational effectiveness.

Mathende and Karim (2022) examined the role of transformational leadership on work performance using employees of Beverage's manufacturing companies in Zimbabwe during the pandemic. The statistical techniques analysis results revealed that individual consideration leadership predicts work performance. However, the above study was carried out in the context of a beverage company more over outside Uganda which may have different leadership dynamics and hence could not predict organisational effectiveness of universities in Uganda. Still, the study indirectly implied organisational effectiveness in terms of organisational performance. This study was carried out in public universities in Uganda specifically on organisational effectiveness and its constructs as per the conceptual framework.

The study by Tajasom et al. (2015) investigated the impact of individualized consideration on innovation performance using employees of small-and medium-sized enterprises in Malaysia. The correlational analysis results indicated that individual consideration had significant positive effect on innovation performance. However, organisational effectiveness was indirectly implied in terms of innovation performance. Still, the study was done in Malaysia which may be having a more developed culture compared to Uganda. The conceptual and contextual gaps created by the study called for the need to carry out this study investigated organisational effectiveness and its dimensions indicated in the conceptual framework and specifically in the context of universities in Uganda using structural equation modelling.

2.3.1.2 Transactional Leadership Style and Organisational effectiveness. In his study, Beakana (2017) defined transactional leadership style as one that emphasizes the motivation and punishment of followers through rewards and sanctions thereby rewarding high performers and punishing non- performers accordingly. Transactional leadership style is also defined as leadership where the leader emphasizes the exchange of rewards and punishments implying that high performers are rewarded and poor performers are punished appropriately (Sofi & Devanadhen, 2015). Transactional leadership is defined by Azizaha et al. (2020) as the exchange relationship that is created between leaders and their subordinates where each party strikes a deal as a way of satisfying each one's interests and hence enabling the leader to maintain organisational performance by emphasizing the satisfaction of the needs of his subordinates. Fazzi and Zamaro (2016) posit that transactional leadership style follows an approach of

give and take of those benefits agreed upon by both parties in their exchange transactions.

Transactional leadership explains the relationship between the leader and followers based on exchange or contingent rewards put in place by the leader to enhance goal achievement (Algahtany & Bardai,2019). Purwanto et al., (2020) clarifies that transactional leadership style relates with motivating subordinates by enhancing their personal interests and that it involves values which are relevant to exchange processes that include honesty, responsibility and reciprocity. Transactional leadership style is therefore the exchange relationship between the leader and subordinates firmly built on the mutual benefit principle. Transactional leadership is the foundation for the relationship between the leader and subordinates in respect to determining expectations, clarifying responsibilities, negotiating contracts, and acknowledging and appreciating the achievement of expected goals and objectives (Purwanto et al., 2020). Crews et al (2019) assert that transactional leadership style is the leader's ability to reinforce followers for their positive achievement of the bargain and that it involves three dimensions/ constructs namely; contingent rewards which involves leaders engaging a path-goal exchange of reward for excellent performance, active management-by-exception where leaders engage in corrective action based on leader- subordinate transactions, and passive management-by-exception where leaders leave subordinates to take full responsibility for their actions but come in to intervene after mistakes have become apparent.

In their study carried out Malaysia, Cob and Abidin (2020) assessed the influence of transactional leadership style on leader's talent management ability

using administrator of Malaysian Public Universities. Results of the correlation analysis indicated that transactional leadership style had a significant influence on organisational effectiveness. However, this study created contextual gaps since it was carried outside Uganda where measures of effectiveness are different from those of public universities in Uganda where this study was carried out. Further, it presented conceptual gaps since it implied organisational effectiveness indirectly in terms of leader's talent management ability. This therefore makes carrying out this study necessary to study organisational effectiveness using a university setting in the context of Uganda basing on its dimensions as shown in the conceptual framework.

On their part, Relatedly, Thahira et al. (2020) analysed the effect of transactional leadership style on organisational innovativeness in SMEs in Kendari city, South East Sulawesi using SMEs entrepreneurs. The Structural Equation Modelling results showed that transactional leadership style had a positive and significant direct effect on organisational innovativeness that points to organisational effectiveness. However, this study used entrepreneurs considered organisational effectiveness hence a conceptual gap. This conceptual gap necessitated this study because the concept used could yield different results from those of organisational effectiveness. There was also a contextual gap created since these studies were carried outside Uganda in SMEs yet the current study was in Uganda and in universities hence the need for this study to predict structural models for organisational effectiveness in public universities in Uganda.

Further, Azizah et al. (2020) examined the influence of transactional leadership style on work satisfaction and performance respectively in

Jabodetabek, Jakarta using academic staff of Islamic Universities during Covid-19 Pandemic. The Structural Equation Modelling analysis findings revealed that transactional leadership had no significant influence on work performance which points to organisational effectiveness. This study contrary to other studies created a knowledge gap. This called for this study is the gap suggested that each study should be considered on its own merit. In the same vein, Purwanto et al. (2020) evaluated the impact of transactional leadership style on performance in Pati, Central Java using employees of a Health Centre. The Structural Equation model analysis results showed that transactional leadership style had no a strongly significant and positive impact on performance which implies organisational effectiveness. The two studies created a contextual gap as they were carried out in different countries and organisational settings respectively outside Uganda. And in both studies, organisational effectiveness was indirectly implied as organisational performance and work satisfaction hence a conceptual gap created. Still, there was a population gap created since the study of Azizah et al. (2020) used employees in an Islamic university setting while Purwanto et al. (2020) used employees in a health Centre with different operating environments from those of public universities in Uganda hence the need for this study to carry out a predictive model for organisational effectiveness of public universities in Uganda.

Nazarian et al. (2021) tested the influence of transactional leadership style on organisational effectiveness through the market and adhocracy organisational culture using managers of independent hotels in Iran. The structural equation modelling findings revealed that transactional leadership style had an indirect influence on OE through the market - culture type.

However, this study created a contextual gap since it was carried outside Uganda and in a hotel setting. This contextual gap called for the need for this study in the context of universities in Uganda. Hasan and Islam (2022) explored the transactional leadership effects on organisation effectiveness using employees of Dhaka stock exchange listed organisations in Bangladesh. the structural equation modelling analysis results revealed that transactional leadership did not associate with organisational effectiveness. However, the study context was in Bangladesh and in organisations having differing operating cultures that may require different leadership styles with those of universities. This called for the need for this study to find out the antecedents of organisational effectiveness in public universities in Uganda.

The study carried out in Anambra State, Nigeria by Ejike (2023) examined the relationship between transactional leadership styles and organisation effectiveness using employees of Zenith bank. The correlational design and Pearson product moment coefficient statistics findings showed that transactional leadership style correlated significantly with organisation effectiveness. However, contextual and methodological gaps emerged from the above study in that it was conducted outside Uganda and in a banking sector. This implies that the study did not capture the situations in Ugandan universities. Still, there was a population gap created since the study used employees in the banking setting who might be operating in different work environments and facing different challenges and opportunities. Still, the study raised methodological gaps by stopped at correlational design and Pearson product moment coefficient statistics analyses respectively which are preliminary levels of analyses. The current study sought to build models using

Structural Equation Modelling analysis to explain the antecedents of organisational effectiveness. However, operationally, transactional leadership covers contingent rewards and passive avoidant. The literature on the same follows here under.

2.3.1.2.1 Contingent reward and organisational effectiveness. Result-oriented goals are emphasized by a leader with a contingent remuneration structure. This pattern of conduct has developed because people generally prefer monetary compensation for their efforts. When compared to transformational leadership, which acknowledges individual skills and promotes enthusiasm through emotional appeals, values, and belief systems, transactional leadership generates compliance by appealing to the wishes and expectations of individuals (Haibo, 2022). When using contingent compensation, managers play the role of leading their subordinates in the right way. Material rewards based on performance, establishing a course of action, having complementary members of a team, and promoting a sense of trust are all indicators of contingent pay (Qiuyan, 2022). Contingent reward is just that, rewards that are contingent on the successful completion of a specific duty. Rewards may be monetary, such as pay-raises and bonuses, or in the form of commendations, praise, or something else the employee deems desirable.

The study by Noko and Nwuzor (2021) assessed the influence of the perception of employees on both intrinsic and extrinsic reward system and whether reward system impact their performance and the organization performance at large using employee of Zenith Bank Plc. The Structural Equation Modelling (PLS-SEM) findings showed that intrinsic rewards had a more potent positive and significant effect on employee performance than

extrinsic rewards. It was further revealed that three of the four measures of employee performance; quality job, effective service delivery, customer rating were positive and significant with organization performance while time management was unable to explain organization performance which points out to organisational effectiveness. However, a conceptual gap emerged since the study used reward system to imply contingent reward yet the two could have differing concepts that could alter the findings. Still, the study was conducted outside Uganda raising a contextual gap. This study was done in the local context of Uganda public universities.

Further, in their study, Chikukwa et al. (2020) evaluated the extrinsic rewards and organisational effectiveness in turbulent economic times using employees of the Zimbabwean manufacturing sector. The correlations test results revealed that extrinsic rewards had a positive and significant association with organisational effectiveness. However, the study revealed contextual and population gaps in that it was conducted outside Uganda and using employees in a manufacturing sector contrary to the administrative and academic heads used in this study. Different categories of staff have differing job descriptions and hence different perceptions of work operations hence need for this study. This study was conducted in public universities of Uganda using administrative and academic heads.

In their study, Ahamad et al. (2022) examined the influence of contingent reward leadership style on project success achievement using project team members in the Pakistan Information Technology sector. The partial least squares structural equation modelling results indicated that contingent reward leadership neither directly nor indirectly (through self-leadership) showed any

significant relationship with project success which implies organisational effectiveness. However, the study was carried outside Uganda and not in universities creating a contextual gap. Further, the study raised a conceptual gap since it was conducted using organisational success that indirectly implies organisational success and could yield different results due to the fact that the two concepts could be having different dimensions. This created the need for this study that was conducted in Uganda and in public universities to cover organisational effectiveness with all its dimensions as per the conceptual framework.

2.3.1.2.2 Management by exception (active) and organisational effectiveness. Management-by-exception is separated into two separate facets: active management-by-exception and passive management-by-exception. Management- by-exception (active) is similar to delegation of authority to subordinates in all aspects which involves a procedure where a manager or team leader offers another member from the subordinate staff authority and responsibility to undertake a certain assigned role, providing them with the chance to complete the assignment efficiently with little supervision. Delegation tends to authorize mostly the subordinate workers to make decisions although, certain magnitude of answerability on the results of the executed job, usually remain in the hands of the supervisor who tends to delegate work (Limo & Mureithi, 2023). Management- by-exception (active) is not the same as renouncing leadership, as indicated by the “do-nothing” management style. Managers that use the active management by exception have unwavering faith in their teams' abilities to get the work accomplished and make things running smoothly (Haibo, 2022).

Ineffective leadership is characterised by a failure to motivate followers to work beyond expectation once a target is reached however much the system is deemed to have succeeded, satisfaction is achieved, and business returns to its usual state (Nazarian et al., 2017). Leadership by exception lacks a sense of adventure, risk-taking, fresh insights, or innovative approaches. It fits well with a culture that is open to change based on what its members actually need. Management-by-exception (active) occurs when management actively monitors an employee's work performance, acting before work declines, and intervening if there is a violation of policy (Limo & Mureithi, 2023). Management -by -exception (active) is characterised by a lack of trust in employees, poor lines of communication, an insistence on business as usual, and an unwillingness to change the status quo (Haibo, 2022). Active management-by-exception involves management actively monitoring employee performance and intervening when there is a policy violation or unacceptable performance is detected (Barnett, 2018).

There are a number of studies that have related management by exception or delegation and organisational effectiveness. For example, Kennedy and Keino (2017) investigated the impact of delegation of authority on organisational performance using permanent employees of Twiga chemical industries ltd in Nairobi. Regression of coefficients results showed that legislative delegation and organisation performance are positively and significant related. The results further indicated that adjudicative delegation and organisation performance are positively and significant related. The results further established that monitoring and enforcement delegation were positively and significantly linked. Similarly, results showed that agenda setting

delegation and organisation performance were positively and insignificantly related. However, the study raised a population gap since it was done on employees of a chemical industry contrary to the administrative and academic heads of public universities who could be having divergent views due to different role structures. Organisation effectiveness was also obliquely implied as organisation performance yet the two concepts could be having different dimensions that could offer different results. This study was done in Uganda and in public universities.

Olasunkanmi et al. (2023) examined the role of active management-by-exception on organisational performance using managers of the construction industry in Nigeria. The results indicated that active management –by –exception was the often used by managers in form of; always give clear and instructions to be implemented, always observed the progress of the project and assessed risk, took precaution to avoid mistakes in the project and always closely monitored performance for errors needing correction leading to organisational effectiveness delegation and organisation performance were positively and insignificantly associated. However, their study created contextual gaps since it was conducted outside Uganda and in a construction industry that could present differing operating structures and procedures that might alter results. Still, the study raised a conceptual gap as it used organisation performance to imply organisation effectiveness. This study was conducted in Uganda and in public universities.

The study by Asmaa (2023) assessed the impact of delegating leadership on organisational excellence using employees of destination management organisations and airlines, Faculty of Tourism and Hotels, University of Sadat

City. The correlation and regression tests revealed that there was an association between delegating leadership and organisational excellence in tourism organisations and delegating leadership affected organisational excellence which implied organisation effectiveness in tourism organisations. However, the study raised conceptual gaps as it used organisation excellence to indirectly imply organisational effectiveness and delegating leadership to imply management-by-exception (active) yet these could have different dimensions that could affect the study results. This study considered active management-by-exception and organisational effectiveness done in Uganda in public universities.

Limo and Mureithi (2023) assessed association between delegation and employee productivity using employees in the department of public service and administration in selected Counties in Kenya. Multiple regression results indicated that delegation had a positive effect on employee productivity. However, this study a contextual gap existed since the study was done in the department of public service of Kenya that had different operating structures from those of universities. Further, a conceptual gap emerged as the study obliquely implied organisation effectiveness as employee productivity and active management-by-exception as delegation yet these concepts have different dimensions that yield divergent study findings. This study considered active management-by-exception and organisation effectiveness in public universities in Uganda.

On the other hand, passive management-by-exception differs from the active dimension in that the leader only acts after a problem occurs. Avolio and Bass (2004) identified passive management-by-exception as *laissez-faire*

leadership (Barnett, 2018). Laissez-faire is a type of leadership style, which is derived from the French term that means “to let it do”. Laissez-faire is considered to be at the extreme end of the democratic-style spectrum (Avolio & Bass, 2004). Afrin et al. (2023) asserts that laissez-faire leadership or passive-avoidant leadership is denoted by the deficiency in leadership. This kind of leadership means "no leadership" or “doing nothing". Laissez-faire leaders delegate decision-making powers to followers. This process creates good learning opportunities for followers. The style becomes more effective when employees are highly skilled and motivated, which is when it helps employees thrive at work (Iqbal & Piwovar-Sulej, 2021). Robert and Vandenberghe (2021) asserted that laissez-faire leadership is not only ineffective but also destructive. They explained that laissez-faire leadership has been empirically found to be related with reduced subordinate effort, performance, job satisfaction, perceived leader effectiveness, and satisfaction with the leader; increased stress and interpersonal conflicts; and more role ambiguity and role conflict.

This style is characterized by avoiding decision-making whereby managers usually allow a high degree of independence to their employees, allowing them to decide freely about important issues concerning their work. Passive- avoidant leadership has been associated with negative outcomes such as stress, demotivation, or organisation outcomes; and is considered as non-strategic or absent leadership which is at the opposite end of transformational and/or transactional leadership. Ultimately, passive-avoidant also called management by exception(passive) leadership has generally been looked at as being ineffective whereas most research in transformational leadership and

transactional leadership points out the effectiveness of the two leadership styles in a wide range of contexts including subordinates' job satisfaction and or organisation effectiveness (Yang, 2015).

Valldeneu et al. (2021) using employees from different multinational companies examined the relationship between laissez-faire leadership style and the organisation outcomes. The correlation analysis showed that passive-avoidant/laissez-faire leadership has a negative significant correlation with organisation outcomes. However, the above study context was in Pakistan and in the banking sector other than public universities which have differing administrative structures hence creating a contextual gap. Still, organisational effectiveness was indirectly implied in job satisfaction raising a conceptual gap. The contextual and conceptual gaps created called for the need for this study in the context of public institutions in Africa covering aspects of organisational effectiveness as per the conceptual framework.

In their study, Rassa and Emeagwali (2020) investigated the impact of laissez fair leadership style on organisational innovation assessing its effect on administrative and technical innovation using employees from Jordanian hospitals. The Structure equation modelling results indicated positive effect of laissez fair leadership which points to passive management-by-exception on technical and administrative innovation which implies organisation effectiveness. However, the study raised a contextual gap since it was done outside Uganda and in a hospital setting different from university settings. Still, a conceptual gap emerged as the study used laissez fair leadership style to represent passive management-by exception leadership style and organisational

innovation to obliquely point out organisational effectiveness. This study was done in Uganda and in public universities effectiveness.

Further, in study done in Kenya by Linge et al. (2016) tested the relationship between laissez-fair leadership style and SMEs growth using owners and Managers. Their inferential statistics findings indicated that Laissez-faire leadership style which implies passive management-by-exception and SMEs growth which obliquely imply organisation effectiveness was positively and significantly correlated. However, the study created a contextual gap as it was carried outside Uganda and in business enterprises which had different operating structures from those of universities. Further, it caused conceptual gaps since it used laissez-faire leadership style to indirectly imply passive management-by-exception and organisation growth to point out organisation effectiveness yet these concepts could be having different dimensions that could give divergent results. This study was conducted in Uganda and in public universities.

2.3.1.2.3 Management by Exception (Passive) and Organisational Effectiveness. Passive management-by-exception differs from the active dimension in that the leader only acts after a problem occurs. Avolio and Bass (2004) identified passive management-by-exception as laissez-faire leadership (Barnett, 2018). Laissez-faire is a type of leadership style, which is derived from the French term that means to let it do. The laissez-faire style is considered to be at the extreme end of the democratic-style spectrum (Iqbal et al., 2021). Afrin et al. (2023) asserts that laissez-faire leadership or passive-avoidant leadership is denoted by the deficiency in leadership. This kind of leadership means no leadership or doing nothing. Laissez-faire leaders delegate decision-

making powers to followers. This process creates good learning opportunities for followers. The style becomes more effective when employees are highly skilled and motivated, which is when it helps employees thrive at work (Iqbal & Sulej, 2021). Robert and vandenbergh (2021) asserted that laissez-faire leadership is not only ineffective but also destructive. They explained that laissez-faire leadership has been empirically found to be related with reduced subordinate effort, performance, job satisfaction, perceived leader effectiveness, and satisfaction with the leader; increased stress and interpersonal conflicts; and more role ambiguity and role conflict.

This style is characterized by avoiding decision-making whereby managers usually allow a high degree of independence to their employees, allowing them to decide freely about important issues concerning their work. Passive-avoidant leadership has been associated with negative outcomes such as stress, demotivation, or organisation outcomes; and is considered as non-strategic or absent leadership which is at the opposite end of transformational and/or transactional leadership (Yang, 2015). Ultimately, passive-avoidant also called management by exception (passive) leadership has generally been looked at as being ineffective whereas most research in transformational leadership and transactional leadership points out the effectiveness of the two leadership styles in a wide range of contexts including subordinates' job satisfaction and organisation effectiveness (Yang, 2015).

Valldeneu et al. (2021) using employees from different multinational companies examined the relationship between laissez-faire leadership style and the organisation outcomes. The correlation analysis showed that passive-avoidant/laissez-faire leadership has a negative significant correlation with

organisation outcomes. However, the above study context was in Pakistan and in the banking sector other than public universities which have differing administrative structures hence creating a contextual gap. Still, organisational effectiveness was indirectly implied in job satisfaction whereas passive management-by-exception in terms of laissez-faireraising a conceptual gap. The contextual and conceptual gaps created called for the need for this study in the context of public institutions in Africa covering aspects of organisational effectiveness as per the conceptual framework.

The study by Rassa and Emeagwali (2020) investigated the impact of laissez fair leadership style on organizational innovation assessing its effect on administrative and technical innovation using employees from Jordanian hospitals. The Structure equation modelling results indicated positive effect of laissez fair leadership which points to passive management-by-exception on technical and administrative innovation which implies organisation effectiveness. However, the study raised a contextual gap since it was done outside Uganda and in a hospital setting different from university settings. Still, a conceptual gap emerged as the study used laissez fair leadership style to represent passive management-by exception leadership style and organisational innovation to obliquely point out organisational effectiveness. This study was done in Uganda and in public universities effectiveness.

Further, the study done in Kenya by Linge et al (2016) tested the relationship between laissez-fair leadership style and SMEs growth using owners and Managers. The inferential statistics findings concluded that Laissez-faire leadership style which implies passive management-by-exception and SMEs growth which obliquely imply organisation effectiveness was

positively and significantly correlated. However, the study created a contextual gap as it was carried outside Uganda and in business enterprises which had different operating structures from those of universities. Further, it caused conceptual gaps since it used laissez faire leadership style to indirectly imply passive management-by-exception and organisation growth to point out organisation effectiveness yet these concepts could be having different dimensions that could give divergent results. This study was conducted in Uganda and in public universities.

Al-Jammal et al (2015) identified the effect of the delegation of authority on employees' performance considering employees of great Irbid municipality, Jordan. The findings of the study indicated that delegation of authority which points to passive management-by exception had a statistically significant impact on efficiency, effectiveness and empowerment of employees' performance which implies to organisation effectiveness at great Irbid municipality. However, a conceptual gap emerged as the study used delegation of authority to indirectly mean passive management-by-exception and employees' performance to imply organisation effectiveness and hence different results could be got due to divergent conceptualisations. Still, the study raised a contextual gap since it was carried out outside Uganda and at a municipality that had different operating structures and agenda from those of universities. This study was done in Uganda and in public universities to cater for rised contextual and conceptual gaps.

2.3.2 Institutional culture and Organisational effectiveness

Institutional culture can be defined as a pattern of assumptions shared by members of an organisation, developed over time and transmitted through daily

routine interaction with one another implying that institutional culture includes both surface-level manifestations like structures, language, practices and deeper underlying elements such as implicit beliefs, which are less visible and accessible (Niedlich et al., 2019). Institutional culture refers to the beliefs, values, norms and philosophies of how things are done in organisations (Niguse, 2019). Alkhoraif and McLaughlin (2018) define institutional culture as a system of assumptions, values, and beliefs, which governs how people behave in organisations. He further states that these shared values present a strong impact on the staff members in the institution and dictate how they dress, act, and perform their jobs and that every institution develops and maintains its own unique culture that gives guidelines and boundaries for the conduct of staff members of that institution as cited in (Nene & Pillay, 2019). Further, Odor (2018) posits that institutional culture is an informal, shared way of looking at an organisation and membership in the organisation that binds members together and influences what they think about themselves and their work.

Mesfin et al. (2020) asserts that institutional culture refers to the beliefs and values that have existed in an organization for a long time, and to the beliefs of the staff and the foreseen value of their work that will influence their attitudes and behaviour. They further clarify that culture can be a powerful determinant of long-term institutional success because of its ability to create a sense of identity and rules that help the organization to achieve its goal. Institutional cultures are the signs and symbols, shared practices and underlying assumptions of an organisations and it is noted that significant jolts in the environment such as an economic crisis necessitate an organisation to re-adjust its culture to fit with new environmental realities. However, changes in macro-

level cultures might cause the problem of hysteresis where an organisation's culture remains out of step with wider societal level cultures (Spicer,2020). Accordingly, institutional culture is the company's orientation towards its internal stakeholders which forms the basic rules that guide employees' behaviours, developed and shared within an organisation.

Schein (2004) clarified that organisations can be divided into three levels namely: artefacts, espoused beliefs and values, and basic underlying assumptions. According to Gochhayat et al. (2017), institutional culture means that new members are socialized faster and are quickly brought into coordination with older staff members because of a wider consensus of beliefs, greater normative pressure and non-conflicting nature of the firm's goals and practices. Alignment of core values and beliefs obtains a high degree of integration and coordination (Beytekin et al., 2010). Such an alignment between espoused beliefs and actual practices enhances organisation performance. A shared sense of purpose, direction and strategy can foster organisation identification and strengthen organisation members' actions towards organisation vision enhancing OE (Aitken & Treuer, 2021). Therefore, a stronger institutional culture called for higher organisational effectiveness.

Institutional culture covers underlying assumptions, artefacts, and espoused values. Assumptions refer to unofficial but important rules in the organisation. Artefacts imply the visible elements of institutional culture such as work process, the workplace setting, and organisation structures. Values relate to the beliefs of the organisation members and their business strategy. These three elements play a vital role in maintaining an effective institutional culture (Pathiranage et al., 2020). Pathiranage et al. assert that there are four

main types of institutional culture: clan culture, adhocracy culture, hierarchy culture, and competition culture. According to them, Clan culture involves an employee-oriented leadership, cohesiveness, engagement, and teamwork. Clan or supportive culture represents the values of human affiliation, collaboration, attachment, trust, loyalty, and support.

Adhocracy culture involves the features of an innovative, creative, and adaptable nature. Growth, risk taking, creativity, diversity, independence, and adaptability are the values and assumptions of adhocracy culture. Hierarchy culture involves rules and regulations for the management of organisation activities (Sok et al., 2014). Competition culture denotes addressing rivalry and market achievement towards corporate goal and objectives (Pinho et al., 2014). Nikpour (2017) clarifies that specific culture traits are useful predictors of organisational effectiveness and it is the ability to increased effectiveness.

In their study, Nazarian et al. (2015) investigated the extent of institutional culture on organisational effectiveness using employees of small and medium sized organisations in Iran. Their analysis confirmed the existence of a relationship between institutional culture and organisational effectiveness. However, the studies above were done in the health sector and business enterprises whose institutional cultures may differ from those of universities hence not explaining what is pertaining in universities in relation to organisational effectiveness. This thus called the need for this study in the context of universities. In a study carried out on academic staff of the Islamic University of Northwest in Iran, Heris (2014) examined the effects of institutional culture on organisational effectiveness. The findings indicated that institutional culture had a significant positive influence on organisational

effectiveness. However, the study raised contextual gaps as it carried out outside Uganda in a nation which could be having differing operating cultures. Still, the study created a methodological gap since it used simple linear regression which may not build a strong model to explain the predictors of organisational effectiveness hence the need for this study to carry out a higher-level regression analysis using structural equation modelling.

Further, Olughor (2014) conducted a study on the relationship between institutional culture and organisational effectiveness using employees from the banking sector. Using regression, the study established that institutional culture significantly and positively influenced on organisational effectiveness. However, contextual gaps emerged because the study was conducted in the banking sector where measures of effectiveness are different from those of universities where this study was conducted. In an ethnographic study, Mathew (2018) assessed the association between institutional culture and effectiveness basing on employees of Indian knowledge-intensive firms. The qualitative findings of the study revealed that institutional culture positively affected organisational effectiveness. Nonetheless, this study was strictly qualitative hence unable to develop a model necessary to guide implementation of factors for organisational effectiveness in organisations. Therefore, this study using mixed methods will develop a model indicating factors that predict organisational effectiveness.

On their part, Owino and Kibera (2019) investigated the influence of institutional culture on performance using employees of microfinance institutions in Kenya. Their results of hierarchical regression showed that institutional culture had a significant influence on organisational performance.

Further, Magsi et al. (2018) studied institutional culture and organisational performance in the manufacturing sector of Pakistan. Partial least square results indicated that institutional culture directly influenced organisational performance. However, in both these studies by Owino and Kibera (2019) and Magsi et al. (2018) respectively, organisational effectiveness was obliquely implied in organisational performance yet their psychometric measures were different. Therefore, this study will directly look at organisational effectiveness.

Relatedly, Nazarian et al. (2015) investigated the extent of institutional culture on organisational effectiveness with moderating effect of organisational size using employees of Iranian private sector organisation. Results of regression analysis confirmed the existence of the relationship between institutional culture and organisational effectiveness. However, the context of the above study was outside Uganda and in private sector organisations other than universities. This study was thus carried out in universities in the context of Uganda. Further, Yan (2016) examined the relationship between institutional cultures and organisation effectiveness using hospital nurses in Taiwan as the study sample. The results showed that institutional cultures were positively significantly correlated with organisation effectiveness. However, the context of the study was in the health sector whose operating culture is different from that of universities. Still, the study was done in a country more advanced than Uganda which suggests different workplace cultures. This attracts the attention of this study to be carried in a university and in the context of Uganda.

In relation to the above, Sahinidis and Xanthopoulou (2022) evaluated the impact of institutional culture strength on organisational performance using

employees of departments of Greek public organisations, Greece. The Competing Values Model analysis results revealed that institutional culture strength had no impact on organisational performance. Similarly, Nungchim and Leihaothabam (2022) examined the influence of institutional culture on overall organisational effectiveness and to evaluate the association between each institutional culture and its effectiveness of service sector organisations using employees from Manipur, North East India. The correlation analysis results revealed that institutional culture was highly correlated with organisational effectiveness. However, the above study context was in foreign organisations other than Ugandan public universities. Further, the above study indirectly implied organisational effectiveness in terms of organisational performance yet they have differing psychometric measures. This necessitated the need for this study to specifically investigate the direct impact of institutional culture on organisational effectiveness in public universities in Ugandan local context.

Additionally, the study by Kizloglu (2021) tested the effect of institutional culture on organisational performance using employees from a hospitality industry in the United Kingdom. The correlation analysis findings revealed that institutional culture had a significant effect on organisational performance. However, the study context was in United Kingdom and in industry other than in Uganda and in universities. Moreover, the study created a conceptual gap by studying organisational performance instead of organisational effectiveness which called for further analysis of variables in the context of universities in Uganda. In their study, Al-bawaia et al. (2022) investigated the influence of corporate culture on organisational effectiveness

using employees in the Jordanian banking sector in Jordan. The descriptive statistics analysis findings revealed that there was a significant influence of corporate culture and three of its dimensions; clan culture (human relation), market culture (rational goal) and hierarchy culture (internal process) on organisational effectiveness. A fourth -dimension adhocracy culture (open system) had no contribution on organisational effectiveness. However, institutional culture was indirectly implied in terms of corporate culture. Further, the study context was in a banking sector which may have different operating dynamics from those of universities due to structural differences. Still, the above study was conducted outside Uganda hence different operating environments. A methodological gap was raised by the above study since the descriptive statistics analysis method used could not answer the methodological designs of this study that employed Structural Equation Modelling. Thus, the above created gaps necessitated the use of Structural Equation Modelling analysis methods to assess the impact of institutional culture on organisational effectiveness in public universities in Uganda as per the conceptual framework. Conceptually, institutional culture covers artefacts, espoused beliefs and values and underlying assumptions.

2.3.2.1 Cultural Artefacts and Organisational Effectiveness. Artefacts are observable features which represent the dominant culture of the organisation. These include the physical office layout, architectural design, publicly expressed lists of values, artistic creation of environment, observable ceremonies and rituals, technology and products, dress codes and uniforms, and emotional displays. These attributes are the most visible manifestations of organisational culture, which help to maintain an organisation's identity and

image (Appel-Meulenbroek & Danivska, 2021). In addition to these clearly visible manifestations, the manner of addressing each other, the language used in the organisation, the myths and stories about the organisation and the behaviour of members are considered as artefacts. The artefacts send symbolic messages to employees in terms of what attitudes and behaviours are expected from them by the organisation (Bateman, 2021).

Artefacts such as office layouts, interior designs and rituals help to obtain a clear understanding of an organisation's deeper level of culture, even though it cannot be generalised. For example, organisations with casual dress codes and flexible work practices with unassigned workstations may give an inaccurate perception of inefficiency and unsatisfactory working layouts (Nanayakkara & Meegama, 2019). In order to have a clear understanding of the culture of an organisation, it is essential to engage with, or live with, that culture to be able to analyse and understand the espoused values, norms and rules of that organisation such as examining the effects of changes in artefacts, like office layouts, on the existing cultures of organisations (Appel-Meulenbroek & Danivska, 2021).

We are in a world of cultural traditions and in cultural environments that have been developing over time with attached values, norms, cultural imageries, beliefs and belief systems which in turn influence the ways people perceive themselves and their relationships with others. University education is so important in this regard because universities are cultural institutions that exist in every organized society (Välilmaa, 2019). Universities with their academic activities of research, teaching and studying are integral parts of societies 'cultural heritage and everyday experience through the cultural artefacts they

produce such as; scholarship and innovations, academic and popular publications, degrees, symbols and academic ceremonies. Furthermore, in a common sense of understanding, culture often refers to buildings which are meant to promote cultural artefacts in art museums, art exhibitions, theatres, music halls, operas and ballet halls, cinemas, online platform libraries, bookstores and so forth. Higher education has important roles to play in these regards as well (Valimaa et al., 2023).

Carayannis et al. (2017) explored the literature about the role of artefacts and routines in a sustainable organisational excellence context using extensive literature review of huge data and organisational intelligence for organisational excellence and resilience. The thematic literature review method findings revealed that there was a linkage of organisational routines and artefacts wherein knowledge acquisition and learning competencies form and enhance a firm's organisational intelligence, leading to robust competitiveness and sustainable entrepreneurship which points out to organisational effectiveness. However, a conceptual gap identified since organisational excellence was used to obliquely imply organisational effectiveness. Still, the methodological gap was created since the study was simply a literature review different from the current study which was a quantitative field survey. This study was a quantitative survey conducted in public universities of Uganda assessing their organisational effectiveness as per the conceptual framework using structural equation modelling technique.

The study conducted in China by Aoki (2020) investigated the roles of material artefacts in managing the learning–performance paradox using employees from two transformation manufacturing plants in a Chinese

company to implement continuous improvement. The qualitative study findings from both projects indicated that material artefacts triggered social interaction, through which frontline employees were stimulated to focus on both performance and learning. However, the above study created a methodological gap since it was purely qualitative unlike this study which is quantitative in nature that could provide differing results from that of a qualitative analysis technique. However, an empirical gap emerged with literature search showing very limited studies relating the variables. This empirical gap necessitated the need for this study.

2.3.2.2 Espoused values and organisational effectiveness. Organisational values simply mean values that organisations espouse, or more accurately, are espoused on the organisation's behalf by executive managers. These are collective beliefs about what the entire organisation stands for, takes pride in, and holds of intrinsic worth. An organisational value therefore refers to implicit and broad goals that direct the behaviour of individuals' workers in an organisation (Fitzgerald & Desjardins, 2004). Gupta et al. (2021) defines espoused values as the extent to which an individual embraces the cultural values of his or her country and goes ahead to opine that espoused values framework has roots in cultural psychology and physiological anthropology that suggest a relationship between the cultural traits of an individual and his or her personality. Appel-Meulenbroek and Danivska (2021) referred espoused values as the governing rules and perceptions of the organisation, which tend to be emotional rather than rational. Espoused values are very vital for managers to communicate their vision and their presence can be found in the value statement of the organization. Espoused values are the basis for setting direction and

manage public image. Organisations which have a set of espoused values out-compete organisations that do not.

Categories of espoused values include declared values, which are displayed in charts and diagrams such as mission statements objectives, and organisational structures and discourses in the office, which are operational values used for day-to-day activities and problem-solving mechanisms (Meissonier et al., 2013). Dominick et al. (2021) confirmed that the three basic espoused values which fall within the categories of four well-accepted theoretical frameworks of corporate values and culture and these are; values that guide relationships and self-regulation; values that describe desired outcomes and performance; and values that inform learning and change. Nahm et al. (2004) opined that espoused values are assumed to influence visible attributes of culture such as time-based manufacturing practices, which are employed by organisations for competitive advantage. Fitzgerald and Desjardins (2004) indicate that that organisational values that are shared by employees lead to improved performance outcomes in for-profit organisations.

In a study involving Dutch companies, Luinstra (2019) established the effect of different clusters of espoused values on firm performance. The study revealed that the association between espoused values and performance was marginal. However, this was contrary to existing literature to the effect that espoused values have a significant impact on organisational effectiveness. This thus attracted the attention of this study. The study by Mutuma et al. (2022) sought to determine the contribution of organisational values to employee productivity using employees of respective universities in Mt. Kenya Region. The results showed that organisational values had a significant effect on

productivity. However, this study raised both contextual gaps because it was done on employees in public universities in Kenya where the working conditions may be different from that of administrative and academic heads in Ugandan public universities. Additionally, the conceptual gap emerged as the study used firm performance to indirectly imply organisation effectiveness. This study was done in Uganda in public universities assessing their effectiveness. Nonetheless, the literature above raises an empirical gap as it indicates that the relationship between the variables has been scantily studied. This attracted the need for this study.

2.3.2.3 Basic underlying assumptions and organisational effectiveness.

Underlying assumptions are rules/assumptions that inform organisation interpretation of events and subsequent responses. These basic assumptions are directly manifested in the workplace in the form of language, symbols, ideologies, dialogues, actions and goals and define the organization as a collective entity as organisational culture is created, maintained, and transformed by people (Torlak, 2015). The basic assumptions dictate the organisation member's perceptions, thoughts, feelings, and to some extent, their overt behaviour that directs their actions and responses. Naturally, these assumptions shape organisational culture (Bowers et al., 2017). Daly and Walsh (2010) basing on Druckers theory advanced in 1994 observed that there are three basic assumptions about business organisation; the first one is that there are assumptions about the environment of the organization which are society and its structure, the market, the customer and technology and secondly, there are assumptions about the specific mission of the organisation, and thirdly there are assumptions about the core competencies needed to accomplish the

organisation's mission. Gjerald and Øgaard (2010) indicate that basic assumptions define what goals one should pursue and as well define proper or improper types of behaviour and relationships. In the organisational context, basic assumptions constitute a company's theory of the business which shape employees' behaviour, influence decisions about proper or improper behaviour, and define what the management considers as meaningful results hence organisational effectiveness. However, literature research revealed lack of studies on the influence of underlying assumptions and organisational effectiveness. This thus attracted the attention of this study.

2.3.3 Leadership styles and communication

Leaders are change agents who directly influence others through their behaviour and other environmental factors which enhance and support change. The trusting relationship between subordinates and their leaders enhances positive subordinate attitudes towards change if well communicated (Maharani & Satrya, 2022). Beakana (2017) posits that a leadership style is the superior's style of offering direction, accomplishing plans, and inspiring people. Therefore, there is increasing demand for managers who are highly proficient in communication in today's organisations Capable leaders share and respond to messages received timely and pay attention to stakeholders' 'viewpoints, clearly communicate to all organisational levels, and utilize the available organisational channels and several communicative tools like language, gestures and sounds (Udin et al., 2019).

Crews et al. (2019) assert that in order to attain organisational goals; the communication style of the leader is critical in directing followers toward the organisation's goals and objectives. Mulyana et al. (2022) explained that a

leader should exploit the leadership style that matches best the characteristics of their subordinates and the requirements of the job to make sure that there is harmony between those characteristics and the tasks given. They further posited that leaders should endeavour training and inspiring their subordinates by formulating goals, seeking improvement in achieving excellent performance, and demonstrating assurance of employees' high-quality work standards in a challenging situation. In the study carried out on administrative staff of Islamic University in Gaza, Sultan et al. (2018) examined the effect of leadership styles on administrative communication. Using correlation analysis, the results showed the existence of a high direct degree of correlation between the type pattern of leadership and communication. However, the literature above created contextual gaps as the study was conducted outside Uganda and could not thus address the needs of organisations in the local context of universities in Uganda. Still, the study based on academic staff only unlike this current one which used both academic and administrative heads thus creating a population gap because of the likely of having differing views.

In relation to the above, Crews et al. (2019) assessed the impact of perceived leadership styles on communication styles using staff in manufacturing organisations in South Africa. Their multiple regression analysis indicated that idealised influence an aspect of transformational leadership had a significant impact on all four communication styles that are; clearness/coherence, verbal aggressiveness, emotionality, and impression influencing. Also, the four communication styles were significantly anticipated by contingent rewards and passive management-by-exception as perceived transactional leadership styles. However, the study above created a contextual

gap as it were done outside Uganda and in foreign context to this study which was done in Uganda and in a university setting. Still, the study used all employees of the manufacturing company contrary to the administrative and academic heads of public universities creating a population gap. This study was done in public universities in Uganda using both administrative and academic heads.

Further, BakhshaliPour et al. (2016) assessed the association between leadership styles and communication skills using teachers of high school physical education in Guilan Province. The Descriptive Correlation findings indicated that there was a significant association between leadership styles (transformational leadership styles) and communication skills in high school physical education teachers of Guilan province. However, this study was done on high school teachers other than university staff creating a population gap. Still, this study raises a contextual gap as it was conducted outside Uganda which necessitates further testing the connection between the variables in line with local settings of organisations in Uganda more so public universities. In relation to the above, the study of Maharani and Satrya (2022) conducted in Indonesia using middle managers and staffs in state owned companies examined the influence of leadership styles on communication. The structural equation modelling analysis results indicated a positive and significant influence of leadership styles on communication. In a study done involving bank staff, Allafchi (2017) investigated the effect of democratic leadership on management of communication. The regression results indicated that the democratic leadership style had an impact on communication management. However, these studies raised contextual gaps since they were carried outside Uganda. This

contextual gap called for the need for this study in the contexts of universities in Uganda.

2.3.4 Communication and Organisational effectiveness

The term communication is derived from the Latin word (Communis), which means “to share”. Consequently, this implies sharing would enable one to partake and co-operate hence making it a social activity. However, if there are no common understanding outcomes from the exchange of symbols (verbal or non-verbal), there is no communication (Musheke & Phiri, 2021). Hence, communication is the process of transmitting information from one person to another which is a critical factor in directing and mobilizing the work force towards the accomplishment of organisational goals and objectives (Ukpong, 2022). Lannes (2021) defines communication as the practices subsisting of a “full spectrum of communication activities that are formal and informal, undertaken by its staff for the aim of passing information to all audiences within the organisation”.

Communication is aimed at making employees relate well with the management. Employee communication is the sharing of information, ideas, and feeling between staff and managers of an organisation. This can be done verbally, or electronically, on various media including email, mobile applications, intranets and collaboration tools (Akarika et al., 2021). Ophilia and Hidayat (2021) asserted that there are four systematic components in implementing internal communication. The first one is concerned with how the internal communication structure is used, whether using electronic media, face-to-face, or visual media, such as videos or info graphics since they noted that internal communication was strongly influenced by the channels used within

the organisation. The Second one is the internal communication flow, which involves downward, upward, and horizontal communication, the third one is the content such as internal communication information must contain two aspects of information from the organisational and the employees' function side and lastly, the communication climate within an organisation which describes the nature of internal communication. This interaction was rooted in the attitudes and feelings of how a message or information was conveyed.

Seitan (2018) describes communication as comprising everything an organisation speaks and does as well as everyone who is affected by the existence and effectiveness of the organisation. It is the process of creating and negotiating collective, coordinated systems of meaning through symbolic practices oriented toward the achievement of organisational goals. Gochhayat et al. (2017) indicated that communication provides direction to the organisation and its members, provides answers to all questions, clears up confusion, provides guidance and motivates all stakeholders for the attainment of organisational goal. The transmission of information to all the members of the organisation is crucial and can manifest in tangible benefits including greater productivity, less absenteeism, improved quality of goods and services, reduced strikes and costs, and improved levels of innovation (Lannes, 2021). Effective communication enhances organisation relationship and minimizes strikes and lockouts (Dar, 2019). Organisation purposes and goals are sometimes not achieved when communication is not effective. Wastages and costly mistakes have been made due to communication gaps. Lack of effective communication is among the main reasons that cause confusion and poor planning in various organisations (Quirke, 2017). This is because communication originates the

information which is later on used by managers in making decisions that impact on the performance of the organisation.

A manager's communication skills are so relevant not only in decision making but also in transmitting the results and intention of the decisions to other people (Hutter et al., 2013). In most organisations, managers often emphasize meeting targets and expect the effective communication role to come from human resource department. This puts a strain on the free flow of information that helps staff to understand this information. The contribution of employees to jobs is the most important factor for development and excellence in the organisation because the fulfilment of necessities in terms of satisfactory and accurate information concerning the organisation and their roles to be accomplished can enhance performance (Musheke & Phiri, 2021).

Communication has four basic functions within an organisation: control, motivation, emotional expression, and information (Syakur et al., 2020). Communication is a form of joint construction of meaning (Chui, 2014). The constant exchange of messages develops an evolution of the individual's meanings, leading to a convergence of meaning, which can be understood. Communication is most effective when it provides a shared understanding. In this context, the leader is relevant to formulate and transmit the organisation's messages with care (Van Ruler, 2020). Leaders must be open to followers' opinions, communicate clearly and frankly, and win their followers' trust and commitment. Communication acts positively on the satisfaction of the followers, and, finally, performance is influenced assertively by the satisfaction of the followers (Sabino et al., 2021).

Communication therefore plays an important role in supporting organisation operational effectiveness whereby it has the potential to act as tool designed by management to achieve firm's goals and objectives (Syakur et al., 2020). This enhances organisational effectiveness. Effective communication is strategic for organisation goal achievement. However, ineffective communication in an organisation may result in uncertainty, apprehension and dissatisfaction which ultimately result in poor productivity. It is therefore necessary that managers communicate with employees effectively. The extent to which a manager accomplishes corporate goals depends on his ability to communicate effectively (Zulch, 2014). The fact remains that many executives still do not understand what communication is all about and its relevance in leading an enterprise to success (Musheke & Phiri, 2021).

Ilyash et al. (2019) indicates that communication is among the vital tools that managers' use in their organisation environment since they use it among others to make workers understand and adopt the objectives of the organisation, get motivated and have knowledge about management. This implies that the more information available to all staff members about the organisation's rules, goals and objectives, the easier and faster for the organisation to achieve its intended objectives. Thus, communication has a central crucial role because it is a necessity for every organisation to achieve organisational effectiveness. There is therefore no doubt that communication is very vital for the effective and efficient management of every organisation. However, managers have found communication very problematic and stressful as they are specific barriers to it including communication overload, wrong expressed messages, inappropriate medium, poor listening, premature evaluation, grapevine, and

hostility between the participants, bureaucracy, social distance, communication filtering, and distractions by personal and family problems (Reidhead, 2021).

The study by Sabino et al. (2021) measured the relationships between communication and company performance using employees of five service companies located in the metropolitan region of Belo Horizonte in the state of Minas Gerais, Brazil. The findings of the structural equation modelling using the Partial Least Square (PLS) approach indicated that communication positively influenced organisation performance. However, the above study was conducted in service companies in Brazil which presented different institutional cultures from those of universities in Uganda where the current study was conducted. Besides, organisational effectiveness was implied in organisational performance yet these two constructs are conceptually different. These contextual and conceptual gaps created the need for this study.

In a study done in North Carolina, Lannes (2021) assessed the influence of communication on organisation effectiveness using employees in a machine building company. The correlation results indicated a significant positive association between communication and organisation effectiveness. However, the above study was conducted on employees in a machine company and not universities and more over in North Carolina with different organisational structures and environments creating contextual gaps hence this study was carried out in Uganda. In addition, in a study carried out in Nigeria, Udo et al. (2018) examined the effect of communication on organisational effectiveness using workers in the small and medium scale industry. Their hypothesis test results indicated existence of a strong relationship between communication and organisational effectiveness. In a study involving

employees of non-governmental organisations in Kabul in Afghanistan, Stanikzai (2017) assessed the role of effective communication on organisation performance. Using regression, the study indicated a direct link between effective communication and organisation performance. However, the study by Udo et al. (2018) used employees from small and medium scale industry while Stanikzai (2017) used those from NGOs. This population gap makes this study necessary because communication means in those organisations might be different from those used in universities because of structural differences.

Further, Nebo et al. (2015) examined the role of effective communication on performance using employees of academic and non-academic staff in Nnamdi Azikiwe University, Nigeria as a unit of analysis. The results revealed that effective communication had significant impact on organisational effectiveness. Much as this study was conducted on employees in the University environment, it raised a contextual gap as it was carried outside Uganda hence the need for this study. On their part, Stacho et al. (2019) conducted a study on effective communication and organisational competitiveness based on the employees of Slovak organisations, Hungary. Correlation analysis revealed a significant positive influence between communication and organisational effectiveness. Still, this study as was with Nebo et al. (2015) created methodological challenges because it stopped at correlation analysis which is also a preliminary level of analysis. Still, both studies implied organisational effectiveness indirectly in terms of organisational performance and competitiveness. This therefore makes carrying out this study necessary for confirmatory analysis methods and studying organisational effectiveness basing on its aspects as indicated in the conceptual framework.

Further, in a study done in Zambia, Musheke and Phiri (2021) related communication and organisation performance using employees of consultancy companies in Lusaka. Results of correlation analysis revealed a significant relationship between communication and organisational effectiveness. However, contextual and conceptual gaps emerged from this study in that it was done outside Uganda and universities. This means that the study does not capture the situation in Uganda and universities. Still, organisational effectiveness was indirectly implied by organisational performance yet the two variables have different aspects hence the need for this study.

On their part, Haroon and Malik (2018) investigated the impact of communication on organisation performance using academic staff and students of public and private Universities of Islamabad, Pakistan. Findings of linear regression analysis indicated a significant relationship between communication and organisational performance. However, since the above study was carried out using linear regression, it did not build a strong predictive model for organisational effectiveness which this study will attempt to build. Besides, organisational effectiveness was implied in organisational performance yet these two constructs are conceptually different. These methodological and conceptual gaps created the need for this study. In this study communication was conceptualised in terms of communication climate, flow, structure and message.

2.3.4.1 Communication climate and organisational effectiveness. The communication climate of an organisation is very imperative. Communication climate develops from the way individuals feel about each other based on the attitude emanating from way they communicate. A positive communication

climate develops when people feel appreciated. In such a climate the interaction is open, confident and courteous. People are free to speak with others, to listen carefully; they ask questions and give feedback. Communication climate refers to the way in which the people involved in a relationship or in specific context feel about and treat each other. The organisation communication climate serves as a link between individual workers and organisations. The overall climate will give clues about the beliefs and attitudes of workers towards the organisation. Conceptually, it consists of workers perceptions of information flow and the climate in which communication occurs (Lantara, 2019).

Communication climate influences the quality of the work environment, the effectiveness of the organisation functioning and organisation commitment. The organisations with supportive climate are characterized by work participation, free and open exchange of information, and constructive conflict management. Within organisations with defensive climates, the employees keep things to them-selves, work by taking care of their actions and have low morale (Ragab & Elshazly, 2019). Organisational communication climate has a strong impact on employee attitudes regarding their sense of personal relationship, belongingness and commitment to work (Mesfin et al., 2020). Lantara (2019) indicated that there are two types of organisation climate, notably, an open organisation climate and a closed organisation climate. Open organisation climate has a positive influence on the organisation because staff members have a very high enthusiasm, and managers provide adequate motivation to employees for achievement. Furthermore, a sense of compulsion for staff members to serve is deficient.

There are five dimensions of an organisation's communication climate namely; supportiveness which is how managers help their subordinates to maintain their feelings to feel essential and valuable; member participation which is participation in making decisions; trust which refers to gaining and maintaining trust; openness and straightforward attitude which refers to open and clear communication ,and lastly high-performance goal which means that performance goals are communicated at a certain level. Communication climate influences the quality of the work environment, the effectiveness of the organisation functioning and organisation commitment (Ragab & Elshazly, 2019). Organisation communication climate is vital in a sense that it is a link between individual employees and organisations, the overall climate gives clues about the beliefs and attitudes of employees towards the organisation and conceptually, it consists of workers' perceptions of information flow and the climate in which communication occurs (Lantara, 2019).

In their study, Srimata et al. (2019) examined the impact of school climate on school effectiveness through work engagement using teachers in private schools in Bangkok, Thailand. The structural equation modelling analysis findings revealed school climate had direct, indirect and total influence on effectiveness of school. In their study, Arab and Muneeb (2019) investigated the impact of communication climate on performance using the employees at government agencies in Gorontalo City in Indonesia. The simple linear regression findings of the study revealed that there was a vital impact of communication climate on performance of employees which points to organisational effectiveness at the agency of the cooperation, industry, trade, investment and small and medium enterprise of Gorontalo city. However, the

study raised a conceptual gap since performance was used to imply organisational effectiveness. Still, a contextual gap emerged as the study was done outside Uganda in government agencies not universities. This study was conducted on organisational effectiveness of public universities in Uganda. While some studies had related communication climate and organisational effectiveness, literature search showed existence of a few studies hence this study.

2.3.4.2 Communication flow and organisational effectiveness.

Communication flow describes downward, upward, or horizontal communication (Ophilia & Hidayat, 2021). Down ward and upward communication refers to vertical communication by which organisational communication flows reciprocally from one level to another level that is the higher or lower level. Horizontal communication is that which involves two parties in same position or are at the same level in the organisation (Juddi et al., 2021). Horizontal communication is needed to save time and accelerate action. A great flow of information in an organisation is supported by a good socialization process that excludes the bureaucratic procedures (Retnowati et al., 2018). A healthy flow of communication enables organisations in disseminating messages appropriately within an organisation thereby enhancing performance of organisation members. Communication styles used in organisations include one-way communication, two-way communication, structured communication, dynamic communication, the relinquishing style, and the withdrawal style (Juddi et al, 2021).

In their study, by Arab and Muneeb (2019) analysed the effect of effective communication strategy on the enhancement of organisation

performance using employees of private universities of Jalalabad City. The ordinary least square results revealed that there was positive relationship between effective communication and organisation performance. Importantly, the results indicated that the flow of communication has positive relationship with organisation performance. However, contextual gaps emerged because the study was conducted in the private sector outside Uganda where measures of effectiveness are different from those of public universities where this study was conducted. Further, organisational effectiveness was obliquely implied in organisational performance yet these two constructs are conceptually different. The contextual and conceptual gaps that emerged called for the need of this study that was conducted in public universities of Uganda to assess the organisational effectiveness constructs as per the conceptual framework using structural equation modelling technique. However, literature search revealed existence of limited studies on communication flow and organisational effectiveness which called for this study.

2.3.4.3 Communication structure and organisational effectiveness.

Communication structure describes the networks through which information in an organisation is delivered which can be centralised or decentralised. Networks with a higher concentration of ties are centralized while networks with a more even distribution of ties are decentralised. Centralization captures the extent to which communication ties are concentrated in only one or a few members. Central members in a network are often responsible for gathering and sharing information. With decentralised communication, all individuals connected to all others. Individuals occupy the position of communication (Guo et al., 2023). In their study, Ding et al. (2024) explored the structural

characteristics of organisational communication networks on collective task performance using construction project managers from Shanghai and Changsha, China. The results revealed that decentralised and centralised communication led to higher task performance and centralized communication network surpassed in task performance. However, this study involved project managers in China whose organisational dynamics could have been different hence the need for a study in the local context. However, literature search revealed existence of limited literature on communication structure and organisational effectiveness. This thus attracted this study on the same.

2.3.4.4 Message characteristics and organisational effectiveness. Message characteristics play a critical role in the effectiveness of persuasive communication. Messages gain persuasive power not only through words, but also through nonverbal indicators associated with the message source, such as perceived attractiveness or similarity (Rickard, 2021). Shen and Bigsby (2013) established message characteristics are in three major forms namely; message content, message structure and message style. Message content refers to what the message is about implying that it contains the topic, theme or story being told including plot and characters. Message structure is the presentation of the message's arguments implying that the number of arguments the message contains, the order of the arguments, and whether or not the points of opposition are acknowledged and or addressed. Message style generally involves language use like choice of words and figure of speech. Musheke and Phiri (2021) contend that to achieve the targeted productivity level, supervisors should emphasize clarity or understanding of instructions, give enough training to workers, make sure cooperation at work exists by providing rewards and finally,

present a good communication plan for timely information delivery on changes affecting work. Hargie (2016) observed that effective communication has a range of considerable benefits and these are; increased productivity, higher quality of services and products, greater levels of trust, engagement and commitment, more staff suggestions and higher levels of creativity, greater employee job satisfaction and morale, better workplace relationships, more acceptance of change, decreased absenteeism, reduced staff turnover, less industrial unrest and fewer strikes, and reduced costs.

The study by Musheke and Phiri (2021) assessed the impact of effective communication on organisation performance using all the staff at three human resource consultancy companies in Lusaka, Zambia. The correlation results showed that there was no statistically significant relationship between management and channel of communication used. Further, the results indicated that there was a relationship between channel of communication used and effective communication. Lastly the correlation results showed that effective communication had a positive effect on organisational performance which implies organisation effectiveness. However, this study raised conceptual gaps since organisation performance was considered to imply organisation effectiveness and effective communication was used to refer to message characteristics yet these concepts could be different and yield differing results hence the need for this study. Still, the study used correlation analysis which might give divergent results compared to structural equation modelling which this study used. Further, a contextual gap emerged as the study was done outside Uganda and in consultancy companies with different operating structures

compared to public universities. This study was conducted in Uganda and in public universities.

The study by Leje et al (2019) examined the significant impacts of effective communication towards the performance of the construction organization using contractors and consultants from Abuja, Nigeria drawn from the Bureau of Public Procurement database. The analysis results of Kendall's coefficient of concordance indicated that a high agreement between construction professionals occurred in the ranking of the impacts of effective communication towards the performance of the construction organization. The results also showed that effective communication helped to facilitate better understanding among all parties in the construction organization. However, the study created a contextual gap as it was done outside Uganda in a construction organisation with different operating procedures that could alter the findings. A conceptual gap also emerged as the study used effective communication to indirectly imply communication message characteristics hence the need for this study. This study was done in Uganda and in public universities.

Relatedly, the study done by Arab and Muneeb (2019) explored the effective communication as a strategy for enhancing organisational performance using employees of private universities of Jalalabad City. The Ordinary Least Square analysis findings indicated that the flow of communication had positive correlation with organisational performance which implied organisation effectiveness. However, the study raised a conceptual gap as organisation effectiveness was obliquely implied as organisation performance. A contextual gap also existed as the study was done outside Uganda and in private universities that have differing operating rules and

procedures compared to public universities. This study was done in Uganda and in public universities. However, literature search indicated that there was lack of up-to-date empirical studies related with this study construct hence the need for this study.

2.3.5 Leadership Styles, Institutional Culture and Organisational Effectiveness.

The concept of institutional culture has been studied as a moderating factor between leadership styles and organisational effectiveness. Asiimwe (2016) examined the moderating effect of organisation culture on the relationship between leadership styles and growth of SMEs in Kenya. The results indicated that institution culture had a significant moderating effect on the relationship between leadership styles and growth of SMEs. However, this study was done in SMEs. Still, organisational effectiveness was obliquely implied by organisational growth. This attracts the need for this study to be carried out in the context of universities directly looking at organisational effectiveness. Alnasseri et al. (2013) explored the relationship between institutional culture, authentic leadership style and effectiveness using construction companies in Middle East countries. The results indicated institutional culture was directly and positively related to performance and effectiveness but the leadership style had an indirect relationship with effectiveness. This means that means that there was a moderating relationship between institutional culture, leadership and organisational effectiveness. However, this study considered leadership in terms of authentic leadership which has slight differences with the conceptualised leadership styles considered in this study. Thus, this study will further test the relationship between leadership styles and organisational effectiveness.

In a review, Debebe (2020) analysed the relationship between institutional culture, leadership styles and organisation performance using employees of Small and Medium Enterprises in Jig Jiga City, Ethiopia. Their qualitative analysis results showed that institutional culture and leadership styles affected organisational performance. This meant that leadership styles and institutional culture had a moderating effect on organisational performance. However, their analysis was a review in a conceptual paper which called for testing of the relationship in this study. Further, Nazarian et al. (2015) investigated the extent of institutional culture on organisational effectiveness with the moderating effect of organisational size using employees of Iranian private sector organisation. Their moderation analysis revealed that the relationship between leadership styles and organisational effectiveness was moderated by organisational size. However, while the study used organisational size as the moderating factor, this study used institutional culture.

On their part, Yıldırım and Birinci (2013) examined the linkage between leadership, culture and business performance in a Turkish telecommunication company. The findings showed that institutional culture and transformational leadership affected performance of business enterprises. However, this study was carried out in business enterprises with cultures different from those of universities. This therefore attracts the attention of this study. Further, Zehir et al. (2011) investigated the association between leadership, culture and performance using employees of national and global firms in manufacturing, finance and telecommunication in Turkey. The study revealed existence of a link between institutional culture types, leadership types and firm performance which implied organisational effectiveness. However, the

context of this study was in Turkey and organisations other than universities which called for further empirical analysis of the moderating effect of the variables in the context of universities in Uganda.

On their part, Nugroho and Pudiastut (2021) in Jarkata, Indonesia, using company employees conducted a study to test the impact of transformational leadership and institutional culture on organisational performance. The SPSS version analysis results showed that partial hypothesis testing for transformational leadership and institutional culture variables proved to affect organisational performance implying that the better the leadership and institutional culture were implemented the more the organisational performance could be improved. In relation to the above, Nazarian et al. (2021) tested the influence of transformational leadership, transactional leadership and laissez-faire on organisational effectiveness through the market and adhocracy organisational culture using managers of independent hotels in Iran. The Structural Equation Modelling findings revealed that transformational leadership style had an indirect influence on OE through the market and adhocracy culture types. However, the study by Nugroho and Pudiastut (2021) used company employees while Nazarian et al. (2021) used managers of hotels. This created a population gap that makes this study a necessity since cultural settings in those organisations may be different from those used in in universities due to structural differences. Still, the two studies raised a contextual gap as they were carried outside Uganda and not in university settings which necessitated further evaluating the connection between the variables in line with local settings of organisations in Uganda particularly public universities.

Further, the study which was conducted by Jamali et al. (2022) in Mehran University of Engineering and Technology, Jamshoro, Pakistan established the influence of leadership styles on faculty performance with institutional culture as moderating variable using employees. The study revealed that transformational leadership had a positive significant relationship with faculty performance. However, institutional culture as moderator negatively moderated the relationship between Laissez-faire leadership and faculty performance. However, a knowledge gap emerged from the study above as it produced results contrary to those of other scholars. This led to this study because each study needed to be considered in its own right.

2.3.6 Leadership Styles and Organisational Effectiveness mediated by communication

In organisations, communication is imperative because it conveys policies, strategies, instructions and information across the organisation. Therefore, leaders who communicate frequently help employees to understand what the leaders want, what the organisation needs and how the employees fit into the big picture increasing their performance levels hence organisational effectiveness (Gochhayat et al., 2017). Therefore, communication mediates leadership in organisations leading to organisational effectiveness. Abdelaliem and Zeid (2023) investigated the influence of toxic leadership and organisation performance mediated by the effect of nurses' silence in a university hospital using nurses as a unit of analysis. The SEM indicated that nurses' silence positively mediated the relationship between toxic leadership and organisation performance. However, in the above study organisational effectiveness was considered in the reverse in terms of organisation performance while

communication was also reversely considered in terms of silence. This study thus considered these variables directly.

In their study, Choi et al. (2018) examined the effects of the educational leadership on team effectiveness mediated by organisational communication using nursing staff at a hospital in Cheongju city, South Korea. Their results indicated communication had a complete mediating effect on the relationship between educational leadership and team effectiveness. However, this study was done on nurses other than university staff. Still, this study considered team effectiveness which indirectly points to organisational effectiveness. This study is attracted to directly investigate organisational effectiveness and how communication mediates its antecedent variable of leadership styles in universities. In their study, Gochhayat et al. (2017) examined the impact of multilevel leadership on the effectiveness of technical educational institutes through the mediating effects of communication with employees of engineering and management institutes, India as units of analysis. The findings of the study revealed that communication mediated the relationship between leadership style and organisational effectiveness. However, this study raises a contextual gap as it was done outside Uganda which makes it necessary to further test the relationship between the variables in the context of institutions in Uganda.

In a study done in hospitality industry in Bangladesh, Rabiul (2023) examined the mediation effects of leaders' communication competency in the association between leadership styles and employees' work engagement using employees from a hospitality industry. The structural equation modeling results revealed that servant leaders and leaders' communication competency positively influence employees' work engagement whereby communication competency

was an important tool for servant leadership but not for transactional leadership. However, the context of this study was outside Uganda and in hospitality industry which called for further empirical analysis of the mediating effect of the variables in the context of universities in Uganda. Still, organisational effectiveness was obliquely implied in employees' work engagement yet the two variables have different measures that cause divergent results.

Further, in a study done in Arusha city in Tanzania, Kumburu (2021) examined the effect of leadership on performance mediated by communication with employees of small business as the study sample. Analysis of the study revealed that communication acted as a mediator between leadership and performance of small business. However, the context of this study was in Tanzania and in small business organisations other than universities. Therefore, university and Ugandan contextual issues were not captured. This called for further empirical analysis of the mediating effect of the variables in the context of universities in Uganda.

Further, Neufeld et al. (2010) examined how leader performance was influenced by leadership style and communication effectiveness in a study involving leaders and their subordinates in a global human resource consulting and outsourcing company operating in United States, India and Canada. Their results revealed that communication effectiveness mediates the influence of leadership behaviour on performance. However, while their study had an international perspective, it did not extend to the context of African countries whose organisational dynamics might be different from those of the countries of study. Still, organisational effectiveness was obliquely implied in leader

performance. These contextual and conceptual gaps call the need for this study in the context of institutions in the African context.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This section presented the methodology that was followed to carry out this study. The methodology comprised of the research philosophy, approaches, design, population, sample and sample size, sampling procedures, data sources, measurement of variables, data collection instruments, data analysis and the research ethical considerations.

3.1 Research Philosophy

This study was based on the positivism advanced by Auguste Comte in 1856. Positivism is a research philosophy that identifies reality as being objective existing independent of the individual's understanding. It emphasizes the positive method that involves use of scientific methods involving numbers (Majeed, 2019). It is based on the philosophical stance of natural scientists which involves working with observable reality within the society guaranteeing the making of generalisations that emphasise the empirical analysis of objective phenomena. It also relies on the importance of what is given in general, with emphasis on pure data as well as facts without being influenced by interpretation of the researcher's bias (Alharahsheh & Pius, 2020). Based on objective ontology, the researcher assumed that reality (knowledge) was objective and thus measurable, verifiable, quantifiable and accurate regardless of him (Dawadi et al., 2021) and thus such knowledge was dependable.

Thus, the knowledge concerning the variables under this study namely organisational effectiveness, leadership styles, organisational culture and organisational communication was objective. Epistemologically, objective

reality was established using objective techniques and hence, there was testing of the hypothesis using structural equation modelling. The limitation of positivism was that the methods used to further understand the natural world were not always transferable to the social world (Alharahsheh & Pius, 2020). Nonetheless, since the approach suggested that reality could be studied objectively, the philosophy guided the study because it adopted quantitative research approaches. Therefore, the study was based on objective ontology, epistemology and methodology.

3.2 Research Approach

This study used the quantitative research approach which is an inquiry by which an identified social phenomenon is tested basing on theory. That approach involved using of numbers and analysing using statistical techniques with the main goal of determining whether the predictive generalizations of a theory or hypotheses were true or false (Zyphur & Pierides, 2017). The study collected quantitative data that was numerically analysed using statistical procedures so as to make generalisations. The statistical procedures that were employed to analyse data were the descriptive and inferential statistics basically partial least squares structural equation modelling. This helped to draw inferences using deductive reasoning on the variables under study.

3.3 Research Design

The study was based on the correlational research designs. The correlational research design is a quantitative research design that seeks to ascertain the level of association between or among the variables. Therefore, the design helped to analyse relationships among variables and a number of facts were sought and interpreted (Curtis et al., 2016). Researchers use correlations to measure the

existence of a relationship between two or more variables when the variables themselves are not under the control of the researchers. Thus, the correlational design helped in relating organisational effectiveness and its antecedents.

3.4 Study Population

The study population included university officers, administrative officers, Deans of schools and faculties, and academic heads of department as indicated in Table 3.1. The study population comprised of 286 participants because these could easily respond to the questions on OE such as financial effectiveness. They were also involved in planning for the university. These universities had been selected because while they enjoyed government and donor support in terms of funding compared to private universities, they continued to exhibit poor organisational effectiveness. The universities selected in each region were those that had been established earlier and hence they were thought to have better facilities. However, while in the central region Makerere University older than Kyambogo, Kyambogo University had been selected because Makerere University relatively competed favourably at the global level in terms of organisational effectiveness. The sample size was 265 participants that were selected basing on the table for small sample determination by Krejcie and Morgan (1970). From each university, the sample was determined using simple random sampling which was preferred because it offered equal chances for all respondents to be selected.

3.5 Sample Size Determination

The sample size for the questionnaire survey comprised of 265 participants that included university officers, administrative officers, deans of schools and faculties, and academic heads of department. The sample for each category was

studied using the table for small sample determination by Krejcie and Morgan (1970) and the sample for the questionnaire survey was as shown in Table 3.1.

Table 3. 1

Population and Sample Size

| University | Target Population | Population | Sample size |
|--|--------------------------------|-------------------|--------------------|
| Kyambogo University | University officers | 10 | 10 |
| | Administrative officers | 08 | 08 |
| | Deans of schools and faculties | 12 | 12 |
| | Academic heads of departments | 58 | 50 |
| Busitema University | University officers | 13 | 12 |
| | Administrative officers | 08 | 08 |
| | Academic heads (Deans) | 06 | 06 |
| | Academic heads (HODs) | 38 | 36 |
| Gulu University | University officers | 13 | 12 |
| | Administrative officers | 08 | 08 |
| | Academic heads (Deans) | 07 | 07 |
| | Academic heads (HODs) | 41 | 36 |
| Mbarara University of Science & Technology | University officers | 14 | 13 |
| | Administrative officers | 08 | 08 |
| | Academic heads (Deans) | 06 | 06 |
| | Academic heads (HODs) | 36 | 33 |
| Total | | 286 | 265 |

Source: Establishments of the Universities (2022).

3.6 Sampling Procedures

The study employed simple random sampling and census sampling. Simple random sampling is a method by which every participant has equal chances of being selected in the sample from the population (Etikan et al., 2016). The sample was selected using a computer sample random sampling frame provided in excel where there was a high population. For small populations, all the individuals were studied to ensure that sample was sufficient. Therefore, for the small population census sampling was used. Census sampling is a technique that involves surveying every member of a population or group, ensuring that every individual is included in the data collection process. This method is employed

when the researcher seeks to collect data from every individual in a specific population, rather than relying on a representative sample. Census sampling is suitable for small populations, critical research questions, and high-stakes decision-making (Tyrer & Heyman, 2016). Indeed, census sampling was employed because the study involved high stake decision makers in the universities that were university officers, administrative officers, Deans of schools and faculties, and Academic Heads of Department whose number was small.

3.7 Measurement of Variables

The study used a Self-Administered Questionnaires (SAQ) to collect data basing on the already made instruments from earlier scholars as indicated in Table 3.2.

Table 3. 2*Operationalization of Variables, Instrument, their Sources and Reliability*

| Variable | Nature of variable | Indicators | Scale | Source & Reliability |
|------------------------------|--------------------|---|---------|-------------------------------------|
| Organisation Effectiveness | Dependent | Productivity | Ordinal | $\alpha = 0.877, 0.821 \& 0.930$ |
| | | - Teaching output | | |
| | | - Research output | | |
| | | - Financial outputs | |) |
| | | - Extension services output | | |
| | | Adaptability | | $\alpha = 0.80$ |
| | | Flexibility | | $\alpha = 0.87$ |
| Leadership Styles | Independent | - Transformational - Transactional | Ordinal | $\alpha = 0.78-0.94$ |
| Organisational culture | Moderator | Organisational culture | Ordinal | $\alpha = 0.86$ |
| | | - Artefacts | | |
| | | Espoused beliefs and values | | |
| | | - Underlying assumptions | | $\alpha = 0.862$ |
| Organisational Communication | Mediator | Organisational Communication (all measures) | Ordinal | $\alpha = 0.77, 0.76, 0.67 \& 0.83$ |

Source: Abba & Mugizi (2018), Mihaiu et al. (2010), Szamosi & Duxbury (2002), Angeles et al. (2022), Kanste et al. (2007), Bonavia (2006) Khandelwal & Mohendra (2010), Ghosh & Srivastava (2014), Bakar & Mustaffa (2013)

3.8 Data Collection Instruments

The study used a self-administered questionnaire (SAQ) to collect data from the university staff. The SAQ had sections that were A through to E whereby section A had the background characteristics of the respondents, section B was on organisational effectiveness (DV), section C on leadership styles (IV), section D on organisational culture (MO) and section E on organisational communication (ME). To overcome data bias, the data bias control was implemented by ensuring that the use of words that had multiple, technical

jargon and infrequently used words were avoided. In addition, there was altering of anchors in the questionnaire.

3.9 Research Procedure

The approval from School of Education Higher Degree Committee of Kyambogo University was sought. Furthermore, an introductory letter from the Directorate of Research and Graduate Training of Kyambogo University was sought addressed to the University secretaries of the four public Universities included in this study introducing the researcher and requesting for permission for him to be allowed conduct the study from the selected Universities. The researcher also sought for ethical clearance from Research Ethical Board of Kampala International University, Western campus Uganda National Council for Science and Technology (UNCST) which approved the research to be conducted. Data was collected, screened, organised, entered into SPSS for analysis and analysed quantitatively. Finally, a dissertation was written.

3.10 Data Quality Control

The data quality was ensured by making sure that the research instruments attained the validity and reliability. For ensuring that dependable and accurate data were collected, pilot data were collected from 60 academic and administrative heads of one public university which was not part of the universities that provided the final data who were tested for validity and reliability. The sample of 60 was considered because it was appropriate for validity and reliability tests when using SmartPLS for Partial Least Squares Structural Equation Modelling (Hair Jr et al., 2021) and the results followed here under. The validity results were presented first then followed by the reliability tests.

3.10.1 Validity. The validity is the extent to which a tool measures exactly what it is supposed to measure (de Souza et al., 2017). Using SmartPLS4, content validity was determined using convergent and discriminant validity for pilot data. The convergent validity was tested using average variance extracted (AVE) while the discriminant validity was tested using heterotrait–monotrait (HTMT) ratio of correlations. After the final data collection, Confirmatory Factor Analysis was carried out and indicators considered valid were those that loaded highly above 0.50. Items loading below 0.5 were discarded (Hair Jr et al., 2021). The Factor Analysis results were presented in chapter four in different structural equation models. The convergent and discriminant validity results were indicated in Table 3.3

Table 3. 3*AVE and Heterotrait Monotrait (HTMT) Discriminant Validity assessment*

| Measures | AVE | OE | AD | FL | PR |
|----------|-------|-------|-------|-------|----|
| OE | | | | | |
| AD | 0.527 | 0.658 | | | |
| FL | 0.545 | 0.738 | 0.870 | | |
| PR | 0.513 | 0.536 | 0.713 | 0.871 | |
| Measures | AVE | LS | TSL | TL | |
| LS | | | | | |
| TSL | 0.540 | 0.813 | | | |
| TS | 0.514 | 0.751 | 0.573 | | |
| Measures | AVE | IC | EV | UA | |
| IC | | | | | |
| EV | 0.671 | 0.829 | | | |
| UA | 0.768 | 0.477 | 0.855 | | |
| Measures | AVE | COM | CC | CS | CL |
| COM | | | | | |
| CC | 0.790 | 0.891 | | | |
| CS | 0.560 | 0.880 | 0.657 | | |
| CL | 0.578 | 0.867 | 0.746 | 0.660 | |

Source: Survey data (2023)

AD = Adaptability, CC= communication climate, CL = communication flow, COM = communication, CS = communication structure, EV = Espoused beliefs and values, FL = Flexibility, IC = Institutional Culture, LS = Leadership Styles, OE= Organisational Effectiveness, PR= Productivity, TS = Transformational Leadership, TSL = Transactional Leadership, UA = Underlying assumptions.

Note: Organisational artefacts did not fulfil the discriminant validity conditions as the ratio correlations were above 0.90. Therefore, the construct was dropped and not included in the subsequent analyses.

The convergent validity results in terms of average variance extracted (AVE) indicated that all AVE values were above the minimum of 0.5 and heterotrait–monotrait (HTMT) ratio of correlations were all below the maximum 0.90 (Purwanto & Sudargini, 2021) indicating validity of the instrument. Therefore, with AVE values above the minimum, the constructs measuring the different variable converged on them hence they were appropriate measures while with heterotrait–monotrait (HTMT) ratio of correlations also below the minimum,

the constructs were independent measures hence discriminately valid. However, the cultural artefacts did not fulfil the discriminant validity conditions as the ratio correlations were above 0.90 and they were therefore dropped from further analyses.

3.10.2 The Reliability. Reliability is the consistency and dependability of a construct's measures, or how reliably they measure what they are intended to measure. It is concerned with the ability of an instrument to measure consistently (Taber, 2018). Thus, measures are reliable when the same results are consistently obtained by applying the same methodology under similar conditions. In this case, Composite Reliability (CR) and Cronbach Alpha (α) were used to determine the internal consistency of the measurement tool. The reliability values of a construct should be at least 0.70 and above (Dash & Paul, 2021) whereby composite reliability (construct reliability) refers to a measure of internal consistency in scale items. Thus, reliability of a construct should be at least 0.70 (Dash & Paul, 2021). On the other hand, Cronbach Alpha refers to a statistic tool which measured the extent to which item responses correlated with each other implying that α estimated the proportion of variance that was systematic or consistent in a set of survey responses (Taber, 2018). The statistics typically ranged from 0.00 to 1.00, but a negative α value might occur when the items were not positively correlated among themselves. In testing reliability, the Composite Reliability (CR) was preferred basically because Cronbach Alpha had a problem of assuming that all indicator traits were the same in the study population thus, lowered the reliability values leading to the loss of many indicators. Cronbach's Alpha was sensitive to the number of items on the scale and typically underestimating the reliability of internal consistency. However,

Composite Reliability was liberal because it considered the external characteristics of the indicator variables (Hair Jr et al., 2021).

Table 3. 4

Composite Reliability and Cronbach's Alpha for the Study Constructs

| Measures | α | CR |
|-----------------------------|----------------------------|-----------|
| Adaptability | 0.775 | 0.847 |
| Flexibility | 0.721 | 0.827 |
| Productivity | 0.762 | 0.840 |
| Transactional Leadership | 0.765 | 0.847 |
| Transformational Leadership | 0.913 | 0.927 |
| Espoused beliefs and values | 0.756 | 0.860 |
| Underlying assumptions | 0.698 | 0.869 |
| Communication Climate | 0.734 | 0.883 |
| Communication Structure | 0.723 | 0.832 |
| Communication Flow | 0.816 | 0.872 |

Source: Survey data (2023)

Note: Message characteristics did not attain reliability; therefore, it was dropped from subsequent analysis.

The reliability results in Table 3.4 indicated that the Cronbach's (save for construct of underlying assumptions with $\alpha = .698$) and composite reliability values were the minimum of 0.70 for both (Purwanto & Sudargini, 2021). That meant that the indicators of the different measures (constructs) measuring the variables were reliable. Therefore, the indicators of the different measures were interrelated or highly correlated hence the data collected was reliable. However, the construct of message characteristics did not attain the reliability and therefore, it was dropped from the subsequent analysis.

3.11 Data Management

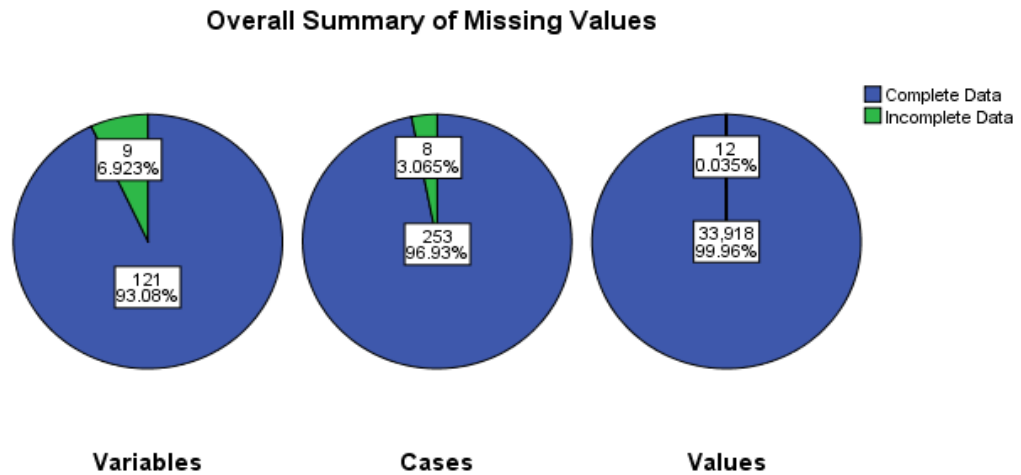
The data collected was first processed before analysis and it was managed through two processes namely data processing and data management.

3.11.1 Data Processing. Data processing included coding, entering it into the computer using the Statistical Package for Social Scientists. Data was also presented and screened to identify outliers and to remove them, then to detect missing data and replace it. Data was also subjected to parametric tests that involved normality, linearity and collinearity. The data processing followed here under.

3.11.1.1 Missing Data Analysis. Missing data described the situation in which data was incomplete, that is to say, data values for a single indicator or several indicators was not scored or was incorrectly completed. It was essential that those issues were identified and corrected. That was because, the presence of missing data undermined the representativeness of the sample used, led to bias and decreased the statistical power of the data and thus distorting inferences made about the population studied (Tsiampalis & Panagiotakos, 2020). The treatment of missing data depended on the level of how much of it was missing. For example, when in a questionnaire missing data exceeded 15%, that specific questionnaire (case) was definitely excluded from the data file. However, a case might not be removed if the overall missing data was below the above threshold.

Nonetheless, if data on a whole construct was missing, it was excluded (Hair Jr. et al., 2021). In this study, results 9 (6.923%) of the variables were incomplete while 121(93.08%) were complete. Furthermore, the results revealed that 8(3.065%) cases were incomplete, yet 253 (96.93%) were complete. Finally, the results also indicated that 12 (0.035%) values were

incomplete and 33,918 (99.96%) of the values were complete as indicated in Figure 3.4. Since the missing values were less than 10% (less than the recommended 15%) (Marcelino et al., 2022), the data was maintained and handled using the data replacement method. Missing data in the data collected was as indicated in Figures 3.1-3.3.

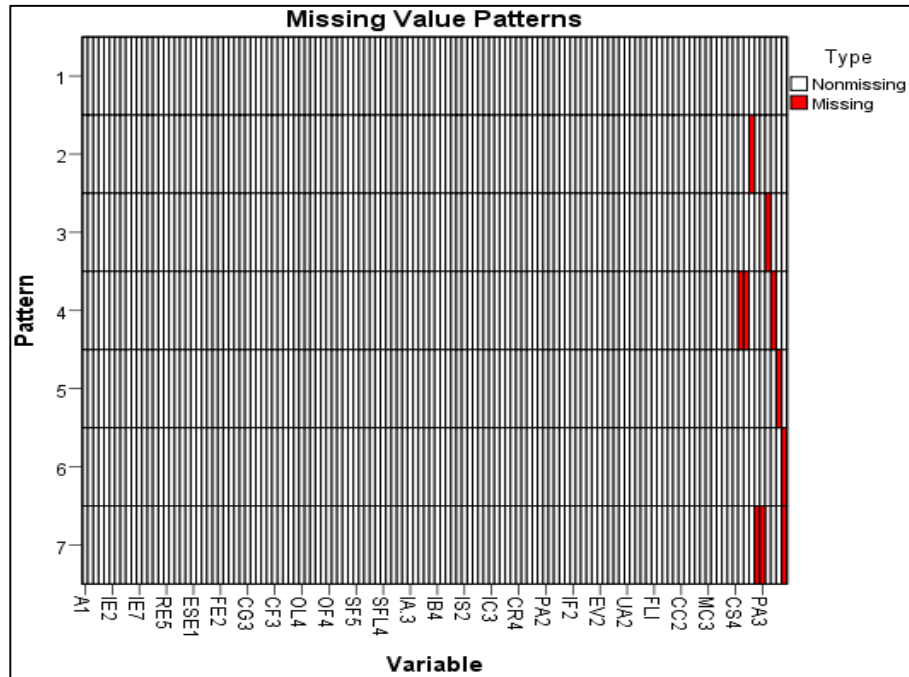


Source: Survey data (2023)

Figure 3. 1-3.3 Overall Summary of Missing Values

Figures 3.1 -3.3 presented missing data according to variables, cases and values. The missing data on variables revealed every indicator left blank on a questionnaire by the respondent after the data were entered in SPSS. The overall summary of the missing values above showed that 9(8.923%) had incomplete data or missing values while 121(93.06%) had complete data. With regard to cases, out of 261 respondents, only 8(3.065%) had missing data while 253 (96.93%) were complete. The figures also showed that 12 (0.035%) values had missing data while 33,918(99.96%) were complete. Generally, the figures above showed that no case (respondent) was dropped because all cases had missing data less than 15%. Hence all the data was fit for analysis after replacement of the missing data. By way of determining how to treat missing

data, the missing data value pattern analysis was done (Figure 3.4). The missing value pattern chart showed the distribution of the missing data from a more detailed view across the study variables.



Source: Survey data (2023)

Figure 3. 2 Missing Value Patterns

The data patterns in Figure 3.2 showed the incomplete data for the different cases that provided data. Each pattern represented a cluster of cases that had missing values on a certain variable. Nevertheless, as the data pattern figure showed, the data that was missing was randomly distributed, thus, it was missing completely at random (MCAR). When the missing data was MCAR, there was no correlation between the missingness of the data and any values observed. Thus, nothing systematic was at play that would increase the likelihood of some data being missing compared to others (Austin et al., 2021). The statistical advantage of MCAR data was that it did not cause bias during analysis; hence it did not compromise the statistical power. The remaining data could be regarded as a simple random sample of the complete data set when it

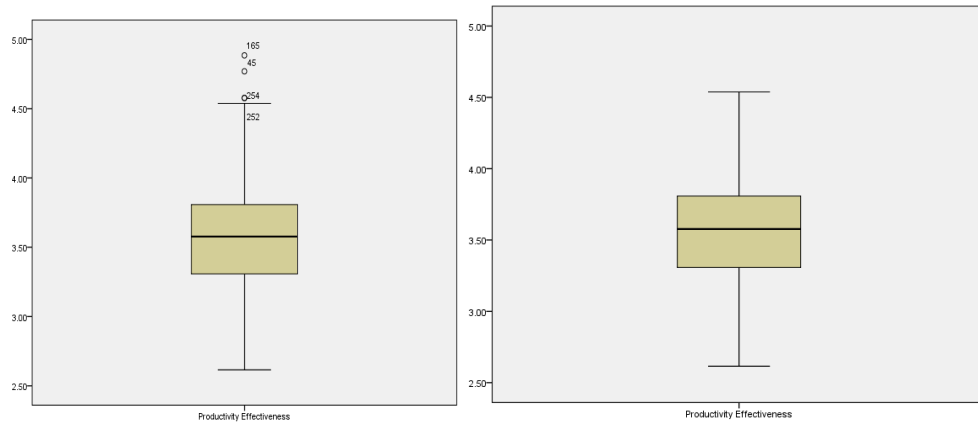
was at MCAR. With such data, missing values could be replaced, hence not reduce the sample size than what was planned which could have biased the parameter estimates, leading to loss of information and reducing the statistical power (Papageorgiou et al., 2018). The data was replaced by series mean imputation which assumed that the mean of a variable was the suitable estimate for any case with missing data on the variable.

If data is missing at MCAR, the method imputes each missing value with the mean of known values for the same variable. This made it possible for the data to be used for further analysis as replacement of data ensured that there was no bias in it. In other words, incomplete data was not left out by respondent because of common reason such as fear to address a specific question in the data. The statistical benefit of data that was MCAR was that the analysis remained unbiased and as such, it did not affect the statistical power. When data was at MCAR, the data which remained could be taken as a simple random sample of the entire data set. Thus, this implied that the missing values posed less threat to the statistical inferences than if it was data missing at random (MAR) or missing not at random (MNAR).

There were different methods of data replacement such as list wise deletion and pairwise deletion, but these two were not adopted. This was because list wise excluded all respondents with missing data from the statistical analyses and pairwise deletion computed each covariance or correlation from the cases with observed values on both variables if applied under MAR and MCAR biased results might be obtained. From a theoretical perspective, multiple imputation was preferred over the two methods as it was considered to be more appropriate, more specifically the series mean imputation (Van Ginkel

et al., 2020). The series mean imputation assumed that the mean of a variable was the suitable estimate for any case that had the missing data on the variable. Thus, it imputed each missing value with the mean of known values for the same variable if data was missing completely at random. That aimed at ensuring that there was no data bias hence it could be used for further analyses.

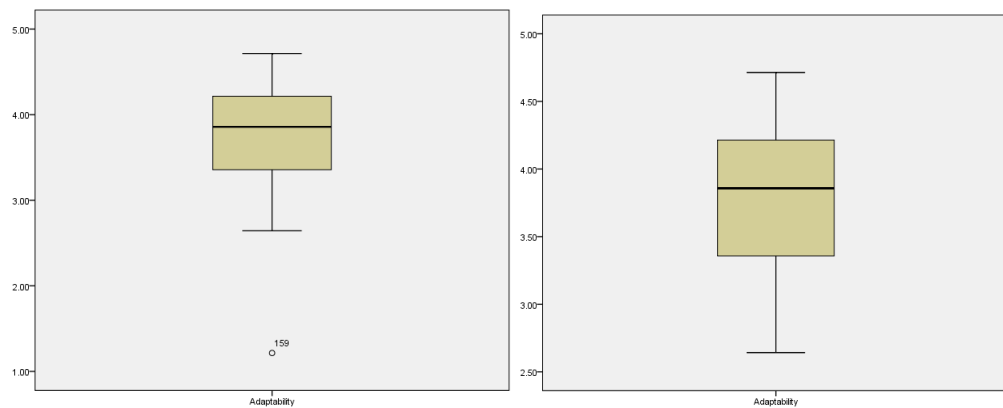
3.11.2 Outlier Analysis. After data entry, frequency tables were drawn and displayed to identify outliers. The frequency tables were examined to detect the extreme values as a result of wrong data entry or error in data entry. Then the detected outliers were removed and replaced with correct values after comparing with the original data entered by the respondent in a cell in the questionnaire. That ensured that the outlier data which could have led to exaggerated results was removed. An outlier applied to the extreme scores to all questions or extreme response to certain questions (Hair Jr et al., 2022). Mahatpatra et al. (2020) indicated that outliers were observations which were different from the majority of other cases in a sample. As such, it was important to identify whether the observation was a genuine member of the study sample or a contamination from a different source. Ridzuan and Zainon (2022) posited that an outlier exhibited a deviation from the distribution behaviour of the remainders that kept up a statistical sample. In this study, the outliers included data values that deviated from the distribution of values in a column of a table. Therefore, handling of outliers provided intriguing insight about the data under investigation and reinforced one's confidence in the conclusions obtained from the data set. Hair et al. (2014) opined that the first step to deal with outliers was to identify them. In this, study boxplots were used to facilitate the identification of outliers by the respondent number as indicated in Figure 3.5 to Figure 3.10.



Source: Survey data (2023)

Figure 3. 3 -3.6 Boxplots for Productivity Effectiveness showing outliers

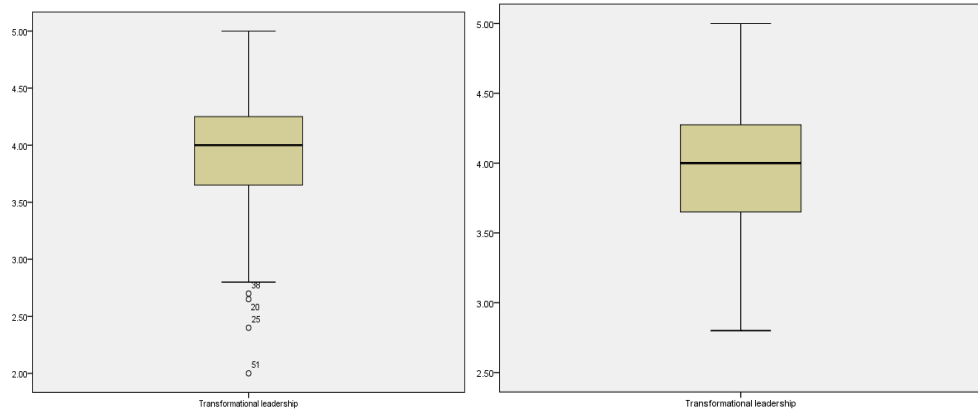
The results in Figure 3.5 showed the outliers that were identified on the construct of productivity effectiveness (case 165, 45, 254, and 252) and these were removed from the data set. After removing the outliers, boxplots appeared as in Figure 3.6.



Source: Survey data (2023)

Figure 3. 4-3.8 Boxplots for Adaptability effectiveness showing outliers

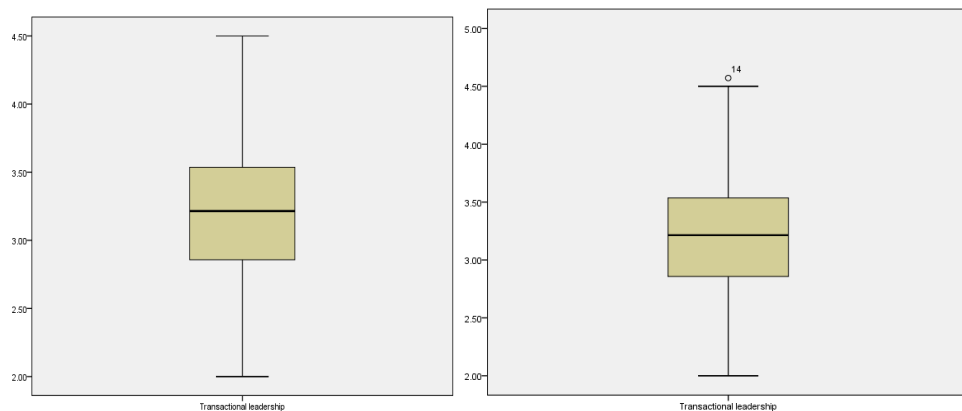
The results in Figure 3.7 showed the outliers that were identified on the construct of adaptability effectiveness (case 159,) and these were removed from the data set. After removing outliers, boxplots appeared as in Figure 3.8.



Source: Survey data (2023)

Figure 3. 5-3.10 Boxplots for Transformational Leadership showing outliers

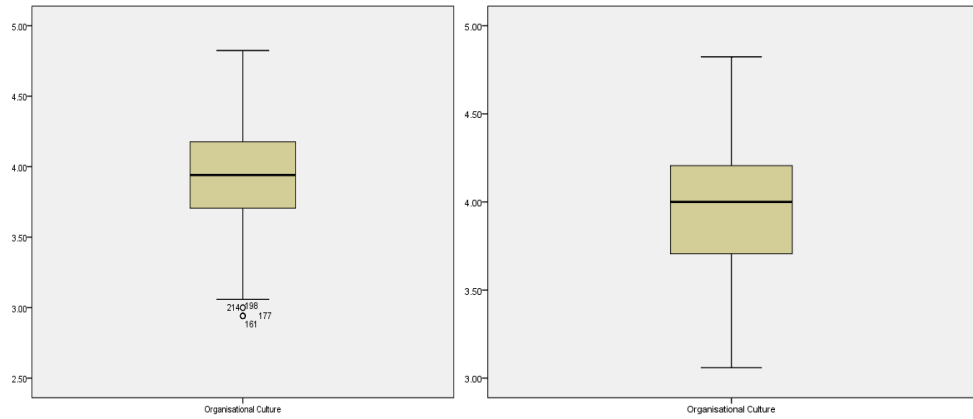
The results in Figure 3.9 showed the outliers that were identified on the construct of adaptability effectiveness (cases 38, 8, 20, 25, 51) and these were removed from the data set. After removing outliers, boxplots appeared as in Figure 3.10.



Source: Survey data (2023)

Figure 3. 6-3.12 Boxplots for Transactional Leadership showing outliers

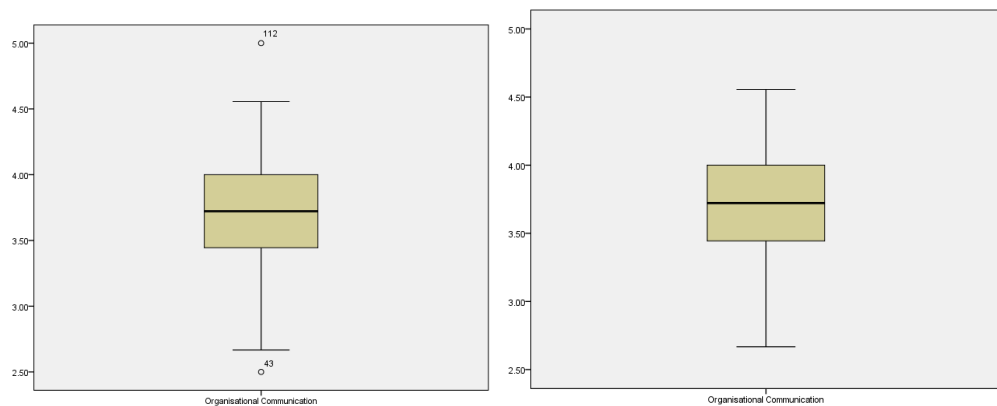
The results in Figure 3.11 showed the outliers that were identified on the construct of adaptability effectiveness (case 14) and these were removed from the data set. After removing outliers, boxplots appeared as in Figure 3.12.



Source: Survey data (2023)

Figure 3. 7-3.14 Boxplots for *Institutional Culture* showing outliers

The results in Figure 3.13 showed the outliers that were identified on the construct of adaptability effectiveness (cases 198, 214, 177, 161) and these were removed from the data set. After removing the outliers, boxplots appeared as in Figure 3.14.



Source: Survey data (2023)

Figure 3. 8-16 Boxplots for *Communication* showing outliers

The results in Figure 3.15 showed the outliers that were identified on the construct of adaptability effectiveness (case 112, 41) and these were removed from the data set. After removing the outliers, boxplots appeared as in Figure

3.16 and before, the outlier analysis, the data cases were 261. However, after the outlier handling, the cases reduced to 234.

3.11.3 Multicollinearity. Leadership styles, institutional culture and communication which were the independent, moderating and mediating variables of the study were tested to find out whether each of them independently predicted the dependent variable (organisational effectiveness) using the value for variance inflation factor (VIF) for multicollinearity. Table 3.5 showed the results of the test.

Table 3. 5

Multicollinearity for organisational effectiveness, leadership styles, institutional culture and communication

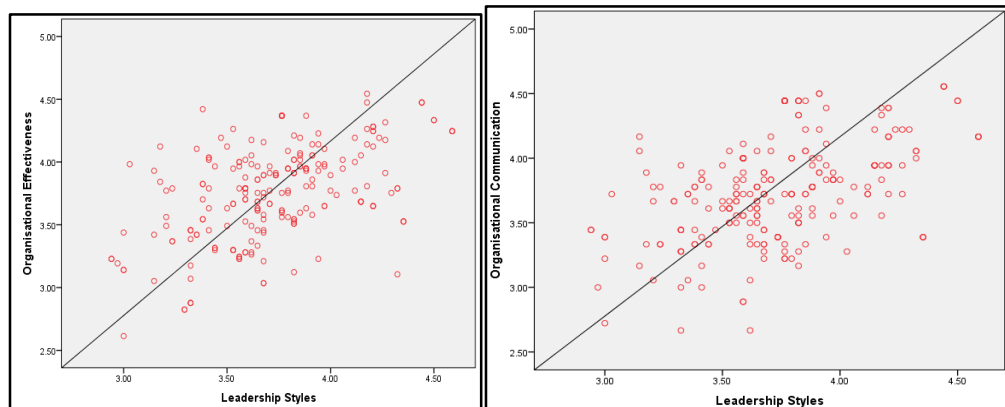
| Measures | VIF |
|-----------------------------|------------|
| Adaptability | 1.387 |
| Flexibility | 1.600 |
| Productivity | 1.464 |
| Transactional Leadership | 1.247 |
| Transformational Leadership | 1.247 |
| Espoused beliefs and values | 1.146 |
| Underlying assumptions | 1.146 |
| Communication Climate | 1.615 |
| Communication Structure | 1.435 |
| Communication Flow | 1.676 |

Source: Survey data (2023)

The test results in Table 3.4 showed that there was no collinearity (high correlation) between the independent variables because the values for the variance inflation factor (VIF), the standard metric for measuring collinearity were above 0.5 for all the constructs as recommended by Hair et al. (2021). Thus, that meant that the independent variables namely leadership styles, institutional culture and communication could independently predict the dependent variable (organisational effectiveness). Even the dimensions of the

dependent variables (productivity, adaptability and flexibility) independently predicted it.

3.11.4 Normality and Linearity. To ascertain whether data was appropriate for linear analysis, normality and linearity tests were carried out. The normality tests involved drawing a histogram for every construct and variables studied. The histograms displaying normality curves were presented in appropriate sections in chapter four. The linearity tests were carried out using scatter graphs to determine how the results of the independent and dependent variables converged on the line of best fit (β). The variables under investigation specifically leadership styles and organisational effectiveness, leadership styles and communication, institutional culture and organisational effectiveness, communication and organisational effectiveness were tested to see if they fulfilled the assumptions that the relationship between the continuously measured variables was linear as shown in Figures 3.17 and 3.18.

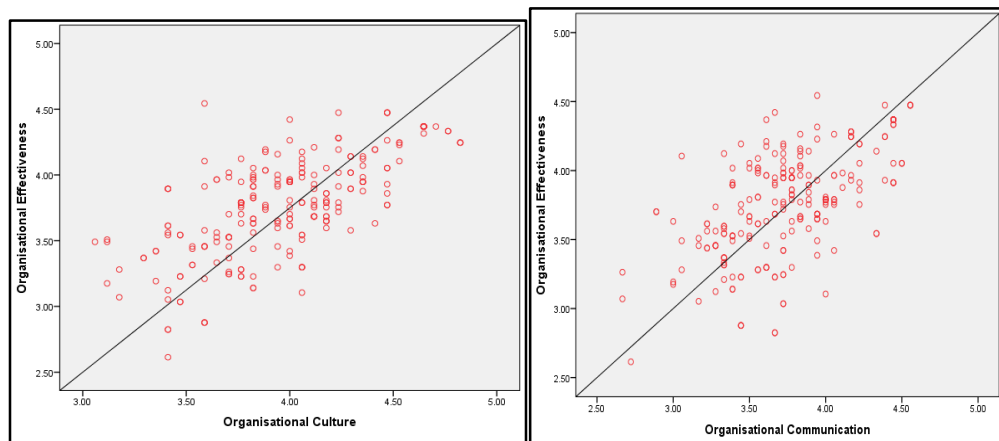


Source: Survey data (2023)

Figure 3. 9- 3.18 *Linearity for leadership styles and organisational effectiveness, Leadership styles and communication*

The findings of the scatterplot revealed the connection between the variables under study, specifically the association between leadership styles and organisational effectiveness and the relationship between leadership styles and

communication. Majority of the points on the relationship among the tested variables followed a straight line with a mild deviation from linearity. That implied that the relationship among the measured variables was linear. Thus, fit for further analysis specifically the structural equation modelling. Further still, the relationship between organisational effectiveness, institutional culture, and communication were evaluated as shown in Figures 3.19 and 3.20 below.



Source: Survey data (2023)

Figure 3. 10- 3.20 Linearity for Institutional culture, Organisational effectiveness and communication

The results of the scatterplots in Figures 3.19 and 3.20 showed the relationship among the studied variables namely institutional culture and organisational effectiveness, communication and organisational effectiveness. The majority of the points on the relationship among the variables followed a straight line with a mild deviation from linearity. That implied that the relationship among the measured variables was linear. Thus, it was fit for further analysis using partial least square structural equation modelling.

3.12 Data Analysis

The quantitative data analysis utilized descriptive and inferential analyses. In that case, descriptive analysis and calculation of frequency, percentage,

skewness and mean were carried out using SPSS, a tool used by researchers for quantitative data analysis in social science research. Meanwhile, partial least square structural equation modelling was utilized to handle inferential data analysis. The justification for this was that the tool helped to describe the relationships between the variables and indicators by providing the path model (Akter et al., 2017). By using the structural equation modelling (SEM), the study tested the hypotheses to establish the associations between the study variables. The structural equation modelling was a multivariate data analysis method for analysing complex relationships among constructs and indicators (Hair et al., 2021). Therefore, the structural equation modelling was preferred as it provided the opportunity to measure unobserved variables with the indicators (latent variables) to be described. Further still, the study had multiple constructs and indicators to test the hypotheses and establish the relationship between the variable by using a path model thus necessitating the use of the structural equation modelling.

3.13 The Research Ethical Considerations

Throughout the study, the researcher emphasized the basic ethical issues including informed consent, anonymity and respect for privacy, confidentiality, balance benefits and risks, accurate reporting, dissemination and observing the COVID19 guidelines. The researcher also gave special attention to first explaining the study's objectives to the participants and thereafter asked for their informed consent to participate in the study. The participants further provided clear and signed consents to participate in the study as a confirmation between them and the researcher. Furthermore, the researcher assured the participants of their anonymity, respect for privacy, and confidentiality. They were also

informed that their responses would remain anonymous hence their identities would not be concealed. The data was not associated to the individuals offering it since it was reported in aggregate form. With respect to accurate reporting, honest reporting was ensured with the results based on the actual data collected. The researcher also considered beneficence to minimise the risk of harming participants. In addition, there was dissemination of the findings through publication of the results in international peer-review journals. With respect to observing the COVID-19 guidelines and any prevalent airborne disease, guidelines to curtail their spread were followed such as observing standard operating procedures including social distancing, sanitizing, and wearing masks.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter was concerned with the presentation, analysis and interpretation of the study findings on leadership styles, institutional culture and organisational effectiveness mediated by communication in public universities in Uganda. The presentation of the findings began with the response rate and results on demographic characteristics followed by the results on the dependent variable. The rest of the sections followed according to the order of the study objectives, under the subthemes of leadership styles and organisational effectiveness; leadership styles and communication; institutional culture and organisational effectiveness; communication and organisational effectiveness; leadership styles and organisational effectiveness moderated by institutional culture; and, leadership styles and organisational effectiveness mediated by communication.

4.1 The Response Rates

The initial sample determined to provide data for this study were 265 administrative and academic heads from the four selected public universities in Uganda using questionnaire survey. Those who provided the data were 261 but reduced to 234 after outlier analysis and deleting of cases with outlier data. The remaining cases or participants constituted 89.7% which was sufficient as Pielsticker and Hiebl (2020) indicated that a response of 50% was sufficient in social science studies.

4.2 Demographic Characteristics

The demographic characteristics covered were gender of participants, age groups, highest academic qualification and working experience in current

university. These were the basis for assessing the level of organisational effectiveness in public universities in Uganda measured against the independent variables of the study. The results followed in Table 4.1.

Table 4. 1

Demographic Characteristics of administrative and academic heads

| Variable | Categories | Frequency | Per cent |
|--------------------------------|--------------------------|------------------|-----------------|
| Gender | Male | 152 | 65.0 |
| | Female | 82 | 35.0 |
| | Total | 234 | 100.0 |
| Age Groups | Up to 30 | 6 | 2.6 |
| | 30 but below 40 | 45 | 19.2 |
| | 40 and above | 183 | 78.2 |
| | Total | 234 | 100.0 |
| Highest academic qualification | Bachelor's degree | 18 | 7.7 |
| | Masters | 101 | 43.2 |
| | PhD | 115 | 49.1 |
| | Total | 234 | 100.0 |
| Working Experience | Less than one year | 30 | 12.8 |
| | 1 but less than 5 years | 41 | 17.5 |
| | 5 but less than 10 years | 63 | 26.9 |
| | More than 10 years | 100 | 42.7 |
| | Total | 234 | 100.0 |

Source: Survey data (2023)

The results in Table 4.1 on gender indicated that males (65.0%) were relatively the larger number of administrative and academic heads who offered the responses while the females were the least group (35.0%). Thus, the findings indicated that a bigger number of male administrative and academic heads participated in this study. Nevertheless, both male and female administrative and academic heads were considered for the study since the population of female heads was equally high. The majority of the study participants (78.2%) were 40 years and above with 19.2% aged between 30-40 years and 2.6% aged 30 years and below. Thus, results were representative of administrative and academic heads covering all age groups. The modal percentage (49.1%) was of those with PhD degrees followed by 43.2% who had Master's degrees, and 7.7

% had Bachelor's degrees. Thus, the results were generalizable to academic staff with different academic qualifications at the university occupying different administrative and academic positions of leadership. Furthermore, the modal percentage (42.7 %) was of those who had served for 10 years and above followed by 26.9% who had served between 5-10 years, 17.5% who had served between 1-5 years, and 12.8% who had served for less than 1 year. Thus, the results indicated that administrative and academic heads who participated in the study had spent a considerable period serving the universities.

The results further showed that officials of various categories participated in the study. Thus, the findings could be generalised on different academic and administrative heads in the universities. However, for both groups the sample was big enough to fulfil the conditions for the variation test that was more than five respondents in each cell. Those results were used to test whether there were significant differences in their perception of organisational effectiveness in the university according to the background characteristics of the variables. To find out whether there were variations in the organisational effectiveness of administrative and academic heads according to gender, a students' - Test was carried out as indicated in Table 4.2.

Table 4. 2*Students' –Test Results for Gender and organisational Effectiveness*

| Gender | Sample Size | Mean | STD | T | p |
|--------|-------------|------|------|-------|-------|
| Male | 152 | 3.73 | 0.34 | 6.585 | 0.028 |
| Female | 82 | 3.85 | 0.43 | | |

Source: Survey data (2023)

The results in Table 4.2 indicated that the average perceptions of organisational effectiveness of female administrative and academic heads (mean= 3.85) was slightly higher than that of male (mean = 3.73). And, the students't-test (6.585) was high with the level of significance ($p = 0.028 < 0.05$). Therefore, the perceptions on organisational effectiveness of administrative and academic heads in relation to gender were significant. Therefore, the perceptions on organisational effectiveness were significant according to gender.

To establish whether there were variations in perceptions about organisational effectiveness of administrative and academic heads according to age, analysis of variation (ANOVA) was carried out as indicated in Table 4.

Table 4. 3*ANOVA Results for Age and Organisational Effectiveness*

| Age group | Sample Size | Mean | STD | F | P |
|-----------------|-------------|------|------|-------|-------|
| Up to 30 | 6 | 3.91 | 0.27 | 0.447 | 0.640 |
| 30 but below 40 | 45 | 3.77 | 0.30 | | |
| 40 and above | 183 | 3.76 | 0.40 | | |

Source: Survey data (2023)

The results in Table 4.3 indicated that the mean score for administrative and academic heads that were less than 30 years was high (mean = 3.91) followed by the administrative and academic heads that were between 30 and 40 years with mean score (mean = 3.77) and administrative and academic heads that were

40 years and above had a slightly low mean score (mean = 3.76). There was an observed $F = 0.447$ with the level of significance ($p = 0.640 > 0.05$) which implied that there were insignificant variations in the perceptions of organisational effectiveness of administrative and academic heads in relation to the age group.

To establish whether there were variations in the perceptions of organisational effectiveness of administrative and academic heads according to the highest level of education, analysis of variation (ANOVA) was also carried out as indicated in Table 4.4

Table 4. 4

ANOVA Results for Highest Level of Education and Organisational Effectiveness

| Highest Level of Education | Sample Size | Mean | STD | F | P | LSD Post hoc test |
|----------------------------|-------------|------|------|-------|-------|--|
| Bachelor's degree | 18 | 4.11 | 0.33 | 8.820 | 0.000 | Significantly different pairs (p = 0.05 level) (Bachelor's Degree > Masters, PhD) |
| Masters | 101 | 3.76 | 0.32 | | | |
| PhD | 115 | 3.73 | 0.40 | | | |

Source: Survey data (2023)

The results in Table 4.4 indicated that the mean score for holders of Bachelor's degree was high (mean = 4.11), followed by that of Master's degree (mean = 3.76) and least was for those with PhDs (mean = 3.73). The observed $F = 8.820$ was large with the level of significance (0.000) which meant that the variation in the perceptions on organisational effectiveness of the administrative and academic heads in relation to the highest level of education was highly significant. Therefore, there were differences in the perceptions on organisational effectiveness according to the qualifications.

To establish whether there were variations in the perceptions of organisational effectiveness of administrative and academic heads according to working experience of administrative and academic heads in those public Universities, the analysis of variation (ANOVA) was also carried out as indicated in Table 4.5

Table 4. 5

Results for Working Experience and Organisational Effectiveness

| Working experience | Sample Size | Mean | STD | F | P | LSD Post hoc test significantly different pairs (p = 0.05 level) |
|--------------------------|-------------|------|------|-------|-------|--|
| Less than one year | 30 | 4.03 | 0.37 | 8.150 | 0.000 | (Less than one year > More than 10 years) |
| 1 but less than 5 years | 41 | 3.86 | 0.26 | | | |
| 5 but less than 10 years | 63 | 3.71 | 0.29 | | | |
| More than 10 years | 100 | 3.69 | 0.43 | | | |

Source: Survey data (2023)

The results in Table 4.5 revealed that the mean score for administrative and academic heads in relation to the time spent serving at the university was low. The mean score for administrative and academic heads that had spent less than a year at the universities was the highest (mean = 4.03) followed by those between 1 and 5 years (mean = 3.86). The next was for those who had spent between 5 to 10 years (Mean = 3.71) and lastly were those who had served 10 and above years (mean =3.69). The observed F=8.150 with the significant level of (p=0.000) which meant that the variation in perceptions on organisational

effectiveness of administrative and academic heads in relation to the period spent at the universities was highly significant.

4.3 Organisational Effectiveness

Organisational effectiveness in public universities in Uganda was investigated as a three-component concept that included productivity, adaptability and flexibility effectiveness. The results for the same followed here under.

4.3.1 Productivity Effectiveness. The concept of productivity effectiveness was studied using four constructs, namely instructional effectiveness, research effectiveness, extension services and financial effectiveness. For each construct, the results followed below.

4.3.1.1 Instructional Effectiveness. Instructional effectiveness was conceived as the first dimension of productivity effectiveness and it was studied using seven indicators. The descriptive results were presented in Table 4.6.

Table 4. 6*Descriptive Results for Instructional effectiveness*

| Instruction Effectiveness | SD | D | NS | A | SA | Means |
|---|--------------|---------------|---------------|----------------|---------------|--------------|
| Teaching load of lecturers is equitably distributed | 11 (4.7%) | 54 (23.1%) | 32 (13.7%) | 102 (43.6%) | 35 (15.0%) | 3.41 |
| Lecturers are assigned teaching subjects that fit their educational and professional capabilities | 4 (1.7%) | 18 (7.7%) | 18 (7.7%) | 111 (47.4%) | 83 (25.5%) | 4.07 |
| Lecturers are assigned activities aligned to their fields of specialization | 4 (1.7%) | 9 (3.8%) | 22 (9.4%) | 127 (54.3%) | 72 (30.8%) | 4.09 |
| Regular evaluation of academic performance is conducted | 2 (0.9%) | 36 (15.4%) | 51 (21.8%) | 87 (37.2%) | 58 (24.8%) | 3.70 |
| Preparing and reviewing of curricula and syllabuses is done regularly | - | 17 (7.3%) | 27 (11.5%) | 113 (48.3%) | 77 (32.9%) | 4.07 |
| Lecturers are provided adequate educational support and equipment | 4 (1.7%) | 57 (24.4%) | 44 (18.8%) | 93 (39.7%) | 36 (15.4%) | 3.43 |
| Courses are planned and respond to dynamic changes in the educational systems | 3 (1.3%) | 21 (9.0%) | 39 (16.7%) | 127 (54.3%) | 44 (18.8%) | 3.80 |

Source: Survey data (2023)

The results in Table 4.6 on whether teaching load of lecturers was equitably distributed showed that the majority 58.6%) agreed with 27.8% disagreeing and 13.7% being not sure. The high mean = 3.71 close to code four for agreed suggested that the administrative and academic heads concurred that the teaching load of lecturers was equitably distributed. The majority (72.9%) revealed that the lecturers were assigned teaching subjects that fit their educational and professional capabilities with those disagreeing being 9.4% and 7.7% were not sure; whereby the high mean = 4.07 justified the finding. The administrative and academic heads also indicated that the lecturers were

assigned activities aligned to their fields of specialization (85.1%) with the least 5.5% disagreeing and 9.4% not sure. The high mean = 4.09 confirmed the finding which indicated, therefore, that most lecturers were assigned activities that were aligned to their fields of specialization which enhanced effectiveness in teaching.

The administrative and academic heads indicated that regular evaluation of academic performance was conducted (62%) with 16.3% disagreeing and 21.8% not sure giving a high mean = 4.38. Therefore, a fairly regular evaluation of academic performance was conducted to maintain effective service delivery. The administrative and academic heads also mentioned that preparing and reviewing of curricula and syllabuses was done regularly (81.2%) with a high mean = 4.07 confirming the findings that preparing and reviewing of curricula and syllabuses was done regularly in order to enable the lecturers to remain up to date in their teaching. The administrative and academic heads also revealed that the lecturers were provided with adequate educational support and equipment (55.1%) with 26.1% disagreeing and 15.4% not being sure. The average mean = 3.43 affirmed the finding but gave room for a small percentage (26.1) which showed that much more educational support and equipment should be provided by the university.

With respect to whether courses were planned and responded to dynamic changes in the educational systems, a big number of administrative and academic heads agreed (73.1%) with 10.3% disagreeing and 18.8% not sure. This was confirmed by the high mean of 3.80 and to justify how overall the administrative and academic heads rated instructional effectiveness, an average

index was calculated for the seven indicators measuring the construct for which summary Table 4.7 presented the results.

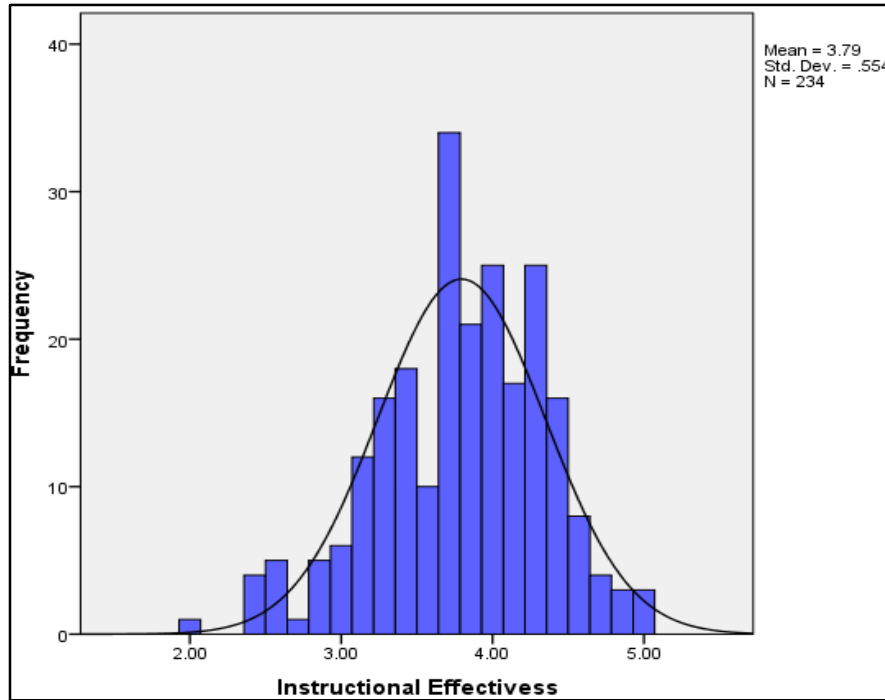
Table 4. 7

Summary Table for Cognitive Activation

| | | | | Statistic | Std. Error | |
|-----------------------------|----------------------------------|-------------|--|------------------|-------------------|------|
| Descriptives | | | | | | |
| Instructional Effectiveness | Mean | | | 3.79 | 0.04 | |
| | 95% Confidence Interval for Mean | Lower Bound | | 3.72 | | |
| | | Upper Bound | | 3.87 | | |
| | | | | | | |
| | 5% Trimmed Mean | | | 3.81 | | |
| | Median | | | 3.86 | | |
| | Variance | | | 0.31 | | |
| | Std. Deviation | | | 0.55 | | |
| | Minimum | | | 2.00 | | |
| | Maximum | | | 5.00 | | |
| | Range | | | 3.00 | | |
| | Interquartile Range | | | 0.86 | | |
| | Skewness | | | -0.42 | | 0.16 |
| | Kurtosis | | | 0.09 | | 0.32 |

Source: Survey data (2023)

Table 4.7 indicated a high overall mean (mean = 3.79) close to the median = 3.86 with low standard deviation (Std. = 0.55). The high mean implied that the administrative and academic heads indicated that instructional effectiveness was high and the mean being close to the median and low standard deviation implied that the results were normally distributed. The normal distribution was diagrammatically shown in Figure 4.1.



Source: Survey data (2023)

Figure 4 1 Histogram for Instructional effectiveness

Figure 4.1 indicated a high mean = 3.79 and low standard deviation (Std. = 0.55). in that case, the high mean indicated that enhancing instructional effectiveness was high while the low standard deviation implied that the results were normally distributed. Henceforth, the results were fit for linear analysis.

4.3.1.2 Research Effectiveness. Research effectiveness was conceived as the second measure of productivity effectiveness and was studied using nine indicators. The descriptive results were presented in Table 4.8.

Table 4. 8 *Descriptive Results for Research effectiveness*

| Research Effectiveness | SD | D | NS | A | SA | Means |
|---|--------------|---------------|---------------|----------------|---------------|-------|
| | 1 | 2 | 3 | 4 | 5 | |
| The university is supported with requirements (internet, statistical software, other resources and funding) | 3 (1.3%) | 48 (20.5%) | 39 (16.7%) | 107 (45.7%) | 37 (15.8%) | 3.54 |
| The university has a research manual which provides specific guidelines and procedures | 1 (0.4%) | 12 (5.1%) | 59 (25.2%) | 105 (44.9%) | 57 (24.4%) | 3.88 |
| Lecturers and students are trained and developed in the proper research methods and practices | 1 (0.4%) | 9 (3.8%) | 52 (22.2%) | 120 (51.3%) | 52 (22.2%) | 3.91 |
| The university has developed and implemented a research agenda | 1 (0.4%) | 11 (4.7%) | 57 (24.4%) | 117 (50.0%) | 48 (20.5%) | 3.85 |
| Lecturers get the chance to attend trainings and seminars to enhance their research capabilities | 5 (2.1%) | 9 (3.8%) | 35 (15.0%) | 125 (53.4%) | 60 (25.6%) | 3.97 |
| Completed and on-going research studies are periodically monitored and evaluated | 1 (0.4%) | 31 (13.2%) | 76 (32.5%) | 89 (38.0%) | 37 (15.8%) | 3.56 |
| The university ensures that research results are published preferably in refereed journals | 3 (1.3%) | 23 (9.8%) | 51 (21.8%) | 107 (45.7%) | 50 (21.4%) | 3.76 |
| Research funds have been allocated for lecturers and student research activities | 11 (4.7%) | 43 (18.4%) | 43 (18.4%) | 100 (42.7%) | 37 (15.8%) | 3.47 |
| Linkages have been established with local, national and/or international partners to strengthen research programs | 5 (2.1%) | 28 (12.0%) | 47 (20.1%) | 103 (44.0%) | 51 (21.8%) | 3.71 |

Source: Survey data (2023)

The results in Table 4.8 indicated views of administrative and academic heads on whether the university was supported with requirements (internet, statistical software, and other resources) and funding where (61.5%) agreed with 21.8% disagreeing while 16.7% was not sure. The high mean = 3.54 close to code four for agreed implied that the university was supported with requirements (internet, statistical software, other resources) and funding to some extent that could guarantee effectiveness. On the other hand, the administrative and academic heads indicated that the university had a research manual which provided specific guidelines and procedures (69.3%) with 5.5% disagreeing and 25.2% not sure. The high mean = 3.88 justified the finding. Therefore, the university to a fair extent had a research manual which provided specific guidelines and procedures as a way of enhancing research effectiveness.

As to whether lecturers and students were trained and developed in the proper research methods and practices (73.5%) agreed ,4.2% disagreed and 22.2% were not sure with a high mean = 3.91. Therefore, the lecturers and students were, to a large extent trained and developed in the proper research methods and practices. The administrative and academic heads also revealed that the university had developed and implemented a research agenda (70.5%) with a high mean = 3.85. The administrative and academic heads further indicated that the lecturers got the chance to attend trainings and seminars to enhance their research capabilities (79%) and the high mean = 3.97 further affirmed the finding. The administrative and academic heads also revealed that completed and on-going research studies were periodically monitored and evaluated (53.8%) and the high mean = 3.56 affirmed the finding. In addition, the administrative and academic heads reported that the university ensured that

the research results were published preferably in refereed journals (67.1%) where the high mean = 3.71 ascertained the finding.

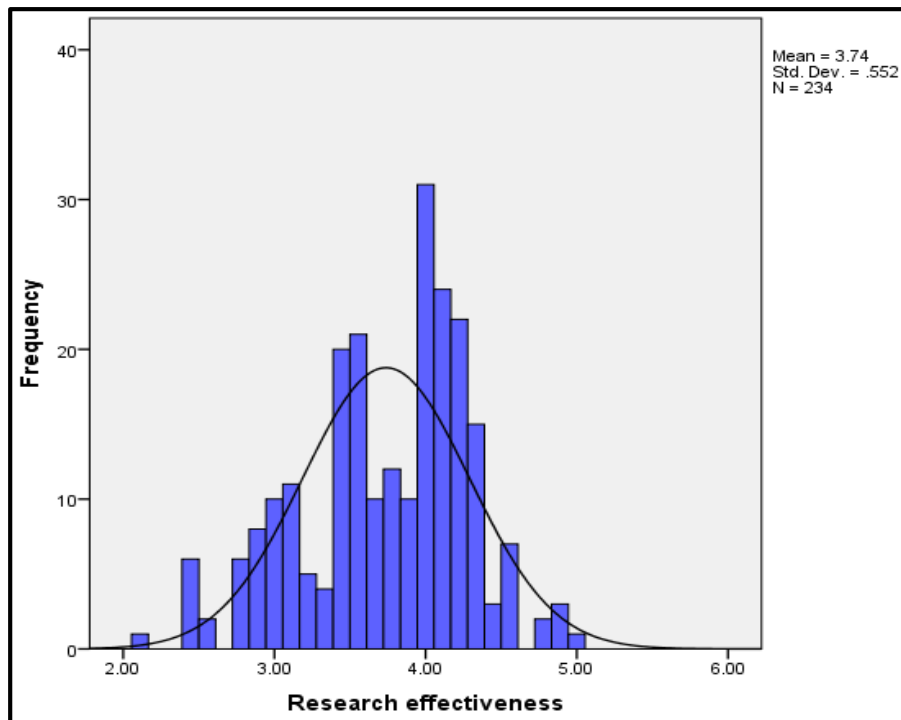
The administrative and academic heads also established that research funds had been allocated for lecturers and students' research activities (58.5%) with 23.1% disagreeing and 18.4% were not sure. An average mean of 3.47 suggested that the research funds were fairly allocated to lecturers and student research activities to boost the research effectiveness. The administrative and academic heads further revealed that linkages had been established with local, national and/or international partners to strengthen the research programs of 65.8% with 13.1% disagreeing and 20.1% being unsure. The high mean of 3.71 confirmed that linkages were established with local, national and/or international partners to strengthen the research programs and enhance the research effectiveness. To establish how overall the administrative and academic heads rated the public universities research effectiveness, an average index was calculated for the nine indicators measuring the construct and the summary Table 4.9 displayed the results.

Table 4. 9*Summary Table for Research effectiveness*

| | | Descriptives | Statistic | Std. Error |
|------------------------|----------------------------------|---------------------|------------------|-------------------|
| Research effectiveness | Mean | | 3.74 | 0.04 |
| | 95% Confidence Interval for Mean | Lower Bound | 3.67 | |
| | | Upper Bound | 3.81 | |
| | 5% Trimmed Mean | | 3.75 | |
| | Median | | 3.89 | |
| | Variance | | 0.31 | |
| | Std. Deviation | | 0.55 | |
| | Minimum | | 2.11 | |
| | Maximum | | 5.00 | |
| | Range | | 2.89 | |
| | Interquartile Range | | 0.67 | |
| | Skewness | | -0.46 | 0.16 |
| | Kurtosis | | -0.20 | 0.32 |

Source: Survey data (2023)

Table 4.9 indicated a high overall mean (mean = 3.74) close to the median = 3.89 with a low standard deviation (Std. = 0.55). The high mean implied that the administrative and academic heads justified that the public university research effectiveness was high while the mean being close to the median and the low standard deviation suggested that the results were normally distributed. The normal distribution was diagrammatically displayed in Figure 4.2



Source: Survey data (2023)

Figure 4 2 Histogram for Research effectiveness

Figure 4.2 revealed a high mean = 3.74 and low standard deviation (Std. = 0.55).

In that case, the high mean revealed that research effectiveness was high while the low standard deviation suggested that the results were normally distributed.

Therefore, the results were fit for linear analysis.

4.3.1.3 Extension Services Effectiveness. The extension services effectiveness was conceived as the third measure of productivity effectiveness and was studied using five indicators. The descriptive results were presented in Table 4.9.

Table 4. 10*Descriptive Results for Extension Services Effectiveness*

| Extension Services Effectiveness | SD | D | NS | A | SA | Means |
|--|-------------|---------------|---------------|----------------|---------------|-------|
| Staff of the university are involved in outreach or extension services | - | 13 (5.6%) | 54 (23.1%) | 115 (49.1%) | 52 (22.2%) | 3.88 |
| The university has an extension manual that provides specific guidelines and procedures | 2 (0.9%) | 22 (9.4%) | 98 (41.9%) | 66 (28.2%) | 46 (19.7%) | 3.56 |
| The university's extension program is in line with institutional, regional and national priorities | - | 6 (2.6%) | 87 (37.2%) | 87 (37.2%) | 54 (23.1%) | 3.81 |
| The university responds quickly to support community service needs | - | 31 (13.2%) | 90 (38.5%) | 79 (33.8%) | 34 (14.5%) | 3.50 |
| The university supports the various outreach programs | - | 18 (7.7%) | 54 (23.1%) | 119 (50.9%) | 43 (18.4%) | 3.80 |

Source: Survey data (2023)

The findings in Table 4.10 concerning whether staff of the university were involved in outreach or extension services indicated that cumulatively, a large percentage of 71.3% agreed, 23.1% were not sure, 5.6% did not agree. The high mean = 3.88 affirmed that the staff of the university were involved in outreach or extension services. With respect to whether the university had an extension manual that provided specific guidelines and procedures, the administrative and academic heads revealed that the larger percentage of 47.9% agreed, 10.3% did

not agree, while, 41.9% were not sure. The high mean =3.56 implied that the university somehow had an extension manual that provided specific guidelines and procedures much as a relatively small percentage were not sure of that development.

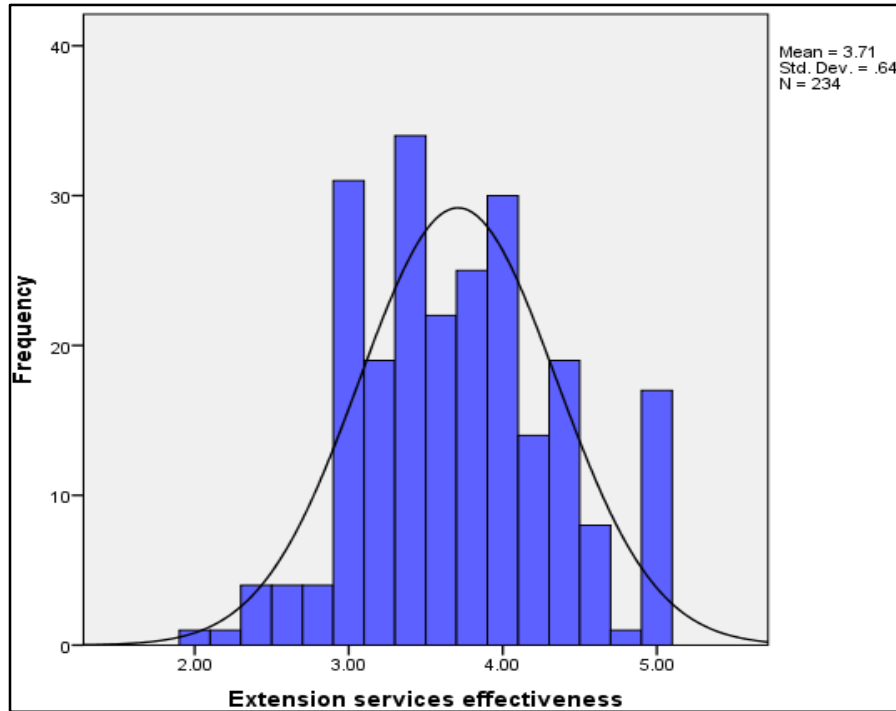
In respect to whether the university's extension program was in line with the institutional, regional and national priorities, the administrative and academic heads revealed that a high percentage of 60.3% agreed, 2.6% did not concur and 37.2% were not sure. So, the high mean = 3.81 meant that the university's extension program was somehow in line with the institutional, regional and national priorities. In regard to whether the universities responded quickly to support the community service needs, the administrative and academic heads indicated that a fair percentage of 48.3% agreed, 38.5% were not sure, while 13.2% disagreed. The high mean = 3.50 meant that the universities, to some extent, responded quickly to support the community service needs. With respect to whether the universities supported the various outreach programs, the administrative and academic heads revealed that a high percentage of 69.3% agreed, 23.1% were not sure, and 7.7% disagreed. The high mean = 3.80 implied that the universities supported the various outreach programs. For the five indicators measuring the concept, average index was determined to find out how the administrative and academic heads rated the universities' extension services effectiveness and table 4.10 showed the results.

Table 4. 11*Summary table for Extension Services Effectiveness*

| | | Descriptives | Statistic | Std. Error |
|----------------------------------|----------------------------------|---------------------|------------------|-------------------|
| Extension services effectiveness | Mean | | 3.71 | 0.04 |
| | 95% Confidence Interval for Mean | Lower Bound | 3.63 | |
| | | Upper Bound | 3.80 | |
| | 5% Trimmed Mean | | 3.71 | |
| | Median | | 3.60 | |
| | Variance | | 0.41 | |
| | Std. Deviation | | 0.64 | |
| | Minimum | | 2.00 | |
| | Maximum | | 5.00 | |
| | Range | | 3.00 | |
| | Interquartile Range | | 1.00 | |
| | Skewness | | 0.19 | 0.16 |
| | Kurtosis | | -0.34 | 0.32 |

Source: Survey data (2023)

Table 4.11 indicated a high overall mean of mean = 3.71 close to the median = 3.60 with low standard deviation (Std. = 0.64). The high mean implied that the administrative and academic heads justified that the public university extension services effectiveness was high and the mean being close to the median and the low standard deviation suggested that the results were normally distributed. The normal distribution was diagrammatically displayed in Figure 4.3



Source: Survey data (2023)

Figure 4.3 Histogram for Extension Services Effectiveness

Figure 4.3 revealed a high mean = 3.71 and low standard deviation (Std. = 0.64).

The high mean revealed that the extension services effectiveness was high while the low standard deviation suggested that the results were normally distributed.

Therefore, the results were fit for linear analysis.

4.3.1.4 Financial Effectiveness. The financial effectiveness was conceived as the fourth measure of productivity effectiveness and was studied using five indicators. The descriptive results were presented in Table 4.11

Table 4. 12*Descriptive Results for Financial Effectiveness*

| Financial Effectiveness | SD | D | NS | A | SA | Means |
|--|---------------|---------------|----------------|----------------|---------------|-------|
| In this university projects hardly overrun the budget | 2 (0.9%) | 13 (5.6%) | 138 (59.0%) | 81 (34.6%) | 21 (9.0%) | 2.99 |
| The university pays its entire staff on time | 4 (1.7%) | 33 (14.1%) | 43 (18.4%) | 105 (44.9%) | 49 (20.9%) | 3.69 |
| The cash inflows exceed the cash outflows in this university | 24 (10.3%) | 46 (19.7%) | 109 (46.6%) | 39 (16.7%) | 16 (6.8%) | 2.90 |
| In this university, materials purchase remains within the budget | 8 (3.4%) | 33 (14.1%) | 87 (37.2%) | 81 (34.6%) | 25 (10.7%) | 3.50 |
| The university buys quality supplies at the optimum price | 6 (2.6%) | 64 (27.4%) | 87 (37.2%) | 46 (19.7%) | 31 (13.2%) | 3.14 |

Source: Survey data (2023)

The findings in Table 4.12 regarding whether in the university, projects had hardly overrun the budget indicated that cumulatively, a relatively small percentage (43.6%) agreed, 59.0% were not sure, 6.5% did not agree. A relatively average mean = 2.99 suggested that fairly, the projects had hardly overrun the budget. However, a high percentage was not sure of this development hence lowering the mean. With regard to whether the university paid its entire staff on time, the administrative and academic heads revealed that a high percentage (65.8%) agreed, 15.8% did not agree, while 18.4% were not sure. The high mean =3.69 implied that the university somehow paid its entire staff on time much as a small percentage were not sure of that development. In

respect to whether the cash inflows exceeded the cash outflows in the university, a low percentage of administrative and academic heads (23.5%) agreed, 30% did not concur and 46.6% were not sure. The low mean = 2.90 meant that the cash inflows did not exceed the cash outflows in the university much as a relatively fair percentage revealed that they were not aware of that condition. That was therefore detrimental to the universities' financial effectiveness and hence overall university effectiveness. In regard to whether in those universities, the materials purchased remained within the budget, the administrative and academic heads indicated that a fair percentage (45.3%) agreed, 37.2% were not sure, 17.5% disagreed. The high mean = 3.50 meant that in these universities, the materials purchased, to a less extent, remained within the budget much as a relatively fair percentage was not sure of that development.

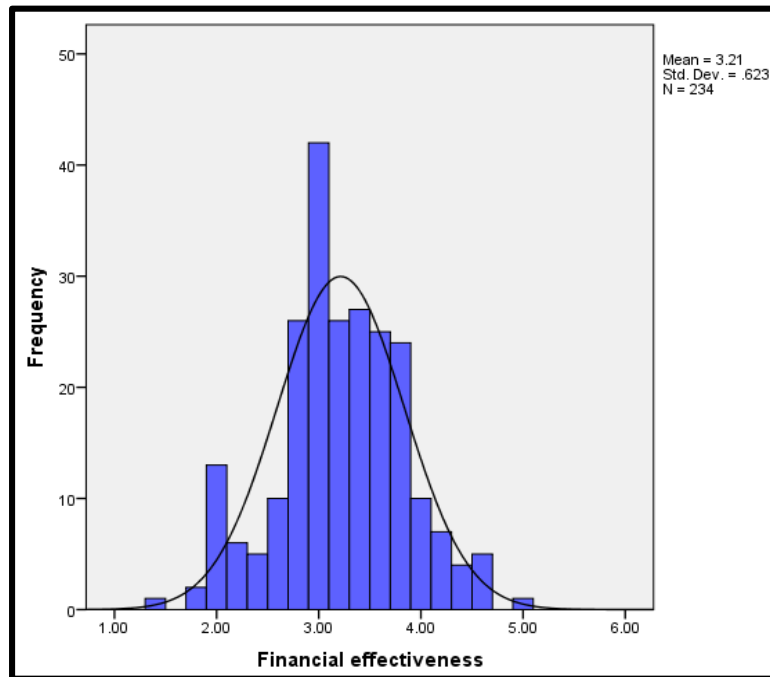
With regard to whether the universities bought quality supplies at the optimum price, the administrative and academic heads revealed that a low percentage (32.9%) agreed, 37.2% were not sure, and 30% disagreed. The average mean = 3.14 implied that fairly, universities bought quality supplies at the optimum price as expected. For the five indicators measuring the concept, an average index was determined to find out how administrative and academic heads rated the universities' financial effectiveness and table 4.12 showed the results.

Table 4. 13*Summary Table for Financial Effectiveness*

| | | Descriptives | Statistic | Std. Error |
|---------------|----------------------------------|---------------------|------------------|-------------------|
| Financial | Mean | | 3.21 | 0.04 |
| Effectiveness | 95% Confidence Interval for Mean | Lower Bound | 3.13 | |
| | | Upper Bound | 3.30 | |
| | 5% Trimmed Mean | | 3.21 | |
| | Median | | 3.20 | |
| | Variance | | 0.39 | |
| | Std. Deviation | | 0.62 | |
| | Minimum | | 1.40 | |
| | Maximum | | 5.00 | |
| | Range | | 3.60 | |
| | Interquartile Range | | 0.80 | |
| | Skewness | | -0.09 | 0.16 |
| | Kurtosis | | 0.13 | 0.32 |

Source: Survey data (2023)

Table 4.13 demonstrated a low overall mean (mean = 3.21) close to the median = 3.20 with low standard deviation (Std. = 0.62). The high mean implied that the administrative and academic heads justified that the public university financial effectiveness was low and the mean being close to the median and the low standard deviation suggested that the results were normally distributed which was diagrammatically displayed in Figure 4.4



Source: Survey data (2023)

Figure 4 4 Histogram for Financial Effectiveness

Figure 4.4 revealed a high mean = 3.21 and low standard deviation (Std. = 0.62).

The low mean revealed that the financial effectiveness was high while the low standard deviation suggested that the results were normally distributed.

Therefore, the results were fit for linear analysis.

4.3.2 Adaptability Effectiveness

The concept of adaptability effectiveness was studied using three constructs namely, the change focus effectiveness, the customer focus effectiveness and the organisational learning effectiveness. For each construct, the results followed below.

4.3.2.1 The Change Focus Effectiveness. The change focus effectiveness was conceived as the first measure of adaptability effectiveness and was studied using five indicators. The descriptive results were presented in table 4.13.

Table 4. 14*Descriptive Results for Change Focus Effectiveness*

| Change Focus | SD | D | NS | A | SA | Means |
|--|--------------|---------------|---------------|----------------|---------------|--------------|
| The university management pressures itself to work according to change demands | 13 (5.6%) | 56 (23.9%) | 51 (21.8%) | 102 (43.6%) | 12 (5.1%) | 3.17 |
| The university has mechanism of updating its stakeholders about changes introduced | 1 (0.4%) | 32 (13.7%) | 48 (20.5%) | 116 (49.6%) | 37 (15.8%) | 3.67 |
| Management constantly communicates to staff about the need for change | 1 (0.4%) | 33 (14.1%) | 36 (15.4%) | 114 (48.7%) | 50 (21.4%) | 3.77 |
| The university is involved in partnerships with other universities | - | 5 (2.1%) | 24 (10.3%) | 124 (53.0%) | 81 (34.6%) | 4.20 |
| The university is involved in partnerships with stakeholders such as development partners and donors | - | 11 (4.7%) | 27 (11.5%) | 121 (51.7%) | 75 (32.1%) | 4.11 |

Source: Survey data (2023)

The findings in Table 4.14 regarding whether the university management pressured itself to work according to the change demands indicated that cumulatively, a relatively small percentage (48.7%) agreed, 21.8% was not sure,

29.5% did not agree. A relatively low mean = 3.17 somehow disapproved the fact that the university management pressured itself to work according to the change demands. With regard to whether the university had a mechanism of updating its stakeholders about the changes introduced, the administrative and academic heads revealed a fair percentage where 54.7% agreed, 14.1% did not agree, while 20.5% were not sure. In that case, the high mean = 3.67 implied that the university somehow had a mechanism of updating its stakeholders about the changes introduced. Much as a small percentage was not sure of that development. In respect to whether the management constantly communicated to the staff about the need for change, a high percentage of the administrative and academic heads (70.1%) agreed, 14.5% did not concur and 15.4% were not sure. The high mean = 3.77 affirmed that the management constantly communicated to the staff about the need for change putting in mind the 20.5% which was not sure of the condition at hand.

In regard to whether the universities were involved in partnerships with other universities, the administrative and academic heads indicated that a high percentage (87.6%) agreed, 10.3% were not sure, 2.1% disagreed. The high mean = 4.20 suggested that the universities were involved in partnerships with other universities. While with regard to whether the universities were involved in partnerships with stakeholders such as development partners and donors, the administrative and academic heads revealed that a high percentage (83.8%) agreed, 11.5% were not sure, and 4.7% disagreed. The high mean = 4.11 implied that the universities were involved in partnerships with the stakeholders such as the development partners and donors. For the five indicators measuring the concept, an average index was worked upon to determine how the

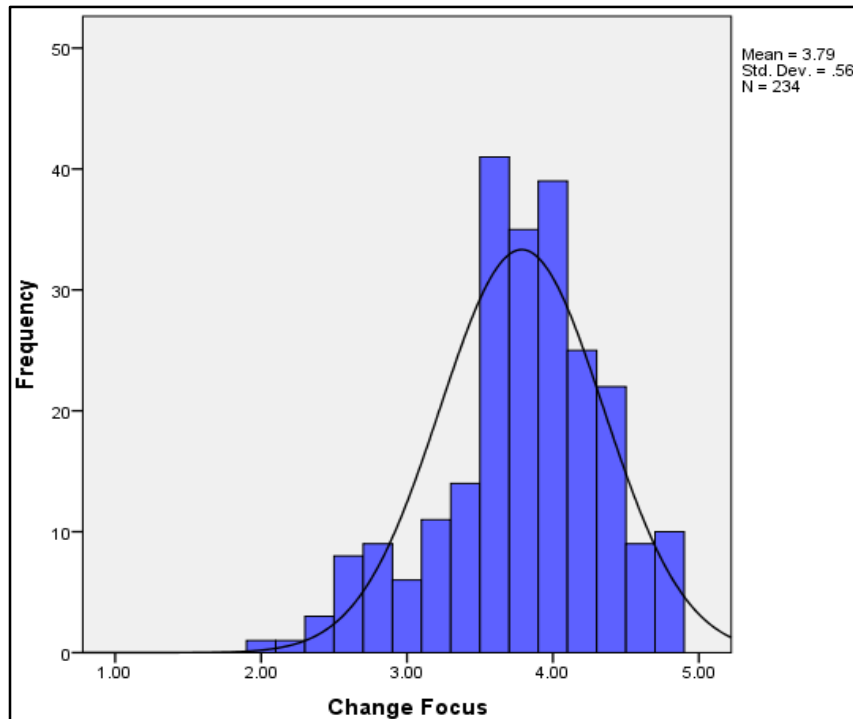
administrative and academic heads rated the universities' change focus effectiveness and table 4.13 showed the results.

Table 4. 15*Summary Table for Change Focus Effectiveness*

| Descriptives | | | Statistic | Std. Error |
|---------------------|------------|-------------|-----------|------------|
| Mean | | | 3.79 | 0.037 |
| 95% | Confidence | Lower Bound | 3.71 | |
| Interval for Mean | | Upper Bound | 3.86 | |
| 5% Trimmed Mean | | | 3.81 | |
| Median | | | 3.80 | |
| Variance | | | 0.31 | |
| Std. Deviation | | | 0.56 | |
| Minimum | | | 2.00 | |
| Maximum | | | 4.80 | |
| Range | | | 2.80 | |
| Interquartile Range | | | 0.60 | |
| Skewness | | | -0.58 | 0.16 |
| Kurtosis | | | 0.29 | 0.32 |

Source: Survey data (2023)

Table 4.15 demonstrated a low overall mean (mean = 3.79) close to the median = 3.80 with a low standard deviation (Std. = 0.56). Then the high mean implied that the administrative and academic heads justified that the public university change focus effectiveness was high and the mean being close to the median and low standard deviation suggested that the results were normally distributed. That normal distribution was diagrammatically displayed in Figure 4.5



Source: Survey data (2023)

Figure 4.5 Histogram for Change Focus Effectiveness

Figure 4.5 revealed a high mean = 3.79 and low standard deviation (Std. = 0.56).

The high mean revealed that the change focus effectiveness was high while the low standard deviation suggested that the results were normally distributed.

Therefore, the results were fit for linear analysis.

4.3.2.2 Customer Focus Effectiveness. The customer focus effectiveness was conceived as the second measure of adaptability effectiveness and was studied using four indicators. The descriptive results were presented in table 4.14.

Table 4. 16 *Descriptive Results for Customer Focus Effectiveness*

| Customer Focus | SD 1 | D 2 | NS 3 | A 4 | SA 5 | Means |
|---|-------------|---------------|---------------|----------------|---------------|-------|
| The university has a forum that enables different stakeholders to discuss their needs with management | 3 (1.3%) | 25 (10.7%) | 54 (23.1%) | 117 (50.0%) | 35 (15.0%) | 3.67 |
| University management tries to introduce courses/ programmes that are helpful to its different stakeholders | 1 (0.4%) | 7 (3.0%) | 18 (7.7%) | 146 (62.4%) | 62 (26.5%) | 4.112 |
| The questions of stakeholders about courses/ programmes introduced are answered | - | 5 (2.1%) | 33 (14.1%) | 134 (57.3%) | 62 (26.5%) | 4.08 |
| Internal stakeholders of the university are handled in a way that shows that they matter | 1 (0.4%) | 9 (3.8%) | 28 (12.0%) | 140 (59.8%) | 56 (23.9%) | 4.03 |

Source: Survey data (2023)

The results in Table 4.16 pertaining to whether the university had a forum that enabled different stakeholders to discuss their needs with management showed that cumulatively, a high percentage (65%) agreed, 23.1% was not sure, 12% did not agree. A high mean = 3.67 somehow established the fact that the university had a forum that enabled the different stakeholders to discuss their needs with the management. Considering whether the university management tried to introduce courses/ programmes that were helpful to its different stakeholders, the administrative and academic heads revealed a high percentage where 88.9% agreed, 3.4% did not agree, while, 7.7% were not sure. The high

mean =4.11 implied that the university management tried to introduce courses/programmes that were helpful to its different stakeholders.

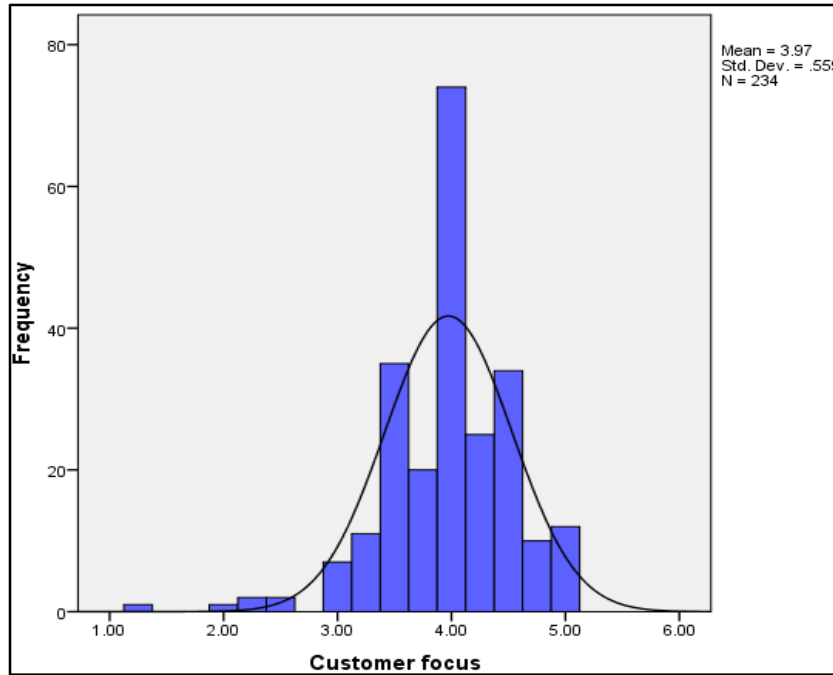
In respect to whether the questions of stakeholders about courses/programmes introduced were answered, a high percentage of administrative and academic heads (83.8%) agreed, 2.1% did not concur and 14.1% were not sure. The high mean = 4.08 meant that the management of the university tried to introduce courses/programmes that were helpful to its different stakeholders. Regarding whether the internal stakeholders of the university were handled in a way that showed that they mattered, the administrative and academic heads indicated a high percentage (83.7%) agreed, 12% were not sure, 4.2% disagreed. The high mean = 4.03 suggested that the internal stakeholders of the university were handled in a way that showed that they mattered. For the four indicators measuring customer focus, an average index was calculated and table 4.15 showed the results.

Table 4. 17*Customer Focus Effectiveness*

| | | Descriptives | Statistic | Std. Error |
|--------|----------------------------------|---------------------|------------------|-----------------------|
| Change | Mean | | 3.79 | 0.04 |
| Focus | 95% Confidence Interval for Mean | Lower Bound | 3.71 | |
| | | Upper Bound | 3.86 | |
| | 5% Trimmed Mean | | 3.81 | |
| | Median | | 3.80 | |
| | Variance | | 0.31 | |
| | Std. Deviation | | 0.56 | |
| | Minimum | | 2.00 | |
| | Maximum | | 4.80 | |
| | Range | | 2.80 | |
| | Interquartile Range | | 0.60 | |
| | Skewness | | -0.58 | 0.16 |
| | Kurtosis | | 0.29 | 0.32 |

Source: Survey data (2023)

Table 4.17 demonstrated a low overall mean (mean = 3.97) close to the median = 4.00 with low standard deviation (Std. = 0.56). The high mean implied that the administrative and academic heads justified that the public university change focus effectiveness was high and the mean being close to the median and low standard deviation suggested that the results were normally distributed. The normal distribution was diagrammatically displayed in Figure 4.6



Source: Survey data (2023)

Figure 4.6 Histogram for Customer Focus Effectiveness

Figure 4.6 revealed a high mean = 3.97 and low standard deviation (Std. = 0.56).

The high mean revealed that the change focus effectiveness was high while the low standard deviation suggested that the results were normally distributed.

Therefore, the results were fit for linear analysis

4.3.2.3 Organisational Learning Effectiveness. The organisational learning effectiveness was conceived as the third measure of adaptability effectiveness and was studied using five indicators. The descriptive results were presented in table 4.16

Table 4. 18*Descriptive Results for Organisational Learning Effectiveness*

| Organisational Learning | SD | D | NS | A | SA | Means |
|--|-------------|---------------|---------------|----------------|---------------|-------|
| | 1 | 2 | 3 | 4 | 5 | |
| In this university, people are provided opportunities for learning | - | 2 (0.9%) | 13 (5.6%) | 138 (59.0%) | 81 (34.6%) | 4.27 |
| In this university, people are rewarded for learning | 2 (0.9%) | 25 (10.7%) | 48 (20.5%) | 113 (48.3%) | 46 (19.7%) | 3.75 |
| Management of this university recognise staff that take initiatives | 1 (0.4%) | 19 (8.1%) | 42 (17.9%) | 120 (51.3%) | 52 (22.2%) | 3.87 |
| This university works together with the outside community to meet mutual needs | - | 5 (2.1%) | 45 (19.2%) | 121 (51.7%) | 63 (26.9%) | 4.03 |
| Leaders in this university mentor and coach those they lead | 3 (1.3%) | 24 (10.3%) | 41 (17.5%) | 120 (51.3%) | 46 (19.7%) | 3.78 |

Source: Survey data (2023)

The results in Table 4.18 on whether in these universities people were provided with opportunities for learning showed that a very high percentage (93.6%) agreed with 0.9% disagreeing while 5.6% were not sure. That very high mean = 4.27 close to code four for those who agreed suggested that in those universities, people were greatly provided with opportunities for learning. Concerning whether in those universities people were rewarded for learning, showed that a high percentage (68%) agreed with 11.6% disagreeing while

19.7% were not sure. The high mean = 3.75 close to code four for those who agreed suggested that in those universities, people were rewarded for learning. With respect to whether the management of those universities recognised the staff that took initiatives, the administrative and academic heads indicated that a high per cent (73.5%) agreed, with 8.5% disagreeing and 17.9% were not sure. The high mean confirmed the findings that management of these universities recognised the staff that took initiatives.

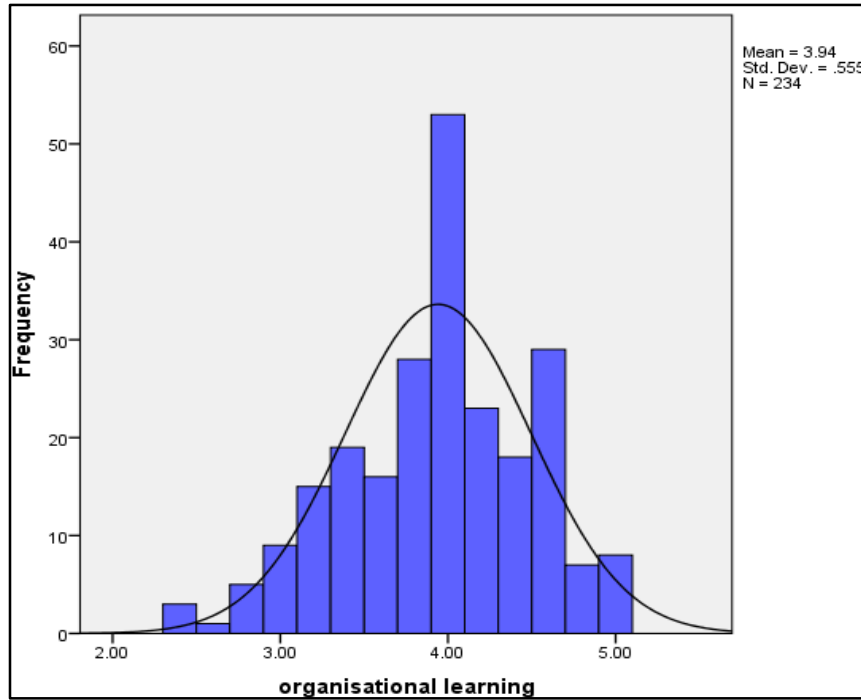
The administrative and academic heads also revealed that the universities worked together with the outside community to meet mutual needs (78.9%) with 2.1% disagreeing and 19.2% were not sure. The high mean=4.3 justified the findings that the universities worked together with the outside community to meet the mutual needs as a way of enhancing the organisational learning effectiveness. The administrative and academic heads further indicated that the leaders in their universities mentored and coached those they led (71%) with 11.6 disagreeing and 17.5 were not sure. The high mean=3.78 affirmed the findings that leaders in their universities mentored and coached those they led. To indicate how overall the administrative and academic staff rated their universities' organisational learning effectiveness, an average index was calculated for the five indicators measuring the construct. The summary table 4.17 presented the results.

Table 4. 19*Summary Table for Organisational Learning Effectiveness*

| | | Descriptives | Statistic | Std. Error |
|----------------------------|--|---|------------------|-----------------------|
| Organisational learning | Mean | | 3.94 | 0.04 |
| | 95% Confidence Interval for Mean | Lower Bound for Upper Bound | 3.87 4.01 | |
| | 5% Trimmed Mean | | 3.95 | |
| | Median | | 4.00 | |
| | Variance | | 0.31 | |
| | Std. Deviation | | 0.56 | |
| | Minimum | | 2.40 | |
| | Maximum | | 5.00 | |
| | Range | | 2.60 | |
| | Interquartile Range | | 0.80 | |
| | Skewness | | -0.35 | 0.16 |
| | Kurtosis | | -0.16 | 0.32 |

Source: Survey data (2023)

Table 4.19 indicated a high overall mean (mean = 3.97) close to the median = 4.00 with low standard deviation (Std. = 0.56). The high mean implied that the administrative and academic heads justified that the public university organisational learning effectiveness was high and the mean being close to the median and low standard deviation suggested that the results were normally distributed. The normal distribution is diagrammatically displayed in figure 4.7



Source: Survey data (2023)

Figure 4.7 Histogram for Organisational Learning Effectiveness

Figure 4.6 revealed a high mean = 3.94 and low standard deviation (Std. = 0.56).

The high mean revealed that the organisational learning effectiveness was high while the low standard deviation suggested that the results were normally distributed. Therefore, the results were fit for linear analysis.

4.3.3 Flexibility Effectiveness. The concept of flexibility effectiveness was studied using three constructs, namely operational flexibility effectiveness, structural flexibility effectiveness and strategic flexibility effectiveness. For each construct, the results followed below.

4.3.3.1 Operational Flexibility Effectiveness. The operational flexibility effectiveness was conceived as the first measure of flexibility effectiveness and was studied using five indicators. The descriptive results were presented in table 4.18.

Table 4. 20*Descriptive Results for Operational Flexibility Effectiveness*

| Operational Flexibility | SD 1 | D 2 | NS 3 | A 4 | SA 5 | Means |
|--|-------------|---------------|---------------|----------------|---------------|-------|
| The operations of the university are efficient at different levels | 3 (1.3%) | 42 (17.9%) | 51 (21.8%) | 110 (47.0%) | 28 (12.0%) | 3.50 |
| The university introduces new courses according to market demands | 1 (0.4%) | 14 (6.0%) | 30 (12.8%) | 128 (54.7%) | 61 (26.1%) | 4.00 |
| The university adapts new systems and programmes quickly | 3 (1.3%) | 29 (12.4%) | 32 (13.7%) | 120 (51.3%) | 50 (21.4%) | 3.79 |
| The period taken to offer services (lead time) by university staff is fast | 7 (3.0%) | 48 (20.5%) | 41 (17.5%) | 93 (39.7%) | 45 (19.2%) | 3.52 |
| University staff provides high level customer satisfaction in providing services | 5 (2.1%) | 35 (15.0%) | 31 (13.2%) | 110 (47.0%) | 53 (22.6%) | 3.73 |

Source: Survey data (2023)

The findings in Table 4.20 regarding whether the operations of the universities were efficient at different levels revealed that cumulatively, a fair percentage (59.0%) agreed, 21.8% were not sure, and 19.2% did not concur. The high mean = 3.50 implied that the operations of the university were efficient at different levels. With respect to whether the universities introduced new courses according to the market demands, the administrative and academic heads indicated that the majority percentage (80.8%) agreed, 1.0% did not agree, while, 12.8% were not sure. The high mean =4.00 implied that the universities introduced new courses according to the market demands as a way of enhancing

operational flexibility effectiveness. In respect to whether the universities adapted new systems and programmes quickly, the administrative and academic heads revealed that, the majority percentage (72.7%) agreed, 13.7% did not concur and 13.7% were not sure. The high mean = 3.79 meant that the universities adapted new systems and programmes quickly.

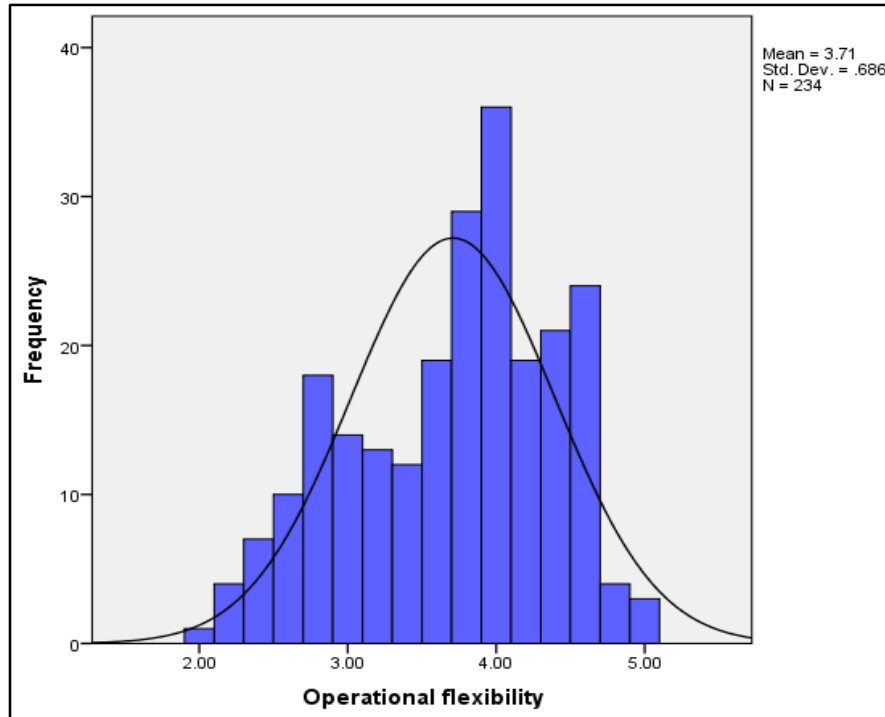
Regarding whether the period taken to offer services (lead time) by the university staff was fast, the administrative and academic heads indicated that, a fair percentage (58.9%) agreed, 17.5% were not sure, 23.5% disagreed. The high mean = 3.52 meant that the period taken to offer services (lead time) by the university staff was fairly fast and the universities needed to improve that in order to enhance operational flexibility effectiveness in the day's changing world. Furthermore, with respect to whether the universities' staff provided high level customer satisfaction in providing services, the administrative and academic heads reported that, majority percentage (69.9%) agreed, 13.2% were not sure, and 17.1% disagreed. The high mean = 3.73 implied that the universities' staff tried their best to provide high level customer satisfaction in providing services, though much was still desired from them. For the five elements measuring the concept, the average index was calculated to determine how the academic staff rated their universities' operational flexibility effectiveness and table 4.19 showed the results.

Table 4. 21*Summary Table for Operational Flexibility Effectiveness*

| | | Descriptives | Statistic | Std. Error |
|-------------|----------------------------------|---------------------|------------------|-------------------|
| Operational | Mean | | 3.71 | 0.05 |
| Flexibility | 95% Confidence Interval for Mean | Lower Bound | 3.62 | |
| | | Upper Bound | 3.80 | |
| | 5% Trimmed Mean | | 3.73 | |
| | Median | | 3.80 | |
| | Variance | | 0.47 | |
| | Std. Deviation | | 0.69 | |
| | Minimum | | 2.00 | |
| | Maximum | | 5.00 | |
| | Range | | 3.00 | |
| | Interquartile Range | | 1.00 | |
| | Skewness | | -0.40 | 0.16 |
| | Kurtosis | | -0.71 | 0.32 |

Source: Survey data (2023)

Table 4.21 indicated a high overall mean (mean = 3.71) close to the median = 3.80 with low standard deviation (Std. = 0.69). The high mean implied that the administrative and academic heads justified that the public university operational flexibility effectiveness was high and the mean being close to the median and low standard deviation suggested that the results were normally distributed. The normal distribution was diagrammatically displayed in figure 4.8



Source: Survey data (2023)

Figure 4.8 Histogram for Operational Flexibility Effectiveness

Figure 4.8 revealed a high mean = 3.71 and low standard deviation (Std. = 0.69).

The high mean revealed that the operational flexibility effectiveness was high while the low standard deviation suggested that the results were normally distributed. Therefore, the results were fit for linear analysis.

4.3.3.2 Structural Flexibility Effectiveness. The structural flexibility effectiveness was conceived as the second measure of flexibility effectiveness and was studied using six indicators. The descriptive results were presented in table 4.20.

Table 4. 22*Descriptive Results for Structural Flexibility Effectiveness*

| Structural Flexibility | SD | D | NS | A | SA | Means |
|--|-------------|---------------|---------------|----------------|---------------|-------|
| The university has a system of rewards and incentives | 2 (0.9%) | 29 (12.4%) | 59 (25.2%) | 94 (40.2%) | 50 (21.4%) | 3.69 |
| Plans of the university tend to be formal | - - | 8 (3.4%) | 29 (12.4%) | 127 (54.3%) | 70 (29.9%) | 4.11 |
| Communication in the university is well documented | 3 (1.3%) | 13 (5.6%) | 32 (13.7%) | 118 (50.4%) | 68 (29.1%) | 4.00- |
| The university has established teams of specialists in its different departments | - - | 7 (3.0%) | 39 (16.7%) | 125 (53.4%) | 63 (26.9%) | 4.04 |
| Decisions from different university organs are clearly communicated | 4 (1.7%) | 14 (6.0%) | 29 (12.4%) | 130 (55.6%) | 57 (24.4%) | 3.95 |
| There is effective decision making at all levels of the university | 2 (0.9%) | 25 (10.7%) | 31 (13.2%) | 123 (52.6%) | 53 (22.6%) | 3.85 |

Source: Survey data (2023)

The findings in Table 4.22 on whether the universities had a system of rewards and incentives indicated that cumulatively, a higher percentage (61.6%) agreed, 25.2% were not sure, and 13.3% did not accept. The high mean = 3.69 corresponded with those who agreed implying that the universities had a system of rewards and incentives. On whether the plans of the university tended to be formal, the findings revealed that, a larger percentage (84.2%) agreed, 12.4% were not sure and 3.4% disagreed. The mean = 4.11 confirmed the findings that the plans of the university tended to be formal hence the universities' effort to

enhance the structural flexibility effectiveness. With respect to whether communication in the university was well documented, the findings indicated that, a larger percentage (79.5%) agreed, 6.9% disagreed, while 13.7% were not sure. The high mean = 4.00 implied that communication in the universities was well documented. On whether the universities had established teams of specialists in its different departments, the findings indicated that the majority percentage (80.3%) agreed 3.0% did not concur and 16.7 % were not certain. The high mean = 4.04 confirmed the findings that the universities had established teams of specialists in their different departments.

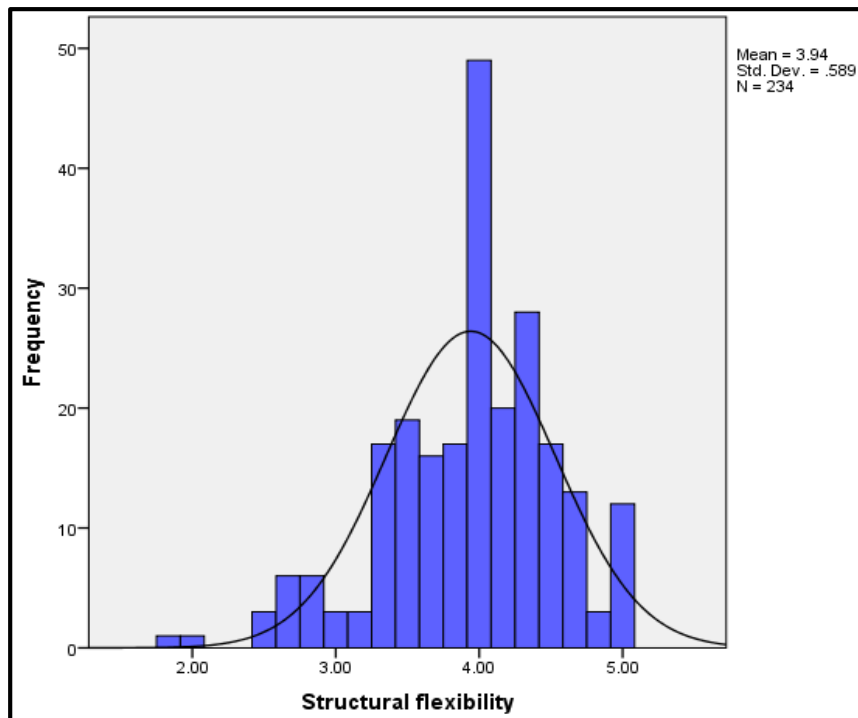
Regarding whether the decisions from different universities' organs were clearly communicated, the findings revealed that, the majority percentage (80%) agreed, 7.7% disagreed and 12.4% were not certain. The mean = 3.95 corresponded with the agreed implied that decisions from different universities' organs were clearly communicated an indication of efforts to enhance structural flexibility effectiveness. On whether there was effective decision making at all levels of the university, the findings indicated that, a larger percentage (75.2%) agreed, 13.2% were not sure, while 11.6% disagreed. The high mean =3.85 implied that there was effective decision making at all levels of the selected public universities. To determine how the administrative and academic heads ranked their universities' structural flexibility effectiveness, the average index was computed for the six indicators that measured the concept and table 4.21 presented the summary of the results.

Table 4. 23*Summary Table for Structural Flexibility Effectiveness*

| Descriptives | | | | Statistic | Std. Error |
|---------------------|----------------------------------|-------------|-------------|------------------|-------------------|
| Structural | Mean | | | 3.94 | 0.04 |
| Flexibility | 95% Confidence Interval for Mean | Lower Bound | Upper Bound | 3.87 | |
| | 5% Trimmed Mean | | | 3.96 | |
| | Median | | | 4.00 | |
| | Variance | | | 0.35 | |
| | Std. Deviation | | | 0.59 | |
| | Minimum | | | 1.83 | |
| | Maximum | | | 5.00 | |
| | Range | | | 3.17 | |
| | Interquartile Range | | | 0.83 | |
| | Skewness | | | -0.63 | 0.16 |
| | Kurtosis | | | 0.66 | 0.32 |

Source: Survey data (2023)

Table 4.23 demonstrated a high overall mean (mean = 3.94) close to the median = 4.00 with a low standard deviation (Std. = 0.59). The high mean implied that the administrative and academic heads rated high their public universities' structural flexibility effectiveness because the mean=3.49 was high. The mean being close to the median and low standard deviation suggested that the results were normally distributed. The normal distribution was diagrammatically displayed in Figure 4.9



Source: Survey data (2023)

Figure 4.9 Histogram for Structural Flexibility Effectiveness

Figure 4.9 revealed a high mean = 3.94 and low standard deviation (Std. = 0.59).

The high mean revealed that the administrative and academic heads rated high the structural flexibility effectiveness. The high mean and the low standard deviation suggested that the results were normally distributed; therefore, the results were fit for linear analysis

4.3.3.3 Strategic Flexibility Effectiveness. The strategic flexibility effectiveness was conceived as the third measure of flexibility effectiveness and was studied using six indicators. The descriptive results were presented in table 4.22.

Table 4. 24 Descriptive Results for Strategic Flexibility effectiveness

| Strategic Flexibility | SD | D | NS | A | SA | Means |
|--|-------------|---------------|---------------|----------------|---------------|-------|
| The university carries out quick strategy reformulation to encounter new situations | 2 (0.9%) | 27 (11.5%) | 82 (35.0%) | 95 (40.6%) | 28 (12.0%) | 3.51 |
| Each year new strategies are made by the university to enhance performance | 2 (0.9%) | 29 (12.4%) | 57 (24.4%) | 101 (43.2%) | 45 (19.2%) | 3.68 |
| The university has put in place strategies to help her achieve its vision and mission | - - | 3 (1.3%) | 39 (16.7%) | 120 (51.3%) | 72 (30.8%) | 4.12 |
| The university develops strategies to enable it to operate in crisis situations | - - | 22 (9.4%) | 51 (21.8%) | 96 (41.0%) | 65 (27.8%) | 3.87 |
| Management is constantly working on creating options for expansion and growth of university | - - | 7 (3.0%) | 36 (15.4%) | 121 (51.7%) | 70 (29.9%) | 4.09 |
| The university management is keen to use advanced technologies to set new standards for work | - - | 11 (4.7%) | 39 (16.7%) | 122 (52.1%) | 62 (26.5%) | 4.00 |

Source: Survey data (2023)

The results in table 4.24 on whether the universities carried out quick strategy reformulation to encounter new situations showed that a relatively fair

percentage (52.6%) agreed with 12.4% disagreeing while 35.0% were not sure. The high mean = 3.51 close to code four for agreed suggested that the universities averagely carried out quick strategy reformulation to encounter new situations much as a fair percentage was not sure of that happening. Furthermore, regarding the question whether each year new strategies were made by the university to enhance performance, the findings indicated that a high percentage (62.4%) agreed with 13.3% disagreeing and 24.4% not sure and a high mean = 3.68 affirmed the finding. Therefore, each year, new strategies were made by the universities to enhance performance despite the 24.4% who were not sure of the progress. The academic staff used different questions to test the students' understanding at different levels. Regarding the question of whether the universities had put in place strategies to help them to achieve their visions and missions, the findings reported a high percent (82.1%) agreed with 1.3% disagreeing and 16.7% not sure. The high mean = 4.12 confirmed the findings that whether universities had put in place strategies to help them to achieve their visions and missions.

Further still, concerning whether the universities developed strategies to enable them to operate in crisis situations, the findings revealed a big percentage (68.8%) agreeing, with 9.4% disagreeing and 21.8% not sure where the high mean = 3.87 affirmed the findings. Further to note, with respect to whether the management was constantly working on creating options for expansion and growth of the universities, the findings reported a high per cent (81.6%) agree, with 3.0% disagreeing and 15.4% not sure and in that case, the high mean = 4.09 ascertained the findings. Then, as regards to whether the universities' management were keen to use advanced technologies to set new standards for

work, the findings revealed a high percentage (78.6%) agreed with 4.7% disagreeing and 16.7 not sure. The high mean = 4.00 confirmed the finding that the universities' management were keen to use advanced technologies to set new standards for work as a way of enhancing strategic flexibility effectiveness. And to indicate how overall the administrative and academic heads rated their universities' strategic flexibility effectiveness, an average index was calculated for the six indicators measuring the construct and. the summary table 4.23 presented the results.

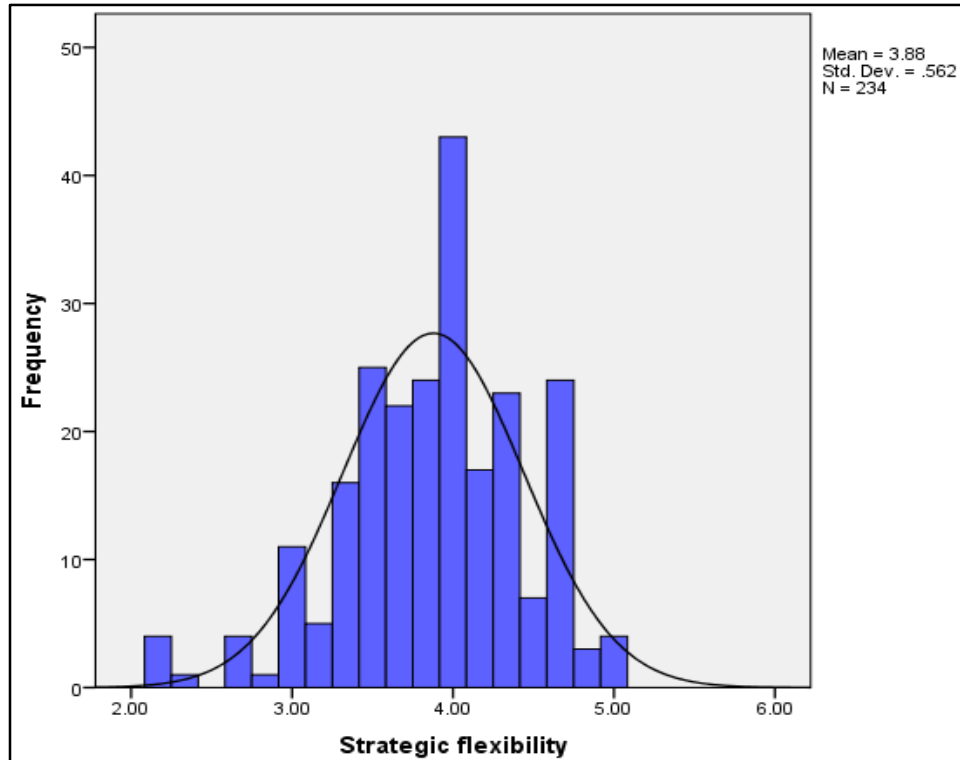
Table 4. 25

Summary Table for Strategic Flexibility Effectiveness

| | | | | Statistic | Std. Error |
|-----------------------|----------------------------------|-------------|--|------------------|-------------------|
| Descriptives | | | | | |
| Strategic Flexibility | Mean | | | 3.88 | 0.04 |
| | 95% Confidence Interval for Mean | Lower Bound | | 3.81 | |
| | | Upper Bound | | 3.95 | |
| | 5% Trimmed Mean | | | 3.90 | |
| | Median | | | 4.00 | |
| | Variance | | | 0.32 | |
| | Std. Deviation | | | 0.56 | |
| | Minimum | | | 2.17 | |
| | Maximum | | | 5.00 | |
| | Range | | | 2.83 | |
| | Interquartile Range | | | 0.83 | |
| | Skewness | | | -0.51 | 0.16 |
| | Kurtosis | | | 0.48 | 0.32 |

Source: Survey data (2023)

Table 4.25 indicated that the administrative and academic heads rated high their public universities' strategic flexibility effectiveness because of the high mean=3.88. The mean being close to the median=4.00 and low standard deviation=0.56 suggested that the results were normally distributed. The normal distribution was diagrammatically displayed in figure 4.10



Source: Survey data (2023)

Figure 4.10 Histogram for Strategic Flexibility Effectiveness

Figure 4.10 revealed a high mean = 3.88 and low standard deviation (Std. = 0.56). The high mean revealed that the strategic flexibility effectiveness was high while the low standard deviation suggested that the results were normally distributed. Therefore, the results were fit for linear analysis.

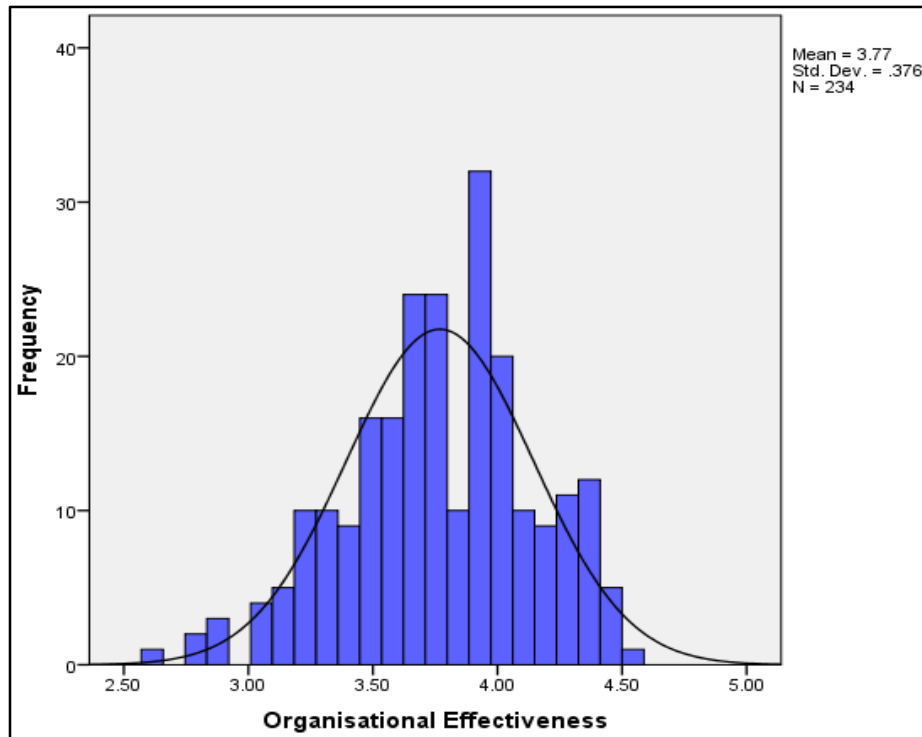
4.3.3.4 Organisational Effectiveness Index. To assess how overall the administrative and academic heads rated their universities’ organisational effectiveness, an average index was determined for three constructs measuring the concept that were instructional effectiveness (IE1-IE7), research effectiveness RE11-RE9), extension services effectiveness (ESE1-ESE5) and financial effectiveness (FE1-FE5). Table 4.24 indicated the summary of results.

Table 4. 26*Summary Results for Organisational Effectiveness*

| | | Descriptives | | Statistic | Std. Error |
|----------------|----------------------------------|--------------|--|-----------|------------|
| Organisational | Mean | | | 3.77 | 0.03 |
| Effectiveness | 95% Confidence Interval for Mean | Lower Bound | | 3.72 | |
| | | Upper Bound | | 3.82 | |
| | 5% Trimmed Mean | | | 3.78 | |
| | Median | | | 3.79 | |
| | Variance | | | 0.14 | |
| | Std. Deviation | | | 0.38 | |
| | Minimum | | | 2.61 | |
| | Maximum | | | 4.54 | |
| | Range | | | 1.93 | |
| | Interquartile Range | | | 0.49 | |
| | Skewness | | | -0.33 | 0.16 |
| | Kurtosis | | | -0.18 | 0.32 |

Source: Survey data (2023)

The findings in table 4.26 indicated that the administrative and academic heads rated high their public universities' organisational effectiveness because of the high mean = 3.77. The mean close to the median = 3.79 and the low standard deviation = 0.38 also indicated a normal distribution of the responses. The normal distribution of the results was also displayed by the normal curve in figure 4.10.



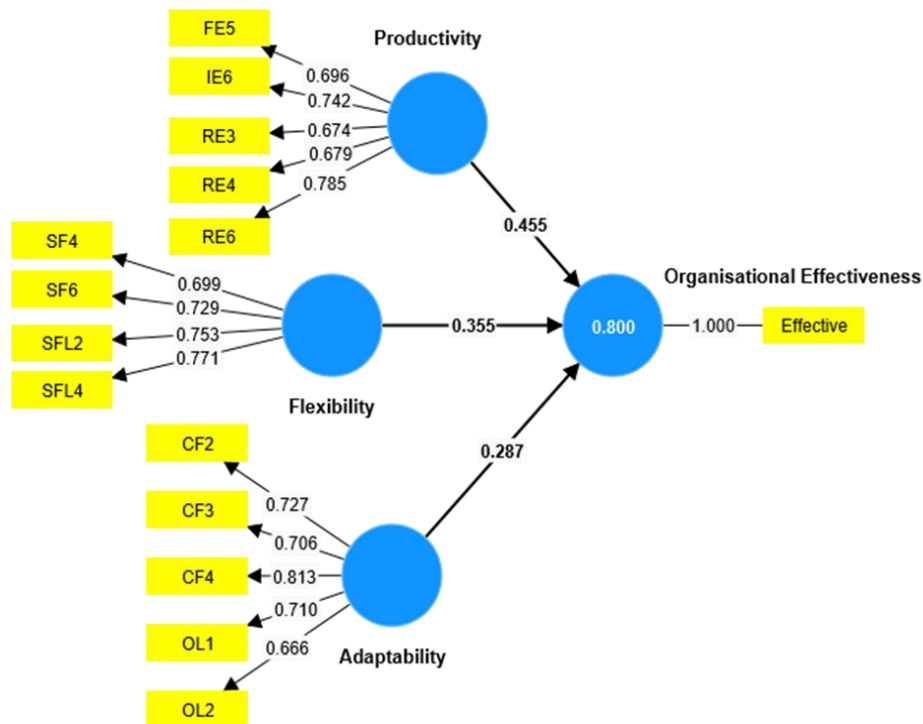
Source: Survey data (2023)

Figure 4.11 Histogram for Organisational Effectiveness

Figure 4.11 showed that the administrative and academic heads perceived their public universities’ organisational effectiveness to be high (mean = 3.77). The mean being close to the median=3.79 and the low standard deviation = 0.38 implied that the results were normally distributed. Hence, results on organisational effectiveness were fit for analysis.

4.3.3.5 The Structural Equation Model for Organisational Effectiveness.

To ascertain the measures of organisational effectiveness, a structural model (Figure 4.12) was developed. That model showed the indicators of the different constructs measuring the variable.



Source: Survey data (2023)

Figure 4 12: Structural Equation Model for Organisational Effectiveness

The structural model Figure 4.12 showed that the organisational effectiveness a dependent variable was studied in terms of productivity, adaptability and flexibility. Productivity covered instructional effectiveness (IE) was measured using seven indicators (IE1-1E7); the research effectiveness (RE) was measured using nine indicators (RE1-RE9); the financial effectiveness (FE) was measured using five indicators (FE1-FE5); while the extension services effectiveness (ESE) was measured using five indicators (ESE1-ESE5). So, the structural model showed that for instructional effectiveness instructional services, only one indicator (IE6) was retained; for research effectiveness three indicators (RE3, RE4 and RE6) were retained; and for financial effectiveness, only one indicator (FE5) was retained. However, for the extension services, all the indicators were dropped and thus, they were not a measure of the organisational effectiveness of universities.

Regarding the construct of adaptability, it was measured in terms of change focus (CG) using five indicators (CG1-CG5); customer focus (CF) using four indicators (CF1-CF4); and, organisational learning (OL) using five indicators (OL1-OL5). The structural model further showed that for the change focus all the indicators were dropped; for customer focus three indicators (CF2, CF3 and F4) were retained; and, for organisational learning two indicators (OL1 and OL2) were retained. The with respect to flexibility, for the construct of operational flexibility, all the indicators were dropped; for structural flexibility only two indicators (SF4 and SF6) were retained; and for strategic flexibility only two indicators (SFL2 and SFL4) were retained. All the indicators retained were loaded above 0.50 which was the minimum value when using Factors Analysis (Hair Jr, et al., 2021). Therefore, the retained indicators according to the data collected were appropriately measured for the different constructs measuring the organisational effectiveness. In that case, the constructs dropped namely extension services effectiveness and change focus were not aspects of organisational effectiveness of the universities. Meanwhile, the indicators dropped could be established by comparing the model (Figure 4.11) with the study instrument (Appendix A).

4.4 Leadership Style and Organisational Effectiveness

Leadership styles of the public universities' managers were studied under two concepts of transformational leadership style comprising of idealised influence-attributed, idealised influence-behaviour, inspirational motivation, intellectual stimulation and individual consideration; and, transactional leadership style comprising of contingent reward, active management-by exception and passive-avoidant leadership.

4.4.1 Transformational Leadership Styles. The concept of transformational leadership style was studied using five dimensions namely the idealised influence-attributed, the idealised influence-behaviour, the inspirational motivation, the intellectual stimulation and the individual consideration.

4.4.1.1 The Idealised Influence-Attributed. The idealised influence-attributed was conceived as the first measure of the transformational leadership style and was studied using four indicators. The descriptive results were presented in table 4.25.

Table 4. 27

Descriptive Results for Idealised Influence- Attributed

| Idealised influence-attributed | SD | D | NS | A | SA | Means |
|---|----|--------------|---------------|----------------|---------------|-------|
| I am proud of my superiors in this university | - | 6 (2.6%) | 20 (8.5%) | 128 (54.7%) | 80 (34.2%) | 4.21 |
| My superiors in this university go beyond self interest | - | 11 (4.7%) | 26 (11.1%) | 139 (59.4%) | 58 (24.8%) | 4.04 |
| My superiors have earned my respect | 1 | 5 (0.4%) | 16 (2.1%) | 136 (58.1%) | 76 (32.5%) | 4.20 |
| My superiors portray authority and confidence | - | 5 (2.1%) | 18 (7.7%) | 133 (56.8%) | 78 (33.3%) | 4.21 |

Source: Survey data (2023)

The findings in Table 4.27 regarding 'I am proud of my superiors in this university' indicated that cumulatively, a larger proportion (88.9%) of the study participants concurred, 8.5% were not sure, 2.6% did not agreed. The high mean = 4.21 confirmed that the university administrative and academic heads were proud of their superiors in their respective universities which was motivating and inspirational to the staff members. With respect to whether the superiors in those universities went beyond self-interest, the findings revealed that, a larger percentage (84.2%) agreed, 11.1% were not sure, while 4.7% disagreed. The mean = 4.04 close to code 4 on the scale used corresponded with the agreed and implied that the superiors in these universities went beyond self-interest. Then regarding whether the superiors asked the academic staff to adhere to the standard rules and regulations showed that, a biggest proportion (85.3%) accepted, 9.0% were not sure and 5.8% did not concur. The high mean = 4.04 meant that the respondents concurred that the superiors asked them to adhere to the standard rules and regulations.

Regarding whether the superiors had earned respect, the findings reported that the majority percentage (90.6%) agreed, 2.5% disagreed and 6.8% were not sure. The mean = 4.20 concurred with the agreed which meant that the university superiors had earned their subordinates' respect which was healthy for the organisational effectiveness. On whether the universities' superiors portrayed authority and confidence, the findings revealed that, a higher proportion (90.1%) accepted, 7.7% were not sure, while 2.1% did not agree. The high mean = 4.21 affirmed the findings that the universities superiors portrayed authority and confidence. Then to establish how the administrative and academic heads rated their universities' managers idealised influence-

attributed leadership styles, for the four items that evaluated the concept, the average index was presented and table 4.26 displayed the final results in summary.

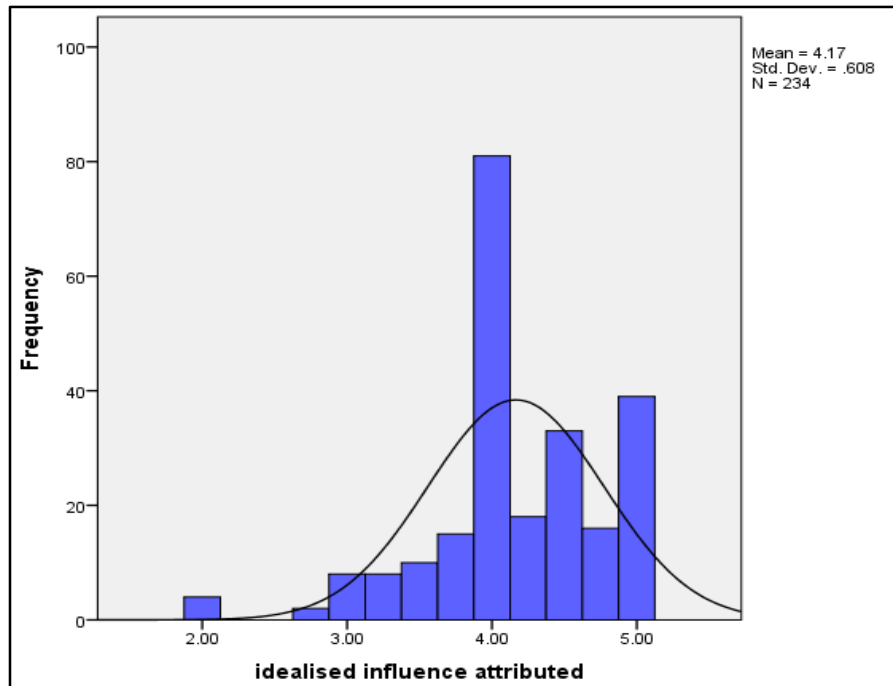
Table 4. 28

Summary Table for Idealised Influence-Attributed Leadership

| | | Statistic | Std. Error |
|---------------------|-------------------------------|------------------|-------------------|
| Descriptives | | | |
| Idealised | Mean | 4.17 | 0.04 |
| influence | 95% Confidence Lower Bound | 4.09 | |
| attributed | Interval for Mean Upper Bound | 4.24 | |
| | 5% Trimmed Mean | 4.21 | |
| | Median | 4.00- | |
| | Variance | 0.37 | |
| | Std. Deviation | 0.61 | |
| | Minimum | 2.00 | |
| | Maximum | 5.00 | |
| | Range | 3.00 | |
| | Interquartile Range | 0.50 | |
| | Skewness | -0.82 | 0.16 |
| | Kurtosis | 1.49 | 0.32 |

Source: Survey data (2023)

The findings in Table 4.28 indicated that the administrative and academic heads rated high their public universities' idealised influence-attributed with mean = 4.17 close to the median = 4.00 and a negative skew = -0.82. The low standard deviation = 0.61 also indicated a normal distribution of the responses. The normal distribution of the results was also displayed by the normal curve in figure 4.13.



Source: Survey data (2023)

Figure 4.13 Histogram for Idealised Influence-Attributed Leadership

Figure 4.13 showed that the administrative and academic heads perceived their public universities' idealised influence-attributed leadership to be high (mean = 4.17). The standard deviation = 0.61 implied that the results were normally distributed. Hence, the results were fit for analysis.

4.4.1.2 Idealised Influence-Behaviour. The concept of idealised influence - behaviour was conceived as the second measure of transformational leadership style and was studied using four indicators where. The descriptive results were presented in table 4.27.

Table 4. 29*Idealised Influence- Behaviour*

| Idealised behaviour | influence- superiors | D 2 | NS 3 | A 4 | SA 5 | Means |
|--|-------------------------|-------------|---------------|----------------|---------------|-------|
| My emphasise values | | 1 (0.4%) | 13 (5.6%) | 149 (63.7%) | 71 (30.3%) | 4.24 |
| My superiors give me a sense of purpose | | 5 (2.1%) | 15 (6.4%) | 138 (59.0%) | 76 (32.5%) | 4.22 |
| My superiors exhibit morals and ethics | | 2 (0.9%) | 12 (5.1%) | 134 (57.3%) | 86 (36.8%) | 4.30 |
| My emphasise collective mission | superiors the | 1 (0.4%) | 24 (10.3%) | 129 (55.1%) | 80 (34.2%) | 4.23 |

Source: Survey data (2023)

The results in table 4.29 regarding whether the superiors emphasised values revealed that cumulatively, a large percentage (94.0%) agreed, 5.6% were not sure and 0.4% disagreed. The high mean = 4.24 implied that the respondents consented that their superiors emphasized values. In respect to whether the superiors gave a sense of purpose, the findings revealed that a larger percentage (91.5%) agreed, 6.4% were not sure and 2.1% disagreed. The high mean = 4.22 implied that the administrative and academic heads agreed that their superiors gave a sense of purpose. Then, with respect to whether the superiors exhibited morals and ethics, the findings revealed that a larger percentage (94.1%) agreed, 5.1% were not sure, while 0.9% did not agree. The mean = 4.30 meant that the study participants accepted that their superiors gave a sense of purpose.

Regarding whether the superiors emphasised the collective mission, the findings indicated that a larger percentage (89.3%) agreed, 0.4% disagreed and 10.3% were not sure. The high mean = 4.23 implied that the administrative and academic heads accepted that their superiors emphasised the collective mission.

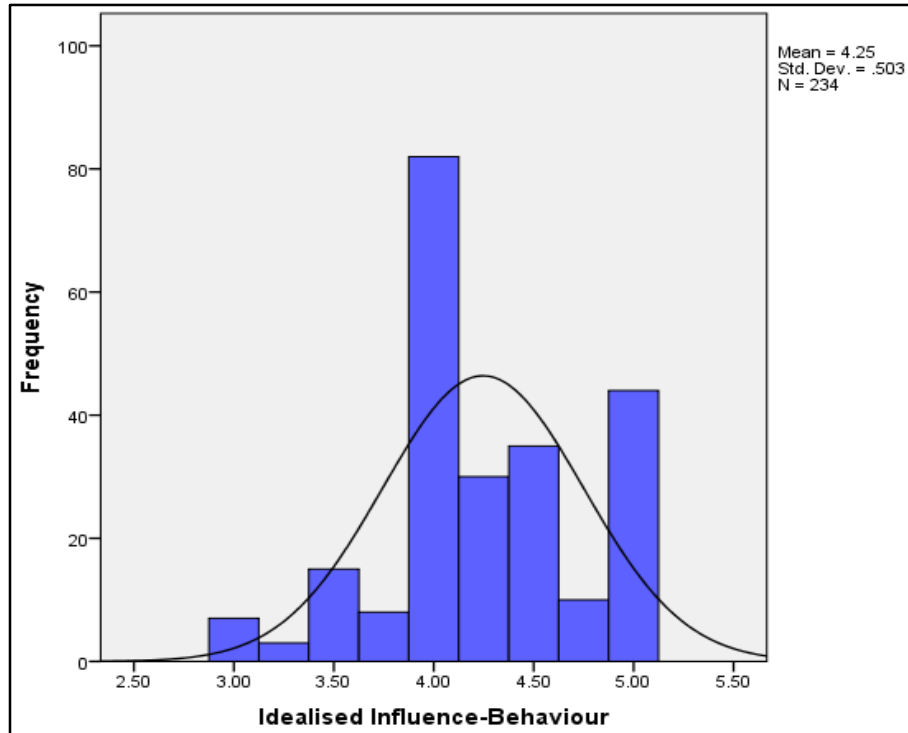
And to establish how the administrative and academic heads rated their universities' managers idealised influence-behaviour leadership styles, for the four items that evaluated the concept, the average index was presented. Table 4.28 displayed the final results in summary.

Table 4. 30 *Summary Tables for Idealised Influence-Behaviour*

| Descriptives | | | Statistic | Std. Error |
|--------------|----------------------------------|-------------|-----------|------------|
| Idealised | Mean | | 4.25 | 0.03 |
| Influence | 95% Confidence Interval for Mean | Lower Bound | 4.18 | |
| Behaviour | | Upper Bound | 4.31 | |
| | 5% Trimmed Mean | | 4.27 | |
| | Median | | 4.25 | |
| | Variance | | 0.25 | |
| | Std. Deviation | | 0.50 | |
| | Minimum | | 3.00 | |
| | Maximum | | 5.00 | |
| | Range | | 2.00 | |
| | Interquartile Range | | 0.50 | |
| | Skewness | | -0.15 | 0.16 |
| | Kurtosis | | -0.27 | 0.32 |

Source: Survey data (2023)

The findings in table 4.30 indicated that the administrative and academic heads rated high their public universities' idealised influence-behaviour with mean = 4.28 close to the median = 4.25 and a negative skew = -0.15. The low standard deviation = 0.50 also indicated a normal distribution of the responses which was also displayed by the normal curve in figure 4.14.



Source: Survey data (2023)

Figure 4.14 Histogram for Idealised Influence-Behaviour

Figure 4.14 showed that the administrative and academic heads perceived their public universities' idealised influence-behaviour leadership to be high (mean = 4.25). In that case, the standard deviation = 0.50 implied that the results were normally distributed and hence, they were fit for analysis.

4.4.1.3 Inspirational Motivation. The concept of inspirational motivation was conceived as the third measure of transformational leadership style and was studied using four indicators. The descriptive results were presented in table 4.29.

Table 4. 31*Inspirational Motivation*

| Inspirational motivation | SD | D | NS | A | SA | Means |
|--|-------------|-------------|---------------|----------------|---------------|--------------|
| My superiors talk optimistically on a range of issues pertaining to staff and the university | 1 (0.4%) | 2 (0.9%) | 30 (12.8%) | 143 (61.1%) | 58 (24.8%) | 4.09 |
| My superiors talk enthusiastically about university activities | 1 (0.4%) | 5 (2.1%) | 24 (10.3%) | 132 (56.4%) | 72 (30.8%) | 4.15 |
| My superiors have a clear vision for the university | 1 (0.4%) | 6 (2.6%) | 21 (9.0%) | 123 (52.6%) | 83 (35.5%) | 4.20 |
| My superior's express confidence in handling university affairs | 1 (0.4%) | 1 (0.4%) | 25 (10.7%) | 134 (57.3%) | 73 (31.2%) | 4.18 |

Source: Survey data (2023)

The results in table 4.31 concerning whether the superiors talked optimistically about a range of issues pertaining to the staff and the university reported that cumulatively, a large percentage (85.9%) agreed, 12.8% were not sure and 1.3% disagreed. The high mean = 4.09 implied that the respondents concurred that their superiors talked optimistically on a range of issues pertaining to staff and the university. Then in respect to whether the superiors talked enthusiastically about the university activities, the findings indicated that a larger percentage (87.2%) agreed, 10.3% were not sure and 2.1% disagreed. The high mean = 4.15 implied that the administrative and academic heads accepted that their superiors talked enthusiastically about the university activities.

With respect to whether the superiors had a clear vision for the university, the findings reported that, a larger percentage (88.1%) agreed, 9.0%

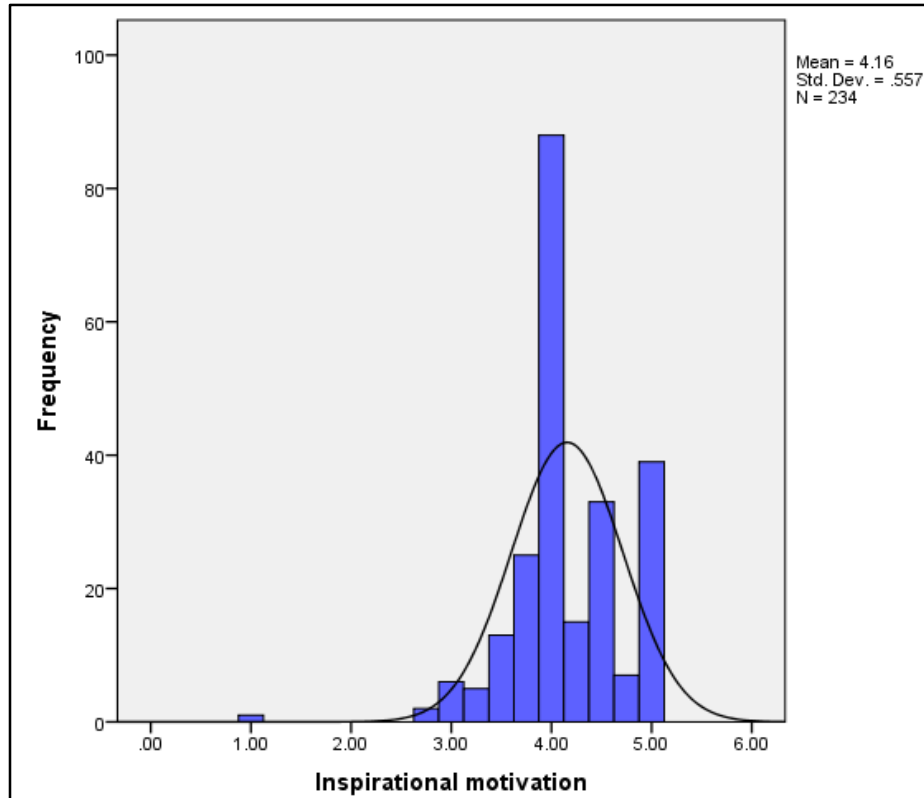
were not sure, while 3.0 % did not agree. The high mean = 4.20 meant that the administrative and academic heads concurred that their superiors had a clear vision for the universities. Then, regarding whether the superiors expressed confidence in handling the university affairs, the findings indicated that a larger percentage (88.5%) agreed, 0.8% disagreed and 10.7% were not sure. The high mean = 4.18 implied that the administrative and academic heads affirmed that their superiors expressed confidence in handling the university affairs. And to establish how the administrative and academic heads rated their universities' managers' inspirational motivation leadership styles, for the four items that evaluated the concept, the average index was presented in table 4.30 with the final results in summary.

Table 4. 32*Summary Tables for Inspirational Motivation Leadership*

| | | Descriptives | Statistic | Std. Error |
|---------------|----------------------------------|---------------------|------------------|-------------------|
| Inspirational | Mean | | 4.16 | 0.04 |
| Motivation | 95% Confidence Interval for Mean | Lower Bound | 4.01 | |
| | | Upper Bound | 4.23 | |
| | 5% Trimmed Mean | | 4.18 | |
| | Median | | 4.00 | |
| | Variance | | 0.31 | |
| | Std. Deviation | | 0.56 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 0.50 | |
| | Skewness | | -0.074 | 0.16 |
| | Kurtosis | | 3.63 | 0.32 |

Source: Survey data (2023)

The findings in table 4.32 demonstrated that the administrative and academic heads rated high their public universities' inspirational motivation with a mean = 4.16 close to the median = 4.00 and a negative skew = -0.74. The low standard deviation = 0.50 also indicated a normal distribution of the responses. The normal distribution of the results was also displayed by the normal curve in figure 4.15.



Source: Survey data (2023)

Figure 4.15 Histogram for Inspirational Motivation Leadership

Figure 4.15 showed that the administrative and academic heads perceived their public universities' inspirational motivation leadership to be high (mean = 4.16). The standard deviation = 0.56 implied that the results were normally distributed and therefore they were fit for analysis.

4.4.1.4 Intellectual stimulation. The concept of intellectual stimulation was conceived as the fourth measure of transformational leadership style and was studied using four indicators. The descriptive results were presented in table 4.31

Table 4. 33*Descriptives Results for Intellectual stimulation*

| Intellectual stimulation | SD | D | NS | A | SA | Means |
|--|-------------|--------------|---------------|----------------|---------------|-------|
| | 1 | 2 | 3 | 4 | 5 | |
| My superiors seek different views from staff | 2 (0.9%) | 16 (6.8%) | 50 (21.4%) | 111 (47.4%) | 55 (23.5%) | 3.86 |
| My superiors re-examine assumptions before taking action | - - | 22 (9.4%) | 50 (21.4%) | 124 (53.0%) | 38 (16.2%) | 3.76 |
| My superiors suggest new ways of doing things in this university | - - | 8 (3.4%) | 28 (12.0%) | 155 (66.2%) | 43 (18.4%) | 4.00 |
| My superiors suggest different angles of accomplishing university activities | 1 (0.4%) | 11 (4.7%) | 27 (11.5%) | 141 (60.3%) | 54 (23.1%) | 4.01 |

Source: Survey data (2023)

The results in table 4.33 pertaining to whether the superiors sought different views from the staff indicated that cumulatively, a large percentage (70.9%) agreed, 21.4% were not sure and 8.7% disagreed. The high mean = 3.86 justified the fact that the respondents accepted that their superiors sought different views from them. With respect to whether the superiors re-examined the assumptions before taking action, the findings revealed that a larger percentage (69.2%) agreed, 21.4% were not sure and 9.4% disagreed. The high mean = 3.76 implied that the administrative and academic heads suggested that their superiors re-examined the assumptions before taking action.

With regard to whether the superiors suggested new ways of doing things in those universities, the findings established that, a larger percentage (84.6%) agreed, 12.0% were not sure, while 3.4% did not agree. The high mean = 4.00 implied that the administrative and academic heads concurred that their

superiors suggested new ways of doing things in those universities. Then, regarding whether the superiors suggested different angles of accomplishing the university activities, the findings indicated that a larger percentage (83.4%) agreed, 5.1% disagreed and 11.5% were not sure. The high mean = 4.01 confirmed the findings that the superiors suggested different angles of accomplishing the university activities. And to establish how the administrative and academic heads rated their managers' intellectual stimulation leadership styles, for the four items that evaluated the concept, the average index was presented in table 4.32 with the final results in summary.

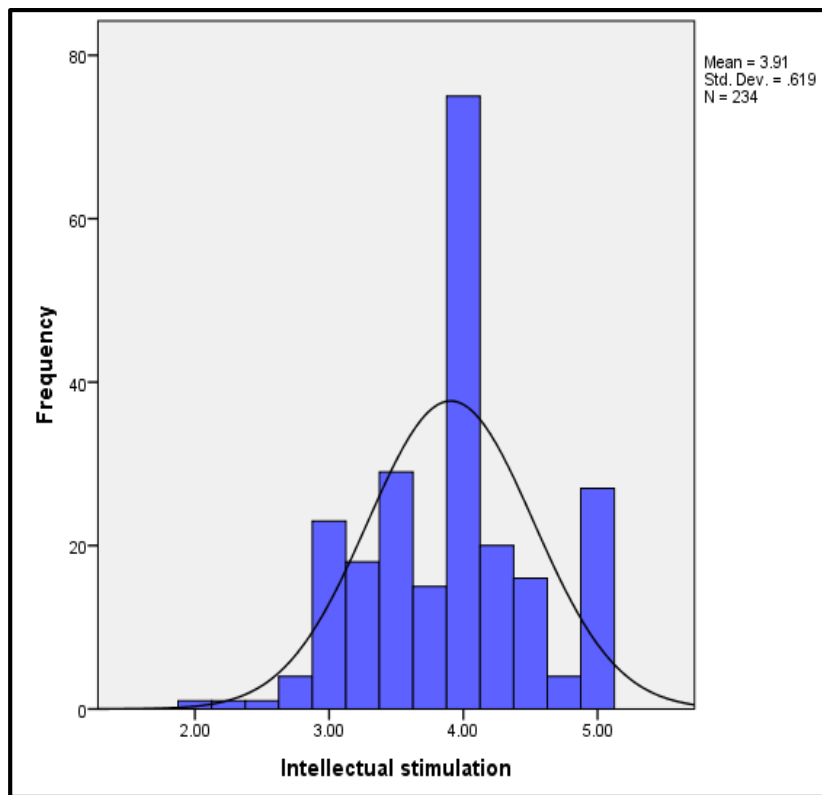
Table 4. 34 *Summary Table for intellectual Stimulation*

| | | Descriptives | Statistic | Std. Error |
|--------------|----------------------------------|----------------------------|------------------|-------------------|
| Intellectual | Mean | | 3.91 | 0.04 |
| stimulation | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 3.83 3.99 | |
| | 5% Trimmed Mean | | 3.91 | |
| | Median | | 4.00 | |
| | Variance | | 0.38 | |
| | Std. Deviation | | 0.62 | |
| | Minimum | | 2.00 | |
| | Maximum | | 5.00 | |
| | Range | | 3.00 | |
| | Interquartile Range | | 0.75 | |
| | Skewness | | -0.05 | 0.16 |
| | Kurtosis | | -0.21 | 0.32 |

Source: Survey data (2023)

The findings in table 4.34 showed that the administrative and academic heads rated high their public universities' intellectual stimulation with a mean = 3.91 close to the median = 4.00 and a negative skew = -0.05. The low standard

deviation = 0.62 also indicated a normal distribution of the responses which was also displayed by the normal curve in figure 4.16.



Source: Survey data (2023)

Figure 4 16 Histogram for Intellectual Stimulation

Figure 4.16 showed that the administrative and academic heads perceived their superiors' intellectual stimulation leadership to be high (mean = 3.91). The mean being close to the median=4.00 and the standard deviation = 0.62 implied that the results were normally distributed and hence, they were fit for analysis.

4.4.1.5 The Individualised Consideration. The concept of individualised consideration was conceived as the fifth measure of the transformational leadership style and was studied using four indicators. The descriptive results were presented in table 4.33.

Table 4. 35*Descriptive Results for Individualised Consideration*

| Individualised consideration | SD | D | NS | A | SA | Means |
|---|-------------|---------------|---------------|----------------|---------------|-------|
| My superiors teach and coach subordinates | 2 (0.9%) | 19 (8.1%) | 53 (22.6%) | 107 (45.7%) | 53 (22.6%) | 3.81 |
| My superiors give attention to staff | - | 8 (3.4%) | 21 (9.0%) | 148 (63.2%) | 57 (24.4%) | 4.09 |
| My superiors handle staff equally | - | 32 (13.7%) | 48 (20.5%) | 123 (52.6%) | 31 (13.2%) | 3.65 |
| My superiors help staff develop their strengths | - | 10 (4.3%) | 23 (9.8%) | 147 (62.8%) | 54 (23.1%) | 4.05 |

Source: Survey data (2023)

The results in Table 4.35 concerned whether the superiors taught and coached the subordinates indicated that cumulatively, a large percentage (68.3%) agreed, 22.6% were not sure and 9% disagreed. The high mean = 3.81 affirmed the fact that the respondents concurred with the fact that their superiors taught and coached the subordinates. With regard to whether the superiors gave attention to the staff, the findings reported that a large percentage (87.6%) agreed, 9% were not sure and 3.4% disagreed. In that case, the high mean = 4.09 implied that the administrative and academic heads confirmed that their superiors gave attention to the staff. With regard to whether the superiors handled the staff equally in those public universities, the findings established that, a high percentage (65.8%) agreed, 20.5% were not sure, while 13.7% did not concur.

The high mean =3.65 implied that the administrative and academic heads justified that their superiors handled the staff equally in the public universities.

Regarding whether the superiors helped the staff to develop their strengths, the findings established that a higher percentage (85.9%) agreed, 4.3% disagreed and 9.8% were not sure. The high mean = 4.05 confirmed the findings that the superiors helped the staff to develop their strengths. Then, to establish how the administrative and academic heads rated their managers' individual consideration leadership styles, for the four items that evaluated the concept, the average index was calculated and table 4.34 presented the final results in summary.

Table 4. 36

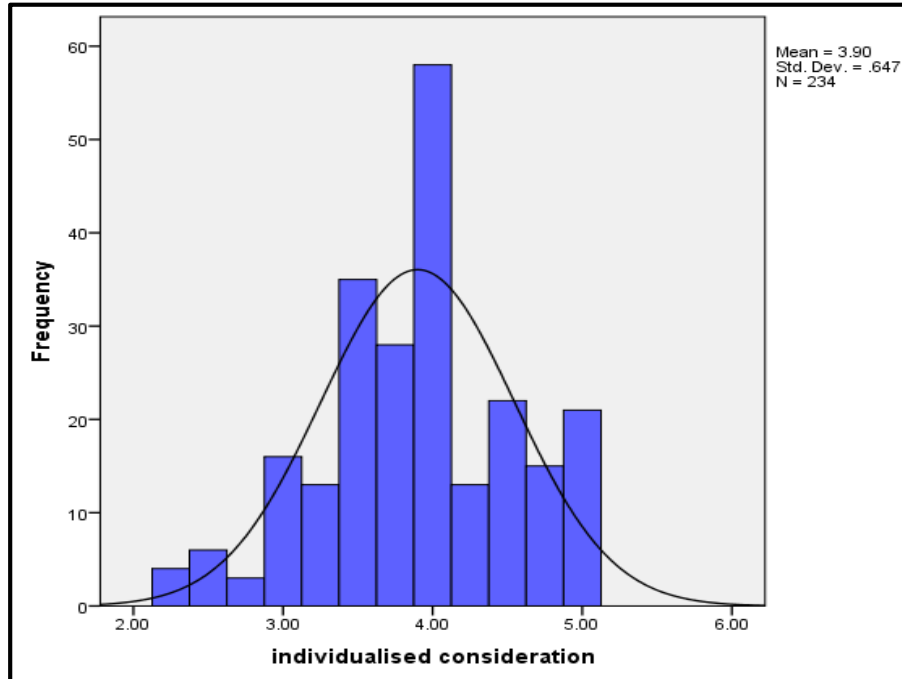
Summary Table for Individual Consideration

| | | Descriptives | Statistic | Std. Error |
|---------------------------------|----------------------------------|---------------------|------------------|-------------------|
| Individualised Consideration | Mean | | 3.90 | 0.04 |
| | 95% Confidence Interval for Mean | Lower Bound | 3.82 | |
| | | Upper Bound | 3.98 | |
| | 5% Trimmed Mean | | 3.92 | |
| | Median | | 4.00 | |
| | Variance | | 0.42 | |
| | Std. Deviation | | 0.63 | |
| | Minimum | | 2.25 | |
| | Maximum | | 5.00 | |
| | Range | | 2.75 | |
| | Interquartile Range | | 0.81 | |
| | Skewness | | -0.22 | 0.16 |
| | Kurtosis | | -0.20 | 0.32 |

Source: Survey data (2023)

The findings in table 4.36 illustrated that the administrative and academic heads rated high their public universities' individualised consideration with a mean = 3.90 close to the median = 4.00 and a negative skew = -0.22. The low standard

deviation = 0.63 also indicated a normal distribution of the responses which was also displayed by the normal curve in figure 4.17.



Source: Survey data (2023)

Figure 4 17: Histogram for Individual Consideration

Figure 4.17 revealed that the administrative and academic heads perceived their managers' individualised consideration leadership to be high (mean = 3.90). Here, the standard deviation = 0.65 implied that the results were normally distributed and so, they were fit for analysis.

4.4.2 The Transactional Leadership Styles. The concept of transactional leadership style was studied using three dimensions of contingent reward, active management-by-exception and passive-avoidant leadership.

4.4.2.1 Contingent Reward Leadership Style. The concept of contingent reward was conceived as the first measure of the transactional leadership style and was studied using four indicators. The descriptive results were presented in table 4.35.

Table 4. 37*Descriptive Results for Contingent Reward*

| Contingent reward | SD | D | NS | A | SA | Means |
|---|-------------|---------------|---------------|----------------|---------------|-------|
| My superiors in this university clarify rewards | - | 23 (9.8%) | 82 (35.0%) | 104 (44.4%) | 25 (10.7%) | 3.56 |
| My superiors assist staff based on effort | - | 27 (11.5%) | 34 (14.5%) | 133 (56.8%) | 40 (17.1%) | 3.79 |
| My superiors in this university reward achievement | 1 (0.4%) | 32 (13.7%) | 48 (20.5%) | 117 (50.0%) | 36 (15.4%) | 3.66 |
| My superiors in this university recognise achievement | 2 (0.9%) | 13 (5.6%) | 16 (6.8%) | 145 (62.0%) | 58 (24.8%) | 4.04 |

Source: Survey data (2023)

The results in table 4.35 pertaining to whether the superiors in the universities clarified rewards established that cumulatively, the larger percentage (55.1%) agreed, 35.0% were not sure and 9.8% disagreed. The high mean = 3.56 affirmed the fact that the respondents concurred with the fact that their superiors in those universities clarified rewards. With respect to whether the superiors assisted the staff based on effort, the findings reported that a large percentage (73.9%) agreed, 14.5% were not sure and 11.5% disagreed. The high mean = 3.79 implied that the administrative and academic heads contended that their superiors assisted the staff based on effort. With regard to whether the superiors in those universities rewarded achievement, the findings indicated that a high percentage (65.4%) agreed, 20.5% were not sure, while 14.1% did not agree. The high mean =3.66 implied that the administrative and academic heads concurred that their superiors rewarded achievement.

With respect to whether the superiors in the universities recognised achievement, the findings suggested that, a higher percentage (86.8%) agreed, 6.5% disagreed and 6.8% were not sure. The high mean=4.04 confirmed the findings that the superiors in the universities recognised achievement. To establish how the administrative and academic heads rated their managers' contingent reward leadership styles, for the four items that evaluated the concept, the average index was determined and table 4.36 presented the final results in summary.

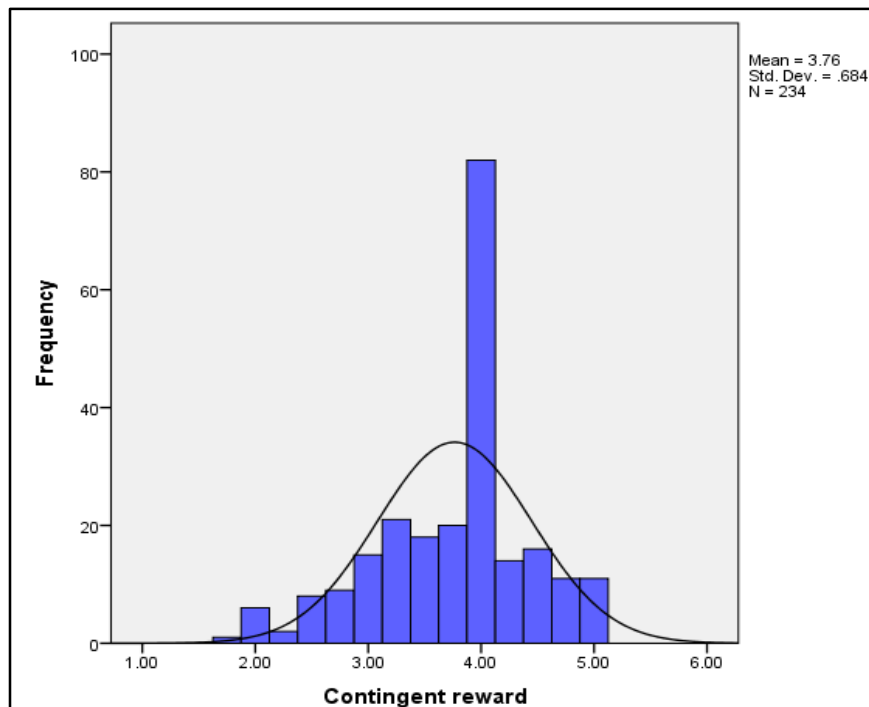
Table 4. 38

Summary Table for Contingent Reward

| | | Descriptives | Statistic | Std. Error |
|-------------------|-------------------------|---------------------|------------------|-------------------|
| Contingent Reward | Mean | | 3.77 | 0.05 |
| | 95% Confidence Interval | Lower Bound | 3.68 | |
| | | Upper Bound | 3.85 | |
| | Mean | | | |
| | 5% Trimmed Mean | | 3.79 | |
| | Median | | 4.00 | |
| | Variance | | 0.47 | |
| | Std. Deviation | | 0.68 | |
| | Minimum | | 1.75 | |
| | Maximum | | 5.00 | |
| | Range | | 3.25 | |
| | Interquartile Range | | 0.75 | |
| | Skewness | | -0.59 | 0.16 |
| | Kurtosis | | 0.26 | 0.32 |

Source: Survey data (2023)

The findings in Table 4.38 illustrated that the administrative and academic heads rated high their managers' contingent reward with a mean = 3.77 close to the median = 4.00 and a negative skew = -0.59. The low standard deviation = 0.68 also indicated a normal distribution of the responses. The normal distribution of the results was also displayed by the normal curve in figure 4.18.



Source: Survey data (2023)

Figure 4 18: Histogram for Contingent Reward

Figure 4.18 revealed that the administrative and academic heads perceived their managers’ contingent reward leadership to be high (mean = 3.76). The standard deviation = 0.68 implied that the results were normally distributed and therefore, the results were fit for analysis.

4.4.2.2 Active Management-by-Exception Leadership Style. The concept of active management-by-exception was conceived as the second measure for the transactional leadership style and was studied using four indicators. The descriptive results were presented in table 4.37.

Table 4. 39 *Descriptive Results for Active Management-by-Exception*

| Active Management-by-exception | SD | D | NS | A | SA | Means |
|---|---------------|---------------|---------------|---------------|--------------|-------|
| My superiors focus on mistakes of staff | 9 (3.8%) | 89 (38.0%) | 65 (27.8%) | 60 (25.6%) | 11 (4.7%) | 2.89 |
| My superiors spend time on problems that need to be dealt with quickly, instead of working in a calm, planned way | 21 (9.0%) | 74 (31.6%) | 50 (21.4%) | 69 (29.5%) | 20 (8.5%) | 2.97 |
| My superiors track mistakes of staff | 17 (7.3%) | 51 (21.8%) | 75 (32.1%) | 74 (31.6%) | 17 (7.3%) | 3.10 |
| My superiors concentrate on failures of staff | 27 (11.5%) | 91 (38.9%) | 53 (22.6%) | 47 (20.1%) | 16 (6.8%) | 2.72 |

Source: Survey data (2023)

The results in table 4.39 regarding whether the superiors focused on the mistakes of staff in these public universities revealed that cumulatively, a low percentage (30.3%) agreed, 38.0% were not sure and 7.6% disagreed. The fairly low mean = 2.89 disapproved the fact that the superiors in those universities focused on the mistakes of staff. However, the fair percentage of not sure (38.0%) was higher than the agreed percentage implying that most respondents were not in the know of what was taking place in those public universities. Hence, a call to the university management to prioritize staff issues as a way of enhancing the organisational effectiveness.

With respect to whether the superiors spent time on the problems that needed to be dealt with quickly instead of working in a calm planned way, the findings reported that a small percentage (38%) agreed, 21.4% was not sure and 40.6% disagreed. The low mean = 2.79 implied that majority of the administrative and academic heads did not agree with the fact that their superiors spent time on problems that needed to be dealt with quickly, instead of working in a calm planned way. With regard to whether the superiors in the universities tracked the mistakes of staff, the findings indicated that a relatively low percentage (38.9%) agreed, 32.1% were not sure, while 29.1% did not agree. The high mean =3.10 implied that most administrative and academic heads did not concur that their superiors tracked the mistakes of staff with a big percentage not sure of the situation at hand. Hence, the university managers should wake up to this call if organisational effectiveness was to be enhanced.

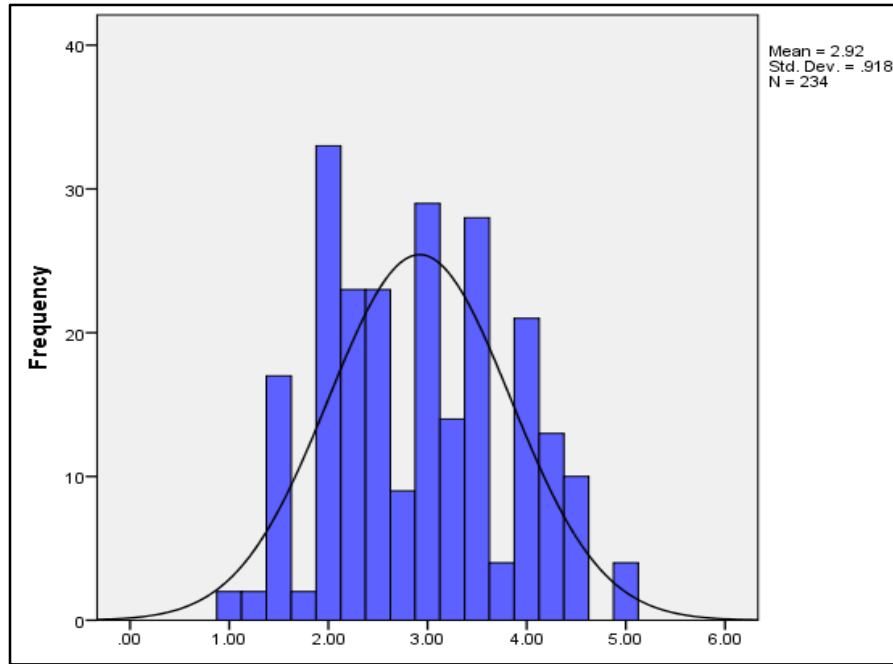
With respect to whether the superiors in the universities concentrated on the failures of staff, the findings suggested that a low percentage (26.9%) agreed, 50.4% disagreed and 22.6% were not sure. The low mean = 2.72 disapproved the findings that the superiors in the universities concentrated on the failures of staff. Hence, the public university manages should reconsider this staff issue seriously in order to enhance organisational effectiveness. Then, to establish how the administrative and academic heads rated their managers' active management-by-exception leadership styles, for the four items that evaluated the concept, the average index was calculated and table 4.38 presented the final results in summary.

Table 4. 40*Summary Table for Active Management-by-Exception*

| | | Descriptives | Statistic | Std. Error |
|----------------------------|----------------------------------|---------------------|------------------|-------------------|
| Active | Mean | | 2.92 | 0.06 |
| Management by exception | 95% Confidence Interval for Mean | Lower Bound | 2.80 | |
| | | Upper Bound | 3.04 | |
| | 5% Trimmed Mean | | 2.91 | |
| | Median | | 3.00 | |
| | Variance | | 0.84 | |
| | Std. Deviation | | 0.92 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.25 | |
| | Skewness | | 0.17 | 0.16 |
| | Kurtosis | | -0.83 | 0.32 |

Source: Survey data (2023)

The findings in Table 4.40 illustrated that the administrative and academic heads rated high their managers' active management-by-exception with a mean = 2.92 close to the median = 3.00 and a negative skew = -0.17. The low standard deviation = 0.92 also indicated a normal distribution of the responses whereby the normal distribution of the results was also displayed by the normal curve in figure 4.19.



Source: Survey data (2023)

Figure 4.19 Histogram for Active Management-by-Exception

Figure 4.19 indicated that the administrative and academic heads perceived their managers’ contingent reward leadership to be fairly moderate (mean = 2.92). Then the standard deviation = 0.92 implied that the results were normally distributed and hence, the results were fit for analysis.

4.4.2.3 The Passive-Avoidant Leadership Style. The concept of passive-avoidant leadership was conceived as the third measure of the transactional leadership and was studied using six indicators. The descriptive results were presented in table 4.39.

Table 4. 41*Descriptives for Passive-Avoidant Leadership*

| Passive-avoidant leadership | SD | D | NS | A | SA | Means |
|--|--------------|----------------|---------------|----------------|--------------|-------|
| Superiors react to problems if serious in this university | 13 (5.6%) | 11 (4.7%) | 39 (16.7%) | 153 (65.4%) | 18 (7.7%) | 3.65 |
| In this university, superiors react to failure | 12 (5.1%) | 47 (20.1%) | 36 (15.4%) | 125 (53.4%) | 14 (6.0%) | 3.35 |
| Superiors in this university react to problems, if chronic | 14 (6.0%) | 24 (10.3%) | 39 (16.7%) | 136 (58.1%) | 21 (9.0%) | 3.54 |
| Superiors in this university avoid taking decisions | 23 (9.9%) | 111 (47.4%) | 39 (16.7%) | 51 (21.8%) | 10 (4.3%) | 2.62 |
| In this university, superiors resist expressing views | 20 (8.5%) | 111 (47.4%) | 34 (14.5%) | 64 (27.4%) | 5 (2.1%) | 2.67 |
| Superiors delay responding to issues in this university | 17 (7.3%) | 99 (42.3%) | 33 (14.1%) | 64 (27.4%) | 21 (9.0%) | 2.88 |

Source: Survey data (2023)

The results in table 4.41 regarding whether the superiors reacted to the problems if serious in the public universities revealed that cumulatively, a high percentage (73.1%) agreed, 16.7% were not sure and 10.3% disagreed. The high mean = 3.65 approved the fact that the superiors in those public universities reacted to the problems if serious. With respect to whether the superiors reacted to failure in the public universities, the findings revealed that a high percentage (59.4%) agreed, 15.4% were not sure and 25.2% disagreed. The high mean = 3.55 implied that majority the administrative and academic heads confirmed with the fact that their superiors reacted to failures.

Pertaining to whether the superiors in those universities reacted to problems if chronic, the findings indicated that a high percentage (67.1%)

agreed, 16.7% were not sure, while 16.3% did not agree. The high mean =3.54 implied that most of the administrative and academic heads concurred that their superiors reacted to problems, if chronic. Considering whether the superiors in the universities avoided taking decisions, the findings suggested that a low percentage (26.1%) agreed, 57.3% disagreed and 16.7% was not sure. The low mean=2.62 disapproved the findings that the superiors in the universities avoided taking decisions. Therefore, the public university managers in that case took decisions in order to enhance the organisational effectiveness.

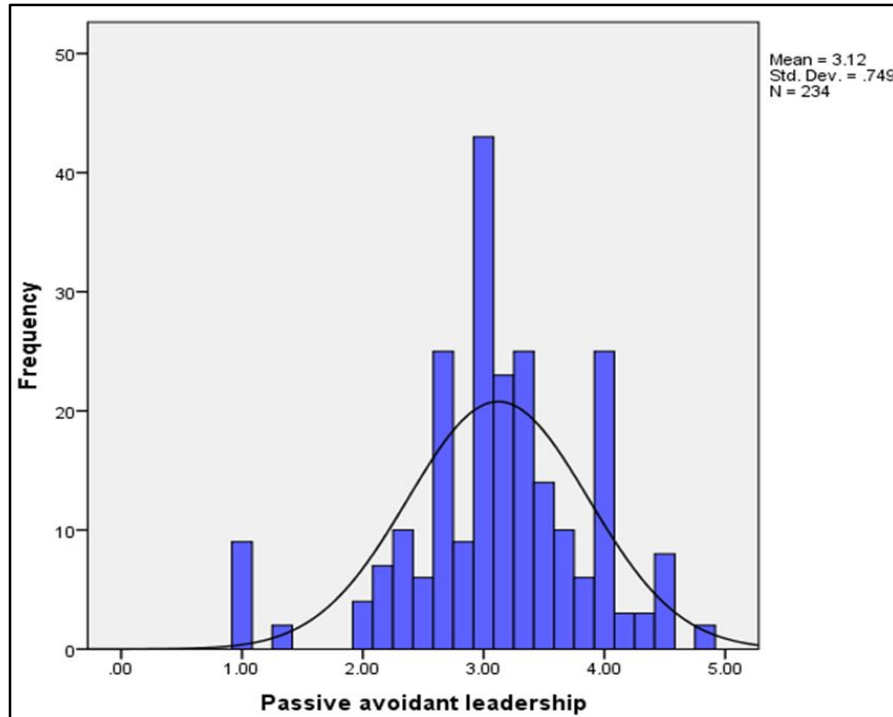
With regard to whether the superiors in those universities resisted expressing views, the findings suggested that, a low percentage (29.5%) agreed, 49.6% disagreed and 14.1% were not sure. The low mean = 2.67 disapproved the findings that the superiors in those universities resisted expressing views implying that the supervisors in the universities fairly expressed their views hence effectiveness. Considering whether the superiors in the universities delayed responding to issues, the findings indicated that a low percentage (36.4%) agreed, 48.5% disagreed and 14.1% was not sure. The low mean = 2.88 disapproved the findings that the superiors in those universities delayed responding to issues implying there were no delays in responding to issues. To establish how the administrative and academic heads rated their managers' active management-by-exception leadership styles, for the four items that evaluated the concept, the average index was calculated and table 4.40 presented the final results in summary.

Table 4. 42*Summary Table for Passive-Avoidant Leadership Style*

| | | Descriptives | Statistic | Std. Error |
|------------------|----------------------------------|---------------------|------------------|-----------------------|
| Passive Avoidant | Mean | | 3.12 | 0.05 |
| Leadership | 95% Confidence Interval for Mean | Lower Bound | 3.02 | |
| | | Upper Bound | 3.22 | |
| | 5% Trimmed Mean | | 3.15 | |
| | Median | | 3.17 | |
| | Variance | | 0.56 | |
| | Std. Deviation | | 0.75 | |
| | Minimum | | 1.00 | |
| | Maximum | | 4.83 | |
| | Range | | 3.83 | |
| | Interquartile Range | | 0.83 | |
| | Skewness | | -0.58 | 0.16 |
| | Kurtosis | | 1.09 | 0.32 |

Source: Survey data (2023)

The findings in Table 4.42 demonstrated that the administrative and academic heads rated high their managers' passive -avoidant leadership style with mean = 3.12 close to the median = 3.17 and a negative skew = -0.58. The low standard deviation = 0.75 also indicated a normal distribution of the responses whereby the results were also displayed by the normal curve in figure 4.20.



Source: Survey data (2023)

Figure 4.20 Histogram for Passive-Avoidant Leadership Style

Figure 4.20 showed that the administrative and academic heads perceived their managers' contingent reward leadership style to be high (mean = 3.12). The standard deviation = 0.75 implied that the results were normally distributed and therefore they were fit for analysis.

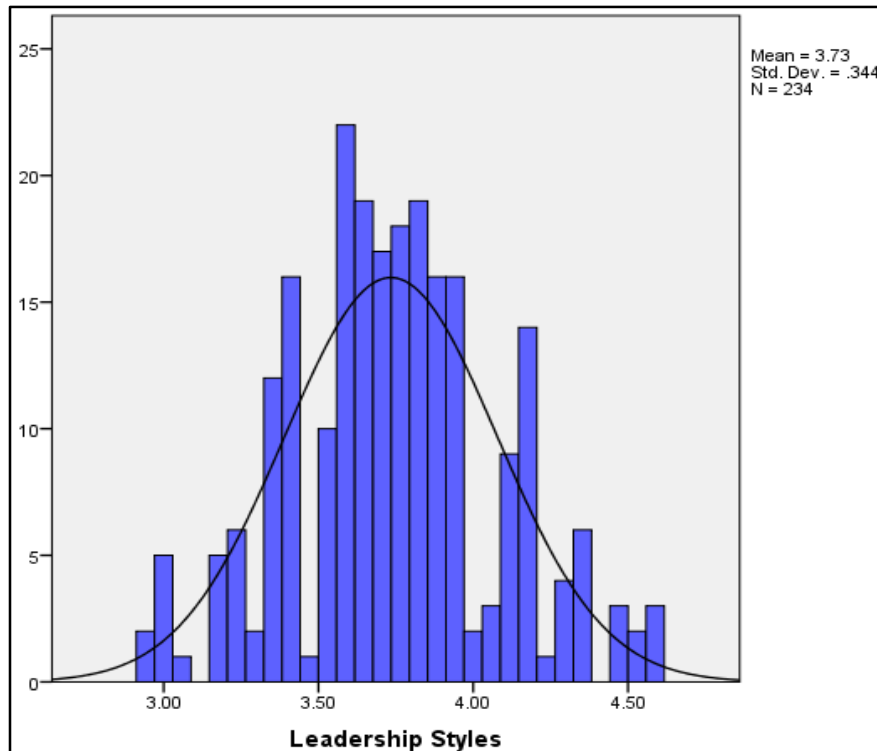
4.4.2.4 The Leadership style Index. To assess how overall the administrative and academic heads rated their managers' leadership styles, an average index was determined to eight aspects measuring the concepts that were idealised influence-attributed (IA1-IA4); idealised influence-behaviour (IB1-IB4); inspirational motivation (IM1-IM4); intellectual stimulation (IS1-IS4); and, individual consideration(1C1-IC4) which were five for transformational leadership style and three for transactional leadership style namely contingent reward (CR1-CR4); active management-by-exception(EA1-EA4); and, passive-avoidant leadership(PA1-PA6). Table 4.41 showed the summary of results.

Table 4. 43*Summary Results for leadership style*

| Descriptives | | Statistic | Std. Error | |
|---------------------|----------------------------------|------------------|-------------------|------|
| Leadership | Mean | 3.73 | 0.02 | |
| Styles | 95% Confidence Interval for Mean | Lower Bound | 3.69 | |
| | | Upper Bound | 3.78 | |
| | 5% Trimmed Mean | | 3.73 | |
| | Median | | 3.71 | |
| | Variance | | 0.12 | |
| | Std. Deviation | | 0.34 | |
| | Minimum | | 2.94 | |
| | Maximum | | 4.59 | |
| | Range | | 1.65 | |
| | Interquartile Range | | 0.38 | |
| | Skewness | | 0.14 | 0.16 |
| | Kurtosis | | -0.10 | 0.32 |

Source: Survey data (2023)

The findings in Table 4.43 indicated that the administrative and academic heads rated the leadership styles used by the managers of the universities to be high, with a high mean = 3.73. The mean being close to the median = 3.71 and the low standard deviation = 0.34, the results indicated a normal distribution of the responses and the results were also displayed by the normal curve in figure 4.21.

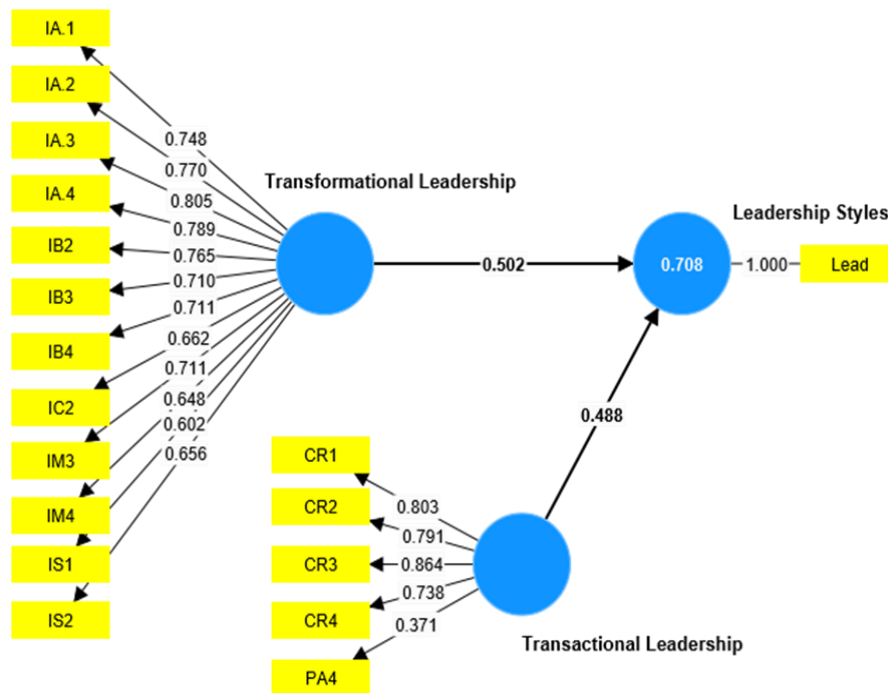


Source: Survey data (2023)

Figure 4.21 Histogram for Leadership Styles

Figure 4.20 indicated that the administrative and academic heads perceived the public universities' leadership styles to be high (mean = 3.73). The standard deviation = 0.34 meant that the results were normally distributed and so, they were fit for analysis.

4.4.2.5 The Structural Equation Model for Leadership Styles. To ascertain the measures of leadership styles, a structural model (Figure 4.22) was developed. The structural model showed the indicators of the different constructs measuring the variable.



Source: Survey data (2023)

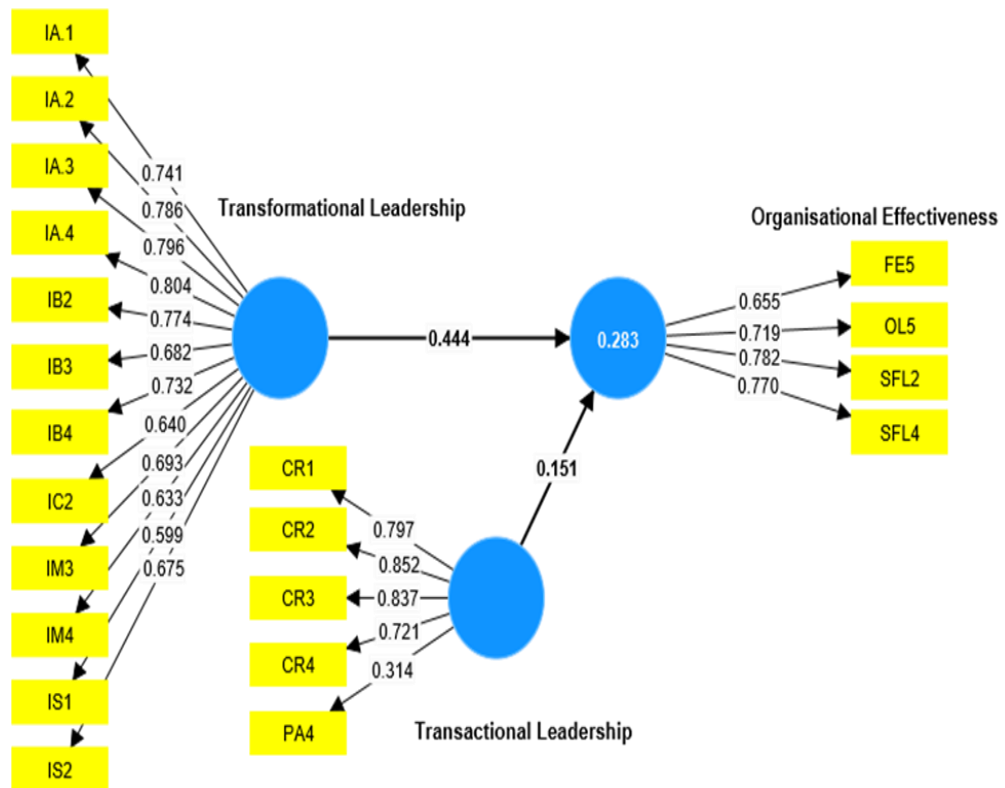
Figure 4.22 Structural Equation Model for Leadership styles

The figure 4.22 indicated that leadership styles were investigated as a bi-dimensional concept that included transformational leadership and transactional leadership styles containing seventeen indicators. The transformational leadership style was measured using five constructs that were the idealised influence-attributed (IA); the idealised influence-behaviour (IB); the inspirational motivation (IM); the intellectual stimulation (IS); and, the individual consideration (IC). Then the transactional leadership style involved three constructs namely the contingent reward (CR); the active management-by-exception (AE); and, the passive-avoidant leadership (PL). Twelve out of the twenty indicators measuring transformational leadership style loaded highly above the 0.50 which was the minimum validity value using factor analysis (Hair Jr. et al., 2021) but eight items did not load. All the four indicators of the idealised influence-attributed (IA1-IA4) loaded highly and were retained. Only

three indicators of the idealised influence-behaviour were retained (IB2-IB4) as they loaded highly and only one indicator (IB1) was dropped because it did not load heavily.

Regarding the inspirational motivation construct, two out of four constructs (IM3 &IM4) loaded highly and retained whereas the rest two (IM1 &IM2) did not load highly and were removed. Still to note, with the intellectual stimulation, two indicators (IS1 &IS2) loaded above 0.50 and were retained while the other two (IS3 & IS4) did not load and were removed. And for individual consideration, only one indicator (IC2) loaded highly and was retained while the other three (IC1, IC3 & IC4) did not load highly and were removed. For the transactional leadership style, all the four indicators of contingent reward loaded highly above 0.50 and were retained (CR1-CR4) while only one indicator of passive- avoidant leadership (PA4) loaded highly and retained and the other five indicators (PA1-PA3, PA5-PA6) did not load highly above 0.50 and were removed at outlier analysis stage. For active management-by-exception, all the four indicators (EA1-EA4) did not load above 0.50 and were dropped but the items retained were valid measures of the constructs in the model.

4.4.2.6 The Structural Equation Model for Leadership Styles and Organisational Effectiveness. The first objective for the study was to determine the correlation between leadership styles and organisational effectiveness of the public universities. The hypothesis obtained from this objective was that the leadership styles are positive significant antecedents of organisational effectiveness of the public universities. The hypothesis was tested using structural equation modelling, as shown in Figure 4.23.



Source: Survey data (2023)

Figure 4.23 Structural Equation Model for Leadership Styles and Organisational Effectiveness

The findings in figure 4.23 indicated that the leadership styles were related to organisational effectiveness. The concept of leadership styles was investigated as a bi-dimensional concept that included transformational and transactional leadership styles. For transformational leadership style twelve out of the twenty items measuring the transformational leadership style loaded highly above the 0.50 which was the minimum validity value using factor analysis (Hair Jr. et al., 2021) but eight items did not load. All the four indicators of the idealised influence-attributed loaded highly and were retained. Only three indicators of the idealised influence-behaviour were retained (IB2-IB4) as they loaded highly

and only one indicator (IB1) was dropped because it did not load heavily. As for inspirational motivation constructs, two out of the four constructs (IM3 &IM4) loaded highly and were retained whereas the two (IM1 &IM2) did not load high and were removed. Still to observe, with intellectual stimulation, two indicators (IS1 &IS2) loaded above 0.50 and were retained while the other two (IS3 & IS4) did not load and were removed. And for individual consideration, only one indicator (IC2) loaded highly and was retained while the other three (IC1, IC3 & IC4) did not load highly and were removed.

For transactional leadership style, all the four indicators of contingent reward loaded highly above 0.50 and were retained (CR1-CR4) while only one indicator of the passive- avoidant leadership (PA4) loaded highly and retained then the other five indicators (PA1-PA3, PA5-PA6) did not load highly above 0.50 and were removed at outlier analysis stage. As for active management-by-exception, all the four indicators (EA1-EA4) did not load above 0.50 and were removed at outlier analysis stage. The items retained were valid measures of the constructs in the

Table 4. 44
Leadership Styles and Organisational Effectiveness Path Estimates

| | | β | Mea n | STD | T | p |
|------------------|------------------------------|---------|----------|------|------|------|
| Transactional | → Leadership | 0.15 | 0.16 | 0.07 | 2.05 | 0.04 |
| | Organisational Effectiveness | 1 | 2 | 3 | 8 | 0 |
| Transformational | → Leadership | 0.44 | 0.44 | 0.06 | 6.65 | 0.00 |
| | Organisational Effectiveness | 4 | 8 | 7 | 1 | 0 |

R2 Adjusted = 0.276

Source: Survey data (2023)

The results in figure 4.23 and table 4.44 indicated two hypotheses to the effect that the transformational leadership style was a positive significant antecedent of organisational effectiveness of the public universities (H1.1) and the transactional leadership was a positive significant antecedent organisational effectiveness of the public universities (H1.2) were tested. The result established that the transactional leadership style ($\beta = 0.151$, $t = 2.058$, $p = 0.040 < 0.05$) and the transformational leadership style ($\beta = 0.444$, $t = 6.651$, $p = 0.000 < 0.05$) were positive significant antecedents of organisational effectiveness of the public universities. The coefficient of determination revealed that two leadership styles contributed 28.3% ($R^2 = 0.283$) to organisational effectiveness of the public universities. Then the Adjusted R^2 implied that the significant leadership styles (transformational and transactional leadership styles), contributed 27.6% (0.276) to organisational effectiveness of the public universities.

The coefficients of the determination suggested that other factors not considered in this study contributed 71.7% of organisational effectiveness. The magnitude of the respective β s suggested that the transformational leadership style had the most significant antecedent of organisational effectiveness followed by the transactional leadership style. So, the findings implied that if public universities could put more emphasis on other leadership styles outside this study such as laissez-faire, servant leadership, democratic leadership, autocratic leadership and more others, the organisational effectiveness of the public universities was more likely to improve. Since the correlation between the transformational leadership style and organisational effectiveness of the public universities and the association between the transactional leadership style

and organisational effectiveness of the public universities were both positive and significant, the hypothesis was rejected.

4.5 The Institutional Culture and Organisational Effectiveness

The institutional culture was investigated in terms of three concepts namely: - artefacts, espoused values and beliefs and the basic underlying assumptions, so, below followed the results.

4.5.1 Artefacts. The construct of artefacts was conceived as the first measure of institutional culture and was studied using five indicators. The descriptive results were presented in table 4.43.

Table 4. 45

Descriptive Results for Summary Results for Artefacts

| Artefacts | SD 1 | D 2 | NS 3 | A 4 | SA 5 | Means |
|---|--------------|---------------|---------------|----------------|---------------|-------|
| Superiors promote cooperation, consensus and group wellbeing in this university | - | 11 (4.7%) | 26 (11.1%) | 156 (66.7%) | 41 (17.5%) | 3.97 |
| In this university merit is the most important basis for promotion | 7 (3.0%) | 9 (3.8%) | 32 (13.7%) | 134 (57.3%) | 52 (22.2%) | 3.92 |
| Staff creativeness and innovativeness are highly valued in this university | 2 (0.9%) | 12 (5.1%) | 26 (11.1%) | 154 (65.8%) | 40 (17.1%) | 3.93 |
| In this university the structure is highly centralized i.e. the majority of matters have to pass through very few hands | 19 (8.1%) | 48 (20.5%) | 58 (24.8%) | 85 (36.3%) | 24 (10.3%) | 3.20 |
| In this university there is a | 2 (0.9%) | 17 (7.3%) | 38 (16.2%) | 131 (56.0%) | 46 (19.7%) | 3.86 |

constant concern
to keep the
technology up to
date

Source: Survey data (2023)

The results in table 4.45 on whether the superiors promoted cooperation, consensus and group wellbeing in the universities showed that the majority percentage (84.2%) agreed with 34.7% disagreeing while 011.1% were not sure. The high mean = 3.97 close to code four for agreed indicated that the superiors promoted cooperation, consensus and group wellbeing in the universities. Considering whether merit was the most important basis for promotion in the public universities, the results revealed that a high percentage (79.5%) agreed with 6.8% disagreeing and 13.7% not sure in that case, the high mean = 3.92 confirmed the finding. Therefore, merit was the most important basis for promotion in the public universities as a way of improving organisational effectiveness. As to whether the staff creativeness and innovativeness were highly valued in the public universities, the results revealed that the majority percentage (82.9%) agreed with 6.0% disagreeing and 11.1% not sure with a high mean = 3.93, an implication that the staff creativeness and innovativeness were highly valued in the public universities to promote effective service delivery.

Concerning whether the structure was highly centralized i.e. the majority of matters had to pass through very few hands in the public universities, the findings showed that a low percentage (46.6%) agreed with 28.6% disagreeing and 24.8% were not sure with an average mean = 3.20 implying that the structure was not highly centralized, that is the majority of matters did not pass through very few hands in the public universities. With respect to whether there was a constant concern to keep the technology up to

date in the public universities, the results reported that a high percentage (75.7%) agreed with 8.2% disagreeing and 16.2% were not sure. The high mean = 3.86 affirmed the finding that there was a constant concern to keep the technology up to date in the public universities. Then to establish how overall the administrative and academic heads rated their universities' artefacts culture, an average index was computed for the five indicators measuring the construct and the summary table 4.44 presented the results.

Table 4. 46

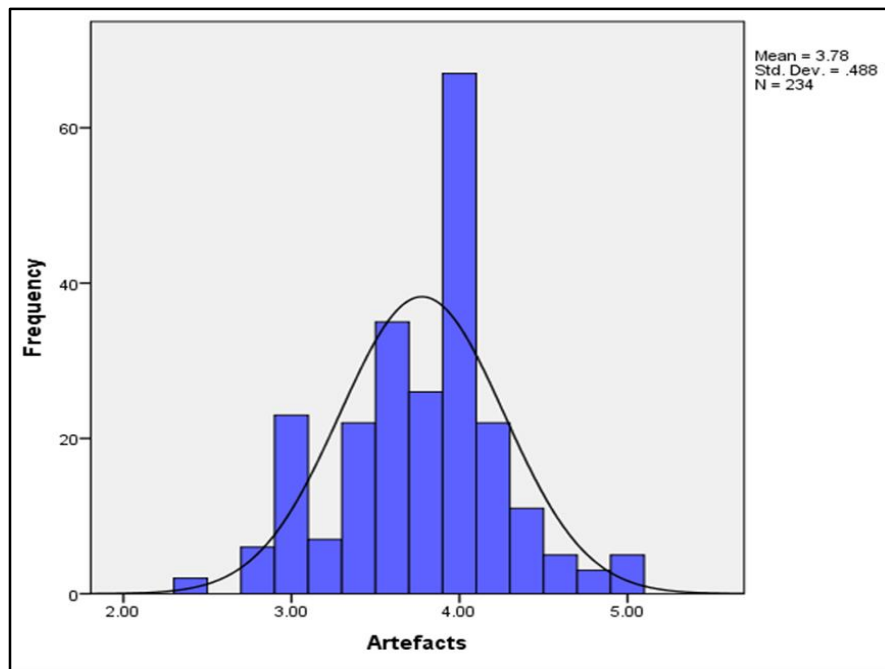
Summary Table for Artefacts

| | | Descriptives | Statistic | Std. Error |
|-----------|----------------------------------|---------------------|------------------|-------------------|
| Artefacts | Mean | | 3.78 | 0.03 |
| | 95% Confidence Interval for Mean | Lower Bound | 3.71 | |
| | | Upper Bound | 3.84 | |
| | 5% Trimmed Mean | | 3.77 | |
| | Median | | 3.80 | |
| | Variance | | 0.24 | |
| | Std. Deviation | | 0.49 | |
| | Minimum | | 2.40 | |
| | Maximum | | 5.00 | |
| | Range | | 2.60 | |
| | Interquartile Range | | 0.60 | |
| | Skewness | | -0.15 | 0.16 |
| | Kurtosis | | 0.19 | 0.32 |

Source: Survey data (2023)

Table 4.46 indicated a high overall mean (mean = 3.78) very close to the median = 3.77 with a low standard deviation (Std. = 0.49). The high mean implied that the administrative and academic heads rated high their managers' cultural artefacts and the mean being close to the median with a low standard deviation

implied that the results were normally distributed. The normal distribution was diagrammatically displayed in figure 4.24.



Source: Survey data (2023)

Figure 4 24 Histogram for Cultural Artefacts

Figure 4.24 revealed a high mean = 3.78 and low standard deviation (Std. = 0.49) where the high mean indicated that their perceptions for cultural artefacts were high while the low standard deviation implied that the results were normally distributed. Thus, the results were fit for linear analysis.

4.5.2 Espoused Values and Beliefs. The concept of espoused values and beliefs was conceived as the second measure of institutional culture and was studied using six indicators. The descriptive results were presented in table 4.45.

Table 4. 47*Descriptive Results for Espoused Beliefs and Values*

| Espoused beliefs and values | SD | D | NS | A | SA | Means |
|--|-------------|--------------|---------------|----------------|---------------|-------|
| Customer service is good in this university, | - | 22 (9.4%) | 29 (12.4%) | 125 (53.4%) | 58 (24.8%) | 3.94 |
| Openness and learning are promoted in this university | - | 11 (4.7%) | 17 (7.3%) | 146 (62.4%) | 60 (25.6%) | 4.09 |
| Team work is encouraged in this university | - | 4 (1.7%) | 7 (3.0%) | 151 (64.5%) | 72 (30.8%) | 4.24 |
| Adherence to rules is emphasized in this university | - | 1 (0.4%) | 12 (5.1%) | 143 (61.1%) | 78 (33.3%) | 4.27 |
| Student and staff satisfaction is highly valued in this university | 1 (0.4%) | 8 (3.4%) | 28 (12.0%) | 157 (67.1%) | 40 (17.1%) | 3.97 |
| Growth and learning are given value in this university | - | 1 (0.4%) | 22 (9.4%) | 142 (60.7%) | 69 (29.5%) | 4.29 |

Source: Survey data (2023)

The results in table 4.47 concerned with whether customer service was good in these universities revealed that cumulatively, a high percentage (78.2%) agreed, 12.4% were not sure and 9.4% disagreed. The high mean = 3.94 justified the fact that customer service was good in those universities. With respect to whether openness and learning were promoted in those universities, the findings revealed that, a very high percentage (88%) agreed, 7.3% were not sure and 4.7% disagreed. In that case, the high mean = 4.09 implied that majority of the administrative and academic heads confirmed with the fact that customer service was good in those universities.

The pertaining to whether team work was encouraged in those universities, the findings indicated that a very high percentage (95.3%) agreed,

3.0% were not sure, while 1.7% did not agree. The high mean =4.24 implied that majority of the administrative and academic heads concurred that team work was encouraged in those universities. And considering whether adherence to rules was emphasized in those universities, the findings asserted that, a very high percentage (94.4%) agreed, 0.4% disagreed and 5.1% were not sure. So, the high mean=4.27 affirmed the findings that adherence to rules was emphasized in those universities hence high chances of organisational effectiveness.

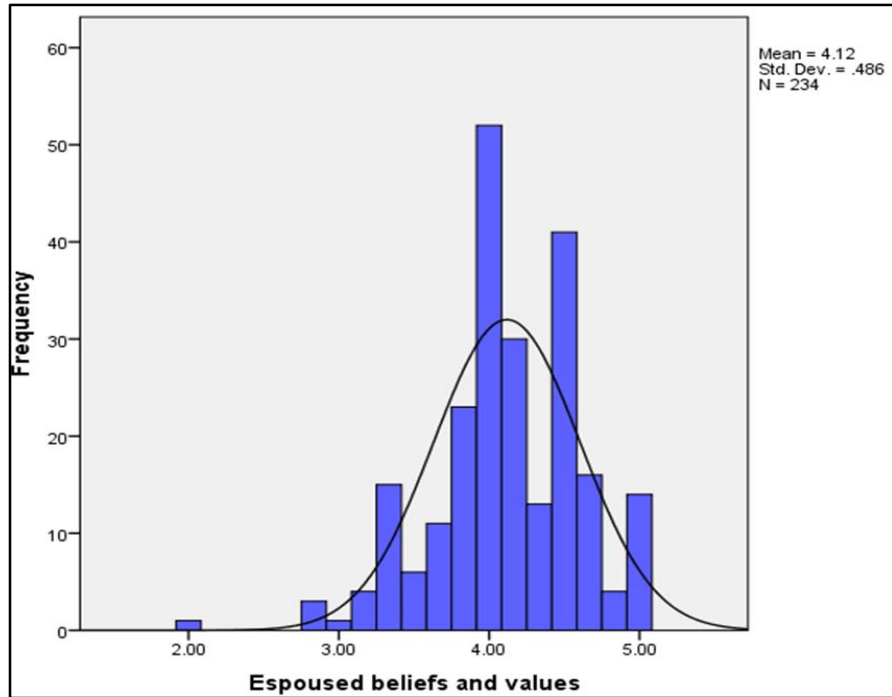
With regard to whether the students and staff satisfaction was highly valued in those universities, the findings suggested that a high percentage (84.2%) agreed, 3.8% disagreed and 12.0% were not sure. in that case, the high mean = 3.97 confirmed the findings that students and staff satisfaction was highly valued in those universities. Then considering whether growth and learning were given value in those universities, the findings indicated that, a high percentage (90.2%) agreed, 0.4% disagreed and 9.8% were not sure. Thus, the high mean=4.29 approved the findings that growth and learning were given value in those universities. To establish how the administrative and academic heads rated their managers' espoused beliefs and values, for the six items that evaluated the concept, the average index was determined. Table 4.46 presented the final results in summary.

Table 4. 48*Summary Table for Espoused Beliefs and Values*

| | | Descriptives | Statistic | Std. Error |
|--------------------|----------------------------------|---------------------|------------------|-------------------|
| Espoused | Mean | | 4.12 | 0.03 |
| Beliefs and Values | 95% Confidence Interval for Mean | Lower Bound | 4.05 | |
| | | Upper Bound | 4.18 | |
| | 5% Trimmed Mean | | 4.13 | |
| | Median | | 4.17 | |
| | Variance | | 0.24 | |
| | Std. Deviation | | 0.49 | |
| | Minimum | | 2.00 | |
| | Maximum | | 5.00 | |
| | Range | | 3.00 | |
| | Interquartile Range | | 0.67 | |
| | Skewness | | -0.56 | 0.16 |
| | Kurtosis | | 1.07 | 0.32 |

Source: Survey data (2023)

Table 4.48 showed a high overall mean (mean = 4.12) very close to the median = 4.17 with a low standard deviation (Std. = 0.49). The high mean implied that the administrative and academic heads revealed that their perceptions towards the superiors' espoused beliefs and values were high and the mean being close to the median with a low standard deviation implied that the findings were normally distributed. The normal distribution was diagrammatically displayed in figure 4.25.



Source: Survey data (2023)

Figure 4.25 Histogram for Espoused Beliefs and Values

Figure 4.25 revealed a high mean = 4.12 and a low standard deviation (Std. = 0.49). Whereby, the high mean indicated that the perceptions of the administrative and academic heads about universities leaders' espoused beliefs and values were high while the low standard deviation implied that the results were normally distributed. Therefore, the results were fit for linear analysis.

4.5.3 The Basic Underlying Assumptions. The concept of the basic underlying assumptions was conceived as the third measure of institutional culture and was studied using six indicators. The results were presented in table 4.47.

Table 4. 49*Descriptive Results for Basic Underlying Assumptions*

| Underlying Assumptions | SD | D | NS | A | SA | Means |
|--|-------------|--------------|---------------|----------------|---------------|--------------|
| In my university mutual responsibility and shared objectives are emphasized | - - | 4 (1.7%) | 35 (15.0%) | 149 (63.7%) | 46 (19.7%) | 4.01 |
| University objectives have been communicated to staff | - - | 8 (3.4%) | 22 (9.4%) | 158 (67.5%) | 46 (19.7%) | 4.03 |
| In my university, staff members are encouraged to participate in decision making | - - | 11 (4.7%) | 39 (16.7%) | 153 (65.4%) | 31 (13.2%) | 3.87 |
| In my university my job is enriched in terms of adding more meaningful tasks | - - | 9 (3.8%) | 29 (12.4%) | 163 (69.7%) | 33 (14.1%) | 3.94 |
| The university encourages staff to share ideas and suggestions | - - | 10 (4.3%) | 21 (9.0%) | 164 (70.1%) | 39 (16.7%) | 3.99 |
| A trusting relationship between supervisors and subordinates has been established in my university | 1 (0.4%) | 13 (5.6%) | 31 (13.2%) | 143 (61.1%) | 46 (19.7%) | 3.94 |

Source: Survey data (2023)

The findings in table 4.49 on whether mutual responsibility and shared objectives were emphasized in those universities, a higher percentage (84.4%) agreed, 15.0% were not sure, and 1.7% did not agree. In that matter, the high mean = 4.01 corresponded with the ‘agree’ indicating that mutual responsibility and shared objectives were emphasized in those universities. On whether the university objectives had been communicated to the staff, the findings revealed

that a larger percentage (87.2%) agreed, 9.4% were not sure and 3.4% disagreed. The mean = 4.03 implied that the university objectives had been communicated to the staff. Then, on whether the staff members were encouraged to participate in decision making in those universities the results revealed that a larger percentage (78.6%) agreed, 16.7% were not sure, while 4.7% disagreed. The mean =3.87, therefore, meant that the staff members were encouraged to participate in decision making in those universities. In respect to whether the university jobs were enriched in terms of adding more meaningful tasks' revealed that a larger percentage (83.8%) agreed, 12.4% were not sure, while 3.8% disagreed. The mean = 3.94, there, implied that the respondents' jobs were enriched in terms of adding more meaningful tasks.

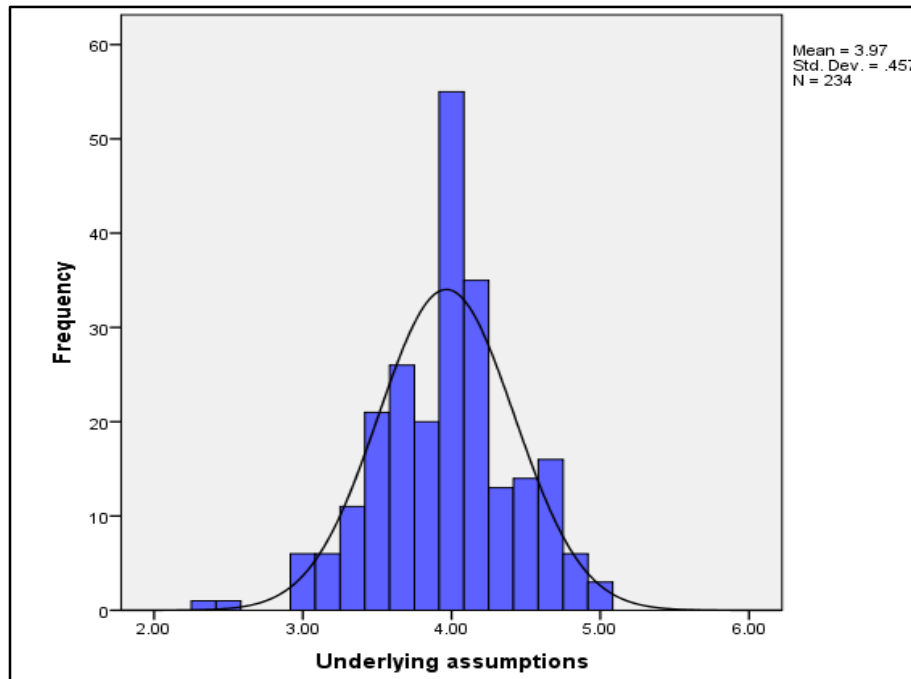
With regard to whether the universities encouraged the staff to share ideas and suggestions, the findings revealed that a high percentage (86.8%) agreed, 4.3% disagreed and 9.0% were not sure. So, the high mean=3.99 implied that the universities encouraged staff to share ideas and suggestions. Considering whether a trusting relationship between supervisors and subordinates had been established in those universities, the findings indicated that the majority percentage (80.8%) agreed with 6.0% disagreeing and 13.2% not sure. The high mean=3.94 justified the findings that a trusting relationship between supervisors and subordinates had been established in those universities. Then to find out how the administrative and academic heads rated their leaders' basic underlying assumptions; the average index was computed for the six indicators that measured the concept and` table 4.48 presented the summary of the results

Table 4. 50*Summary Table for Underlying Assumptions*

| | | Descriptives | Statistic | Std. Error |
|------------------------|----------------------------------|---------------------|------------------|-------------------|
| Underlying Assumptions | Mean | | 3.97 | 0.03 |
| | 95% Confidence Interval for Mean | Lower Bound | 3.91 | |
| | | Upper Bound | 4.02 | |
| | 5% Trimmed Mean | | 3.97 | |
| | Median | | 4.00 | |
| | Variance | | 0.21 | |
| | Std. Deviation | | 0.46 | |
| | Minimum | | 2.33 | |
| | Maximum | | 5.00 | |
| | Range | | 2.67 | |
| | Interquartile Range | | 0.50 | |
| | Skewness | | -0.26 | 0.16 |
| | Kurtosis | | 0.44 | 0.32 |

Source: Survey data (2023)

Table 4.50 revealed a high overall mean (mean = 3.97) which was equal to the median = 3.97 with a low standard deviation (Std. = 0.46). The high mean implied that the administrative and academic heads rated high their supervisors' basic underlying assumptions and the mean being equal to the median with a low standard deviation implied that the findings were normally distributed. In that case, the normal distribution was diagrammatically displayed in figure 4.26.



Source: Survey data (2023)

Figure 4.26 Underlying Assumptions

Figure 4.26 indicated a high mean = 3.97 and a low standard deviation (Std. = 0.46). The high mean indicated that the perceptions of the administrative and academic heads about universities leaders' basic underlying assumptions were high while the low standard deviation implied that the results were normally distributed. Henceforth, the results were fit for linear analysis.

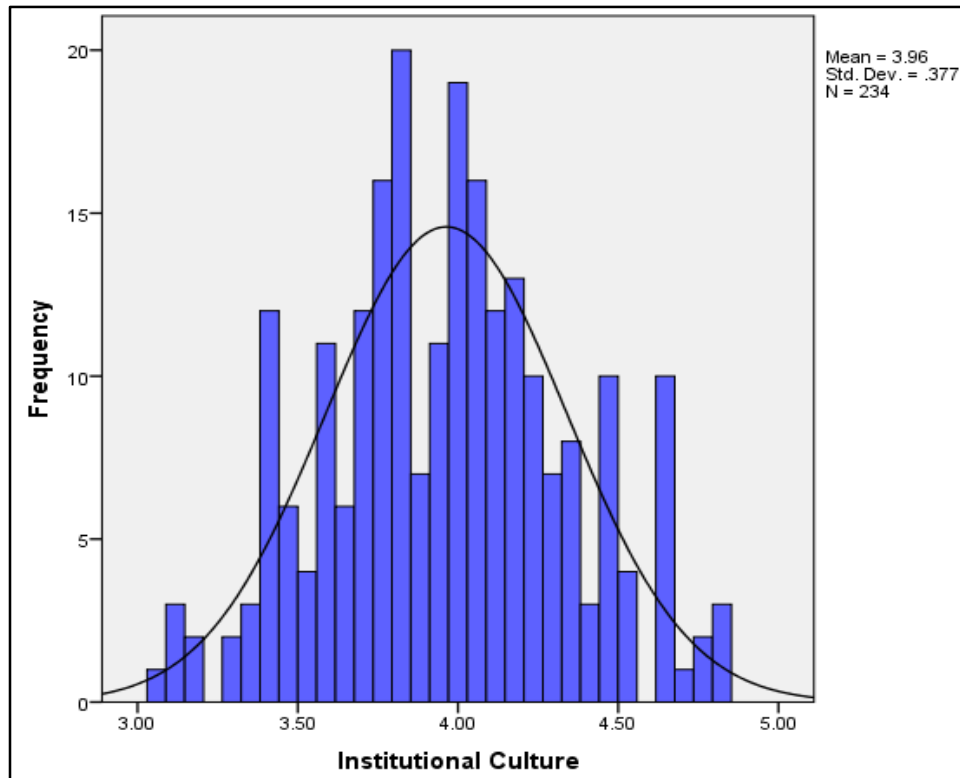
4.5.4 Institutional Culture Index. To assess how overall the administrative and academic heads rated their public universities institutional culture, the average index was determined to three aspects measuring the concepts that were the artefacts (IF1-IF5); the espoused beliefs and values (EV1-EV6); and, the basic underlying assumptions (UA1-UA6) and table 4.49 showed the summary of results.

Table 4. 51*Summary Results for Institutional Culture*

| | | Descriptives | Statistic | Std. Error |
|---------------|---|----------------------------|------------------|-----------------------|
| Institutional | Mean | | 3.96 | 0.02 |
| Culture | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 3.92 4.01 | |
| | 5% Trimmed Mean | | 3.96 | |
| | Median | | 4.00 | |
| | Variance | | 0.14 | |
| | Std. Deviation | | 0.38 | |
| | Minimum | | 3.06 | |
| | Maximum | | 4.82 | |
| | Range | | 1.76 | |
| | Interquartile Range | | 0.49 | |
| | Skewness | | 0.07 | 0.14 |
| | Kurtosis | | -0.35 | 0.32 |

Source: Survey data (2023)

Table 4.51 reported a high overall mean (mean = 3.96) which was equal to the median = 4.00 with a low standard deviation (Std. = 0.38). That high mean implied that the administrative and academic heads rated high their public universities' institutional culture because the mean=3.96 was high. Thus the mean being close to the median with a low standard deviation implied that the findings were normally distributed and the normal distribution was diagrammatically displayed in figure 4.27.



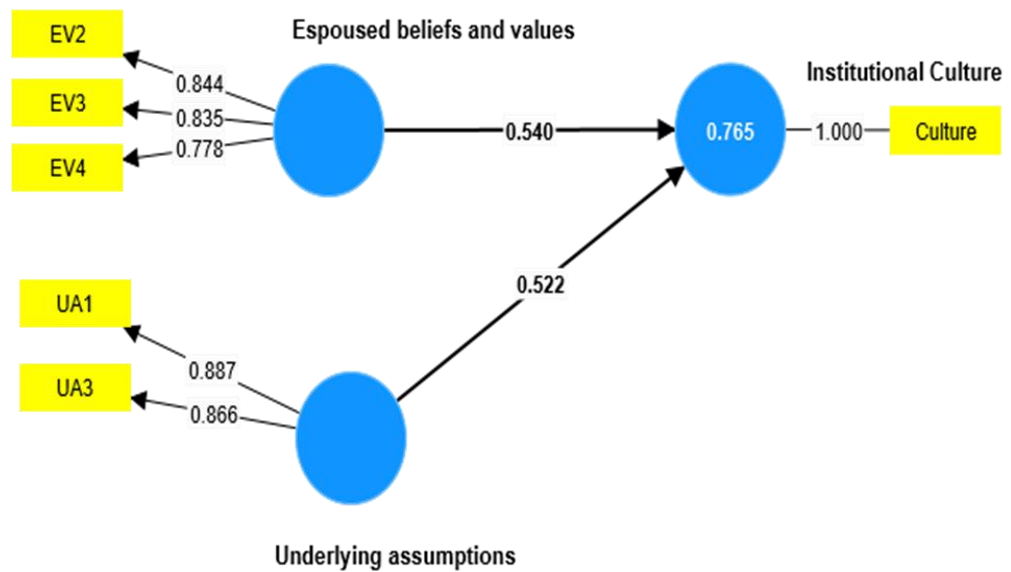
Source: Survey data (2023)

Figure 4.27 Histogram for Institutional Culture

Figure 4.27 gave a high mean = 3.96 and a low standard deviation (Std. = 0.38).

The high mean indicated that the perceptions of the administrative and academic heads about the universities leaders' institutional culture were high while the low standard deviation implied that the results were normally distributed. Thus, the results were fit for linear analysis.

4.5.5 The Structural Equation Model for Institutional culture. To ascertain the measures of institutional culture, a structural model (Figure 4.28) was developed. The structural model showed the indicators of the different constructs measuring the variable.



Source: Survey data (2023)

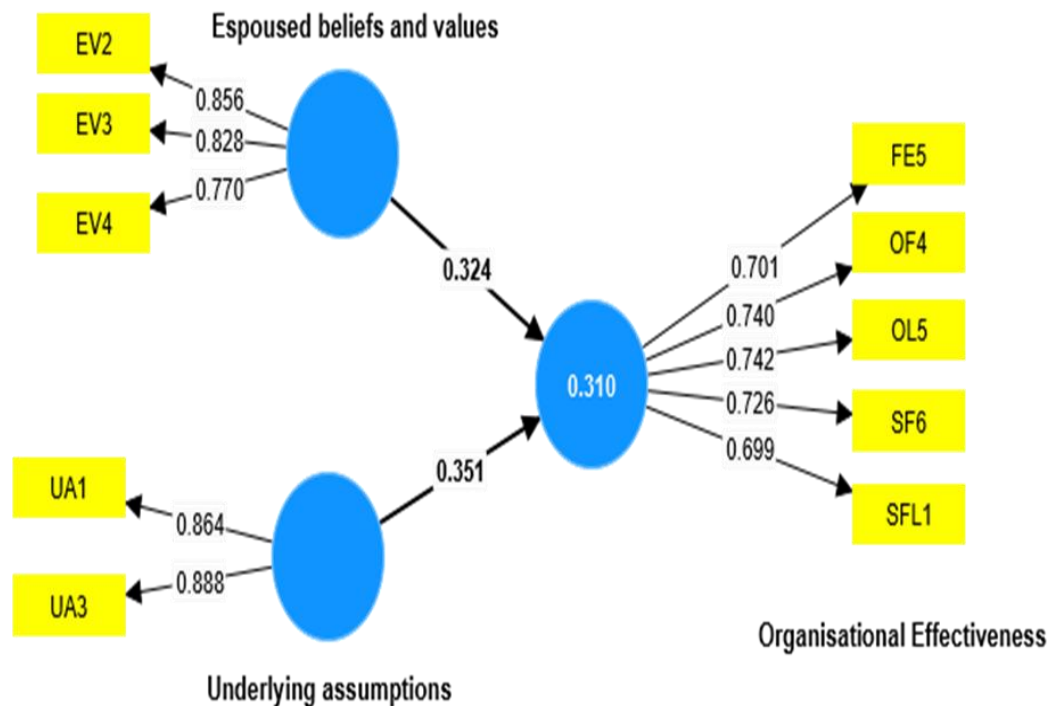
Figure 4 28 Structural Equation Model for Institutional Culture

The figure 4.28 indicated that institutional culture was investigated as a bi-dimensional concept that included the espoused beliefs and values and the basic underlying assumptions. The third construct namely artefacts was removed during the outlier analysis because all of its five indicators (IF1-IF5) were less than 0.50 as the minimum validity value during the factor analysis. Similarly, all of the indicators for artefacts did not load highly above 0.50 and were removed. For the espoused beliefs and values, three indicators (EV2-EV4) out of the six measuring it loaded highly above the 0.50 which was the minimum validity value when using the factor analysis as was recommended by Hair Jr et al (2012) and were thus retained but the three indicators (EV1, EV5 & EV6) did not load and were dropped. For the basic underlying assumptions, only two (UA1 &UA3) out of the six indicators measuring it loaded highly but four of the indicators (UA2, UA4, UA5 &UA6) did not load and were removed at the

outlier analysis stage. For that matter, the retained indicators were valid measures of the constructs in the model.

4.6 Institutional Culture and Organisational Effectiveness

The second objective for the study was to determine the correlation between institutional culture and organisational effectiveness of the public universities. The hypothesis obtained from that objective was that institutional culture is a positive significant antecedent of organisational effectiveness of the public universities. The hypothesis was tested using the structural equation modelling, as shown in figure 4.29



Source: Survey data (2023)

Figure 4 29 Structural Equation Model for Institutional Culture and Organisational Effectiveness

The model (Figure 4.29) showed that two hypotheses regarding the influence of espoused beliefs and values and basic underlying assumptions on organisational effectiveness. The factor loadings showed that for espoused beliefs and values, three (EV2-EV4) out of the six indicators that measured the same loaded highly

above the recommended validity value of 0.5 (Hair Jr et al., 2021) and three of the indicators (EV1, EV5, EV6) did not load above the minimum validity value of 0.50 when using the factor analysis. For the basic underlying assumptions, only two (UA1 & UA3) out of the six indicators loaded above recommended 0.5 validity value implying that the four indicators (UA2, UA4, UA5 & UA6) did not load above the minimum of 0.50 when using the factor analysis. That meant, therefore, that all the items that did not load were removed from the model and table 4.50 presented the paths estimates.

Table 4. 52

Institutional Culture and Organisational Effectiveness Path Estimates

| | β | Mean | STD | T | P |
|--|---------|-------|------|------|------|
| Espoused beliefs and values → Organisational Effectiveness | 0.324 | 0.330 | 0.05 | 6.15 | 0.00 |
| | | | 3 | 4 | 0 |
| Underlying → assumptions Organisational Effectiveness | 0.351 | 0.352 | 0.06 | 5.54 | 0.00 |
| | | | 3 | 5 | 0 |
| R ² Adjusted = 0.304 | | | | | |

Source: Survey data (2023)

Results from figure 4.29 and table 4.52 indicated two hypotheses to the effect that the espoused beliefs and values (H2.1) and the basic underlying assumptions were positive significant antecedents of organisational effectiveness in the public universities (H2.2) were tested. The result established that the espoused beliefs and values ($\beta = 0.324$, $t = 6.154$, $p = 0.000 < 0.05$) and the basic underlying assumptions ($\beta = 0.351$, $t = 0.063$, $p = 0.000 < 0.05$) were positive significant antecedents for organisational effectiveness of the public universities. The coefficient of determination revealed that both the espoused beliefs and values and the basic underlying assumptions contributed 31.0% ($R^2 = 0.310$) to organisational effectiveness of the public universities. The adjusted

R2 implied that the significant institutional culture factors (espoused beliefs and values, and basic underlying assumptions), contributed 30.4% (0.304) to organisational effectiveness of the public universities.

The coefficients of the determination suggested that other factors not considered in this study contributed 69.0% of organisational effectiveness. The magnitudes of the respective β s suggested that the basic underlying assumptions had the most significant influence on organisational effectiveness followed by the espoused beliefs and values. Those findings implied that if the public universities could put more emphasis on other institutional culture factors outside this study, their organisational effectiveness was more likely to be enhanced. Since the correlation between the espoused beliefs and values and organisational effectiveness of the public universities, and the association between the basic underlying assumptions and organisational effectiveness of the public universities were both positive and significant, the hypothesis was supported.

4.7 Leadership Styles and Communication

Communication was investigated in terms of four concepts namely: - communication flow, communication climate, message characteristics and communication structure and below followed the results.

4.7.1 Communication flow. The construct of communication flow was conceived as the first dimension of communication. The concept was studied using five indicators and the descriptive results were presented in table 4.43.

Table 4. 53*Summary Results for Communication Flow*

| Communication Flow | SD | D | NS | A | SA | Means |
|---|-------------|---------------|---------------|----------------|---------------|-------|
| There is good information flow among university departments | 00 00 | 23 (9.8%) | 16 (6.8%) | 144 (61.5%) | 51 (21.8%) | 3.95 |
| Information about university policies and goals is communicated | 00 00 | 12 (5.1%) | 15 (6.4%) | 156 (66.7%) | 51 (21.8%) | 4.05 |
| Information about my performance is given | 1 (0.4%) | 24 (10.3%) | 22 (9.4%) | 131 (56.0%) | 56 (23.9%) | 3.93 |
| Information about government action affecting the university is communicated | 1 (0.4%) | 10 (4.3%) | 20 (8.5%) | 153 (65.4%) | 50 (21.4%) | 4.03 |
| Information about accomplishments and/or failures of the university is communicated | 4 (1.7%) | 23 (9.8%) | 37 (15.8%) | 37 (55.1%) | 41 (17.5%) | 3.77 |

Source: Survey data (2023)

The findings in Table 4.53 on whether there was good communication flow among the university departments, the higher percentage (83.3%) agreed, 6.8% were not sure, and 9.8% did not agree. The high mean = 3.95 corresponded with those who agreed indicating that there was good communication flow among the university departments. On whether information about university policies and goals was communicated, the findings revealed that, a larger percentage (89.3%) agreed, 6.4% were not sure and 5.1% disagreed. The high mean = 4.05 justified that university policies and goals was communicated. Concerning whether information about their performance was given revealed that a high percentage (79.9%) agreed, 9.4% were not sure, while 10.7% disagreed. The mean =3.93, therefore, confirmed that information about their performance was given.

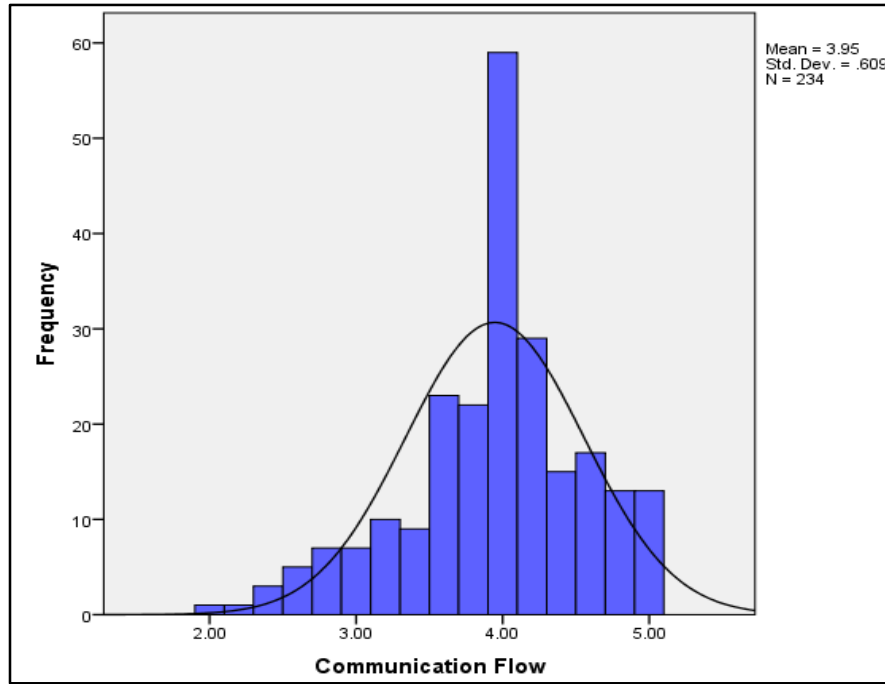
With respect to whether information about the government actions affecting the university was communicated in those universities revealed that, a high percentage (86.8%) agreed, 8.5% were not sure, while 4.7% disagreed. The high mean = 4.03 implied that information about government actions affecting the university was communicated in these universities. With regard to whether information about accomplishments and/or failures of the university was communicated, the findings revealed that a large percentage (72.6%) agreed, 11.5% disagreed and 15.8% was not sure. The high mean=3.77 implied that information about accomplishments and/or failures of the university was communicated. To find out how the administrative and academic heads rated their leader's communication flow, the average index was computed for the six indicators that measured the concept and table 4.52 presented the summary of the results.

Table 4. 54*Summary Table for Communication Flow*

| | Descriptives | Statistic | Std. Error | |
|---------------|----------------------------------|-------------|------------|------|
| Communication | Mean | 3.95 | 0.04 | |
| Flow | 95% Confidence Interval for Mean | Lower Bound | 3.87 | |
| | | Upper Bound | 4.02 | |
| | 5% Trimmed Mean | | 3.97 | |
| | Median | | 4.00 | |
| | Variance | | 0.37 | |
| | Std. Deviation | | 0.61 | |
| | Minimum | | 2.00 | |
| | Maximum | | 5.00 | |
| | Range | | 3.00 | |
| | Interquartile Range | | 0.65 | |
| | Skewness | | -0.56 | 0.16 |
| | Kurtosis | | 0.36 | 0.32 |

Source: Survey data (2023)

Table 4.54 revealed a high overall mean (mean = 3.95) which was close to the median = 4.00 with a low standard deviation (Std. = 0.61). That meant that the administrative and academic heads rated highly their public universities' communication flow because the mean=3.95 was high. The mean being close to the median with a low standard deviation implied that the findings were normally distributed and the normal distribution was diagrammatically displayed in figure 4.30.



Source: Survey data (2023)

Figure 4.30 Histogram for Communication Flow

Figure 4.30 reported a high mean = 3.95 and a low standard deviation (Std. = 0.61). The high mean implied that the perceptions of the administrative and academic heads about the universities managers' communication flow were high while the low standard deviation implied that the results were normally distributed and, thus, they were fit for linear analysis.

4.7.2 Communication Climate. The construct of communication climate was conceived as the second dimension of communication. The concept was studied using five indicators and the descriptive results were presented in table 4.53.

Table 4. 55*Communication Climate*

| Communication climate | SD | D | NS | A | SA | Means |
|---|-------------|--------------|---------------|----------------|---------------|-------|
| Communication given by top management of the University to staff motivates and stimulates an enthusiasm for meeting its goals | - | 16 (6.8%) | 46 (19.7%) | 143 (61.1%) | 29 (12.4%) | 3.79 |
| The attitude to communication by management of the university is healthy | 1 (0.4%) | 11 (4.7%) | 45 (19.2%) | 141 (60.3%) | 36 (15.4%) | 3.85 |
| University management values feedback from staff | - | 19 (8.1%) | 36 (15.4%) | 142 (60.7%) | 37 (15.8%) | 3.84 |
| There is sincerity in communication of management to staff | 1 (0.4%) | 12 (5.1%) | 32 (13.7%) | 163 (69.7%) | 26 (11.1%) | 3.86 |
| Communication made by management of the University reduces conflicts with staff | - | 9 (3.8%) | 28 (12.0%) | 152 (65.0%) | 45 (19.2%) | 3.40 |

Source: Survey data (2023)

The findings in table 4.55 on whether the communication given by the top management of the university to the staff motivated and stimulated an enthusiasm for meeting its goals indicated a higher percentage (73.5%) agreed, 19.7% were not sure, and 6.8% did not agree. The high mean = 3.79 justified that the communication given by the top management of the university to the staff motivated and stimulated an enthusiasm for meeting its goals. On whether the attitude to communication by the management of the university was healthy, the findings revealed that a larger percentage (75.7%) agreed, 19.2% were not

sure and 5.1% disagreed. The high mean = 3.85 confirmed that the attitude to communication by the management of the university was healthy. Then, concerning whether the university management valued feedback from the staff, the results revealed that a high percentage (76.5%) agreed, 15.4% were not sure, while 8.1% disagreed. The mean =3.84 established that the university management valued feedback from the staff.

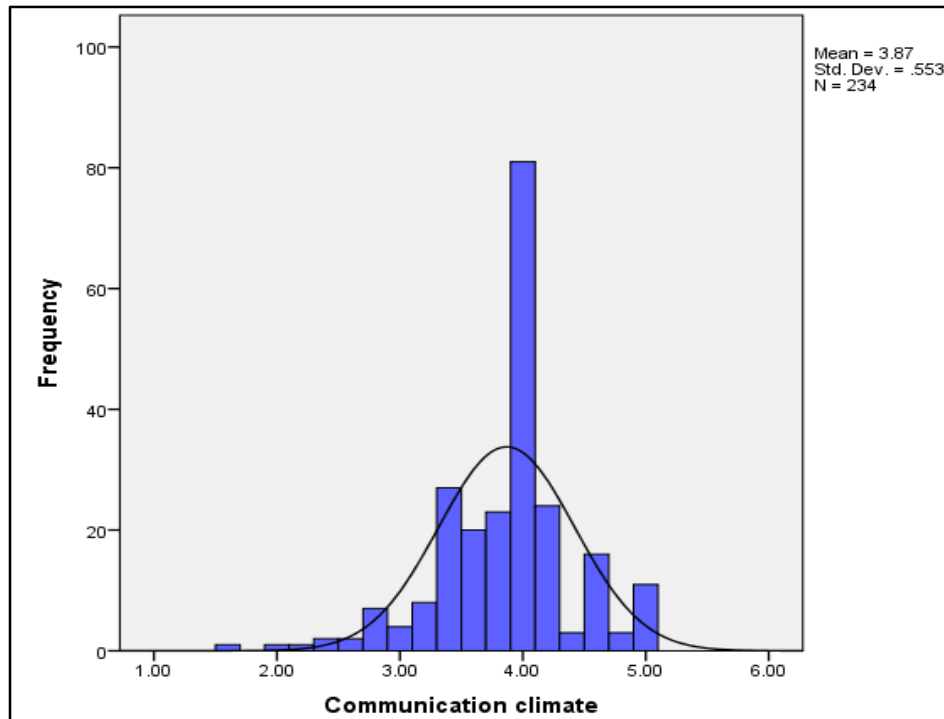
With respect to whether there was sincerity in the communication of the management to the staff in these universities revealed that a high percentage (80.8%) agreed, 13.7% were not sure, while 5.5% disagreed. The high mean = 3.86 implied that there was sincerity in the communication of the management to the staff in those universities. With regard to whether the communication made by the management of the universities reduced conflicts with the staff, the findings reported that a large percentage (84.2%) agreed, 3.8% disagreed and 12.0% were not sure. The high mean=3.40 implied that the communication made by the management of the universities reduced conflicts with the staff. And to find out how the administrative and academic heads rated their leader's communication climate; the average index was determined for the five indicators that measured the concept and table 4.54 presented the summary of the results

Table 4. 56*Summary Table for Communication Climate*

| | Descriptives | Statistic | Std. Error |
|--------------------------|----------------------------------|---------------------|------------|
| Communication climate | Mean | 3.87 | 0.034 |
| | 95% Confidence Interval for Mean | Lower Bound 3.80 | |
| | | Upper Bound 3.94 | |
| | 5% Trimmed Mean | 3.89 | |
| | Median | 4.00 | |
| | Variance | 0.31 | |
| | Std. Deviation | 0.56 | |
| | Minimum | 1.60 | |
| | Maximum | 5.00 | |
| | Range | 3.40 | |
| | Interquartile Range | 0.40 | |
| | Skewness | -0.61 | 0.16 |
| | Kurtosis | 1.72 | 0.32 |

Source: Survey data (2023)

Table 4.56 revealed a high overall mean (mean = 3.87) which was close to the median = 4.00 with a low standard deviation (Std. = 0.56). The high mean implied that the administrative and academic heads rated high their universities' communication climate because the mean=3.87 was high. The mean being close to the median with a low standard deviation implied that the findings were normally distributed and the normal distribution was diagrammatically displayed in figure 4.31.



Source: Survey data (2023)

Figure 4.31 Histogram for Communication Climate

Figure 4.31 established a high mean = 3.87 and a low standard deviation (Std. = 0.56). The high mean implied that the perceptions of the administrative and academic heads about the universities managers' communication climate were high while the low standard deviation implied that the results were normally distributed and therefore, the results were fit for linear analysis.

4.7.3 Message Characteristics. The construct of message characteristics was conceived as the third dimension of communication. The concept was studied using four indicators whereby the descriptive results were presented in table 4.55.

Table 4. 57 Message Characteristics

| Message characteristics | SD | D | NS | A | SA | Means |
|--|--------------|---------------|---------------|----------------|---------------|-------|
| University management recognises grapevine/gossip as an active communication channel in the university | 20 (8.5%) | 97 (41.5%) | 59 (25.2%) | 53 (22.6%) | 5 (2.1%) | 2.68 |
| Management of the university is bothered by freedom of communication | 21 (9.0%) | 94 (40.2%) | 59 (25.2%) | 45 (19.2%) | 15 (6.4%) | 2.74 |
| Management of the university minds much about time spent for information to reach staff | 11 (4.7%) | 62 (26.5%) | 61 (26.1%) | 91 (38.9%) | 9 (3.8%) | 3.11 |
| Management of the university has established channels through which information reaches staff | 6 (2.6%) | 7 (3.0%) | 29 (12.4%) | 144 (61.5%) | 48 (20.5%) | 3.94 |

Source: Survey data (2023)

The findings in table 4.57 on whether the university management recognised grapevine/gossip as an active communication channel in these universities indicated a lower percentage (24.6%) agreed, 25.2% were not sure, and 50.0% did not agree. The low mean = 2.68 disapproved the fact that the university management recognised grapevine/gossip as an active communication channel in those universities. On whether the management of these universities was bothered with the freedom of communication, the findings revealed that a low percentage (25.6%) agreed, 25.2% were not sure and 49.2% disagreed. The low mean = 2.74 confirmed that the view that the management of those universities were bothered with the freedom of communication.

Concerning whether the management of those universities minded much about the time spent for the information to reach the staff, the results indicated that a larger percentage (42.7%) agreed, 26.1% were not sure, while 31.2%

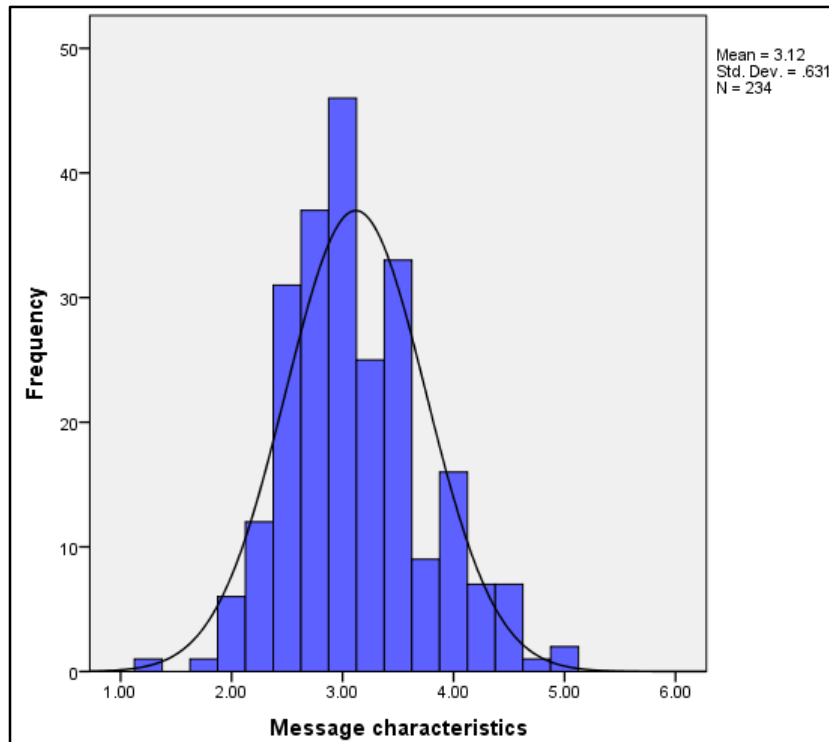
disagreed. The fair mean =3.11 established that the management of those universities fairly minded about the time spent for the information to reach the staff. Then with respect to whether the management of those universities had established channels through which information reached the staff revealed that a high percentage (80.0%) agreed, 12.4% were not sure, while 5.6% disagreed. The high mean = 3.94 implied that the management of those universities had established channels through which information reached staff. To find out how the administrative and academic heads rated their leaders' message characteristics, the average index was determined for the four indicators that measured the concept then table 4.56 presented the summary of the results.

Table 4. 58*Summary Table for Message Characteristics*

| | Descriptives | | | Statistic | Std. Error |
|-----------------|---------------------|-------------------|-------------|-----------|------------|
| Message | Mean | | | 3.12 | 0.04 |
| characteristics | 95% | Confidence | Lower Bound | 3.04 | |
| | | Interval for Mean | Upper Bound | 3.20 | |
| | 5% Trimmed Mean | | | 3.10 | |
| | Median | | | 3.00 | |
| | Variance | | | 0.40 | |
| | Std. Deviation | | | 0.63 | |
| | Minimum | | | 1.25 | |
| | Maximum | | | 5.00 | |
| | Range | | | 3.75 | |
| | Interquartile Range | | | 0.75 | |
| | Skewness | | | 0.46 | 0.16 |
| | Kurtosis | | | 0.24 | 0.32 |

Source: Survey data (2023)

Table 4.58 revealed an average mean (mean = 3.12) which was close to the median = 3.00 with a low standard deviation (Std. = 0.63). The high mean implied that the administrative and academic heads concurred that their perceptions towards the universities' communication climate were fairly low and the mean being close to the median with a low standard deviation implied that the findings were normally distributed. That normal distribution was diagrammatically displayed in figure 4.32.



Source: Survey data (2023)

Figure 4.32 Histogram for Message Characteristics

Figure 4.32 revealed an average mean = 3.12 and a low standard deviation (Std. = 0.63). The fair low mean implied that the perceptions of the administrative and academic heads about the universities managers’ message characteristics were fairly low while the low standard deviation implied that the results were normally distributed. Therefore, the results were fit for linear analysis.

4.7.4 Communication Structure.

The concept of communication structure was conceived as the fourth dimension of communication. The concept was studied using four indicators and the descriptive results were presented in table 4.57.

Table 4. 59*Communication Structure*

| Communication structure | SD | D | NS | A | SA | Means |
|---|-------------|--------------|---------------|----------------|---------------|--------------|
| University management respects communication rights of its staff | - | 7 (3.0%) | 35 (15.0%) | 151 (64.5%) | 41 (17.5%) | 3.97 |
| University management knows and understands the problems faced by its staff | 5 (2.1%) | 17 (7.3%) | 31 (13.2%) | 146 (62.4%) | 35 (15.0%) | 3.81 |
| Management of the university listens and pays attention to communication from staff | - | 15 (6.4%) | 34 (14.5%) | 143 (61.1%) | 42 (17.9%) | 3.91 |
| In this university, management meetings are regularly conducted | - | 7 (3.0%) | 16 (6.8%) | 125 (53.4%) | 86 (36.8%) | 4.24 |

Source: Survey data (2023)

The findings in Table 4.59 on whether the university management respected the communication rights of their staff indicated a high percentage (82.0%) agreed, 15.0% were not sure, and 3.0% did not agree. The high mean = 3.97 approved the fact that the university management respected the communication rights of their staff. Then on whether the management of those universities knew and understood the problems faced by their staff, the findings revealed that a high percentage (77.4%) agreed, 13.2% were not sure and 9.4% disagreed. The high mean = 3.81 confirmed the view that the management of those universities knew and understood the problems faced by their staff. With respect to whether management of these universities listened and paid attention to the

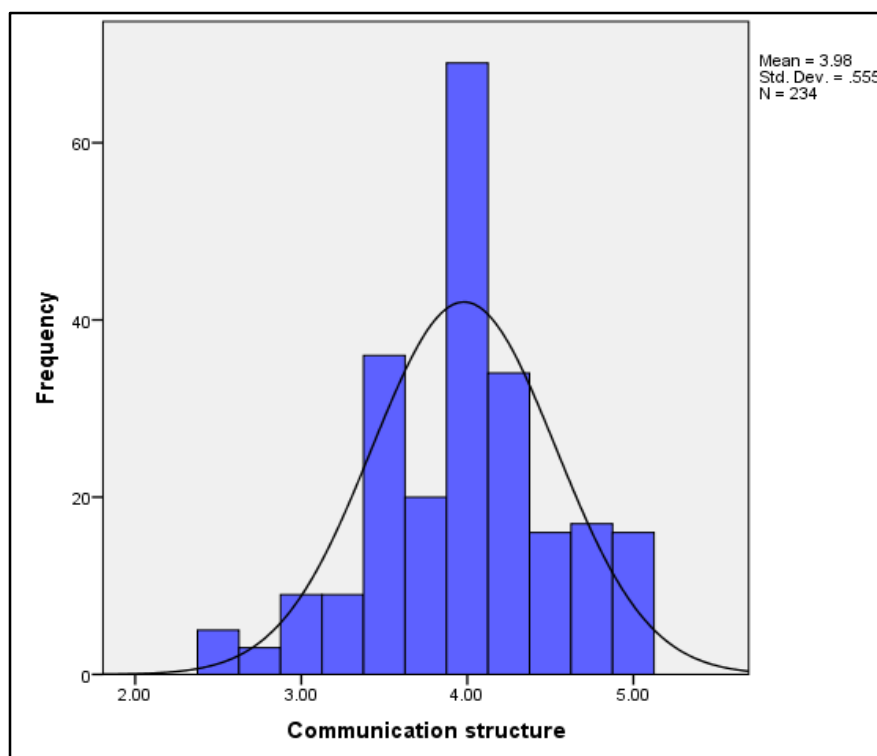
communication from staff, the results indicated that a high percentage (79.0%) agreed, 14.5% were not sure, while 6.4% disagreed. The high mean =3.91 established that the management of those universities listened and paid attention to the communication from staff. And with respect to whether in those universities, management meetings were regularly conducted, the results revealed that a high percentage (90.2%) agreed, 6.8% were not sure, while 3.0% disagreed. The high mean = 4.24 implied that management meetings were regularly conducted in those universities. To find out how the administrative and academic heads rated their leader's message characteristics, the average index was determined for the four indicators that measured the concept whereby table 4.58 presented the summary of the results

Table 4. 60 *Summary Table for Communication Structure*

| | Descriptives | Statistic | Std. Error |
|-------------------------|----------------------------------|------------------|------------|
| Communication structure | Mean | 3.98 | 0.04 |
| | 95% Confidence Interval for Mean | Lower Bound 3.91 | |
| | | Upper Bound 4.05 | |
| | 5% Trimmed Mean | 4.00 | |
| | Median | 4.00 | |
| | Variance | 0.31 | |
| | Std. Deviation | 0.56 | |
| | Minimum | 2.50 | |
| | Maximum | 5.00 | |
| | Range | 2.50 | |
| | Interquartile Range | 0.75 | |
| | Skewness | -0.26 | 0.16 |
| | Kurtosis | 0.13 | 0.32 |

Source: Survey data (2023)

Table 4.60 indicated a high overall mean (mean = 3.98) which was close to the median = 4.00 with a fair high standard deviation (Std. = 0.56). The high mean implied that the administrative and academic heads affirmed that their perceptions towards the universities' communication structure were high and the mean being close to the median with a low implied that the findings were normally distributed. For that matter, the normal distribution was diagrammatically displayed in figure 4.33.



Source: Survey data (2023)

Figure 4 33 Histogram for Communication Structure

Figure 4.33 showed a high mean = 3.98 and a low standard deviation (Std. = 0.56). The high mean implied that the perceptions of the administrative and academic heads about the universities managers' message characteristics were high while the fairly low standard deviation implied that the results were normally distributed, therefore, the results were fit for linear analysis.

4.7.5 Communication Index. To assess how overall the administrative and academic heads rated their public universities communication, an average index was determined to the four aspects measuring the concepts that were the communication flow (FLI.1-FLI.5); the communication climate (CC1.1-CC1.5); the message characteristics (MC1.1-MC1.4); and, the communication structure (CS1.1-CS1.4). Table 4.59 showed the summary of the results.

Table 4. 61

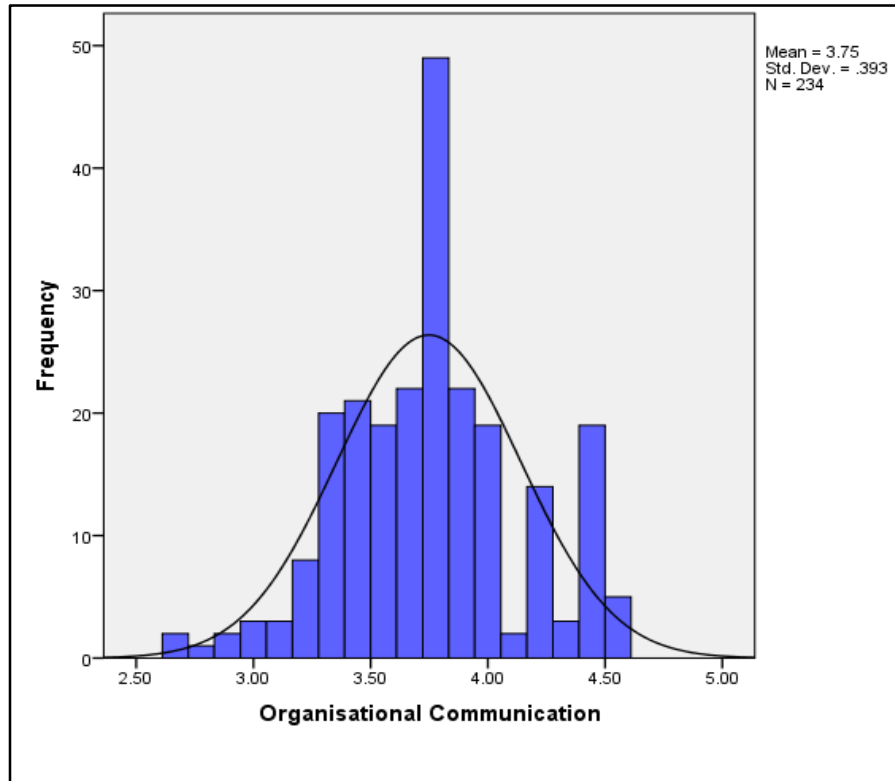
Summary Results for Communication

| Descriptives | | Statistic | Std. Error |
|---------------|-------------------------------|-----------|---------------|
| Communication | Mean | 3.75 | 0.03 |
| | 95% Lower Confidence Bound | 3.70 | |
| | Interval for Upper Bound | 3.80 | |
| | Mean | | |
| | 5% Trimmed Mean | 3.75 | |
| | Median | 3.72 | |
| | Variance | 0.16 | |
| | Std. Deviation | 0.40 | |
| | Minimum | 2.67 | |
| | Maximum | 4.56 | |
| | Range | 1.89 | |
| | Interquartile Range | 0.56 | |
| | Skewness | -0.01 | 0.16 |
| | Kurtosis | -0.18 | 0.32 |

Source: Survey data (2023)

Table 4.61 demonstrated a high overall mean (mean = 3.75) which was close to the median = 3.72 with a low standard deviation (Std. = 0.40). The high mean implied that the administrative and academic heads affirmed that their perceptions towards the universities' managers' communication were high and

the mean being close to the median with a low standard deviation implied that the findings were normally distributed. In that case the normal distribution was diagrammatically displayed in figure 4.34.

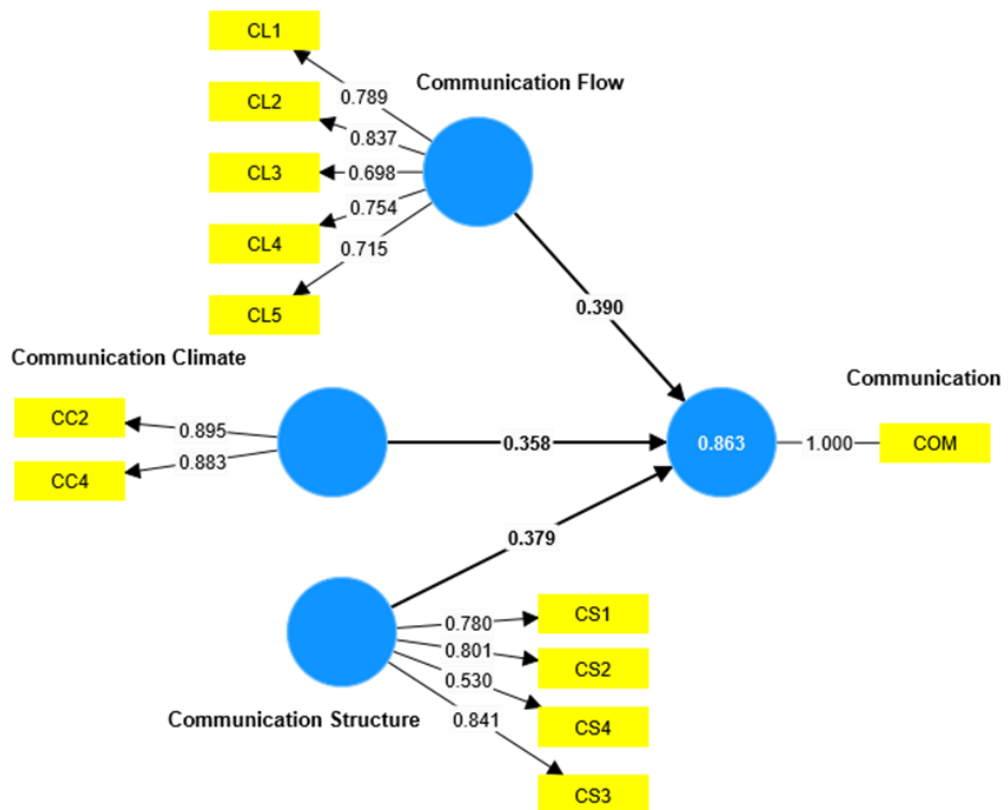


Source: Survey data (2023)

Figure 4 34 Histogram for Communication

Figure 4.34 portrayed a high mean = 3.75 and a low standard deviation (Std. = 0.40). For that matter, the high mean implied that the perceptions of the administrative and academic heads about the universities managers' communication were high while the low standard deviation implied that the results were normally distributed and therefore, the results were fit for linear analysis.

4.7.6 The Structural Equation Model for Communication. To ascertain the measures of leadership styles, a structural model (Figure 4.35) was developed which showed the indicators of the different constructs measuring the variables.



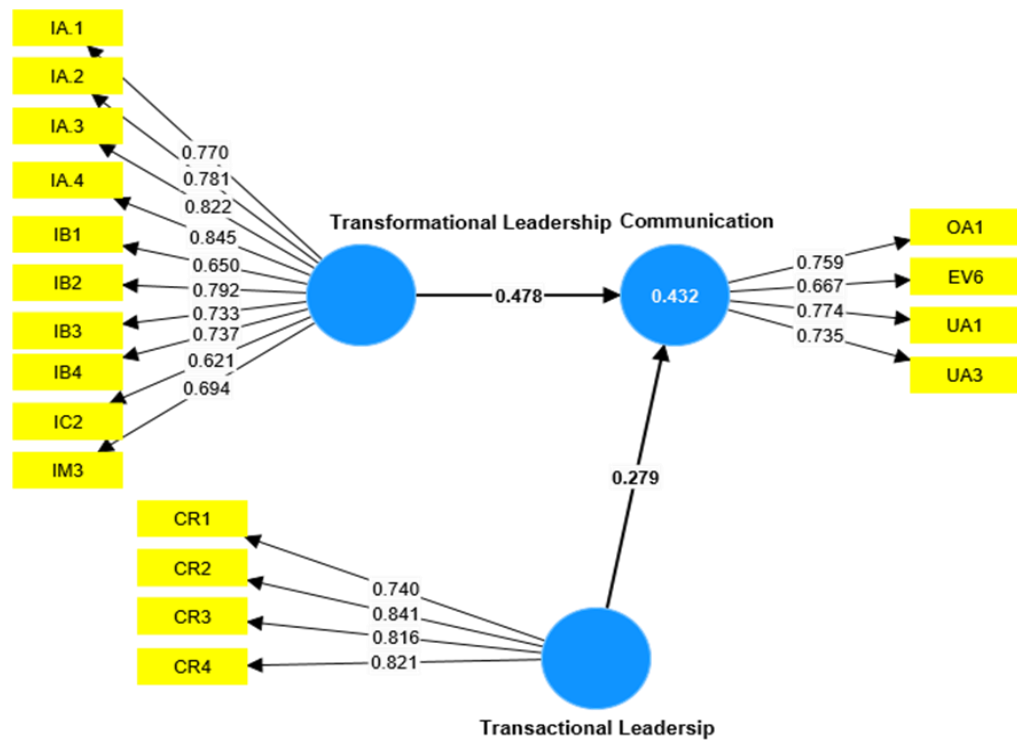
Source: Survey data (2023)

Figure 4 35 Structural Model for Communication

The Figure 4.35 indicated that communication was investigated as a tri-dimensional concept that included the communication flow, the communication climate and the communication structure. The fourth construct namely the message characteristics was removed during the outlier analysis because all its four (MC1-MC4) indicators were less than 0.5 as the minimum validity value. For the communication flow, all the five indicators (CL1-CL5) measuring it loaded highly above the 0.50 which was the minimum validity value using factor analysis (Hair Jr. et al., 2021). Then for the communication climate, only two (CC2 & CC4) out of the five indicators measuring the same loaded highly and the three indicators (CC1, CC3, & CC5) did not load. As for the communication structure, all the four (CS1-CS4) indicators measuring it loaded highly above the 0.50 which was minimum validity value when using the factor

analysis. So, the retained indicators were valid measures of the constructs in the model.

4.7.7 The Structural Equation Model for Leadership Styles and Communication. The third objective for the study was to determine the correlation between the leadership styles and communication in the public universities. The hypothesis obtained from this objective was that leadership styles were positive significant antecedents of communication in the public universities. The hypothesis was tested using a structural equation modelling (Figure 4.35).



Source: Survey data (2023)

Figure 4.36 Structural Equation Model for leadership and Communication

Figure 4.36 revealed that the influence of two leadership styles namely transformational and transactional leadership styles on communication was tested. Whereby, the transformational style consisted of idealised influence-behaviour, idealised influence-attributed, inspirational motivation, intellectual

stimulation and individual consideration whereas the transactional involved contingent reward, espoused values beliefs and values, and basic underlying assumptions. For the idealised influence-behaviour, all the four indicators (IB1-IB4) loaded above the 0.50 minimum validity value using the factor analysis and were retained. Similarly, all the four indicators (IA1-IA4) of idealised influence-attributed loaded highly and were retained. But as for individualised consideration, only one indicator (IC2) out of the four indicators loaded highly and retained while the remaining three indicators (IC1, IC3 &IC4) did not load heavily and were rejected.

Furthermore, for the inspirational motivation only one indicator (IM3) out of the four indicators loaded highly and retained while the three indicators (IM1, IM2 &IM4) did not load highly and were removed from further analysis. And as for the intellectual stimulation, all the four indicators (IS1-IS4) did not load highly and were deleted. Then for the transactional leadership style, all the four indicators of contingent reward (CR1-CR4) loaded highly and were retained whereas all the four indicators of active management-by exception (EA1-EA4) and passive-avoidant management (PA1-PA4) respectively did not load highly and were dropped.

So, the concept of communication was investigated as a tri-dimensional concept that included communication flow, communication climate and communication structure. For the communication flow, all the five indicators that measured it loaded highly above the recommended validity value of 0.5 and similarly for the communication structure, all the four indicators measuring it loaded above the minimum validity value of 0.5 when using the factor analysis. But for the communication climate, only two out of five indicators loaded above

recommended value of 0.5 implying that the three indicators (CC1, CC3 & CC5) did not load above the minimum of 0.5 when using factor analysis. Then all the indicators for the message characteristics were dropped at the outlier analysis level since they were all not valid. That meant therefore, that all the items that did not load were removed from the model and below is table 4.60 that presented the paths estimates.

Table 4. 62

Leadership and Communication Path Estimates

| | | β | Mean | STD | T | P |
|------------------|--------------|---------|------|------|------|------|
| Transactional | → Leadership | 0.279 | 0.28 | 0.05 | 4.93 | 0.00 |
| Communication | | | 3 | 7 | 3 | 0 |
| Transformational | → Leadership | 0.478 | 0.48 | 0.05 | 8.92 | 0.00 |
| Communication | | | 1 | 4 | 3 | 0 |

R^2 Adjusted = 0.427

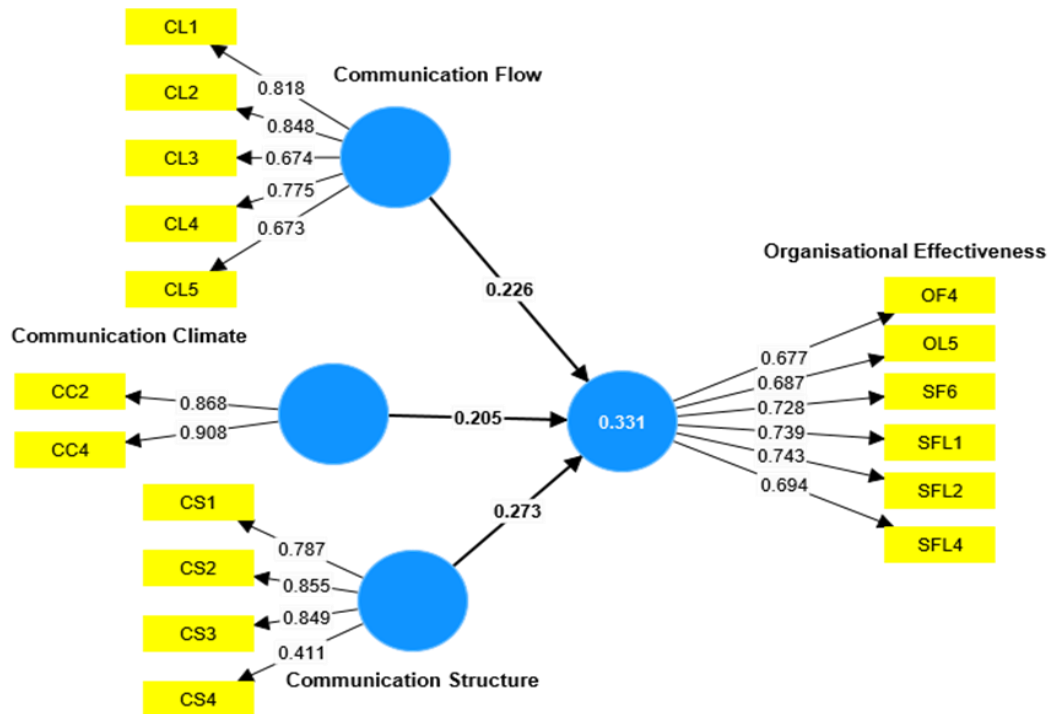
Source: Survey data (2023)

Results from figure 4.35 and table 4.62 above indicated two hypotheses to the effect that the transformational leadership style was a positive significant antecedent of communication in the public universities (H3.1) and the transactional leadership style was also a positive significant antecedent of communication in the public universities (H3.2) were tested. The results established that the transformational leadership style ($\beta = 0.481$, $t = 8.923$, $p = 0.000 < 0.05$) and the transactional leadership style ($\beta = 0.279$, $t = 4.933$, $p = 0.000 < 0.05$) were positive significant antecedents communication in the public universities. The coefficient of determination revealed that both leadership styles: transformational and transactional contributed 43.2% ($R^2 = 0.432$) to communication in the public universities. The Adjusted R^2 implied that the significant leadership styles (transformational and transactional), contributed

42.7% (0.427) to communication in the public universities. The coefficients of determination suggested that other factors not considered in this study contributed 56.8% of communication. The magnitudes of the respective β s suggested that the transformational leadership style was most significant antecedent of communication followed by the transactional leadership style. The findings, therefore, implied that if the public universities could put more emphasis on other leadership styles outside this study, the communication in public universities was more likely to be improved. With all the results being positive and significant, there was a full association effect and thus, the hypothesis was accepted.

4.8 Communication and Organisational Effectiveness

Objective four of the study investigated whether communication had a correlation with the organisational effectiveness of the public universities. A structural equation modelling was used to test the hypothesis that communication is a positive significant antecedent of organisational effectiveness as shown in figure 4.37.



Source: Survey data (2023)

Figure 4.37 Structural Equation Model for Communication and Organisational Effectiveness

Figure 4.37 revealed that communication was related to organisational effectiveness hence, the concept of communication was investigated as a tri-dimensional concept that involved communication flow, communication climate and communication structure. For communication flow, all the five (CF1-CF5) indicators that measured the same loaded highly above the recommended validity value of 0.5 and similarly for communication structure, all the four indicators measuring it loaded above the minimum validity value of 0.5 when using factor analysis. For the communication climate, only two (CC2 & CC4) out of five indicators loaded above recommended 0.5 validity value implying that the three indicators (CC1, CC3 & CC5) did not load above the minimum of 0.5 when using the factor analysis. On the other hand, all the four (MC1-MC4) indicators for message characteristics were dropped at outlier analysis level since they were all not valid. That meant, therefore, that all the

items that did not load were removed from the model and below is the table 4.61 that presented the paths estimates.

Table 4. 63

Communication and Organisational Effectiveness Path Estimates

| | | | β | Mea | STD | T | p |
|---------------|------------------------------|----|---------|------|------|------|------|
| | | | | n | | | |
| Communication | Climate | -> | 0.205 | 0.19 | 0.09 | 2.11 | 0.03 |
| | Organisational Effectiveness | | | 8 | 7 | 4 | 5 |
| Communication | Flow | -> | 0.226 | 0.23 | 0.07 | 3.19 | 0.00 |
| | Organisational Effectiveness | | | 4 | 1 | 2 | 1 |
| Communication | Structure | -> | 0.273 | 0.28 | 0.08 | 3.13 | 0.00 |
| | Organisational Effectiveness | | | 3 | 7 | 9 | 2 |

R^2 Adjusted = 0.323

Source: Survey data (2023)

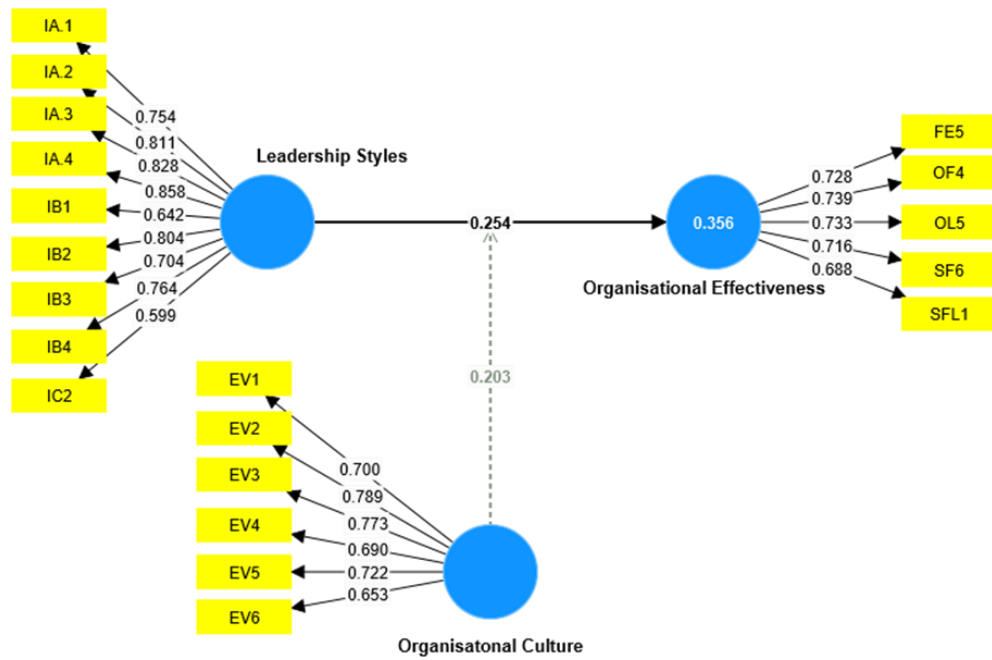
The findings from figure 4.36 and table 4.63 above indicated the three hypotheses to the effect that communication flow (H4.1), communication climate (H4.2) and communication structure (H4.3) was positive significant antecedents of organisational effectiveness of the public universities were tested. The result established that communication flow ($\beta = 0.226$, $t = 3.192$, $p = 0.001 < 0.05$), communication climate ($\beta = 0.205$, $t = 2.114$, $p = 0.035 < 0.05$) and communication structure ($\beta = 0.273$, $t = 3.139$, $p = 0.002 < 0.05$) were positive significant antecedents of organisational effectiveness of the public universities. The coefficient of determination revealed that all the three communication factors: - communication flow, communication climate and communication structure contributed 33.1% ($R^2 = 0.331$) to the organisational effectiveness of the public universities. The Adjusted R^2 implied that the significant communication factors (communication flow, communication

climate and communication structure), contributed 32.3% (0.323) to the organisational effectiveness of the public universities.

The coefficient of determination suggested that other factors not considered in this study contributed 66.9% of the organisational effectiveness. Then the magnitudes of the respective β s suggested that communication structure had the most significant influence on organisational effectiveness followed by communication flow and lastly by communication climate. The findings implied that if public universities could put more emphasis on other communication factors outside this study, the organisational effectiveness of the public universities was more likely to be positively impacted on. With all the results being positive and significant, there was a full association effect, thus, the hypothesis was accepted.

4.9 Leadership Style and Organisational Effectiveness Moderated by Institutional Culture

This fifth objective investigated institutional culture as a moderator between the leadership styles and the organisational effectiveness. That objective led to the hypothesis that institutional culture has a positive significant moderate effect on the association between leadership styles and organisational effectiveness. The institutional culture as a moderator between leadership styles and organisational effectiveness was established using a structural equation modelling.



Source: Survey data (2023)

Figure 4.38 Structural Equation Model for Leadership Styles Moderated by Institutional Culture

The results in Figure 4.38 showed that three factors that measured leadership styles namely: - idealised influence-attributed, idealised influence-behaviour and individual consideration leadership styles were tested for factor loadings since the other two constructs (inspirational motivation and intellectual stimulation) were dropped out at the outlier analysis level since they never loaded above the minimum validity value of 0.50 during the factor analysis. For the idealised influence-attributed leadership style all the four indicators (IA1-IA4) loaded highly above the minimum validity value of 0.50. And for the idealised influence-behaviour leadership style, all the four indicators (IB1- IB4) loaded above 0.50. For the individual consideration leadership style only one indicator (IC2) loaded above the minimum validity value 0.50 and three indicators out of four (IC1, IC3 and IC4) did not load. Then, all the four

indicators of intellectual stimulation (IS1-IS4) and all the four indicators of inspirational motivation (Im1-IM4) did not load highly and were thus removed.

On the other hand, the construct of institutional culture was measured as a one-dimensional concept involving espoused values since the other two (artefacts and basic underlying assumptions) loaded low at the outlier analysis level and were dropped. All the indicators of espoused beliefs and values (EV1-EV5) loaded above the minimum validity value of 0.50 and were retained and analysed. However, all the five (IF1-IF5) indicators of artefacts and all the six (UA1-UA6) indicators of basic underlying assumptions did not load highly above 0.50 the minimum validity value when using the factor analysis recommended by Haiir, Jr et al. (2021) and were therefore removed from the analysis. In that case, all the items above 0.50 were retained for analysis.

Table 4. 64

*Structural Model for Leadership Styles and Organisational Effectiveness
Moderated by Institutional Culture*

| | β | Mean | STD | T | p |
|---|---------|-------|-------|-------|------|
| Leadership Styles → Organisational Effectiveness | 0.254 | 0.253 | 0.069 | 3.676 | 0.00 |
| Organisational Culture → Organisational Effectiveness | 0.404 | 0.414 | 0.054 | 7.486 | 0.00 |
| Organisational Culture x Leadership Styles → Organisational Effectiveness | 0.203 | 0.200 | 0.048 | 4.251 | 0.00 |

R2 Adjusted = 0.348

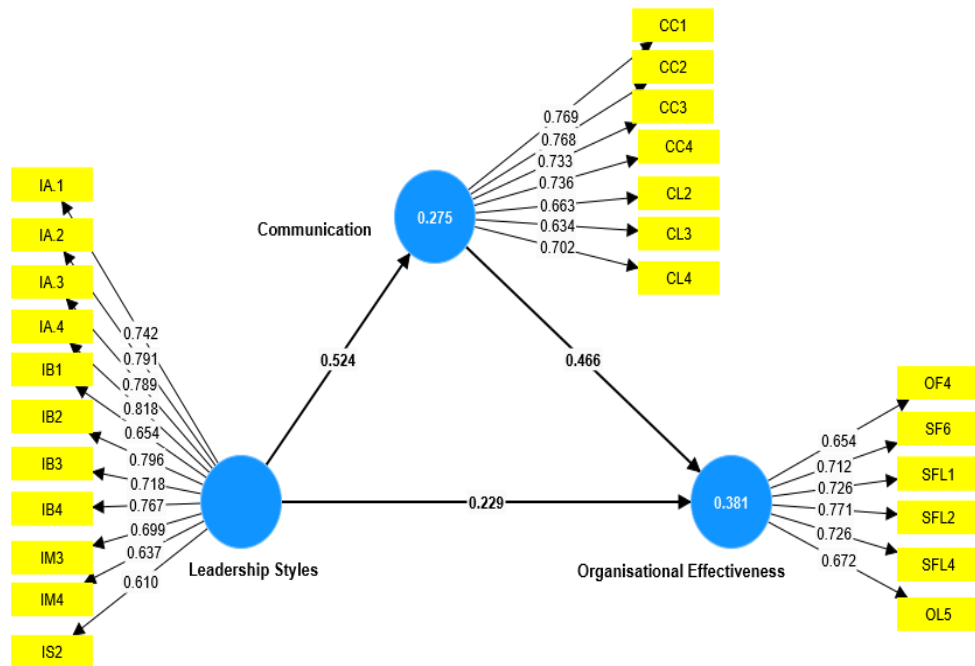
Source: Survey data (2023)

The model in figure 4.37 and table 4.64 presented the results on the hypothesis to the effect that institutional culture had no significant moderating role on the influence of leadership styles on organisational effectiveness of public universities. The findings in table 4.62 illustrated that leadership styles $\beta=0.254$, $t=3.676$, $p=0.000<0.05$) were positive significant antecedents of organisational

effectiveness, and institutional culture and organisational effectiveness ($\beta=0.404$, $t=7.486$, $p=0.000 < 0.05$) was a positive significant antecedent of organisational effectiveness. So, the results of the interaction factor showed that ($\beta = 0.203$, $t=1.4.251$, $p = 0.000 > 0.05$) organisational culture moderated the influence of leadership styles on the organisational effectiveness. With all the results being positive and significant, there was a full moderation effect and thus, the hypothesis was accepted.

4.10 Leadership Styles and Organisational Effectiveness Mediated by Communication

The sixth objective of the study investigated communication as a mediator between leadership styles and organisational effectiveness. The hypothesis drawn from that objective was that communication had no mediating effect on the linkage between leadership styles and organisational effectiveness. As shown in figure 4.38, a structural equation modelling was used to test the mediating effect of communication on the connection between leadership styles and organisational effectiveness.



Source: Survey data (2023)

Figure 4 39 Structural Equation Model for Leadership Styles and Organisational Effectiveness Mediated by communication

The results in figure 4.39 illustrated that the association between leadership styles and organisational effectiveness was mediated by communication. However, the leadership styles were investigated in terms of two factors namely the transformational leadership style (idealised influence -attributed, idealised influence-behaviour, inspirational motivation, intellectual stimulation and individual consideration) and the transactional leadership style (contingent reward, active management-by-exception and passive-avoidant leadership). Hence, for idealised influence-attributed leadership style, all the four indicators measuring it loaded above 0.5 when using factors analysis. For the idealised influence-behaviour leadership style, all the four indicators (IB1-IB4) loaded above 0.5. But for the inspirational motivation leadership style, two indicators out of the four measuring it (IM3-IM4) loaded above 0.5 and the other two (IM1-IM2) did not load.

Then for the intellectual stimulation leadership styles, one indicator (IS2) out of the four indicators measuring it loaded above the minimum validity value of 0.50 while the other three (IS1, IS3 & IS4) did not load and were removed from the analysis. And lastly for the individualised consideration leadership style, only one indicator (IC2) loaded above the minimum valid value of 0.50 whereas the other three (IC1, IC3 & IC4) did not load and were removed. Concerning communication, all the four indicators of message characteristics (MC1-MC4) and five indicators of communication flow (CF1-CF5) respectively did not load above the minimum validity value of 0.50 when using the factor analysis and were therefore removed from further analysis. Then all the four indicators measuring communication climate loaded above the minimum validity value of 0.50 and were therefore all retained for further analysis. As for the communication structure, only one indicator (CS1) out of the four indicators measuring it loaded above the minimum validity value of 0.50 and the three (CS2, CS3 & CS4) did not load. Thus, all the items that did not load above 0.5 were removed from the model.

Table 4. 65*Mediating Effect of Communication on Leadership and Organisational Effectiveness Path Estimates*

| Path Estimates | B | Mea n | STD | T | p |
|---|-------------------|----------------------------|-----------|------------|-----------|
| Communication → Organisational Effectiveness | 0.466 | 0.47 1 | 0.06 4 | 7.328 | 0.00 0 |
| Leadership → Styles Communication | 0.524 | 0.53 1 | 0.04 7 | 11.04 2 | 0.00 0 |
| Leadership → Styles Organisational Effectiveness | 0.229 | 0.22 7 | 0.07 7 | 2.978 | 0.00 3 |
| Leadership → Styles Communication Organisational Effectiveness | 0.244 | →0.24 9 | 0.03 7 | 6.608 | 0.00 0 |
| Co-efficient determination | of R ² | R ² Adjusted | | | |
| Communication | 0.275 | 0.272 | | | |
| Organisational Effectiveness | 0.381 | 0.376 | | | |

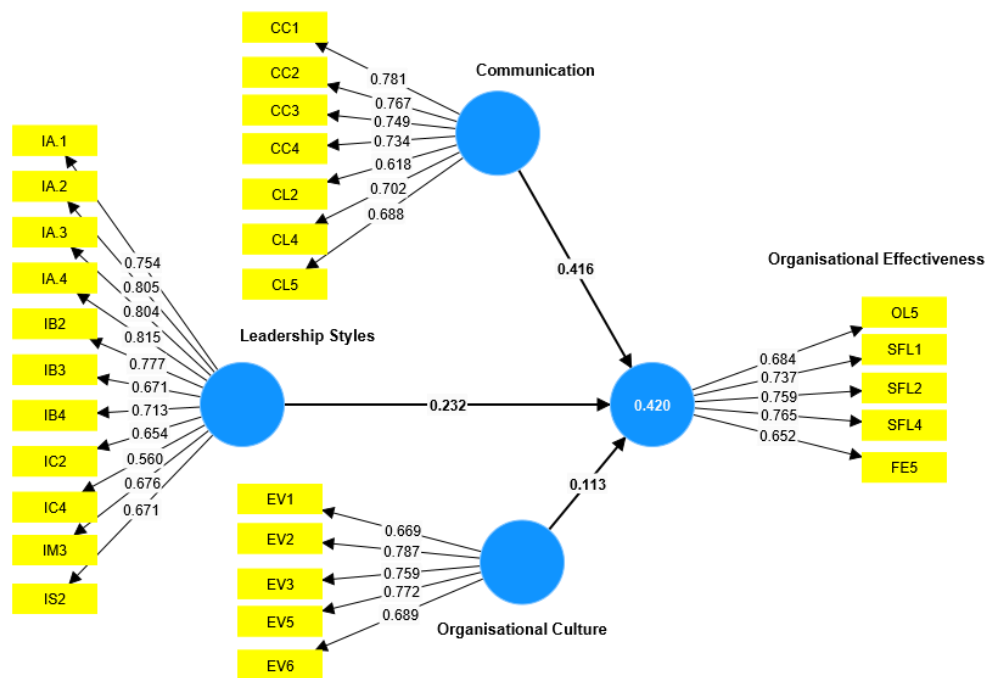
Source: Survey data (2023)

The model in figure 4.28 and table 4.65 hypothesised that the leadership styles and organisational effectiveness were not mediated by communication. However, the findings in table 4.63 illustrated that communication ($\beta=0.466$, $t=7.328$, $p=0.000<0.05$) was a positive significant antecedent of the organisational effectiveness. And that the leadership styles ($\beta= 0.524$, $t=11.042$, $p=0.000<0.05$) were a positive significant antecedent of organisational communication. The results further revealed that leadership styles ($\beta=0.229$, $t=2.978$, $p=0.000 < 0.05$) were a positive significant antecedent of organisational effectiveness. In addition, the mediation test results revealed that communication ($\beta = 0.224$, $t=6.608$, $p = 0.000 < 0.05$) had a positive and significant moderating effect on organisational effectiveness. Thus, communication mediated the association between leadership styles and

organisational effectiveness of public universities. With all the results being positive and significant, there was a full mediation effect and thus, the hypothesis was accepted.

4.11 Predictors of organisational effectiveness

As demonstrated in figure 4.40, the independent variables of the study namely: - leadership styles, institutional culture and communication were evaluated in relation to the dependent variable (organisational effectiveness of public universities)



Source: Survey data (2023)

Figure 4 40 Predictors of Organisational Effectiveness of Public Universities

Figure 4.40 showed the results of the factor loading on the independent variables namely: - leadership styles, institutional culture, and communication. The five constructs that measured the leadership styles were idealised influence-attributed, idealised influence-behaviour, inspirational motivation intellectual stimulation and individualised consideration all under transformational

leadership; and, contingent reward, active management-by-exception and passive-avoidant leadership all under transactional leadership. Using the factor analysis, all the four (IA1-IA4) indicators for idealised influence-attributed leadership loaded above the minimal valid value of 0.5 (Hair Jr. et al., 2021). Three (IB2-IB4) out of the four indicators of idealised influence-behaviour loaded highly above the required minimum validity value of 0.50 and only one (IB1) did not load. Then, one (IM3) out of the four indicators of inspirational motivation leadership loaded highly and was retained while the three (IM1-IM2 &IM4) did not load. One (IS2) out of the four indicators of intellectual stimulation loaded highly and three (IS1, IS3 & IS4) did not load and were removed. Two (IC2 &IC4) out of the four individualised consideration indicators loaded highly and were retained while the two (IC1& IC3) did not load and were removed.

For transactional leadership, all the three constructs measuring it never loaded above the minimum validity value of 0.5 and were removed. The institutional culture was investigated as artefacts, espoused values and basic underlying assumptions where five (EV1-EV3 &EV5-EV6) out of six indicators of espoused beliefs and values loaded highly and were retained whereas one (EV4) indicator did not load highly and was removed from the analysis. Furthermore, communication was considered as communication flow, communication climate, message characteristics and communication structure where all the four (CC1-CC4) indicators of communication climate loaded highly and were retained. Four (CL2, CL4 &CL5) indicators of communication flow loaded highly above 0.50 and were retained while only one (CL3) never loaded above the minimum validity value of 0.50 and was therefore removed.

Then all the four indicators of communication structure (CS1-CS4) and all the four indicators of message characteristics did not load above the minimum validity value of 0.50 and were removed. For that matter, the items that did not load above 0.5 were removed from the model.

Table 4. 66

Significant predictors of Organisational Effectiveness of Public Universities

| | | β | Mean | STD | T | p |
|--------------------------------|--------------------------------------|---------|-------|-------|-------|-------|
| Communication → | Organisational Effectiveness | 0.416 | 0.417 | 0.068 | 6.142 | 0.000 |
| Leadership Styles → | Organisational Effectiveness | 0.232 | 0.233 | 0.072 | 3.249 | 0.001 |
| Institutional → | Culture Organisational Effectiveness | 0.113 | 0.119 | 0.081 | 1.391 | 0.164 |
| $R^2 = 0.420$ | | | | | | |
| $R^2 \text{ Adjusted} = 0.413$ | | | | | | |

Source: Survey data (2023)

The results in table 4.66 revealed that three hypotheses to the effect that leadership styles ($\beta = 0.232$, $t = 3.249$, $p = 0.001 < 0.05$) and communication ($\beta = 0.416$, $t = 6.142$, $p = 0.000 < 0.05$) were positive significant antecedents of organisational effectiveness of public universities. In addition, institutional culture ($\beta = 0.113$, $t = 1.391$, $p = 0.164 > 0.05$) was a positive insignificant antecedent of organisational effectiveness of public universities. The coefficients of determination suggested that the three factors namely; leadership styles, institutional culture and communication contributed 42.0% ($R^2 = 0.420$) to the organisational effectiveness. Thus, the coefficient of determination suggested that 58% of variation in these three significant combined factors was contributed for by other factors not considered in this model. However, the significant factors namely leadership styles and communication contributed

41.3% (0.413) to the variation in organisational effectiveness. The combined model suggested that while leadership styles and communication had a positive significant influence on organisational effectiveness, institutional culture did not. Therefore, a positive increment in leadership styles and communication led to an improvement in organisational effectiveness.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS OF THE FINDINGS

5.0 Introduction

This chapter presented the discussion of the findings on leadership styles, institutional culture and organisational effectiveness mediated by communication. The discussion of the findings was carried out while cross-referencing with literature. The chapter also covered the conclusions and recommendations. In addition, the limitations of the study and suggested areas for further research were also presented.

5.1 Discussion of the Findings

This section presented the discussion of the findings where. The results of the dependent variables were discussed first followed by those of the independent moderating and mediating variables in relation to the dependent variable according to the study objectives and hypotheses.

5.1.1 Organisational Effectiveness of Public Universities. Organisational effectiveness of public universities was studied as a three-conceptual model describing the productivity, the adaptability and flexibility effectiveness. The descriptive results indicated that there was high level organisational effectiveness. That finding was contrary to the premise on which the study was based that organisational effectiveness of the universities was low. For instance, Neema-Abooki (2016) had indicated that there were complaints about ineffectiveness of public universities in Uganda manifested by a decline in the quality of university education with the quality of teaching and research as well as competencies related to open learning being low. Relatedly, Kasule et al.

(2023) indicated that while community service was one of core functions of a university function, the number of academic and administrative staff engaged in it was very low.

Further, Nanyanzi et al. (2021) revealed that in Uganda, faculty members rarely got involved in community support services because of the many course units they taught and other teaching related activities, including handling coursework as well as administering tests and examinations. In addition, Kasule et al. (2020) revealed that a number of academics were not committed to excellent service delivery as they failed to accurately and timely mark students' course-work and end-of-semester examinations. Furthermore, Kato et al. (2023) revealed that some academic staff faked marks and cheated examinations for students, and those involved in supervising post-graduate research showed low commitment by failing to supervise students to graduate on time, with the average completion rates of master's students standing at less than 30%. Similarly, Kakulu (2016) indicated that, 78% of the academic staff could not teach all their lectures assigned them, 67% of them could not adequately prepare their teaching prior to delivering most of the lectures to students, 56% of them did not timely evaluate students course- works and tests during the course of the semester revealing low levels of organisational effectiveness .

Inconsistent with the finding of the study, Tumuhimbise (2017) also indicated that some staff failed to set examinations in time, delayed to start lectures, failed to carry out timely marking and leading to delay in the release of examination results. Rwothumio et al. (2020) also indicated that effectiveness of academic staff in Ugandan universities was also low with

limited academic research publication and their inability to attract and win research projects. However, it should be noted that this study, unlike all the previous studies reviewed, considered administrative and academic heads. Therefore, their perceptions on organisational effectiveness might be different because of their different levels in organisational hierarchy of the universities. Hence, their assessment of organisational effectiveness was different.

5.1.2 Leadership styles and organisational effectiveness of public universities. The first objective of this study was to examine whether the leadership styles were antecedents of organisational effectiveness of the public universities. Hence, the hypothesis that leadership styles were a positive significant antecedent of organisational effectiveness of public universities was derived. The test results showed that the hypothesis was rejected and therefore, the leadership styles had a significant influence on the organisational effectiveness of public universities. This finding was in congruence with the Transformational-Transactional Leadership Theory by Burns (1998) and Avolio et al. (1999) on which this study was based which indicated that transformational leaders helped the employees to find new ways to meet organisational challenges and transactional leaders promoted compliance of the subordinates through both rewards and punishment leading to organisational effectiveness.

The finding was also in congruence with the previous scholars; for example, Abbas and Cross (2019) indicated that leadership styles had a positive impact on organisational effectiveness. And, Mwai et al. (2018) observed that leadership styles had a significant influence on organisational effectiveness. In the same vein, Oyerinde (2020) revealed that leadership styles had a positive

and significant influence on organisational effectiveness of personnel. Similarly, Won et al. (2017) indicated that leadership styles significantly influenced organisational effectiveness among employees. Given the fact that the findings of this study were in agreement with the majority results of the previous researchers, it surmised that leadership styles positively and significantly influenced organisational effectiveness of the public universities.

The discussion above is on the results of the main hypothesis and below is the discussion of the different sub hypotheses of the leadership styles and organisational effectiveness. With respect to transformational results, the test results revealed that it had a positive and significant influence on organisational effectiveness. This finding was consistent with Alsayyed et al. (2020) who indicated that transformational leadership positively influenced organisational performance. Similarly, Linge and Sikalieh (2019) indicated that transformational leadership had a significant influence on organisational performance. In the same vain, Ejike (2023) reported that transformational leadership correlated significantly with organisation effectiveness. And, Chau et al. (2022) reported that the transformational leadership style had a significant positive association on organisational performance. In congruence, Hasan and Islam (2022) also established that transformational leadership significantly influenced organisation effectiveness. Similarly, Alfanda and Suhartanti (2018) indicated the existence of a significant association between transformational leadership and performance.

In congruence with the findings of the study, Orabi (2016) revealed that the transformational leadership style had a positive influence on organisational performance. And, Hussein and Elbeltagi (2014) reported that

transformational leadership style played a significant role in influencing organisational effectiveness (product and process innovation). Consistently, Lin et al. (2015) reported that there was a significant association between transformational leadership style and organisational effectiveness. Ngaithe et al. (2016) revealed that idealised influence aspect of transformational leadership significantly predicted staff performance. Ameen et al. (2021) also reported that the inspirational motivation aspect of transformational leadership influenced organisational innovation. In a similar way, Nuel et al. (2021) revealed that transformational leadership positively and significantly influenced the organisational success. In the same vain, Mathende and Karim (2022) revealed that transformational leadership predicted the work performance. Furthermore, Ngaithe et al. (2016) reported that the inspirational motivation aspect of transformational leadership positively and significantly related with the organisational performance.

Furthermore, ALmahasneh et al. (2022) reported that transformational leadership had a positive significant impact on the organisation performance. In the same vain, Tajasom et al. (2015) observed that transformational leadership had a significant positive effect on innovation performance. Hilton et al. (2021) also reported that transformational leadership had a positive significant influence on organisational effectiveness. Similarly, Mathende and Karim (2022) revealed that transformational leadership predicted the work performance. And, Tajasom et al. (2015) established that transformational leadership had significant positive effect on innovation performance. With the findings of the study being consistent with the findings of previous scholars, it

could be inferred that transformational leadership positively and significantly influenced organisational effectiveness.

Then with respect to the finding that transactional leadership style had a positive and significant influence in organisational effectiveness, the findings were incongruent with Ejike (2023) who revealed that the transactional leadership style correlated significantly with the organisation effectiveness. In the same vein, Raveendran (2021) revealed that the transactional leadership style significantly and positively influenced organisational performance. Cob and Abidin (2020) also indicated that transactional leadership style had a significant influence on organisational effectiveness. Similarly, Thahira et al. (2020) reported that the transactional leadership style had a positive and significant direct effect on organisational innovativeness.

However, the finding was incongruent with Azizah et al. (2020) who observed that transactional leadership had no significant influence on work performance which pointed to organisational effectiveness. In the same vein, Purwanto et al., (2020) reported that transactional leadership style had no a strongly significant and positive impact on performance. And, Hasan and Islam (2022) noted that transactional leadership did not correlate with organisational effectiveness. Similarly, Nazarian et al. (2021) indicated that that transactional leadership style had an indirect influence on organisational effectiveness. Nonetheless, some scholars produced results incongruent with the findings of previous scholars, however, with the findings of the study in agreement with the findings of most previous scholars, it could be deduced that transactional leadership had a positive and significant influence on organisational effectiveness.

5.1.3 Institutional Culture and Organisational Effectiveness of the Public

Universities. The second hypothesis to the effect that institutional culture was a positive significant antecedent of organisational effectiveness of public universities was supported. That meant that institutional culture had no significant influence on organisational effectiveness. That finding was inconsistent with the premise of Schein's Theory of Institutional Culture which according to Schein (2004) postulated that institutional culture contributed towards organisational success hence organisational effectiveness. The finding was also inconsistent with Nungchim and Leihaothabam (2022) who reported that organisational culture was highly associated with organisational effectiveness. Similarly, the finding was inconsistent with Owino and Kibera (2019) who revealed that organisation culture had a positive significant influence on organisational performance. And, Al-bawaia et al. (2022) indicated that institutional culture significantly impacted on organisational effectiveness. Inconsistent with the finding of the study, Nazarian et al. (2015) reported the existence of a significant relationship between institutional culture and organisational effectiveness. And in the same vain, Yan (2016) established that institutional cultures were positively and significantly correlated with organisation effectiveness.

Furthermore, Aktas et al. (2011) showed that institutional culture was significantly related to organisational effectiveness. Heris (2014) also indicated that institutional culture had a significant positive influence on organisational effectiveness. In the same vain, Olughor (2014) reported that institutional culture significantly and positively influenced the organisational effectiveness. Similarly, Kizloglu (2021) found out that institutional culture had a significant

effect on organisational performance. However, consistent with the findings of the study, Sahinidis and Xanthopoulou (2022) revealed that institutional culture strength had no impact on organisational performance which implied organisational effectiveness. However, with the finding of the study being inconsistent with the findings of most scholars, it could be argued that in the context of public universities in Uganda, the institutional culture was not paramount.

Much as the discussion above was on the results on the main hypothesis for institutional culture and organisational effectiveness. It was imperative that the discussion for the different sub hypotheses of institutional culture and organisational effectiveness was presented. The sub-hypotheses were to the effect that espoused beliefs and values, and underlying assumptions had a significant influence on organisational effectiveness. The hypothesis test results revealed that espoused beliefs and values had a positive and significant influence on organisational effectiveness. That finding was consistent with Schein's Theory of Institutional Culture which according to Schein (2004) posited that institutional culture including espoused beliefs contributed towards organisational success hence organisational effectiveness. The finding was also consistent with Fitzgerald and Desjardins (2004) who indicated that organisational values that were shared by employees led to improved performance outcomes in for-profit organisations. Similarly, Mutuma et al. (2022) reported that organisational values had a significant effect on productivity. However, Luinstra (2019) revealed that the association between espoused values and performance was marginal. While Luinstra (2019) indicated that the association was marginal, consistent with the scholars who

reported a positive and significant relationship, the relationship was positive. That means that espoused values had a positive contribution on organisational effectiveness.

Regarding the relationship between underlying assumptions and organisational effectiveness, the results indicated that it was positive and significant. This finding was consistent with the findings of other scholars. For example, Gjerald and Øgaard (2010) indicated that the basic assumptions that constituted a company's theory of the business shaped the employees to define what the management considered as meaningful resulting in organisational effectiveness. Still to note, the finding was consistent with Schein's Theory of Institutional Culture which according to Schein (2004) suggested that institutional culture including basic underlying assumptions contributed towards organisational success hence organisational effectiveness. With the discussions above showing that institutional elements namely espoused values and basic underlying assumptions, it could be concluded that institutional culture was imperative for organisational effectiveness.

5.1.4 Leadership styles and communication. The third hypothesis was to the effect that leadership styles were positive significant antecedents of organisational effectiveness of the public universities. However, the hypothesis test rejected the hypothesis with the results indicating that both transformational and transactional leadership styles had a positive and significant influence on organisational effectiveness. Therefore, leadership styles had a significant influence on organisational effectiveness. This finding was concurred with the previous scholars; for example, Sultan et al. (2018) reported the existence of a high direct degree of correlation between the pattern type of leadership and

communication. Relatedly, Crews et al. (2019) noted that the idealised influence aspect of transformational leadership had a significant impact on the communication styles. In the same vein, BakhshaliPour et al. (2016) indicated that there was a significant association between leadership styles (transformational leadership styles) and communication skills. Similarly, Maharani and Satrya (2022) revealed that leadership styles had a positive and significant influence on communication. Allafchi (2017) also reported that a democratic leadership style had an impact on communication management. This suggested that the leadership styles used in an organisation determined the organisational communication.

5.1.5 Communication and Organisational Effectiveness of the Public

universities. The fourth hypothesis conjectured that communication had no significant influence organisational effectiveness of public universities. This hypothesis was rejected as the results indicated that communication had a significant influence on the organisational effectiveness of public universities. This finding affirmed the Gatekeeping Theory which according to Abubakar (2012) communication flow, communication climate, message characteristics and communication structure set by management related to organisational effectiveness. The finding also agreed with Arab and Muneeb (2019) who revealed that there was a positive relationship between effective communication and the organisation performance. Similarly, Ding et al. (2024) revealed that decentralised and centralised communication led to higher task performance and centralised communication network surpassed in task performance. Leje et al (2019) also reported that effective communication helped to facilitate better understanding among all parties in the construction organization.

Furthermore, the finding agreed with Sabino et al. (2021) who reported that communication positively influenced organisation performance. Similarly, Lannes (2021) indicated that there was a significant positive correlation between communication and organisation effectiveness. Udo et al. (2018) also reported that communication strongly influenced organisational effectiveness. In the same vein, Stanikzai (2017) established the existence of a direct association between effective communication and organisation performance. However, the finding was in disagreement with Musheke and Phiri (2021) who reported that there was no statistically significant relationship between management and the channel of communication used. However, with the findings of the study in agreement with the findings of most scholars, it could be affirmed that communication had a positive and significant effect on organisational effectiveness.

5.1.6 Leadership styles and Organisational Effectiveness moderated by Institutional Culture in public universities. The fifth hypothesis was to the effect that institutional culture had no significant moderating role on the influence of leadership styles on organisational effectiveness of public universities. However, this hypothesis was rejected hence the institutional culture had a significant moderating role on the influence of leadership styles on organisational effectiveness of the public universities. This finding was consistent with Tajasom et al. (2015) who reported that institutional culture moderated the relationship between transformational leadership and innovation performance. Similarly, Zehir et al. (2011) established the linkage between leadership, culture and organisational performance. Further, Yıldırım and Birinci (2013) revealed that institutional culture and transformational leadership

combinedly affected organisational performance. However, the finding was inconsistent with Jamali et al. (2022) who reported that organisational culture negatively moderated the relationship between leadership and faculty performance. However, with the finding of the study being consistent with the findings of most scholars, it could be deduced that the interaction between leadership styles and institutional culture significantly influenced organisational effectiveness.

5.1.7 Leadership styles and Organisational Effectiveness mediated by communication in public universities. The sixth hypothesis was to the effect that communication had no significant mediating role on the influence of leadership styles on organisational effectiveness of public universities. The hypothesis test results rejected the hypothesis and therefore, communication had a significant mediating role on the influence of leadership styles on the organisational effectiveness of public universities. This was supported by Gochhayat et al. (2017) who revealed that leaders who communicated frequently helped the employees to understand what the leaders wanted, what the organisation needed and how the employees fit into the big picture increasing their performance levels hence organisational effectiveness. Relatedly, Abdelaliem and Zeid (2023) reported that silence positively mediated the relationship between toxic leadership and organisation performance. Hence, communication overcame toxic leadership enhancing organisational effectiveness.

Furthermore, Choi et al. (2018) established that communication had a complete mediating effect on the relationship between educational leadership and team effectiveness. Rabiul (2023) also revealed that servant leaders and

leaders' communication competency positively influenced the employees' work engagement whereby communication competency was an important tool for servant leadership but not for transactional leadership. Similarly, Kumburu (2021) indicated that communication acted as a mediator between leadership and performance of small business. In the same vein, Neufeld et al. (2010) revealed that communication effectiveness mediated the influence of leadership behaviour on performance. With the finding of the study concurring with the findings of the previous scholars, it could be inferred that leadership styles through communication influenced organisational effectiveness.

5.2 Conclusions

This section presented conclusions in accordance with the study objectives. Hence, the following conclusions were drawn from the study objectives;

1. Transformational and transactional leadership styles were imperative for organisational effectiveness of public universities. That was when the managers inspired pride, went beyond self-interest, won the respect of subordinates, portrayed authority, emphasised values, gave subordinates a sense of purpose, exhibited morals and ethics, and emphasised a collective mission. In addition, leadership style was imperative for organisational effectiveness if managers had a clear vision, expressed confidence, sought different views from the staff, re-examined assumptions before taking action and gave attention to the staff. Furthermore, leadership styles were imperative for organisational effectiveness if the universities managers clarified rewards, assisted the staff based on effort, rewarded achievement, recognised achievement and avoided taking decisions.

2. Institutional culture was essential for organisational effectiveness of public universities. This was especially if there were high espoused beliefs and values, and basic underlying assumptions. Specifically, institutional culture was essential for organisational effectiveness of public universities especially so when leaders encouraged customer service, promoted openness and learning, encouraged team work, emphasized adherence to rules, valued students and staff satisfaction and gave value to growth and learning. Further still, institutional culture was essential for organisational effectiveness of public universities if the university managers emphasized mutual responsibility and shared objectives, timely communicated the objectives to the staff, encouraged staff members to participate in decision making, enriched jobs in terms of adding more meaningful tasks. And further, that was possible when the university managers encouraged staff to share ideas and suggestions, and encouraged the establishment of trusting relationships between supervisors and subordinates.
3. Leadership styles were vital for communication in public universities. Specifically, this was when the university managers made their subordinates proud, went beyond self-interest, tried to earn the subordinates respect, and portrayed authority and confidence. In addition, when superiors emphasized values, gave a sense of purpose, exhibited morals and ethics and emphasized the collective mission, gave attention to the staff and expressed confidence in handling the university affairs. Still to note, transformational and transactional leadership styles were vital for communication in public universities when the university managers clarified rewards, assisted the staff based on effort, rewarded/recognised achievement.

4. Communication was essential for organisational effectiveness of public universities. Specifically, this was when the university managers respected the communication rights of their staff, knew and understood the problems faced by their staff, listened and paid attention to the communication from the staff and encouraged conducting of regular management meetings. Furthermore, when the university managers permitted regular flow of information among the university departments, communicated the university policies and communicated performance to individual staff members. Further still, when university managers communicated government actions affecting the university, communicated accomplishments/failures of the university, had a healthy attitude towards communication, valued feedback from staff and showed sincerity when communicating to staff.
5. The interaction between leadership styles and institutional culture was important for organisational effectiveness of the public universities. Therefore, in providing leadership in universities, there should be giving emphasis to institutional culture if there was to be organisational effectiveness.
6. The mediation effect of communication was important to the influence of leadership styles on organisational effectiveness of public universities. Therefore, in the provision of leadership there should be effective communication to enhance its efficacy in enhancing organisational effectiveness.

5.3 Recommendations

The conclusions about the significant antecedents of organisational effectiveness of public universities led to the making of the following recommendations:

1. The university managers should emphasise appropriate leadership styles specifically transformational and transactional leadership styles to enhance organisational effectiveness. This should involve public universities managers being able to- inspire pride, going beyond self-interest, winning the respect of subordinates, portraying authority, emphasising values, giving subordinates a sense of purpose, exhibiting morals and ethics, and emphasising a collective mission. Additionally, the managers should always: - be optimistic, talk enthusiastically, have a clear vision, express confidence, seek views from staff, and re-examine assumptions before taking action. The managers should further be able to have a clear vision, express confidence, seek different views from the staff, re-examine assumptions before taking action and give attention to the staff. Furthermore, the university managers should clarify rewards, assist the staff based on effort, reward/recognise achievement and avoid taking decisions.
2. The university managers should promote institutional culture especially the espoused beliefs and values, as well as the basic underlying assumptions to enhance organisational effectiveness of public universities. The universities managers should also encourage customer service, promote openness and learning, encourage team work, emphasize adherence to rules, value student and staff satisfaction and give value to growth and learning. Further still, the university managers should emphasize mutual responsibility and shared

objectives, timely communicate objectives to the staff, encourage staff members to participate in decision making and enrich jobs in terms of adding more meaningful tasks. And further, the university managers should encourage the staff to share ideas and suggestions and establish a trusting relationship between supervisors and subordinates.

3. The university leaders should establish effective communication if their leadership was to lead to organisational effectiveness. That should involve university managers respecting the communication rights of their staff, knowing and understanding the problems faced by the staff, listening and paying attention to communication from the staff and conducting regular management meetings. Likewise, the university managers should ensure a regular flow of information among the university departments, communicate university policies and communicate performance to the individual staff members. Similarly, the university managers should communicate government actions and show sincerity when communicating to the staff.
4. The university managers should promote organisational culture aspects specifically espoused beliefs and values, and the basic underlying assumptions to promote organisational effectiveness. They should also encourage customer service, promote openness and learning, encourage team work, emphasize adherence to rules, value student and staff satisfaction and give value to growth and learning. Furthermore, the university managers should emphasize mutual responsibility and shared objectives, timely communicate objectives to the staff, encourage staff members to participate in decision making and enrich jobs in terms of

adding more meaningful tasks. And further, the university managers should encourage the staff to share ideas and suggestions, and establish a trusting relationship between supervisors and subordinates. This was because the interaction between leadership styles and institutional culture was important for organisational effectiveness of public universities.

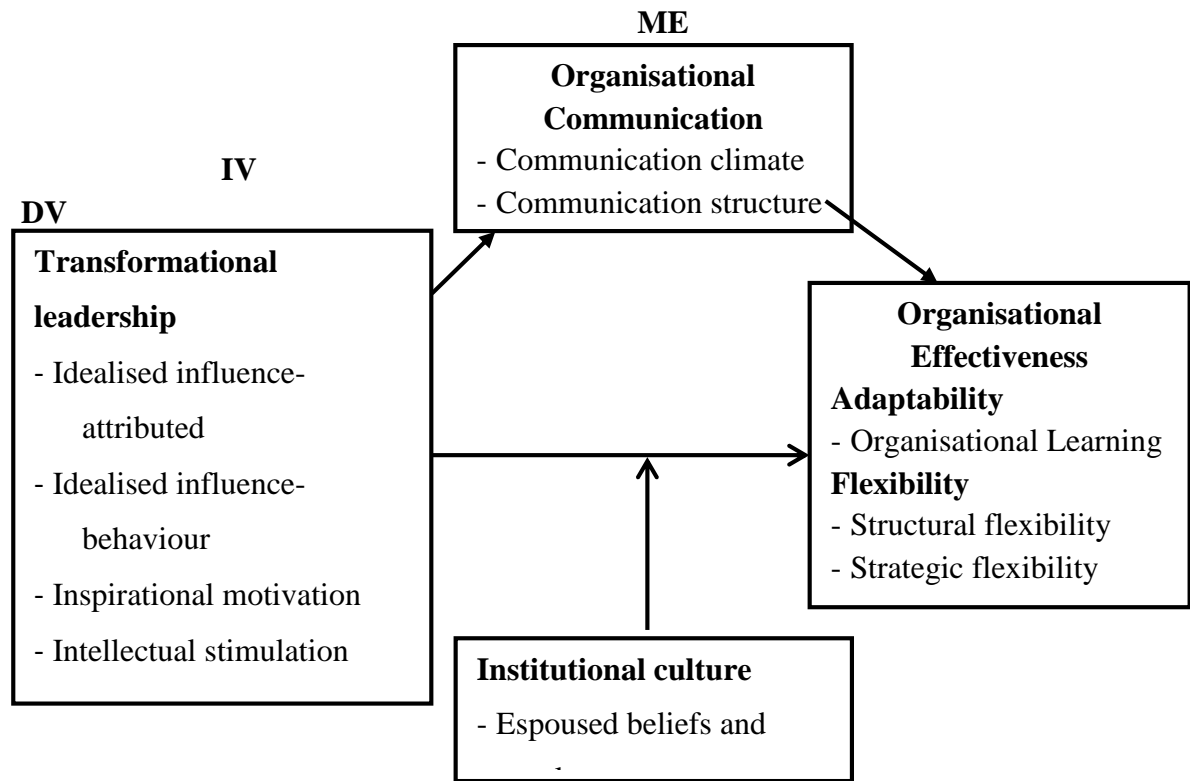
5. The university managers should combine effective leadership styles and institutional culture to enhance the organisational effectiveness of public universities. Therefore, in providing leadership in universities, there should be giving emphasis to institutional culture if there was to be organisational effectiveness.
6. The university managers, besides using appropriate leadership styles, should put in place effective communication to enhance organisational effectiveness of the public universities. Effective communication facilitates leadership efficacy enhancing organisational effectiveness. This was because the interaction between leadership styles and organisational effectiveness of public universities was highly mediated by communication.

5.4 Contribution of the Study

This study contributed to theory and practice by developing a model indicating how to promote organisational effectiveness of public universities using leadership styles, institutional culture and communication as its practical contributions. The model was a modified version of the original conceptual framework (Figure 1.1) and figure 6.1 below presented the developed model.

Figure 5.1

A Modified Conceptual Model showing linkages between Organisational Effectiveness and its Antecedents



Source: Primary Data

The model (figure 6.1) suggested that the leadership styles of transformational and transactional related to organisational effectiveness. However, the relationship between transformational leadership and organisational effectiveness was moderated and mediated by the institutional culture and communication respectively. Accordingly, while Transformational leadership comprised of idealised influence-attributed, idealised influence-behaviour, inspirational motivation, intellectual stimulation and individual consideration, transactional leadership comprised of contingent reward and passive-avoidant. For institutional culture, it was in terms of espoused values while communication was in terms of communication climate and structure respectively. On the other hand, organisational effectiveness denotes

adaptability in terms of organisational learning and flexibility in terms of structural and strategic flexibility. This model guided the implementation of leadership, culture and communication to enhance organisational effectiveness. Three articles were produced from this research as a contribution to the body of knowledge on Antecedents of organisation effectiveness of public universities in Uganda (Appendix H)

Turyahikayo, W., Mugizi, Kasule, G. W. (2023). Leadership Styles and Organisational Effectiveness in Selected Public Universities in Uganda. *The Uganda Higher Education Review*, 11(1), 1-18. <https://doi.org/10.58653/nche.v11i1.14>

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5.5 Limitation of the Study

This study made significant contribution in showing how leadership styles moderated by institutional culture and mediated by communication and hence influencing organisational effectiveness. However, limitations that called for future research emerged; for instance, contrary to what was hypothesised to the effect that institutional culture influenced organisational effectiveness, in a multiple test, the hypothesis was rejected yet in a singular test the results showed

that institutional culture in terms of espoused values and basic underlying assumptions positively and significantly influenced organisational effectiveness. Furthermore, the factor analysis led to the dropping of productivity, an important element of organisational effectiveness. That called for further research using a different sample possibly the academic staff in non-administrative roles. Furthermore, the study was purely quantitative which called for future mixed studies or qualitative ones for exploratory analysis. Last but not least, the study involved only public universities, hence it did not capture the situation in private universities; therefore, future research should extend to private universities.

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APPENDICES

Appendix A: Table for Determining Sample Size from a Given Population

| N | S | N | S | N | S | N | S | N | S |
|----|----|-----|-----|-----|-----|------|-----|--------|-----|
| 10 | 10 | 100 | | 280 | 162 | 800 | 260 | 2800 | 338 |
| 15 | 14 | 110 | 86 | 290 | 165 | 850 | 265 | 3000 | 341 |
| 20 | 19 | 120 | 92 | 300 | 169 | 900 | 269 | 3500 | 346 |
| 25 | 24 | 130 | 97 | 320 | 175 | 950 | 274 | 4000 | 351 |
| 30 | 28 | 140 | 103 | 340 | 181 | 1000 | 278 | 4500 | 355 |
| 35 | 32 | 150 | 108 | 360 | 186 | 1100 | 285 | 5000 | 357 |
| 40 | 36 | 160 | 113 | 380 | 191 | 1200 | 291 | 6000 | 361 |
| 45 | 40 | 170 | 118 | 400 | 196 | 1300 | 297 | 7000 | 364 |
| 50 | 44 | 180 | 123 | 420 | 201 | 1400 | 302 | 8000 | 367 |
| 55 | 48 | 190 | 127 | 440 | 205 | 1500 | 306 | 9000 | 368 |
| 60 | 52 | 200 | 132 | 460 | 210 | 1600 | 310 | 10000 | 373 |
| 65 | 56 | 210 | 136 | 480 | 214 | 1700 | 313 | 15000 | 375 |
| 70 | 59 | 220 | 140 | 500 | 217 | 1800 | 317 | 20000 | 377 |
| 75 | 63 | 230 | 144 | 550 | 225 | 1900 | 320 | 30000 | 379 |
| 80 | 66 | 240 | 148 | 600 | 234 | 2000 | 322 | 40000 | 380 |
| 85 | 70 | 250 | 152 | 650 | 242 | 2200 | 327 | 50000 | 381 |
| 90 | 73 | 260 | 155 | 700 | 248 | 2400 | 331 | 75000 | 382 |
| 95 | 76 | 270 | 159 | 750 | 256 | 2600 | 335 | 100000 | 384 |

Note: N = population size S = sample size

**Appendix B: Questionnaire Survey for Administrative and Academic
Heads as University Officials**

Dear respondent,

I am a student of Kyambogo University carrying out a study entitled
“Antecedents of organisational effectiveness of public universities in Uganda”

You have been selected to participate in this study because you are very well
positioned to provide the necessary data. Your voluntary participation in this
study will be highly appreciated. All the information provided will be treated
with confidentiality and is only necessary for the success of this study. Thank
you in advance.

Yours sincerely

Wilberforce Turyahikayo

PhD student

0701069287/0782781293

Section A: Background Characteristics

Please, on the question items below, tick on the appropriate option

A1) Sex; 1) Male 2) Female

A2) Age group in years; 1) Up to 30 2) 30 but below 40 3) 40 and
above

A3) Highest level of education attained; 1) Certificate 2) Diploma 3)
Bachelor’s degree

4) Masters 5) PhD

A4) I have been employed in this university for; 1) Less than one year 2) 1 but
less than 5 years

3) 5 but less than 10 years 4) More than 10 years

A5) My job/position in this university is

.....

Section B: Organisational Effectiveness

This section presents items on organisational effectiveness (DV) and is divided into three sections that are teaching/instruction, research output and community engagement. You are kindly requested to indicate how you consider organisational effectiveness of your university using the scale where 1= Strongly Disagree, 2= Disagree, 3 =Not Sure, 4=Agree, and 5=Strongly Agree

| | Productivity | SD | D | NS | A | SA |
|------------|---|-----------|----------|-----------|----------|-----------|
| IE | Instruction Effectiveness | 1 | 2 | 3 | 4 | 5 |
| IE1 | Teaching load of lecturers is equitably distributed | | | | | |
| IE2 | Lecturers are assigned teaching subjects that fit their educational and professional capabilities | | | | | |
| IE3 | Lecturers are assigned activities aligned to their fields of specialization | | | | | |
| IE4 | Regular evaluation of academic performance is conducted | | | | | |
| IE5 | Preparing and reviewing of curricula and syllabuses is done regularly | | | | | |
| IE6 | Lecturers are provided adequate educational support and equipment | | | | | |
| IE7 | Courses are planned and respond to dynamic changes in the educational systems | | | | | |

| RE | Research Effectiveness | SD | D | NS | A | SA |
|-----|---|----|---|----|---|----|
| | | 1 | 2 | 3 | 4 | 5 |
| RE1 | The university is supported with requirements (internet, statistical softwares, other resources and funding) | | | | | |
| RE2 | The university has a research manual which provides specific guidelines and procedures | | | | | |
| RE3 | Lecturers and students are trained and developed in the proper research methods and practices | | | | | |
| RE4 | The university has developed and implemented a research agenda | | | | | |
| RE5 | Lecturers get the chance to attend trainings and seminars to enhance their research capabilities | | | | | |
| RE6 | Completed and on-going research studies are periodically monitored and evaluated | | | | | |
| RE7 | The university ensures that research results are published preferably in refereed journals | | | | | |
| RE8 | Research funds have been allocated for lecturers and student research activities | | | | | |
| RE9 | Linkages have been established with local, national and/or international partners to strengthen research programs | | | | | |

| ESE | Extension Services Effectives | SD | D | NS | A | SA |
|------------|--|-----------|----------|-----------|----------|-----------|
| | | 1 | 2 | 3 | 4 | 5 |
| ESE1 | Staff of the university are involved in outreach or extension services | | | | | |
| ESE2 | The university has an extension manual that provides specific guidelines and procedures | | | | | |
| ESE3 | The university's extension program is in line with institutional, regional and national priorities | | | | | |
| ESE4 | The university responds quickly to support community service needs | | | | | |
| ESE5 | The university supports the various outreach programs | | | | | |
| FE | Financial Effectiveness | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |
| FE1 | In this university projects hardly overrun the budget | | | | | |
| FE2 | The university pays its entire staff on time | | | | | |
| FE3 | The cash inflows exceed the cash outflows in this university | | | | | |
| FE4 | In this university, materials purchase remains within the budget | | | | | |
| FE5 | The university buys quality supplies at the optimum price | | | | | |
| CG | Change Focus | SD | D | NS | A | SA |

| | | 1 | 2 | 3 | 4 | 5 |
|-----------|---|-----------|----------|-----------|----------|-----------|
| CG1 | The university management pressures itself to work according to change demands | | | | | |
| CG2 | The university has mechanism of updating its stakeholders about changes introduced | | | | | |
| CG3 | Management constantly communicates to staff about the need for change | | | | | |
| CG4 | The university is involved in partnerships with other universities | | | | | |
| CG5 | The university is involved in partnerships with stakeholders such as development partners and donors | | | | | |
| CF | Customer Focus | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |
| CF1 | The university has a forum that enables different stakeholders to discuss their needs with management | | | | | |
| CF2 | University management tries to introduce courses/ programmes that are helpful to its different stakeholders | | | | | |
| CF3 | The questions of stakeholders about courses/ programmes introduced are answered | | | | | |
| CF4 | Internal stakeholders of the university are handled in a way that shows that they matter | | | | | |
| OL | Organisational Learning | SD | D | NS | A | SA |

| | | 1 | 2 | 3 | 4 | 5 |
|-----------|--|-----------|----------|-----------|----------|-----------|
| OL1 | In this university, people are provided opportunities for learning | | | | | |
| OL2 | In this university, people are rewarded for learning | | | | | |
| OL3 | Management of this university recognise staff that take initiatives | | | | | |
| OL4 | This university works together with the outside community to meet mutual needs | | | | | |
| OL5 | Leaders in this university mentor and coach those they lead | | | | | |
| | Flexibility | SD | D | NS | A | SA |
| OF | Operational Flexibility | 1 | 2 | 3 | 4 | 5 |
| OF1 | The operations of the university are efficient at different levels | | | | | |
| OF2 | The university introduces new courses according to market demands | | | | | |
| OF3 | The university adapts new systems and programmes quickly | | | | | |
| OF4 | The period taken to offer services (lead time) by university staff is fast | | | | | |
| OF5 | University staff provides high level customer satisfaction in providing services | | | | | |
| SF | Structural Flexibility | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|-----------|---|-----------|----------|-----------|----------|-----------|
| SF1 | The university has a system of rewards and incentives | | | | | |
| SF2 | Plans of the university tend to be formal | | | | | |
| SF3 | Communication in the university is well documented | | | | | |
| SF4 | The university has established teams of specialists in its different departments | | | | | |
| SF5 | Decisions from different university organs are clearly communicated | | | | | |
| SF6 | There is effective decision making at all levels of the university | | | | | |
| SF | Strategic Flexibility | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |
| SFL1 | The university carries out quick strategy reformulation to encounter new situations | | | | | |
| SFL2 | Each year new strategies are made by the university to enhance performance | | | | | |
| SFL3 | The university has put in place strategies to help her achieve its vision and mission | | | | | |
| SFL4 | The university develops strategies to enable it to operate in crisis situations | | | | | |
| SFL5 | Management is constantly working on creating options for expansion and growth of university | | | | | |

| | | | | | | |
|------|--|--|--|--|--|--|
| SFL6 | The university management is keen to use advanced technologies to set new standards for work | | | | | |
|------|--|--|--|--|--|--|

Section C: Leadership Styles

This section presents items on Leadership Styles (IV) and is divided into two sections that are transformational and transactional leadership styles. You are kindly requested to indicate how you consider each of the leadership styles as used by your superiors in your university using the scale where 1= Strongly Disagree, 2= Disagree, 3 =Not Sure, 4=Agree, and 5=Strongly Agree.

| TL | Transformational Leadership | SD | D | NS | A | SA |
|------|---|-----------|----------|-----------|----------|-----------|
| IA | Idealised influence-attributed | 1 | 2 | 3 | 4 | 5 |
| IA.1 | I am proud of my superiors in this university | | | | | |
| IA.2 | My superiors in this university go beyond self interest | | | | | |
| IA.3 | My superiors have earned my respect | | | | | |
| IA.4 | My superiors portray authority and confidence | | | | | |
| IB | Idealised influence-behaviour | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |
| IB.1 | My superiors emphasise values | | | | | |
| IB.2 | My superiors give me a sense of purpose | | | | | |
| IB.3 | My superiors exhibit morals and ethics | | | | | |
| IB.4 | My superiors emphasise the collective mission | | | | | |

| IM | Inspirational motivation | SD | D | NS | A | SA |
|------|--|----|---|----|---|----|
| | | 1 | 2 | 3 | 4 | 5 |
| IM.1 | My superiors talk optimistically on a range of issues pertaining to staff and the university | | | | | |
| IM.2 | My superiors talk enthusiastically about university activities | | | | | |
| IM.3 | My superiors have a clear vision for the university | | | | | |
| IM.4 | My superior's express confidence in handling university affairs | | | | | |
| IS | Intellectual stimulation | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |
| IS.1 | My superiors seek different views from staff | | | | | |
| IS.2 | My superiors re-examine assumptions before taking action | | | | | |
| IS.3 | My superiors suggest new ways of doing things in this university | | | | | |
| IS.4 | My superiors suggest different angles of accomplishing university activities | | | | | |
| IC | Individualised consideration | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |
| IC.1 | My superiors teach and coach subordinates | | | | | |
| IC.2 | My superiors give attention to staff | | | | | |

| | | | | | | |
|-----------|---|-----------|----------|-----------|----------|-----------|
| IC.3 | My superiors handle staff equally | | | | | |
| IC.4 | My superiors help staff develop their strengths | | | | | |
| TL | Transactional Leadership | SD | D | NS | A | SA |
| CR | Contingent reward | 1 | 2 | 3 | 4 | 5 |
| CR.1 | My superiors in this university clarify rewards | | | | | |
| CR.2 | My superiors assist staff based on effort | | | | | |
| CR.3 | My superiors in this university reward achievement | | | | | |
| CR.4 | My superiors in this university recognise achievement | | | | | |
| AE | Active management-by-exception | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |
| EA.1 | My superiors focus on mistakes of staff | | | | | |
| EA.2 | My superiors spend time on problems that need to be dealt with quickly, instead of working in a calm, planned way | | | | | |
| EA.3 | My superiors track mistakes of staff | | | | | |
| EA.4 | My superiors concentrate on failures of staff | | | | | |
| PL | Passive-avoidant leadership | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |
| PA.1 | Superiors react to problems if serious in this university | | | | | |

| | | | | | | |
|------|--|--|--|--|--|--|
| PA.2 | In this university, superiors react to failure | | | | | |
| PA.3 | Superiors in this university react to problems, if chronic | | | | | |
| PA.4 | Superiors in this university avoid taking decisions | | | | | |
| PA.5 | In this university, superiors resist expressing views | | | | | |
| PA.6 | Superiors delay responding to issues in this university | | | | | |

Section D: Organisational Culture

This section presents items on Organisational Culture (MO) and is divided into three sections that are artefacts, espoused values and underlying assumptions and beliefs. You are kindly requested to indicate how you consider each of the cultural aspects of your university using the scale where 1= Strongly Disagree, 2= Disagree, 3 =Not Sure, 4=Agree, and 5=Strongly Agree.

| OC | Institutional Culture | SD | D | NS | A | SA |
|-----------|---|-----------|----------|-----------|----------|-----------|
| OA | Artefacts | 1 | 2 | 3 | 4 | 5 |
| OA.1 | Superiors promote cooperation, consensus and group wellbeing in this university | | | | | |
| OA.2 | In this university merit is the most important basis for promotion | | | | | |
| OA.3 | Staff creativeness and innovativeness are highly valued in this university | | | | | |

| | | | | | | |
|-----------|---|-----------|----------|-----------|----------|-----------|
| OA.4 | In this university the structure is highly centralized i.e. the majority of matters have to pass through very few hands | | | | | |
| OA.5 | In this university there is a constant concern to keep the technology up to date | | | | | |
| EV | Espoused Values | SD | D | NS | A | SA |
| EV.1 | Customer service is good in this university, | | | | | |
| EV.2 | Openness and learning are promoted in this university | | | | | |
| EV.3 | Team work is encouraged in this university | | | | | |
| EV.4 | Adherence to rules is emphasized in this university | | | | | |
| EV.5 | Student and staff satisfaction is highly valued in this university | | | | | |
| EV.6 | Growth and learning are given value in this university | | | | | |
| | Underlying Assumptions | | | | | |
| UA.1 | In my university mutual responsibility and shared objectives are emphasized | | | | | |
| UA.2 | University objectives have been communicated to staff | | | | | |
| UA.3 | In my university, staff members are encouraged to participate in decision making | | | | | |

| | | | | | | |
|------|--|--|--|--|--|--|
| UA.4 | In my university my job is enriched in terms of adding more meaningful tasks | | | | | |
| UA.5 | The university encourages staff to share ideas and suggestions | | | | | |
| UA.6 | A trusting relationship between supervisors and subordinates has been established in my university | | | | | |

Section E: Organisational Communication

This section presents items on Organisational Communication (ME) and is divided into three sections that are artefacts, espoused values and underlying assumptions and beliefs. You are kindly requested to indicate your opinion on each of the communication aspects pertaining in your university using the scale where 1= Strongly Disagree, 2= Disagree, 3 =Not Sure, 4=Agree, and 5=Strongly Agree.

| CF | Communication Flow | SD | D | NS | A | SA |
|-------|---|----|---|----|---|----|
| CL1.1 | There is good information flow among university departments | 1 | 2 | 3 | 4 | 5 |
| CL1.2 | Information about university policies and goals is communicated | | | | | |
| CL1.3 | Information about my performance is given | | | | | |
| CL1.4 | Information about government action affecting the university is communicated | | | | | |
| CL1.5 | Information about accomplishments and/or failures of the university is communicated | | | | | |

| CC | Communication climate | SD | D | NS | A | SA |
|-------|---|----|---|----|---|----|
| | | 1 | 2 | 3 | 4 | 5 |
| CC1.1 | Communication given by top management of the University to staff motivates and stimulates an enthusiasm for meeting its goals | | | | | |
| CC1.2 | The attitude to communication by management of the university is healthy | | | | | |
| CC1.3 | University management values feedback from staff | | | | | |
| CC1.4 | There is sincerity in communication of management to staff | | | | | |
| CC1.5 | Communication made by management of the University reduces conflicts with staff | | | | | |
| MC | Message characteristics | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |
| MC1.1 | University management recognises grapevine/ gossip as an active communication channel in the university | | | | | |
| MC1.2 | Management of the university is bothered by freedom of communication | | | | | |
| MC1.3 | Management of the university minds much about time spent for information to reach staff | | | | | |

| | | | | | | |
|-----------|---|-----------|----------|-----------|----------|-----------|
| MC1.4 | Management of the university has established channels through which information reaches staff | | | | | |
| CS | Communication structure | SD | D | NS | A | SA |
| | | 1 | 2 | 3 | 4 | 5 |
| CS1.1 | University management respects communication rights of its of its staff | | | | | |
| CS1.2 | University management knows and understands the problems faced by its staff | | | | | |
| CS1.3 | Management of the university listens and pays attention to communication from staff | | | | | |
| CS1.4 | In this university, management meetings are regularly conducted | | | | | |

End

Thank you very much

APPENDIX C: RESEARCH ETHICS COMMITTEE (REC)

APPROVAL



KAMPALA
INTERNATIONAL
UNIVERSITY

Western Campus
P O BOX 71 Ishaka, Uganda
Tel: +256 758 096 775
Email: kiurec2017@kiu.ac.ug
Website: www.kiu.ac.ug

RESEARCH ETHICS COMMITTEE (REC)

15th/02/2023

To: Turyahikayo Wilberforce

Kampala International University
+256701069287

Type: Initial Review

Re: KIU-2022-228, ANTECEDENTS OF ORGANISATIONAL EFFECTIVENESS IN SELECTED PUBLIC UNIVERSITIES IN UGANDA, VERSION TWO, 2023-02-11

I am pleased to inform you that at the 65th convened meeting on 14th December 2022, the KIU REC, committee meeting, etc voted to approve the above referenced application.

The approval of the research is for the period of 15th February 2023 to 15th February 2024.

As Principal Investigator of the research, you are responsible to fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Any changes, amendments and addenda to the Protocol or the Consent Form must be submitted to the REC for re-review and approval **prior** to the activation of the changes.
3. Reports of unanticipated problems involving risks to participants or any new information which could change the risk benefit: ratio must be submitted to the REC.
4. Only the approved Consent Forms are to be used in enrolling participants. All Consent Forms signed and/or witnessed should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Continuing Review Application must be submitted to the REC eight weeks prior to the expiration date of 15th February 2023 in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion may result into suspension or termination of the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. You are required to register the research protocol with the Uganda National Council for Science and Technology, according to the guidelines of the Council for final clearance to undertake the study in Uganda.

RESEARCH ETHICS COMMITTEE (REC)

The following is the list of all documents approved in this Application by KIU REC:

| No | Document type | Language | Version number | Version date |
|----|---------------------------|----------|----------------|--------------|
| 1 | Protocol | English | Version 2 | 2023-02-11 |
| 2 | Protocol Application Form | English | Version 1 | 2022-11-14 |
| 3 | Data Collection Tools | English | Version 1 | 2022-11-14 |
| 4 | Informed Consent Document | English | Version 1 | 2022-11-14 |

Yours sincerely,



Mbyemeire Patrick
For, REC CHAIR



APPENDIX D: NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY APPROVAL



Uganda National Council for Science and Technology
(Established by Act of Parliament of the Republic of Uganda)

Our Ref: SS1694ES

3 July 2023

wilberforce Turyahikayo
Kyambogo University
Kampala

Re: Research Approval: Antecedents of Organisational Effectiveness of Public Universities in Uganda

I am pleased to inform you that on **03/07/2023**, the Uganda National Council for Science and Technology (UNCST) approved the above referenced research project. The Approval of the research project is for the period of **03/07/2023** to **03/07/2024**.

Your research registration number with the UNCST is **SS1694ES**. Please, cite this number in all your future correspondences with UNCST in respect of the above research project. As the Principal Investigator of the research project, you are responsible for fulfilling the following requirements of approval:

1. Keeping all co-investigators informed of the status of the research.
2. Submitting all changes, amendments, and addenda to the research protocol or the consent form (where applicable) to the designated Research Ethics Committee (REC) or Lead Agency for re-review and approval **prior** to the activation of the changes. UNCST must be notified of the approved changes within five working days.
3. For clinical trials, all serious adverse events must be reported promptly to the designated local REC for review with copies to the National Drug Authority and a notification to the UNCST.
4. Unanticipated problems involving risks to research participants or other must be reported promptly to the UNCST. New information that becomes available which could change the risk/benefit ratio must be submitted promptly for UNCST notification after review by the REC.
5. Only approved study procedures are to be implemented. The UNCST may conduct impromptu audits of all study records.
6. An annual progress report and approval letter of continuation from the REC must be submitted electronically to UNCST. Failure to do so may result in termination of the research project.

Please note that this approval includes all study related tools submitted as part of the application as shown below:

| No. | Document Title | Language | Version Number | Version Date |
|-----|--------------------------|----------|----------------|---------------|
| 1 | Questionnaire | Eng | 2 | 27 March 2023 |
| 2 | ICF | Eng | 2 | 27 March 2023 |
| 3 | Project Proposal | English | VERSION 2 | |
| 4 | Approval Letter | English | | |
| 5 | Administrative Clearance | English | | |

Yours sincerely,



Dr. Christopher Ddamulira
For: Executive Secretary
UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

LOCATION/CORRESPONDENCE

*Plot 6 Kimera Road, Ninda
P.O. Box 6884
KAMPALA, UGANDA*

COMMUNICATION

TEL: (256) 414 705500
FAX: (256) 414-234579
EMAIL: info@uncst.go.ug
WEBSITE: <http://www.uncst.go.ug>

GULU

P. O. Box 166
Gulu - Uganda



UNIVERSITY

TEL +256 471 432093
FAX +256 471 432946
Email: vc@gu.ac.ug
URL: www.gu.ac.ug

OFFICE OF THE VICE CHANCELLOR

June 22, 2023

The Executive Secretary National
Council of Science and Technology (NCST),
KAMPALA (U)



Dear Sir,

RE: APPROVAL FOR MR. TURIAHIKAYO WILBERFORCE TO COLLECT DATA FROM GULU UNIVERSITY.

I hope this letter finds you in good health and high spirits.

I am writing to confirm that **Mr. TURIAHIKAYO WILBERFORCE** have been cleared to conduct his PhD research entitled "**Antecedents for Organizational Effectiveness of Public Universities in Uganda**" at Gulu University, as per the guidelines and regulations set forth by the Department, School and Kampala International University Research Ethics Committee.

I am grateful of his interest to study our Institution in Partial fulfillment of his PhD research. It is my hope that this research will be of great significance not only to Gulu University but to the entire establishment of higher learning in Uganda.

It is our hope that he will engage in scholarly activities and collaborate with fellow researchers in Gulu University on this subject.

Gulu University commits to provide for him an excellent environment for conducting this study.

Yours Sincerely,

Prof. George Ladaah Openjuru
VICE CHANCELLOR

**DIRECTORATE OF GRADUATE STUDIES, RESEARCH, AND
INNOVATIONS**

12th June 2023

Mr. Wilberforce Turyahikayo
Kyambogo University

**PERMISSION TO CONDUCT RESEARCH AT BUSITEMA
UNIVERSITY**

Reference is made to your letter requesting Busitema University for permission to conduct research titled “Antecedents for Organizational Effectiveness of Public Universities in Uganda”.

This is to inform you that as a requirement for UNCST ethics approval, you are hereby informed that you will be allowed to conduct the above research at Busitema University.

We wish you success in your academic endeavours.

Feel free to contact me for any other information:

rbsjunior@gmail.com, +256776369920.

Sincerely,



Samson Rwahwire, Ph.D., NEFF., FUNAS

Associate Professor

DIRECTOR

APPENDIX F: CERTIFICATE OF EDITING

Katagala Foundation Limited

P.O. Box 26458

Kampala

+256708023039

Email: sekagya64@yahoo.com

RE: CERTIFICATE OF EDITING

This is to certify that I, Ssekagya Eric W. K., have carried out the language editing of Mr Turyahikayo Wilberforce's Thesis Entitled: **Antecedents of Organisational Effectiveness of Public Universities in Uganda**

The editing was carried out between 22nd August to 5th September 2024 and all noted language errors in the work were adequately adjusted.

Signed



SSEKAGYA ERIC WILLY KASIRYE

LANGUAGE EXPERT

APPENDIX G: SIMILARITY INDEX

ANTECEDENTS OF ORGANISATIONAL EFFECTIVENESS OF PUBLIC UNIVERSITIES IN UGANDA

by Wilber Turyahikayo

mission date: 17-Aug-2024 12:31PM (UTC+0100)
mission ID: 2307976917
name: WILBER_FINAL DISSERTATION_15_th_AUGUST_2024.docx (12.88M)
word count: 74597
character count: 462752

ANTECEDENTS OF ORGANISATIONAL EFFECTIVENESS OF PUBLIC UNIVERSITIES IN UGANDA

ORIGINALITY REPORT

| | | | |
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Publication

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Appendix H: Article Publications

Leadership Styles and Organisational Effectiveness in Selected Public Universities in Uganda

Wilberforce Turyahikayo¹, Wilson Mugizi ², George Wilson Kasule ³

1,2,3 Department of Educational Planning and Management, School of Education, Kyambogo University, P.O. Box 1 Kyambogo, Kampala, Uganda

Corresponding author email: wturya1234@gmail.com

Publisher: The Uganda Higher Education Review

(Accepted: 15th December 2023/Published: 28th December 2023)

Article DOI: <https://doi.org/10.58653/nche.v11i1.14>

Abstract

This study assessed the influence of leadership styles on organisational effectiveness of selected public universities in Uganda. Specifically, the study assessed the influence of transformational, transactional and laissez-faire leadership styles on organisational effectiveness. The study used the correlational research design on a sample of 93 respondents that were university managers, namely administrative and academic heads of Busitema and Kyambogo Universities in Uganda. Data was collected using a self-administered questionnaire and analysed using quantitative methods that were descriptive and partial least squares structural equation modelling (PLS-SEM) with the help of Smart PLS. Descriptive results revealed that organisational effectiveness, the use of transactional and laissez-faire leadership styles were moderate while the use of the transformational leadership style was high. SEM results indicated that while the transformational and transactional leadership styles had a significant positive influence on organisational effectiveness, the laissez-faire leadership style had a positive but insignificant influence on organisational effectiveness. It was, therefore, concluded that the transformational leadership and transactional leadership styles are imperative for organisational effectiveness of public universities but the laissez-faire style is not. The study recommended that university leaders should emphasise the use of the transformational and transactional leadership styles to enhance organisational effectiveness. However, university leaders should minimise the use of the laissez-faire leadership style. The significance of this study is that it identifies leadership styles that are necessary for enhancing organisational effectiveness.

Keywords: *Laissez-faire; Transformational; Transactional; Leadership styles; Organisational effectiveness.*

Leadership Styles and Organisational Communication in Selected Public Universities in Uganda

Wilberforce Turyahikayo^{1*} Wilson Mugizi² George Wilson Kasule³

AFFILIATIONS

1Department of Educational Planning and Management, Kyambogo University, Kampala, Uganda.

Author for Correspondence Email: wturya1234@gmail.com

Published by ERRCD Forum

Published: 01 July 2024

Article DOI: <https://doi.org/10.38140/ijms-2024.vol1.03>

Abstract: This study aimed to assess the impact of leadership styles on organisational communication in selected public universities in Uganda. Specifically, the study examined the influence of transformational and transactional leadership styles on organisational communication within these universities. The four public universities included in the study were Kyambogo University, Gulu University, Busitema University, and Mbarara University of Science and Technology. A correlational re-search design was employed, and data was collected from a sample of managerial staff, namely administrative and academic heads, using a self-administered questionnaire. Descriptive statistics and partial least squares structural equation modelling (PLS-SEM) were used to analyse the data using Smart PLS. The descriptive findings indicated that the organisational communication within the university was satisfactory, and the utilization of transformational leadership styles by the leaders was high, while the use of transactional leadership styles was moderate. The findings from the Structural Equation Modeling confirmed that both transformational and transactional leadership styles had a positive and significant impact on organisational communication, while the passive-avoidant leadership style had a positive but insignificant impact. As a result, it was concluded that while transformational and transactional leadership styles are crucial for enhancing organisational communication in public universities, the passive-avoidant management/laissez-faire style is not. The study recommended that university leaders should emphasise the use of both transformational and transactional leadership styles to improve organisational communication. This study's implication is that it identifies the leadership styles necessary for enhancing organisational communication in universities.

Keywords: Transformational, transactional, leadership styles, organisational communication

The Influence of Institutional Culture on Organisational Effectiveness in Selected Public Universities in Uganda

Wilberforce Turyahikayo¹, Wilson Mugizi¹ & George Wilson Kasule¹

1 Kyambogo University P. O. Box 1 Kyambogo, Kampala, Uganda.

Author for Correspondence Email: wturya1234@gmail.com

Publisher: East African Journal of Education Studies

Published 12th December 2024

Article DOI: <https://doi.org/10.37284/eajes.7.3.2169>

ABSTRACT

Organisational effectiveness is a vital component of universities and other organisations because it leads to various positive outcomes, including customer satisfaction, employee relationships, improved business processes, learning and growth, and profitability. However, despite its importance, Ugandan universities are currently struggling with low levels of organizational effectiveness. Therefore, this study assessed the influence of institutional culture on organisational effectiveness of selected public universities in Uganda. Specifically, the study assessed the influence of artefacts, espoused belief and values and basic underlying assumptions culture dimensions on organisational effectiveness. The study employed a quantitative approach, utilizing a correlational research design. With a small population of 265, the researchers aimed to survey the entire population although those who provided responses were 231 participants. The data were collected using a close-ended self-administered questionnaire. The data were analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM) using Smart Pls to test casual linkages between the variables. The results indicated that espoused beliefs and values, and basic underlying assumptions had a positive and significant impact on organisational effectiveness in public universities. The study concluded that espoused beliefs and values, and basic underlying assumptions are essential for organisational effectiveness of public universities, and basic underlying assumptions are vital for organisational effectiveness in public universities. The study recommended that university managers should promote espoused beliefs and values through enabling openness and learning, teamwork and adherence to rules, and basic underlying assumptions of mutual responsibility and shared objectives, and participation in decision-making in the management of universities.

Keywords: *Artefacts, Basic Underlying, Assumptions Espoused Beliefs and Values, Institutional Culture, Organisational Effectiveness*