

**RELATIONSHIP BETWEEN LEADERSHIP ROLE AND
EMPLOYEES' PRODUCTIVITY WITH THE MOTIVATION AS
THE MEDIATOR IN OMAN WATER SECTOR**

Abdul Aziz Saud Khalfan Al Bahri

A thesis submitted in fulfillment for the degree of

DOCTOR OF PHILOSOPHY

HUMAN RESOURCES MANAGEMENT

UNIVERSITI SAINS ISLAM MALAYSIA

June 2022

AUTHOR DECLARATION

I hereby declare that this thesis's work is my own except for quotations and summaries, which have been duly acknowledged.

Date: 8th June 2022

Signature:



8.6.2022

Name: Abdulaziz Saud AL-Bahri

Matric No: 4160241

Address: Wadi Al-Maawil, Hubra, Sultanate of Oman

Email: abusaud@windowslive.com

UNIVERSITI SAINS ISLAM MALAYSIA
جامعة العلوم الإسلامية
ISLAMIC SCIENCE UNIVERSITY OF MALAYSIA

ACKNOWLEDGEMENTS

Educational journeys can be lengthy processes marked by countless questions to looking for knowledge. I have been lucky not to walk this way alone, but there have been several people in my life that have motivated me along with this challenging and exciting task. Through these acknowledgments, I would like to thank those who inspired and supported me in my educational journey.

First of all, I am very grateful to Allah (SWT) and my highest praise to Allah (SWT) for guiding me in my Ph.D. journey, where results in completing my doctoral thesis. The Blessings of Allah (SWT) be upon the Prophet Muhammad (SAW). My heartfelt thanks and appreciation go to my Main Supervisor, Dr. Khatijah Binti Othman and Co. Supervisor, Dr. Mohd Rosmizi Bin Abd Rahman for their supervision, support and guide to complete this study. Also, I would like to thank all academic and non-academic staff at Universiti Sains Islam Malaysia (USIM) for their support and help in my research.

Sincerely, I would like to thank all those Oman Water Sector employees who responded to the research questionnaire and appreciating their participation in answering the research tool. Moreover, I would like to thank MAFWR and PAW's management for their approval and support in collecting these organizations' data. My great thanks go to my father (May Allah (SWT) have mercy on him) and my mother (Allah (SWT) blessed her with good health and longevity) and to my wife and children for their unlimited support, prayers and patience. As well, I would thank my brothers and sisters for their support and cooperation. Finally, I would like to thank all my friends and colleagues for their help, support, and encouragement.

ABSTRAK

Peranan kepimpinan dalam sektor bekalan air bersih di Oman sangat penting kerana kesannya terhadap pekerja yang menjalankan tanggungjawab mereka dengan kecekapan profesional dan produktif yang kukuh. Banyak kajian terdahulu tentang meningkatkan kepentingan menaikkan produktiviti pekerja telah dilakukan terutamanya di institusi perkhidmatan awam. Di samping itu, beberapa laporan yang menyokong kepentingan memberi perhatian kepada beberapa faktor motivasi dalam kalangan pekerja. Oleh itu, kajian ini bertujuan untuk mengkaji kesan peranan kepimpinan dan faktor motivasi terhadap produktiviti pekerja di sektor bekalan air bersih di Oman dan menganalisis kesan penyederhana motivasi terhadap hubungan peranan kepimpinan terhadap produktiviti pekerja. Oleh itu, empat objektif kajian untuk mengkaji hubungan telah dirumuskan dan menggagaskan empat hipotesis untuk mengkaji fakta-fakta berkaitan. Kajian ini adalah reka bentuk penyelidikan penerokaan berdasarkan penyelidikan kuantitatif. Ia menunjukkan hubungan antara pemboleh ubah bebas, yang diwakili oleh peranan kepimpinan, dan pemboleh ubah bersandar, yang ditakrifkan sebagai produktiviti pekerja. Di samping itu, pemboleh ubah pengantara motivasi telah digunakan untuk menganalisis kesan penyederhana antara pemboleh ubah bebas dan bersandar. Soal selidik telah disediakan dengan menguji kesahan dan kebolehpercayaannya melalui pengukuran tahap Alpha Cronbach, yang mencapai nilai tinggi untuk semua dimensi yang telah disertakan dalam soal selidik. Persampelan rawak berstrata telah digunakan kepada kakitangan yang terdiri daripada dua organisasi dalam sektor perairan Oman. Sebanyak 340 maklum balas telah dikumpulkan daripada responden. Kajian ini menggunakan Pakej Statistik untuk Sains Sosial (SPSS) versi 24 untuk menguji analisis utama. Data telah dianalisis menggunakan SPSS bersama-sama dengan analisis statistik seperti sisihan piawai standard korelasi Pearson, ujian t , analisis faktor, dan ANOVA untuk mengenal pasti perbezaan antara individu mengikut pemboleh ubah demografi responden. Versi 3.2 SMART-PLS telah digunakan untuk menilai model pengukuran, model struktur dan analisis pemboleh ubah mediator kajian. Keputusan kajian menunjukkan bahawa faktor motivasi dan hubungan produktiviti pekerja adalah positif. Hubungan positif antara peranan kepimpinan dan produktiviti pekerja juga disokong. Hasil kajian menunjukkan bahawa terdapat hubungan statistik yang signifikan antara kesan sebagai mediator adalah negatif terhadap motivasi yang terdapat dalam hubungan antara peranan kepimpinan dan produktiviti pekerja. Oleh itu, keputusan ini merumuskan bahawa OWS perlu memberi lebih perhatian kepada peranan kepimpinan dan faktor motivasi yang diberikan kepada pekerja mereka kerana pengaruh positif mereka terhadap produktiviti pekerja.

ABSTRACT

The role of leadership in the Oman water sector is of paramount importance due to its impact on employees carrying out their responsibilities with sound professional and productive efficiency. Many previous studies indicated the importance of raising employees' productivity, especially in public service institutions. Furthermore, some OWS reports had supported the importance of paying attention to some motivational factors among employees. Thus, this study aims to examine the impact of the leadership role and motivational factors on employees' productivity in the Oman Water Sector and analyzes the mediating influence of the motivation towards the relationship between leadership role and employees' productivity. Accordingly, four study objectives and four research questions were formulated to reveal this relationship, in addition to developing four-research hypothesis. This study is an exploratory research design based on quantitative research. Thus, based on previous literature related to the research topic, a particular model has been drawn up for this study. It shows the relationship between the independent variable that represented by the leadership role and the dependent variable that defined by employees' productivity. A mediator variable of motivation has been used to analyze its impact between the independent and dependent variables. For this study, a research questionnaire has been prepared using the relevant previous literature and arbitrated by some academic people. The questionnaire was tested by sending it to a sample of the study population. Then, its validity and reliability have been tested by measuring the Alpha Cronbach level, which achieved high grades for all the dimensions included in the questionnaire. The stratified random sampling has been used since the study population consists of two organizations in the Omani water sector. Therefore, 340 responses have collected from the respondents. This study used the Statistical Package for Social Sciences (SPSS) version 24 to test the primary analysis. The data has been analyzed using SPSS. It is along with constructive statistic standard deviation calculations, Pearson correlation coefficients, t-Test, factor analysis, and ANOVA to identify the individuals' differences according to their demographic variables. Besides, version 3.2 of Smart-PLS has been used to evaluate the measurement model, structural model and mediator variable analysis of the study. The study results indicated that there was a positive influence in the relationship of the leadership role and motivation factors of the employees' productivity. Moreover, this study found that there was a positive mediating influence of motivation in the relationship between the leadership role and the employee's productivity. Therefore, these results concluded that the OWS need to pay more attention to the leadership role and motivational factors provided to their employees due to their positive influence on the employees' productivity.

المخلص

يعتبر دور القيادة في قطاع المياه بسلطنة عمان ذو أهمية قصوى لتأثيره الإيجابي على الموظفين للقيام بمسؤولياتهم بكفاءة مهنية وإنتاجية ذات فاعلية، كما أن العديد من الدراسات السابقة تشير إلى أهمية رفع إنتاجية الموظفين وخاصة في المؤسسات الخدمية العامة. أيضاً، هناك بعض التقارير عن مؤسسات القطاع التي دعمت أهمية الاهتمام ببعض عوامل التحفيز لدى الموظفين. لذلك فإن هذه الدراسة تهدف إلى اختبار تأثير دور القيادة وعوامل التحفيز في إنتاجية الموظفين بقطاع المياه بالسلطنة. تعتبر هذه الدراسة تصميم بحث استكشافي يعتمد على الدراسة الكمية. ولذلك فقد تم صياغة أربعة أهداف للدراسة، وأربعة أسئلة بحثية للكشف عن تلك العلاقة، بالإضافة إلى تطوير أربعة فرضيات لدراستها. وبناءً على الأدبيات السابقة، فقد تم بناء نموذج الدراسة الذي يبين العلاقة بين المتغير المستقل (دور القيادة) والمتغير التابع (إنتاجية الموظفين)، بالإضافة إلى وجود المتغير الوسيط (التحفيز)، وذلك بهدف دراسة تأثيره على العلاقة بين المتغيرين المستقل والتابع. كما أنه تم إعداد استبانة بحثية خاصة بهذه الدراسة من خلال الاستفادة من الأدبيات السابقة ذات العلاقة، بحيث تم تحكيماها بواسطة عدد من المحكمين الأكاديميين. كما تم اختبار الاستبانة بتجربتها على عينة من مجتمع الدراسة، وتم اختبار صلاحيتها وثباتها بقياس مستوى ألفا كرونباخ الذي حقق مستويات عالية في جميع المحاور التي اشتملت عليها الاستبانة. كما أنه تم استخدام العينة العشوائية الطبقية كون مجتمع الدارسة يتمثل في جهتي عمل بقطاع المياه العماني. ولذلك، فقد تم تجميع 340 إجابة من المستجيبين بمجتمع البحث. علماً بأن هذه الدراسة استخدمت الحزمة الإحصائية للعلوم الاجتماعية (SPSS) الإصدار 24 لاختبار التحليل الأولي، وحسابات الانحراف المعياري الإحصائية، ومعاملات ارتباط بيرسون، و t-Test، وتحليل العوامل، و ANOVA لتحديد الاختلافات بين الأفراد وفقاً للمتغيرات الديموغرافية للمستجيبين. بينما تم استخدام الإصدار 3.2 من (Smart-PLS) لتقييم نموذج القياس والنموذج الهيكلي وتحليل المتغير الوسيط للدراسة. بناءً على نتائج هذه الدراسة فقد إتضح بأن العلاقة بين دور القيادة وإنتاجية الموظفين مرتبطة بشكل إيجابي. كما أن النتائج تدعم العلاقة إيجابياً بين التحفيز وإنتاجية الموظفين. بالإضافة إلى ذلك، فقد أشارت النتائج بوجود تأثير إيجابي للمتغير الوسيط (التحفيز) في العلاقة بين دور القيادة وإنتاجية الموظفين. لذلك فقد أوصت هذه النتائج بأن مؤسسات قطاع المياه العماني بحاجة إلى زيادة الاهتمام بدور القيادة، وبالعوامل التحفيز التي يقدمها لموظفيه، مع الاهتمام بتسمية دافعية الموظفين حيث أنه لها تأثير في زيادة إنتاجيتهم.

TABLE OF CONTENTS

CONTENT	PAGE
AUTHOR DECLARATION	ii
ACKNOWLEDGEMENTS	iii
ABSTRAK	iv
ABSTRACT	v
AL-MULAKHKAS	vi
LIST OF TABLES	xii
LIST OF FIGURES	xv
LIST OF APPENDICES	xvi
LIST OF EQUATIONS	xvii
ABBREVIATION	xviii
CHAPTER 1: INTRODUCTION	19
1.1 Introduction	19
1.2 Background of the Study	20
1.3 Problem Statement	26
1.4 Research Questions	29
1.5 Research Objectives	30
1.6 The Significance of the Study	30
1.7 Scope of the Study	32
1.8 The Study Structure	34
1.9 Operational Definitions	35
1.10 Chapter Summary	38
CHAPTER 2: LITERATURE REVIEW	39
2.1 Introduction	39
2.2 Employees	41
2.3 Productivity	43
2.3.1 Overview of Productivity	43
2.3.2 Relationship between Leadership Role and Employee's Productivity	45
2.4 Leadership	49
2.4.1 Definition and Concept of Leadership	49
2.4.2 Importance and Role of Leadership	51
2.4.3 Leadership and Management	54

2.4.4	Styles and Theories of Leadership	57
2.4.5	Theories of Leadership	59
2.5	Motivation	64
2.5.1	The Meaning of Motivation	64
2.5.2	The Importance of Motivation	65
2.6	Motivation's Theories	66
2.6.1	Classical Theories of Motivation	66
2.6.2	Modern Theories of Motivation	70
2.7	Leadership and Motivation	77
2.7.1	Effects of Leadership on Motivation	77
2.7.2	Islamic Perspective about Leadership and Motivation	79
2.8	Relation between Motivation and Productivity	83
2.8.1	Monetary Compensation, Salary and Promotion Opportunities	83
2.8.2	The Factor of Leadership	83
2.8.3	Job Enrichment	83
2.8.4	Information Availability and Communication	84
2.8.5	Work Environment	84
2.8.6	Good Managerial Relations	84
2.8.7	Fairness of Treatment	85
2.8.8	Meaningful Work	85
2.8.9	Trust	86
2.8.10	Total Life Space	86
2.8.11	Training and Development	86
2.9	Motivation as a Mediator for Productivity	88
2.10	Research Hypotheses	93
2.11	Research Conceptual Framework	94
2.12	Chapter Summary	96
CHAPTER 3: METHODOLOGY		98
3.1	Introduction	98
3.2	Research Design	98
3.3	Research Philosophy	101
3.4	Research Method (Stratified Random Sampling)	102
3.5	Location of the Study	104
3.6	Population and Sampling	105

3.7	Research Instruments	110
3.8	Pilot Study	111
3.9	Ethical Considerations in Data Collection	114
3.10	Reliability and Validity	114
3.11	Data Collection and Procedure	116
3.12	Chapter Summary	117
CHAPTER 4: DATA ANALYSIS		118
4.1	Introduction	118
4.2	Response Rate	118
4.3	The Respondents Demographic	118
4.3.1	The Gender of Respondents	119
4.3.2	The Age of Respondents	119
4.3.3	The Educational Qualification of Respondents	120
4.3.4	The Position Types of Respondents	120
4.3.5	The Work Experience of Respondents	121
4.3.6	The Work Place of Respondents	122
4.4	Methods of Multiple Regression Analysis	122
4.4.1	Normality	123
4.4.2	Linearity	124
4.4.3	Homoscedasticity	125
4.5	Factor Analysis	126
4.5.1	EFA for Leadership Role and Employees' Productivity	127
4.5.1.1	Matrix of EFA for Leadership Role and Employees' Productivity	127
4.5.1.2	Sampling Adequacy (Leadership Role & Employees' Productivity)	131
4.5.1.3	Measure Extraction and Rotation in Factor Analysis	131
4.5.2	Factor Analysis of the Motivation	135
4.5.2.1	Correlation Matrix of Exploratory Factor Analysis for Motivation	135
4.5.2.2	Measure of Sampling Adequacy for Motivation	136
4.5.2.3	Measure Extraction and Rotation in FA for Motivation	137
4.6	Testing Differences between the Groups (Employees' Productivity)	140
4.6.1	The Respondent's Gender Analysis (Employees' Productivity)	140
4.6.2	The Respondent's Age Analysis (Employees' Productivity)	141
4.6.3	The Respondent's Education Analysis (Employees' Productivity)	143
4.6.4	The Respondent's Position Analysis (Employees' Productivity)	144

4.6.5	The Respondent's Experience Analysis (Employees' Productivity)	146
4.6.6	Respondent's Work Place Analysis (Employees' Productivity)	147
4.7	Testing Differences between the Groups (Leadership Role)	149
4.7.1	The Respondent's Gender Analysis (Leadership Role)	149
4.7.2	The Respondent's Age Analysis (Leadership Role)	150
4.7.3	Respondent's Education Qualification Analysis (Leadership Role)	151
4.7.4	The Respondent's Position Type Analysis (Leadership Role)	153
4.7.5	The Respondent's Work Experience Analysis (Leadership Role)	155
4.7.6	The Respondent's Work Place Analysis (Leadership Role)	156
4.8	Testing Differences between the Groups (Motivation)	158
4.8.1	The Respondent's Gender Analysis (Motivation)	158
4.8.2	The Respondent's Age Analysis (Motivation)	159
4.8.3	The Respondent's Education Analysis (Motivation)	160
4.8.4	The Respondent's Position Type Analysis (Motivation)	162
4.8.5	The Respondent's Work Experience Analysis (Motivation)	164
4.8.6	The Respondent's Work Place Analysis (Motivation)	165
4.9	Measurement Model Estimation	166
4.9.1	Model Reliability	167
4.9.2	Convergent Validity	167
4.9.3	Discriminant Validity	168
4.10	Chapter Summary	174
CHAPTER 5: FINDINGS AND DISCUSSION		175
5.1	Introduction	175
5.2	Findings of the First Research Question	175
5.3	Findings of the Second Research Question	179
5.4	Findings of Third Research Question	183
5.5	Findings of the Fourth Research Question	187
5.6	Discussion of the Results and Key Findings	191
5.6.1	Key Findings of the Respondents' Demographic	191
5.6.2	Findings of Leadership Role Impact on Employees' Productivity	192
5.6.3	Findings of Motivation Impact on the Employees' Productivity	194
5.6.4	Findings of Motivation as a Mediator between (IV) and (DV)	197
5.7	Chapter Summary	198

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS	199
6.1 Introduction	199
6.2 Overview of the Study	199
6.3 Implications and Contributions of the Study	202
6.3.1 Knowledge Contribution	202
6.3.2 Theoretical Implications	203
6.3.3 Practical Implications	204
6.4 Limitation and Suggestion for future studies	205
6.5 Recommendations	207
6.6 Chapter Summary	208
REFERENCES	210
APPENDICES	239

UNIVERSITI SAINS ISLAM MALAYSIA
جامعة العلوم الإسلامية
ISLAMIC SCIENCE UNIVERSITY OF MALAYSIA

LIST OF TABLES

Tables	Pages
Table 2.1: The Differences between Leaders and Managers	56
Table 2.2: Modern Leadership Theories and their Central Ideas	59
Table 2.3: Linking Maslow, Alderfer and Herzberg Theories of Motivation	75
Table 2.4: Implication of the Main Motivation Theories	76
Table 3.1: Quantitative Research Method	98
Table 3.2: Research design and approach	100
Table 3.3: Employees' Positions in PAW	106
Table 3.4: Employees' Positions in MAFWR (Water Sector)	106
Table 3.5: Determining Sample Size of Study	107
Table 3.6: Table for Determining Sample Size from a Given Population	108
Table 3.7: Determining Sample in OWS Based on Position Types	109
Table 3.8: Detailed Sample Size Based on Position in PAW and MAFWR	110
Table 3.9: Sources of the Research Instrument	111
Table 3.10: Reliability of original instrument	113
Table 3.11: Reliability Test of Pilot Study	113
Table 4.1: The Gender of Respondents	119
Table 4.2: The Age of Respondents	119
Table 4.3: The Education Qualification of the Respondents	120
Table 4.4: Respondents' Position Types	121
Table 4.5: Respondents' Work Experience	121
Table 4.6: The Work Place	122
Table 4.7: Skewness and Kurtosis	124
Table 4.8: Cohen's Correlation Strength	128
Table 4.9: EFA Correlation Matrix for Leadership Role and Employees' Productivity	129
Table 4.10: KMO and Bartlett's Test of Leadership Role and Employees' Productivity	131
Table 4.11: Communalities of Leadership Role and Employee's Productivity	132
Table 4.12: Correlation Matrix of Exploratory Factor Analysis for Motivation	136
Table 4.13: KMO and Bartlett's Test of Motivation	137
Table 4.14: Communalities of Motivation	138
Table 4.15: Independent Sample t-Test of Gender (Employees' Productivity)	140
Table 4.16: Group Statistics of Gender (Employees' Productivity)	141
Table 4.17: Descriptive Statistics (Age Analysis)	142
Table 4.18: Test of Homogeneity of Variances for Ages of Respondents	142
Table 4.19: The ANOVA Analysis of Respondents' Ages	143
Table 4.20: Descriptive Statistics for Qualification (Employees' Productivity)	144
Table 4.21: Variances Homogeneity for Qualifications (Employees' Productivity)	144
Table 4.22: The ANOVA Analysis for Qualification (Employees' Productivity)	144
Table 4.23: Descriptive Statistics of Position Analysis (Employees' Productivity)	145
Table 4.24: Variances Homogeneity for Position (Employees' Productivity)	145

Table 4.25: ANOVA Analysis of Respondents' Position (Employees' Productivity)	146
Table 4.26: Descriptive of Work Experience Analysis (Employees' Productivity)	147
Table 4.27: Variances Homogeneity for Experience (Employees' Productivity)	147
Table 4.28: ANOVA Analysis for Work Experience (Employees' Productivity)	147
Table 4.29: Group Statistics of Work Place (Employees' Productivity)	148
Table 4.30: Independent Samples t-Test of Work Place (Employees' Productivity)	148
Table 4.31: Independent Samples t-Test of Gender (Leadership Role)	149
Table 4.32: Group Statistics of Gender (Employees' Productivity)	150
Table 4.33: Descriptive of Age of Respondents Analysis (Leadership Role)	151
Table 4.34: Variances Homogeneity for Respondents' Age (Leadership Role)	151
Table 4.35: The ANOVA Analysis for the Age of Respondents (Leadership Role)	151
Table 4.36: Descriptive Statistics for Qualification (Leadership Role)	152
Table 4.37: Test of Homogeneity of Variances for Qualifications (Leadership Role)	152
Table 4.38: The ANOVA Analysis for Qualification (Leadership Role)	153
Table 4.39: Descriptive Statistics of Position Analysis (Leadership Role)	154
Table 4.40: Homogeneity Test of Variances for Position Analysis (Leadership Role)	154
Table 4.41: The ANOVA Analysis of Respondents' Position (Leadership Role)	154
Table 4.42: Descriptive of Work Experience Analysis (Leadership Role)	155
Table 4.43: Test of Homogeneity of Variances for Experience (Leadership Role)	156
Table 4.44: ANOVA Analysis for Work Experience (Leadership Role)	156
Table 4.45: Independent Samples t-Test of Work Place (Leadership Role)	157
Table 4.46: Group Statistics of Work Place (Leadership Role)	157
Table 4.47: Independent Samples t-Tests of Gender (Motivation)	158
Table 4.48: Group Statistics of Gender (Motivation)	159
Table 4.49: Descriptive of Age of Respondents Analysis (Leadership Role)	160
Table 4.50: Homogeneity of Variances Test for Respondents' Age (Motivation)	160
Table 4.51: The ANOVA Analysis for the Age of Respondents (Motivation)	160
Table 4.52: Descriptive Statistics for Qualification (Motivation)	161
Table 4.53: Homogeneity Test of Variances for Qualifications (Motivation)	161
Table 4.54: The ANOVA Analysis for Qualification (Motivation)	162
Table 4.55: Descriptive Statistics of Position Type Analysis (Motivation)	163
Table 4.56: Homogeneity Test of Variances for Position Analysis (Motivation)	163
Table 4.57: ANOVA Analysis of Respondents' Position Types (Motivation)	163
Table 4.58: Descriptive of Work Experience Analysis (Motivation)	164
Table 4.59: Test of Homogeneity of Variances for Experience (Motivation)	165
Table 4.60: ANOVA Analysis for Work Experience (Motivation)	165
Table 4.61: Independent Samples t-Test of Work Place (Motivation)	165
Table 4.62: Group Statistics of Work Place (Motivation)	166
Table 4.63: Construct Reliability and Validity	168
Table 4.64: Cross Loading	170
Table 4.65: Fornell-Larcker Criterion	171
Table 4.66: Heterotrait-Montrait Ratio (HTMT)	172
Table 5.1: Variance Inflation Factor for Leadership Role and Employees' Productivity	176
Table 5.2: Direct & Indirect Effects of Leadership Role and Employees' Productivity	177
Table 5.3: (R^2) for Relation between Leadership Role and Employees' Productivity	178

Table 5.4: Variance Inflation Factor (VIF) for the Leadership Role and Motivation	180
Table 5.5: Indirect Effects for Motivation and Employees' Productivity	180
Table 5.6: (R^2) for Relation between Leadership Role and Motivation	182
Table 5.7: Variance Inflation Factor for Motivation and Employees' Productivity	183
Table 5.8: Direct & Indirect Effects for Motivation and Employees' Productivity	184
Table 5.9: (R^2) for the Relation between Motivation and Employees' Productivity	186
Table 5.10: Direct Effect of the Mediator Variable	188
Table 5.11: (R^2) for the Relation of the Mediator Variable	190
Table 5.12: Strong Relation Statements between IV and DV	194

UNIVERSITI SAINS ISLAM MALAYSIA
 جامعة العلوم الإسلامية الماليزية
 ISLAMIC SCIENCE UNIVERSITY OF MALAYSIA

LIST OF FIGURES

Figure 2.1: Development levels of Situational Leadership	63
Figure 2.2: <i>Taqwa</i> Framework (<i>Taqwa</i> Model)	81
Figure 2.3: Conceptual Research Framework	96
Figure 4.1: Normality Test	123
Figure 4.2: Test of Linearity	125
Figure 4.3: Homoscedasticity Test	126
Figure 4.4: Scree Plots for Leadership Role and Employees' Productivity	134
Figure 4.5: Scree Plots for Motivation	139
Figure 4.6: Hierarchical Component Path Model	173
Figure 5.1: Model of Path Analysis for Leadership Role and Employees' Productivity	177
Figure 5.2: Path Coefficients analysis between Leadership Role and Motivation	181
Figure 5.3: Model of Path Analysis for Motivation and Employees' Productivity	185

UNIVERSITI SAINS ISLAMIC MALAYSIA
جامعة العلوم الإسلامية
ISLAMIC SCIENCE UNIVERSITY OF MALAYSIA

LIST OF APPENDICES

Appendix: 1: Official Request for Data Collection in MAFWR	239
Appendix: 2: Official Request for Data Collection in PAW	240
Appendix: 3: Questionnaire (In English)	241
Appendix: 4: Questionnaire (In Arabic)	244
Appendix: 5: A list of the Arbitrators for the Questionnaire Tool	250
Appendix: 6: Leadership Role Dimension (Based on Pilot Study)	252
Appendix: 7: Motivation Factors Dimension (Based on Pilot Study)	253
Appendix: 8: Employees Productivity Dimension (Based on Pilot Study)	256
Appendix: 9: The findings of all dimensions (Based on Pilot Study)	258

UNIVERSITI SAINS ISLAM MALAYSIA
جامعة العلوم الإسلامية
ISLAMIC SCIENCE UNIVERSITY OF MALAYSIA

LIST OF EQUATIONS

1. To estimate the sample size in research using Krejcie and Morgan Method:

$$S = X^2NP (1-P) / d^2 (N-1) + X^2P (1-P)$$

2. To calculate the effect size by using Eta squared:

$$\text{Eta squared} = \frac{t^2}{t^2 + (n_1 + n_2 - 2)}$$

ABBREVIATION

ANOVA: Analysis of Variance.
DV: Dependent Variable.
DL: Development Level.
EI: Emotional Intelligence.
EFA: Exploratory Factor Analysis.
et al.: et alia (and others).
EP: Employees Productivity.
GDP: Gross Domestic Product.
H: Hypothesis.
HR: Human Resources.
IBM: International Business Machine.
i.e.: id est. (that is).
IV: Independent Variable.
KPIs: Key Performance Indicators.
KMO: Kaiser Mayer Olkin.
LR: Leadership Role.
MF: Motivation Factors.
MoE: Margin of Error.
MAFWR: Ministry of Agriculture, Fisheries and Water Resource
MV: Mediator Variable.
No.: Number.
OWS: Oman Water Sector.
PAW: Public Authority for Water.
RO: Research Objective
R: Regression.
RQ: Research Question
SL: Situational Leadership.
SPSS: Statistical Package for Social Sciences
Sr.: Serial.
Std. Standard.
SRS: Stratified Random Sampling.
VIF: Variance Inflation Factors.
 α : Cronbach's alpha.
 χ^2 : Chi-square.