



**Leading for Innovation: How Different Leadership Styles Shape
Employee Innovation in Saudi Higher Education**

A thesis submitted in fulfilment of the requirements for the degree of Doctor of
Philosophy

Mohammed Ali Alhamami

B.A. Public Administration (Najran University, KSA)
MSc. Public Management (Brighton University, UK)

Victoria University, Melbourne, Australia

Institute for Sustainable Industries and Liveable Cities

March 2024

ABSTRACT

Higher education institutions (HEIs) in developing countries are increasingly challenged by the volatile environment characterised by globalisation, rapid technological change, and competition. To overcome these challenges, a growing body of research highlights the importance of employee innovation in organisational competitiveness, survival, and growth. Of all factors related to employee innovation, leadership has been found to be one of the most critical factors in driving and supporting employee innovation. However, the leadership style that is more effective in cultivating employees' innovative behaviour remains unclear. Thus, the current study aims to examine the influence of different leadership styles (*transformational, servant, empowering, and authentic*) on employee innovative behaviour within Saudi Arabian HEIs. Furthermore, leadership is a relational process in which the interaction between leaders and followers evolves at different stages. Since the leadership approach is critical to enhancing employee innovation through developing high-quality relationships with the followers, this study examines the mediating role of leader-member exchange. In addition, the effectiveness of these leadership styles may vary, depending on the cultural values held by followers; thus, the moderating of individual power distance orientation was assessed. Relying on a positivist research paradigm in conjunction with a deductive reasoning approach and a cross-sectional design, this study employed a quantitative research methodology with a survey approach. A self-administered survey was conducted in the top five universities in the Kingdom of Saudi Arabia (KSA). The data of (381) participants were analysed by combining two analytical techniques: partial least squares structural equation modelling (PLS-SEM) and necessary condition analysis (NCA) using SmartPLS4. Empirical findings from the PLS-SEM path analysis revealed that most of the hypothesised relationships were supported. Notably, except for the impact of transformational leadership, all direct hypothesised paths showed a statistically significant and positive influence on employees' Innovative Work Behaviour (IWB). The findings also showed that the Leader-member-exchange (LMX) mediated the relationship of servant, empowering, and authentic leadership with IWB. Meanwhile, power distance orientation only moderated the relationship of servant and empowering leadership with IWB. Additionally, findings from NCA demonstrated the supremacy of servant style as a necessary and sufficient condition in promoting innovative behaviour over transformational, empowering, and authentic leadership

in KSA HEIs. Considering the overall results of the study, servant leadership appears to be the most suitable style for promoting innovative behaviour in a high-power distance country like KSA.

This thesis offers several theoretical, practical, and methodological implications. First, the current study is one of the few studies that examine and compare the effect of prominent leadership styles in a single study to better understand the dynamics of IWB in the workplace. The findings expand the understanding of the direct effects of servant, empowering and authentic leadership styles, assessed through an integrative model in supporting IWB. Secondly, this study adds to the theoretical understanding of the mediation mechanisms of LMX and moderating role of cultural value (Power Distance Orientation) in illuminating the effectiveness of leadership behaviour. Finally, and relating to practical implications, the outcomes of this thesis enrich the leadership and employee innovation literature by highlighting the importance of developing servant leadership behaviours as a necessary condition in academic institutions to achieve high level of innovation among KSA faculty members.

Keywords: Leadership Styles, Leader-Member Exchange, Power Distance Orientation, Innovative Work Behaviour, Higher Education Sector.

STUDENT DECLARATION

I, Mohammed Alhamami, declare that the PhD thesis entitled ‘Leading for Innovation: How Different Leadership Styles Shape Employee Innovation in Saudi Higher Education’ is no more than 80,000 words in length, including quotes and exclusive of tables, figures, appendices, bibliography, references, and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work. I have conducted my research in alignment with the Australian Code for the Responsible Conduct of Research and Victoria University’s Higher Degree by Research Policy and Procedures.

Ethics Declaration

All research procedures reported in the thesis were approved by Victoria University Human Research Ethics Committee (Application ID: HRE21-077).

Signature

Mohammed Ali Alhamami

Date

27th March 2024

ACKNOWLEDGEMENTS

In the name of Allah, the Most Gracious and the Most Merciful

First and foremost, all praise is due to my Lord, Allah, for the strength, knowledge, and perseverance He has bestowed upon me throughout this journey. It is with a deep sense of gratitude that I acknowledge His countless blessings and guidance in every step of my life and academic pursuit.

I would extend my heartfelt appreciation to my esteemed principal supervisor, Professor Shahnaz Naughton. Your expertise, mentorship, and unwavering support have been the cornerstone of my research. The guidance you provided throughout the research and writing process of this thesis has been invaluable. Your constructive criticism and insightful feedback have played a crucial role in refining my research abilities and enhancing my capabilities. I deeply appreciate your encouragement, wise advice, and extensive knowledge, all of which have been instrumental in bringing this thesis to completion. I am forever grateful for your role in this PhD journey.

Similarly, I extend my sincere gratitude to my external supervisor, Dr. Wesley McClendon for his valuable contributions to my PhD journey. Your support and insightful feedback have played a significant role in my development as a researcher. I am grateful for your encouragement and for the essential part you have played in my academic growth.

I must express my profound gratitude to my family: father, mother, brothers and sisters, my steadfast source of love and support. To my wife and children, your understanding, patience, and sacrifices have not gone unnoticed. Your constant encouragement and belief in my abilities have been my motivation during the most challenging times. You have been my refuge and my strength, and for that, I am forever thankful.

Additionally, I wish to acknowledge the generous financial support provided by my country, The Kingdom of Saudi Arabia, and my employer, The University of Najran. This support has been vital in facilitating my pursuit of higher education and a PhD degree. The opportunities afforded to me through this support have been instrumental in achieving my academic goals, and for this, I am deeply appreciative.

PUBLICATIONS

Alhamami, M. A., Naughton, S., & McClendon, W. (2024). Are servant and transformational leadership necessary for employee innovation? A combined use of PLS-SEM and NCA. *In progress*.

Conferences and Presentations

Alhamami, M. A., Naughton, S., & McClendon, W. (2022). Leading for Innovation: Comparing Leadership Styles Required for Innovative Behaviour in Saudi Higher Education Institutions. In VUBS HDR Conference. Victoria University, Melbourne, Australia.

CONTENTS

ABSTRACT	2
STUDENT DECLARATION	4
ACKNOWLEDGEMENTS	5
PUBLICATIONS	6
CONTENTS	7
LIST OF TABLES	13
LIST OF FIGURES	15
LIST OF APPENDICES	16
LIST OF ABBREVIATIONS	17
Chapter 1: Introduction	18
1.1 Research Background	18
1.2 Research Problem	24
1.3 Study Aim & Objectives.....	27
1.4 Research Questions.....	27
1.5 Definition of Key Terms.....	28
1.6 Statement of Significance	29
1.6.1 Theoretical Significance	29
1.6.2 Practical Significance	31
1.7 Methodology Overview	32
1.8 Thesis Outline.....	32
Chapter 2: Literature Review	34
2.1 Introduction.....	34
2.2 Innovation	34
2.2.1 Definition of Innovation	35
2.2.2 Difference Between Creativity and Innovation	36
2.2.3 Innovative Work Behaviour	37
2.2.4 Conceptualisation of Innovative Work Behaviour	38
2.2.5 Antecedents of Innovative Work Behaviour	41
2.2.6 Individual Factors	41
2.2.7 Job Factors	44

2.2.8	Organisational Factors	45
2.3	Leadership.....	45
2.3.1	Definition of Leadership.....	45
2.3.2	Evolution of Leadership Theories	48
2.3.3	Contemporary Leadership Theories	51
2.3.4	Transformational Leadership.....	51
2.3.5	Authentic Leadership.....	53
2.3.6	Servant Leadership	55
2.3.7	Empowering Leadership	57
2.3.8	Leader Member Exchange.....	58
2.3.9	The Importance of Leadership in Developing Innovative Behaviour	59
2.3.10	Critique and Issues of Empirical Research.....	60
2.4	Culture	62
2.4.1	The Concept of Culture	62
2.4.2	National Cultural Framework.....	64
2.4.3	Dimension of Hofstede’s Cultural Framework.....	64
2.4.4	Limitations of Hofstede’s Framework.....	68
2.4.5	The Issue in Level of Analysis in Cultural Research	70
2.4.6	Power Distance at the Individual Level.....	71
2.4.7	The Influence of Power Distance Orientation on Leadership Evaluation	72
2.5	Study Context: Saudi Arabia	73
2.5.1	Geographical and Cultural Overview	73
2.5.2	Economic Landscape	74
2.5.3	Higher Education System	75
2.5.4	Higher Education Policies and Reforms: Vision 2030	76
2.5.5	Leadership Challenges in Saudi Higher Education	77
2.5.6	Innovation in Saudi Higher Education	78
2.6	Chapter Summary	79
Chapter 3: Hypothesis Development.....		81
3.1	Introduction.....	81

3.2	Supporting Theories.....	81
3.2.1	Social Exchange Theory	82
3.2.2	Leader Member Exchange Theory	83
3.3	Research Framework	84
3.4	Hypothesis Development.....	84
3.4.1	Transformational Leadership and Innovative Work Behaviour	85
3.4.2	Servant Leadership and Innovative Work Behaviour.....	87
3.4.3	Empowering Leadership and Innovative Work Behaviour	90
3.4.4	Authentic Leadership and Innovative Work Behaviour	93
3.4.5	Leadership Styles and LMX.....	95
3.4.6	LMX and Innovative Work Behaviour.....	98
3.4.7	The Mediating Role of LMX Between Leadership Styles and Innovative Work Behaviour	100
3.4.8	The Moderating Role of Power Distance Orientation Between Leadership Styles and Innovative Work Behaviour.....	103
3.5	Chapter Summary	105
Chapter 4: Research Methodology.....		107
4.1	Introduction.....	107
4.2	Research Philosophy.....	107
4.2.1	Justification of Adopted Philosophical Paradigm.....	108
4.2.2	Research Approach.....	109
4.2.3	Research Design	110
4.3	Population and Sampling.....	111
4.3.1	Sample Frame	111
4.3.2	Profile of Targeted Universities.....	113
4.3.3	Sampling Technique	115
4.3.4	Sample Size and Power Analysis	116
4.4	Survey Design.....	118
4.4.1	Measurement of Variables.....	119
4.4.2	Transformational Leadership.....	119
4.4.3	Servant Leadership	120
4.4.4	Empowering Leadership.....	120

4.4.5	Authentic Leadership.....	121
4.4.6	Leader Member Exchange.....	121
4.4.7	Power Distance Orientation.....	122
4.4.8	Innovative Work Behaviour.....	122
4.5	Pre-Testing.....	122
4.6	Pilot Study.....	123
4.7	Data Collection Process.....	124
4.8	Data Analysis Techniques.....	125
4.8.1	Partial Least Squares (PLS-SEM).....	125
4.8.2	Necessary Condition Analysis (NCA).....	126
4.9	Ethics Consideration.....	127
4.10	Chapter Summary.....	128
Chapter 5: Data Analysis and Findings.....		129
5.1	Introduction.....	129
5.2	Preliminary Analysis.....	129
5.2.1	Data Screening.....	129
5.2.2	Treatment of Missing Data.....	130
5.2.3	Assessment of Outliers.....	132
5.2.4	Assessment of Normality.....	133
5.2.5	Test for Common Method Variance.....	135
5.2.6	Assessment of Multicollinearity.....	138
5.2.7	Survey Response Rate.....	139
5.2.8	Profile of Participants.....	140
5.2.9	Gender.....	140
5.2.10	Age.....	141
5.2.11	Marital Status.....	141
5.2.12	Work Experience.....	142
5.2.13	Academic Qualifications and Position.....	142
5.2.14	University Name.....	143
5.3	PLS-SEM.....	144
5.4	Assessment of Measurement Model.....	144
5.4.1	Reflective Construct Validation.....	145

5.4.2	Indicator Reliability	146
5.4.3	Internal Consistency Reliability	149
5.4.4	Convergent Validity.....	151
5.4.5	Discriminant Validity	152
5.5	Formative Construct Validation	159
5.5.1	Multi-Collinearity	159
5.5.2	Significance of Indicator's Weight.....	160
5.6	Assessment of Structural Model.....	162
5.6.1	Hypothesis Testing	162
5.6.2	Results of Direct Effect Hypotheses.....	162
5.6.3	Mediation Analysis.....	164
5.6.4	Moderation Analysis.....	166
5.6.5	Control Variables.....	169
5.6.6	R Square (R^2)	170
5.6.7	Effect Size (f^2)	170
5.6.8	Predictive Relevance (Q^2).....	171
5.6.9	Model Fit	172
5.7	Necessary Condition Analysis.....	173
5.7.1	Effect Size Test.....	174
5.7.2	Bottleneck Table.....	175
5.8	Chapter Summary	176
Chapter 6: Discussion and Conclusion		177
6.1	Introduction.....	177
6.2	Summary of Findings	177
6.3	Discussion of Findings	179
6.4	Direct Effect.....	179
6.4.1	Transformational, Servant, Empowering and Authentic Leadership on Innovative Work Behaviour.....	179
6.4.2	Transformational, Servant, Empowering and Authentic Leadership on LMX ...	186
6.4.3	LMX and Innovative Work Behaviour.....	190
6.5	Mediating Effects.....	192

6.5.1	The Mediating Effect of LMX between Leadership Styles and Innovative Work Behaviour	192
6.6	Moderating Effect	195
6.6.1	The Moderating Effect of Power Distance Orientation between Leadership Styles and Innovative Work Behaviour	195
6.7	Servant Leadership as Necessary and Sufficient Condition for Innovative Work Behaviour	199
6.8	Study Implications	201
6.8.1	Theoretical Implications	201
6.8.2	Practical Implications	203
6.8.3	Methodological Implications	204
6.9	Limitations	205
6.10	Future Research Directions	206
6.11	Concluding Remarks	207
	References	209
	Appendices	250

LIST OF TABLES

Table 2.1 Comparison between Creativity and Innovation	36
Table 2.2 Conceptualisation of IWB	39
Table 2.3 Review of Leadership Definitions	46
Table 2.4 High vs Low Uncertainty.....	65
Table 2.5 Individualist vs Collectivist society.....	65
Table 2.6 Masculinity vs Feminism.....	66
Table 2.7 High vs Low Power Distance	67
Table 4.1 List of Public Universities in KSA	112
Table 4.2 KSA Universities Ranking	113
Table 4.3 Reliability Results.....	124
Table 5.1 Summary of Unfinished Responses.....	130
Table 5.2 Summary of Removed Missing Data.....	131
Table 5.3 Multivariate Outlier Analysis	133
Table 5.4 Multivariate Normality Test	134
Table 5.5 Common Method Bias Test.....	136
Table 5.6 Multicollinearity Test	139
Table 5.7 Questionnaire Distribution.....	139
Table 5.8 Descriptive Statistics for Demographics	140
Table 5.9 Respondents by Gender	141
Table 5.10 Respondents by Age	141
Table 5.11 Respondents by Marital Status	142
Table 5.12 Respondents by Work Experience.....	142
Table 5.13 Respondents by Qualification and Position.....	143
Table 5.14 Respondents by University	143
Table 5.15 Loading of Reflective Constructs	147
Table 5.16 Cronbach Alpha and Composite Reliability	150
Table 5.17 Average Variance Extracted (AVE)	151
Table 5.18 Correlation of Latent Variables and Square root of AVE	154
Table 5.19 Cross-Loading Matrix.....	155
Table 5.20 HTMT Criterion.....	158
Table 5.21 VIF Values.....	159
Table 5.22 Test of Significance of Indicator's Weight.....	161

Table 5.23 Results of Direct Hypotheses.....	163
Table 5.24 Results of Mediating Hypotheses	165
Table 5.25 Results of Moderating Hypotheses	167
Table 5.26 Results of Control Variables.....	169
Table 5.27 R ² Values for Endogenous Constructs.....	170
Table 5.28 Effect Size for Each Construct	171
Table 5.29 Q ² Values	172
Table 5.30 NCA Effect Size Results	175
Table 5.31 Bottleneck Table (%).....	176
Table 6.1 Summary of the Research Findings.....	177

LIST OF FIGURES

Figure 3.1 Research Framework.....	84
Figure 4.1 G*power: A Priori Calculation of Minimum Sample Size	117
Figure 4.2 NCA ceiling Line and Bottleneck	127
Figure 5.1 Histogram of Normality Test	135
Figure 5.2 Assessment of Reflective First-Order Constructs	146
Figure 5.3 PLS Bootstrapping (Moderating Effect)	168
Figure 5.4 Interaction of EL and Power Distance Orientation on Innovative Behaviour.....	168
Figure 5.5 Interaction of Servant Leadership and Power Distance Orientation on Innovative Behaviour.....	169
Figure 5.6 Scatterplot of Leadership Variables on Innovative Behaviour	174

LIST OF APPENDICES

Appendix A: Ethics Approval.....	250
Appendix B : Invitation Letter.....	251
Appendix C : Sample of approval from universities	255
Appendix D : Survey Questionnaire	256
Appendix E : Permission to use ALQ.....	260
Appendix F: Review of Leadership-IWB Studies	261

LIST OF ABBREVIATIONS

IWB	Innovative work behaviour
EL	Empowering leadership
AL	Authentic leadership
TL	Transformational leadership
SL	Servant leadership
LMX	Leader-member-exchange
HEIs	Higher education institutions
AVE	Average variance extracted
CB-SEM	Covariance-based SEM
DF	Degree of freedom
GOF	Goodness of fit
KSA	Kingdom of Saudi Arabia
PLS	Partial least squares
PLS-SEM	Partial least squares-structural equation modelling
NCA	Necessary condition analysis
SEM	Structural equation modelling
SPSS	Statistical product and service solutions
SRMR	Standardised root mean residual
D2	Mahalanobis distance
VIF	Variable inflation factor

Chapter 1: Introduction

1.1 Research Background

The role of Higher Education Institutions (HEIs) extends beyond teaching and research. These institutions have a significant impact in building a strong human capital and progressive society, disseminating knowledge, and creating a proliferous substrate for innovation (Fagerberg & Srholec 2008; Saad, Guermat & Brodie 2015).

In recent years, the change caused by the turbulent economic environment (de Boer 2021), globalisation (Höllerer, Walgenbach & Drori 2017), technological changes (Colbert, Yee & George 2016), and increased demands for innovation and creativity has augmented the challenges for HEIs. Internal and external stakeholders' expectations pose different demands for better results in terms of research output, quality teaching, knowledge transfer, employability, and community outreach (El Nemar, Vrontis & Thrassou 2020; Ghulam & Mousa 2019). Leibold and Voelpel (2013, p. 676) argue that traditional universities may not exist in the near future due to the crisis and challenges facing HEIs worldwide. Consequently, universities are continually competing for rankings, reputation, productive academic staff, and partnerships with sought-after corporations, and compete to produce relevant knowledge (Fullwood, Rowley & Delbridge 2013; Lo & Tian 2020; Miotto, Del-Castillo-Feito & Blanco-González 2020). Lack of innovation and upgrades within an organisation endangers its existence, as it remains under constant threat if it fails to innovate in a timely and appropriate manner (Getz & Robinson 2003; Lipscombe, Tindall-Ford & Kirk 2019). According to Shanker et al. (2017), failure to innovate could place organisations at risk and conceivably diminish their ability to achieve and gain a competitive advantage. In this situation, HEIs need to develop a sustainable competitive advantage to remain afloat and relevant in a globalised world. Thus, innovation is a critical factor in driving competitive advantage and aiding these institutions in their efforts to achieve long-term survival and success (Al-Husseini & Elbeltagi 2016; Anning-Dorson 2018; Chatzoglou & Chatzoudes 2018). Success at work requires taking action to take advantage of new opportunities or handle unforeseen work-related challenges. (Huang, Yuan & Li 2019b; West & Altink 1996).

Innovation has long been recognised as a critical source of organisational competitive advantage and, therefore, an area of interest for both practitioners and scholars (Chatzoglou

& Chatzoudes 2018; Hullova, Trott & Simms 2016). Researchers have argued that innovation is one of the critical strategies that allow organisations to be more competitive and efficient in dealing with increasing competition and fulfilling customer expectations (Shin, Yuan & Zhou 2017). Organisations typically prioritise innovation in their strategies to gain a competitive edge and ensure sustained economic capability (Amankwaa, Gyensare & Susomrith 2019). Innovation can help organisations improve their viability and create a path that ensures sustainable growth (Amankwaa, Gyensare & Susomrith 2019; De Jong, J & Den Hartog 2010). It is widely recognised as a critical factor for the success of organisations and for remaining afloat in this fast-changing world (Anderson, Neil, Potočnik & Zhou 2014). Innovation is the primary step in enhancing organisational performance (Forés & Camisón 2016; Huang, Yuan & Li 2019b). Therefore, organisations have a growing dependency on people to meet the rapid changes in a challenging environment and achieve long-term success in a knowledge-based economy (Newman, Alexander, Herman, et al. 2018; Shin, Yuan & Zhou 2017). Previous research has since established that innovation largely hinges on the ability and engagement of employees' innovative ideas (Amabile et al. 1996; Che et al. 2019; Mascareño, Rietzschel & Wisse 2020; Pieterse et al. 2010). Fundamentally, employees are considered the main source of innovation, accounting for almost 80% of new ideas applied in the workplace (Newman, Alexander, Herman, et al. 2018). This demonstrates that innovation is founded on novel or new ideas that are generated, promoted, and implemented by employees aimed at changes and organisational improvement (Janssen 2004; Javed et al. 2019).

The presence of an employee's IWB within an organisation is fast becoming a key instrument and prerequisite to achieving an organisational competitive edge (Sanz-Valle & Jiménez-Jiménez 2018; Yuan & Woodman 2010). It has been revealed that employee IWB has become crucial and widely accepted in driving an organisation's success in today's complex environment (Sanz-Valle & Jiménez-Jiménez 2018; Shanker et al. 2017). In this context, employee IWB is the driving force behind all types of innovation (Huang, Yuan & Li 2019a; Madrid et al. 2014). Organisations need workforces that willingly express and implement new ideas and proactively respond to the dynamic environment and challenges. Therefore, it is very important to better understand the factors that are conducive to enhancing employee IWB (Anderson, N et al. 2018; Anderson, Neil, Potočnik & Zhou 2014; Mascareño, Rietzschel & Wisse 2020).

Thus, researchers and practitioners alike have paid significant attention to understanding and identifying antecedents of employee IWB at all levels of organisations, working groups, and individuals (Anderson, NR & West 1998; Baer & Frese 2003; Bunce & West 1995; Davila, Epstein & Shelton 2012; Janssen 2000; Oldham & Cummings 1996; Prieto & Pérez-Santana 2014; Shin, Yuan & Zhou 2017; West & Altink 1996; West & Farr 1990). They found that employee IWB is driven by several factors, including climate and culture, individual skills, motivation, leadership, job characteristics, reward, HR practice, and personality. Remarkably, scholars have argued that leadership, among all supporting factors, is one of the key predictors that encourages employee innovation (Bracht et al. 2023; Hughes et al. 2018; Jada, Mukhopadhyay & Titiyal 2019; Javed et al. 2019; Mumford et al. 2002; Rosing, Frese & Bausch 2011; Zhu, C & Zhang 2020). For this reason, leadership can shape the workplace environment, allocate resources such as time and finance, and provide close and supportive direction that is only possible with a cooperative effort from the leader (De Jong, JP & Den Hartog 2007). Hence, leaders can influence employees to be innovative in a variety of ways, for instance, by acting as role models (Carmeli, Gelbard & Gefen 2010; Makri & Scandura 2010) and through leveraging available employee resources, i.e., through employee motivation (Fischer, T., Dietz & Antonakis 2017; Pieterse et al. 2010). Furthermore, leaders can provide access to information pertinent to innovation from external resources and create a climate wherein relationship quality is highly valued (Atwater & Carmeli 2009).

The nexus between leadership styles and employee IWB is well-established in the literature (Bracht et al. 2023). There is sufficient theoretical and empirical evidence to indicate that leadership can nurture or dampen employee IWB (Lee, A, Legood, et al. 2020; Pieterse et al. 2010; Rosing, Frese & Bausch 2011). For instance, Hughes et al. (2018) critically reviewed the literature and identified leadership styles that have been mostly studied with employee IWB, including transformational (TL), servant (SL), empowering (EL) and authentic (AL) leadership styles. These have recently been categorised as person-focused leadership in comparison to task-focused leadership, e.g. transactional leadership (Ceri-Booms, Curşeu & Oerlemans 2017). These leadership styles emphasise meeting the personal and mutual interests of followers and building a healthy interactive environment (Pratoom 2018). Empirical studies have confirmed the positive relationship between leadership and IWB. For instance, Amankwaa, Gyensare and Susomrith (2019); Aryee et al. (2012); Choi et al. (2016); Masood and Afsar (2017) have found that TL is positively and directly related to IWB through job autonomy, work engagement, motivation, and knowledge-sharing. In the same

vein, SL was found to have a significant effect on IWB based on social exchange theory (Iqbal, Amjad, Latif & Ahmad 2020; Karatepe, Aboramadan & Dahleez 2020; Shailja, Kumari & Singla 2023; Su et al. 2020) and through knowledge sharing and thriving at work (Wang, Z, Meng & Cai 2019; Zhu, C & Zhang 2020). The positive relations were further confirmed with AL (Černe, Jaklič & Škerlavaj 2013; Grošelj et al. 2020; Müceldili, Turan & Erdil 2013; Sengupta et al. 2023; Zhou et al. 2014) and EL (Gkorezis 2016; Günzel-Jensen et al. 2018; Guo, Peng & Zhu 2023; Jada, Mukhopadhyay & Titiyal 2019; Kim, M & Beehr 2023; Zhu, J, Yao & Zhang 2019).

However, these findings suggest that the accepted consensus regarding the valuable impact of leadership on IWB in the workplace is likely to be challenged. In particular, these studies have resulted in an inability to conclusively determine a particular leadership style that is strongly associated with employee IWB, fuelling debates and leading to conflicting views. This lack of consensus hinders the provision of informed evidence and practical recommendations (Fischer, Thomas & Sitkin 2023; Hughes et al. 2018; Lee, A, Legood, et al. 2020). The lack of clarity on this issue undermines the effectiveness of research in the fields of leadership and innovation (Lee, A, Legood, et al. 2020). Banks et al. (2018, p. 236) argued that such a focus on breadth rather than depth, achieved through rigorous investigation, causes inefficiency in accumulated knowledge in leadership research. Overall, there is an increasing need to compare and contrast leadership theories to identify the most influential leadership style for fostering employee IWB (Alvesson & Einola 2019; Hughes et al. 2018). Therefore, a single study that simultaneously integrates numerous leadership styles (transformational, servant, empowering, and authentic) is important to determine the most salient leadership style for enhancing employee IWB (Jada, Mukhopadhyay & Titiyal 2019; Lee, A, Legood, et al. 2020).

In line with this integration, it is important to understand how and when these leadership styles may affect IWB. Arguably, leadership is viewed as a relational process in which the relationship between the leader and follower evolves through different stages (Erdogan & Bauer 2014; Uhl-Bien 2006). Leader-member exchange (LMX) theory is considered one of the most prominent theories that explain the nature of the dyadic relationship between leaders and subordinates (Graen & Uhl-Bien 1995; Liden, Robert C, Sparrowe & Wayne 1997). The major premise of this theory is that leaders develop different qualities of social relationships with followers varying from low (out-group) to high (in-group) (Dansereau Jr, Graen & Haga

1975). Precisely, high-quality relationships are characterised by shared trust, deference, and commitment that generates reciprocal influence between leaders and followers, whereas low-quality relationships are based on the formal employment contract, resulting in downward influence and distance between the parties (Liden, Robert C, Sparrowe & Wayne 1997; Maslyn & Uhl-Bien 2001). As a result, followers in high-quality LMX relationships experience a high level of satisfaction, support, and open communication channels to exchange information and discuss work-related issues with their leader (Maslyn & Uhl-Bien 2001, p. 697). Existing research has shown that high-quality LMX plays an important role in promoting beneficial employee outcomes like creativity, voice behaviour, job satisfaction, commitment, trust, and performance (Kim, TY, Liu & Diefendorff 2015; Loi, Chan & Lam 2014; Martin, R et al. 2016; Qu, Janssen & Shi 2017; Tarkang, Nange & Ozturen 2020).

In fact, a critical leadership approach to enhancing followers' innovation is to develop high-quality relationships, as emphasised in LMX theory (Carnevale et al. 2017; Scott & Bruce 1994). The innovation process is not only limited to idea generation but also includes an interactional process of promoting, refining, and applying these ideas. Thus, after generating a new idea, employees also need to pursue feedback to improve the idea and mobilise support and approval for such an idea from leadership to apply the idea into tangible solutions or products (Janssen 2000). Moreover, IWB is uncertain and risky, and high-quality relationships guarantee leadership support and protection when ideas are not successful (Burris 2012; Carnevale et al. 2017). Employees in such relationships are likely to develop trust and view leaders as approachable, thus mitigating the followers' fear of being blamed or misunderstood, and, in turn, making them more comfortable in sharing their ideas and opinions with their leaders. Meanwhile, followers in low-quality relations are likely to view leaders as distant which makes them reluctant to introduce innovative ideas. Leaders in this situation are less likely to provide timely feedback and direct support, all of which are necessary for the success of individual innovation. Given that the quality of the relationship between the leader and the follower largely depends upon the leader's style (Wang, Hui et al. 2005), this study, therefore, proposes that LMX can play a significant mediating role through which leaders develop quality relation exchange to enhance IWB.

Furthermore, the effect of leadership styles on employee IWB may be contingent on the cultural background of the subordinate (Bracht et al. 2023; Matthews, Kelemen & Bolino 2021; Watts, Steele & Den Hartog 2020). Due to the fact that followers usually differ from

one another, it is important to better understand the influence of their differences on the relationship between leadership styles and employee IWB (Ayman & Lauritsen 2018). For instance, a leadership style that significantly helps one follower might only slightly help another and may even be unfavourable to some followers (Matthews, Kelemen & Bolino 2021, p. 1). While power distance was proposed at the national cultural level (Hofstede 2001; Hofstede & Hofstede 1984), recent empirical studies have found that it has significant variations at the individual level within the same culture (Kirkman et al. 2009); this is conceptualised as power distance orientation. It has received much attention in cross-cultural literature and is particularly meaningful and theoretically relevant to leadership (Cole, Carter & Zhang 2013; Kirkman et al. 2009). Several studies have revealed that the impact of leadership on the behaviour of followers across different cultural settings, such as in the United States and China, is influenced by individual power distance (Botero & Van Dyne, 2009; Kirkman et al., 2009). For instance, in China, Zhang, Ying and Yang (2020) found a positive relationship between spiritual leadership and autonomous motivation, which was stronger when employee power distance orientation was high. In the same culture, however, Newman, Alexander and Butler (2014) revealed that follower power-distance orientation weakened the positive relationship between leader TL behaviours and follower affective commitment. Since individual power distance orientation can shape an individual's beliefs on the effectiveness of leadership and influence their innovativeness, it is crucial in how employees interpret and react to leadership styles (Zhang, Ying & Yang 2020). Therefore, this study proposes the moderating role of power distance orientation on the relationship of leadership styles and IWB.

In the context of the current study, HEIs in KSA face immense pressure to innovate and tailor education to market needs compared to developed countries (Allam 2020; Goddard 2012). Administrators in KSA HEIs face several challenges, including education quality (ALSharari 2020), low research productivity (Ghulam & Mousa 2019), and innovation outcomes (Khayati & Selim 2019). The Saudi government is striving hard to develop an effective modern education system that meets the needs of the 21st century (Allmnakrah & Evers 2020). In 2016, the KSA government launched Vision 2030 to align the country's higher education system with global standards and ensure the provision of quality education, thus fostering economic development and societal progress to achieve world-class practices (Nurunnabi 2017). This comes from the need to diversify the country's income and achieve a transformation from an oil-based economy to a knowledge and service-based economy

(Allmnakrah & Evers 2020). Vision 2030 places emphasis on HEIs to stimulate innovation and push universities to compete and rank among the top 200 universities in the world (Khan, MK & Khan 2020, p. 99).

Currently, the HEIs are experiencing new shifts, especially in policies, procedures, and overall directions. As a result, innovation has become a requirement in the era of globalisation, particularly when KSA aims to establish itself as a key player in the global knowledge economy scene and as a leading regional education hub. However, the Global Innovation Index (GII) 2020 reports that KSA is lagging in terms of innovation outcomes; the country ranked 77th out of 130 (Dutta, Lanvin & Wunsch-Vincent 2020). Despite that, the Saudi HEIs take a large portion of the annual budget, and this portion has only increased considerably in the past years. In 2020, the spending increased to \$235 billion, representing 19% of the total annual budget (Khayati & Selim 2019; Kpmg 2021). Meanwhile, the overall education quality stands at the 59th position, with the quality of its management at 78th (Qahl et al. 2019). The financial effort does not necessarily guarantee an improvement in the quality of education or an advancement in innovation possibilities (Haddad, Freguglia & Gomes 2017). The performance of universities in preparing qualified graduates has been relatively moderate, with a noticeable decline in both research publications and university performance (ALSharari 2020).

Despite the importance of innovation, the literature on innovation in HEIs in KSA is still scarce. Therefore, innovation has become an important factor for Saudi universities to bring change, advance educational quality, and compete globally to achieve Vision 2030. Hence, given that oil currently serves as the primary source of income for KSA, the transition towards innovation through individual development as the economic indicator is imperative. Therefore, it would not be possible to achieve innovation unless there is an active role of leaders and academic staff.

1.2 Research Problem

Employee IWB has become a crucial and widely accepted factor in driving an organisation's competitiveness and success in today's complex environment (Anderson, Neil, Potočnik & Zhou 2014; Sanz-Valle & Jiménez-Jiménez 2018; Shanker et al. 2017; Yuan & Woodman 2010). Scholars have argued that leadership is the key predictor and facilitator among all factors of an employee's IWB (Hughes et al., 2018; Jada et al., 2019). Despite the theoretical

and widely accepted significance of leadership styles in fostering employees' IWB, it remains unclear which leadership style is more effective in cultivating employees' IWB. The extant literature on transformational (Afsar, F. Badir & Bin Saeed 2014; Amankwaa, Gyensare & Susomrith 2019; Choi et al. 2016; Masood & Afsar 2017), servant (Iqbal, Amjad, Latif & Ahmad 2020; Wang, Z, Meng & Cai 2019; Zhu, C & Zhang 2020), empowering (Gkorezis 2016; Günzel-Jensen et al. 2018; Jada, Mukhopadhyay & Titiyal 2019; Mutonyi, Slåtten & Lien 2020; Zhu, J, Yao & Zhang 2019) and authentic leadership (Černe, Jaklič & Škerlavaj 2013; Grošelj et al. 2020; Müceldili, Turan & Erdil 2013; Zhou et al. 2014), shares a similar positive relationship with IWB. However, recent empirical studies claim that EL is more suitable for predicting IWB than transformational and transactional leadership (Günzel-Jensen et al. 2018). Likewise, Schuckert et al. (2018) asserted that AL is comparatively more effective in developing IWB than TL. Therefore, an integrative and comparative study to identify the strongest leadership style out of transformational, empowering, servant, and authentic leadership in developing employees' IWB has been overlooked in the literature.

Moreover, the literature reveals that the relationship between transformational, servant, empowering and authentic leadership and IWB is not only direct but indirect (Jada, Mukhopadhyay & Titiyal 2019; Zhu, C & Zhang 2020). The underlying process, such as knowledge-sharing (Choi et al. 2016; Jada, Mukhopadhyay & Titiyal 2019), affective commitment and self-efficacy (Chen, G et al. 2013; Feng, Huang & Zhang 2016), climate for innovation (Kang, Solomon & Choi 2015; Karatepe, Aboramadan & Dahleez 2020), and psychological empowerment (Afsar, F. Badir & Bin Saeed 2014; Zhu, J, Yao & Zhang 2019) have been suggested as possible explanations for the effects of given leadership on IWB. However, researchers have dedicated very limited attention to the mediating role of LMX between the proposed leadership styles and employees' IWB. Additionally, previous studies claim that LMX is a direct predictor of IWB, which raises an issue of conceptual clarity (Atitumpong & Badir 2018; Carnevale et al. 2017; Kim, M-S & Koo 2017; Schermuly, Meyer & Dämmer 2013). Since LMX refers to an evaluation of relationship quality between leader and follower, it is theoretically an outcome of a leader behaviour-follower interaction process (Gottfredson, Wright & Heaphy 2020). Thus, LMX is an outcome variable and when employed as a predictor, essentially links one construct with another outcome. Therefore, this study explores the mediating role of LMX in leadership-IWB relationship, which has received scant attention in the existing literature.

Additionally, existing research has shown that apart from the variables that can help explain the mechanism of impact of leadership styles on employees' IWB, some moderating variables can help develop a better understanding of factors that can strengthen/weaken the effect of leadership on employees' IWB. Although prior studies show that individual power distance orientation can influence the response to leadership styles such as ethical (Ahmad & Gao 2018), spiritual (Zhang, Ying & Yang 2020) and transformational leadership (Kirkman et al. 2009; Newman, Alexander & Butler 2014), very few studies have explored how power distance orientation may influence the effects of servant, empowering and authentic leadership on employees' IWB. Thus, this study particularly considers the moderating role of individual power distance orientation on the relationship between leadership styles and IWB using a sample from Saudi Arabian HEIs. In the national culture framework of Hofstede (2001), under the influence of Islamic and social norms, Saudi culture is characterised by high power distance, which gradually formed the idea of the official standards and hierarchy (Alofan, Chen & Tan 2020). However, preceding studies indicate that individuals' power distance can vary considerably, even in the same culture (Farh, Hackett & Liang 2007; Li, S-L et al. 2015). In the Saudi organisational climate, the positive effect of leadership styles on employees' innovation may be affected by and could depend on the level of subordinate power distance (Alghamdi, Topp & AlYami 2018). Besides, the significant variations in power distance orientation within cultures like KSA, which might restrict followers from presenting innovative ideas due to perceived differences in status, authority, and power dynamics with leaders, underscores the importance of the proposed cultural typology and its inclusion. Therefore, the current study intends to examine the moderating role of power distance orientation on the relationships between leadership styles and employees' IWB in the context of the of KSA.

Previous studies on leadership and IWB were predominantly in the health (Jada, Mukhopadhyay & Titiyal 2019; Reuvers et al. 2008), banking (Amankwaa, Gyensare & Susomrith 2019), services (Kim & Koo, 2017) and manufacturing sectors (Choi et al. 2016). However, there is limited research on the HEIs. Indeed, HEIs contribute to social and economic development by providing a skilled workforce to meet the demands of the business sectors. Academic institutions that are well aligned with the market need to innovate and upgrade regularly. The role of leaders in harnessing innovative behaviour among employees is well established in the manufacturing and service sector; however, little effort has been dedicated to examining it in the context of higher education, especially in the KSA. Although

most of the leadership styles were found in Western countries, researchers have called for the applicability of these leadership styles in other cultures (Cheong et al. 2019; Eva et al. 2019; Matthews, Kelemen & Bolino 2021). Learning about the most suitable leadership style is still convoluted and may be subject to cultural background. Therefore, it is important to test the applicability of these leadership styles in a culture and context different from Western settings to enhance the contextualisation of leadership and innovation literature.

In general, this study has identified a lack of empirical studies to simultaneously integrate and compare the effect of different leadership styles (transformational, servant, empowering and authentic) on IWB through mediating and moderating role LMX and power distance orientation, respectively. To the best of this researcher's knowledge and through extensive search in peer-reviewed databases, there is little or no research that has examined the proposed relationships in HEIs within the KSA context. Thus, to fill this gap in the literature, this study has the following aims.

1.3 Study Aim & Objectives

The study aims to compare the impact of leadership styles on IWB through the mediating role of LMX and the moderating role of individual power distance orientation in the KSA higher education sector. In particular, the study has the following research objectives:

- i. To find which of the different leadership styles (transformational, servant, empowering and authentic) are significantly associated with employees' IWB.
- ii. To ascertain the effect of different leadership styles (transformational, servant, empowering and authentic) on LMX.
- iii. To investigate the effect of LMX on employees' IWB.
- iv. To assess the mediating role of LMX in the relationship between different leadership styles (transformational, servant, empowering and authentic) and employees' IWB.
- v. To examine the moderating effect of power distance orientation on the relationship between leadership styles and IWB.

1.4 Research Questions

The study attempts to find answers to the following research questions:

- I. Which (if any) leadership styles (transformational, servant, empowering and authentic) affect employees' IWB?
- II. Do leadership styles (transformational, servant empowering and authentic) affect LMX?
- III. Does LMX affect employees' IWB?
- IV. Does LMX mediate the relationship between leadership styles (transformational, servant, empowering and authentic) and employees' IWB?
- V. Does power distance orientation moderate the effect of different leadership styles (transformational, servant, empowering and authentic) on employees' IWB?

1.5 Definition of Key Terms

The following terms and definitions are used in this study. They are briefly explained below while more detailed discussions are included in the subsequent chapters.

Transformational Leadership

A leadership style that transforms followers to rise above their self-interest by altering their morale, ideals, interests, and values, motivating them to perform better than initially expected (Avolio, Bruce J & Bass 2001; Bass, Bernard M & Riggio 2006).

Empowering Leadership

A leadership style directed at individuals or teams that involves delegating authority to employees, enhancing the meaningfulness of work, fostering participation in decision-making, expressing confidence in high performance, and providing autonomy from bureaucratic constraints (Ahearne, Mathieu & Rapp 2005).

Servant Leadership

This is described as the leader who places the interests of followers over the self-interest of the leader, emphasising leader behaviours that focus on follower development, and de-emphasising the elevation of the leader (Greenleaf 1977; Hale & Fields 2007).

Authentic Leadership

Defined as “a pattern of leader behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an

internalised moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development” (Walumbwa, Fred O et al. 2008, p. 92).

Leader-Member Exchange

The degree of quality relationship that develops between followers and their leaders within organisations (Graen & Uhl-Bien 1995; Liden, Robert C, Sparrowe & Wayne 1997).

Power Distance Orientation

It refers to the extent to which an individual accepts the unequal distribution of power and authority in an organisation (Hofstede 2001). To distinguish between power distance at the country and individual levels, Kirkman et al. (2009) developed the term power distance orientation to identify an individual-level construct. In this study, therefore, power distance orientation means individually held power distance (Kirkman et al. 2009).

Innovative Work Behaviour

Defined as the intentional creation, introduction, and application of novel ideas within a work role, group, or organisation, to benefit the role performance, the group, or the organisation (Janssen 2000).

1.6 Statement of Significance

The significance of the present study is in its contribution to theory and practice. The study intends to investigate the relationship between leadership styles and employees’ IWB through LMX and the moderating role of power distance orientation in Saudi HEIs.

1.6.1 Theoretical Significance

Theoretically, the study intends to contribute to the body of knowledge by providing valuable insight into leadership and innovation literature. Specifically, existing literature shows that employees’ IWB is critical for organisations to attain competitive advantage and success (Anderson, N et al. 2018; Frederiksen & Knudsen 2017; Shin, Yuan & Zhou 2017). Leadership plays a central role in developing employees’ IWB. Thus far, it is not clear which kind of leadership style, out of transformational, servant, empowering, and authentic, is more relevant to employees’ IWB. Yet, empirical studies have produced complex literature

between leadership and employees' IWB, resulting in an inability to understand the leadership style strongly associated with and unique to developing IWB (Hughes et al. 2018; Lee, A, Legood, et al. 2020). Hence, the study intends to contribute by using an integrative approach of multiple leadership styles and extend the understating of the most significant leadership style in fostering employees' IWB. Previous studies that investigated the relationship between leadership style and employee innovation were only limited to a single leader design that was unrelated to any holistic view of the style most significant in driving employees' IWB. Hence, the study findings will aid in discarding less effective leadership styles and developing a leadership style that is exclusive yet necessary to cultivate employees' IWB. Also, extending the understanding of the applicability of leadership in a culture other than the West adds to the body of knowledge concerning the appropriate and constructive form of leadership in the Saudi context. The study addresses the call made by various scholars on further integration of leadership literature with employees' IWB (Hughes et al. 2018, p. 24; Jada, Mukhopadhyay & Titiyal 2019; Lee, A, Legood, et al. 2020).

Although previous research demonstrated a positive link between leadership and employees' IWB, little is known about the mechanism underlying such a relationship. Including LMX as a mediator further enhances and clarifies the causal dynamics between different leadership styles and employees' IWB. The study offers some valuable evidence and theoretical contributions on how and which leadership style develops high-quality relationships, which in turn leads followers to engage in IWB. In comparing the effect of leadership styles on IWB, this study significantly contributes to the social exchange and LMX theories by identifying the leadership styles that foster positive social exchanges and thereby enhance IWB among followers. Specifically, the study extends SET by highlighting how different leadership styles cultivate reciprocal relationships of trust, respect, and mutual obligation, which are foundational to the theory. Additionally, it not only reaffirms the importance of differentiated leader-member exchanges as drawn in LMX theory but also elucidates the nuanced mechanisms through which these leadership styles foster positive high-quality relations, thereby providing a comprehensive framework for understanding the leadership dynamics that facilitate innovation within organisations.

Moreover, the current study also intends to explore whether the leadership-IWB relationship depends on cultural values, using individual power distance orientation to capture variation at the individual level. To date, few empirical studies have investigated whether individual

power distance orientation moderates the relationship between leadership and employee IWB (Lin, W et al. 2018; Newman, Alexander & Butler 2014; Zhang, Ying & Yang 2020). Accordingly, this study extends prior research on leadership and employee IWB by offering individual power distance orientation as a moderator. Additionally, this addresses the calls made by various scholars to test the applicability of leadership styles such as empowering (Cheong et al. 2019), servant (Eva et al. 2019) and authentic (Zhang, Yucheng, Guo, et al. 2021) in cultures other than the Western, especially in a culture that is characterised by high power distance like KSA. Hence, this contributes to enriching the body of knowledge concerning the different types of leadership behaviours that align with specific cultures. Finally, this research adds to the existing literature in the context of HEIs since most of the existing research linking leadership styles and IWB have focused on business organisations. Hence, the study contributes by enhancing the bounds of existing research and tests the relationship in other work settings.

1.6.2 Practical Significance

In addition to theory and literature development, the study offers several practical implications. In general, the expected findings from this study could inform organisations that strive to bring a high rate of innovation in a turbulent and rapidly changing business environment on how to foster employees' innovation. The outcome of this study could enlighten the practice of the ideal leadership paradigm that is conducive to developing individual innovation in the workplace. For the overall success of the organisation, it can be utilised as a guideline to adopt the most effective leadership and avoid top-down negative leadership practices; it can also assist in understanding how to promote employee innovation and solve emerging problems. Further, the findings of this study could provide a direction for the development of human capital policies, management practices, and management development programmes that can help prompt employees' IWB in the specific context of Saudi HEIs. This study could inform organisations of quality exchange relationships between leaders and subordinates, which may also be helpful in improving employee innovation by developing programmes aiming to create a social environment that provides employees with more opportunities to engage in deep interaction. Finally, of the specific employee cultural values (power distance) that might augment or mitigate the effectiveness of leadership, the study will provide valuable insights into understanding individual differences in leadership, enabling more effective leadership practices and greater influence on followers.

1.7 Methodology Overview

The current study was conducted within a positivist paradigm using a quantitative approach. The quantitative method was used within this study to gather data addressing the research questions and to confirm and extend the current body of knowledge. This study applied an explanatory design since the study attempts to test or confirm a theory (deductive), which implies a quantitative approach to data collection and analysis. This study operationalised using an online survey to provide accurate information and address the research objectives and questions. The target participants consist of academic staff from Saudi HEIs. Data was analysed by combining (PLS-SEM) and necessary condition analysis (NCA) using SmartPLS and RStudio Software.

1.8 Thesis Outline

The thesis consists of six chapters as outlined below:

Chapter 1: presents the study background, study problem, aims, objectives, research questions, theoretical and practical significance, limitation, and the research questions.

Chapter 2: presents a comprehensive literature review on leadership, innovative behaviour, and cultural value (power distance). It discusses the development of leadership approaches; reviews factors affecting innovative behaviour and discusses the individual perception of power distance.

Chapter 3: discusses the relationships between leadership and innovative behaviour based on social exchange theory. This is followed by the mediating role of the LMX and the moderating role of power distance orientation in leadership-employee's IWB relationship. The study hypotheses are provided after a discussion of each component of the conceptual framework.

Chapter 4: covers the study methodology and defines the research philosophy, paradigms, and quantitative methods. It discusses the questionnaire and measurement scales, and describes the procedures used to validate the questionnaire. The chapter discusses the sample population, frame, and determination of sample size, and ends with an explanation of data analysis techniques.

Chapter 5: This chapter presents the findings of the preliminary data analysis, PLS-SEM, and NCA. It begins by describing the data preparation and cleaning procedures and provides an overview of the survey participants' profiles. Moreover, it reports the analysis conducted to evaluate both the measurement model and structural model using PLS-SEM. Finally, the chapter presents the findings of both hypothesised relationships and NCA analysis.

Chapter 6: Presents a thorough discussion of the main findings and conclusion. Firstly, the direct effect hypotheses related to the IWB are discussed and interpreted in light of SET and the context of the study. Next, this chapter includes a discussion of the mediating hypotheses of LMX between leadership and IWB. Then, the discussion of the moderating role of PDO between leadership styles and IWB is discussed. Then, the discussion of the outcome from NCA to show the necessary conditions and sufficient leadership styles for IWB is included. Lastly, the chapter presents the conclusions of the research, discusses the theoretical implications, practical implications, and concludes by presenting the limitations of this research and suggests directions for further research.

Chapter 2: Literature Review

2.1 Introduction

The chapter starts with an introduction of reviewing innovation concepts, defining IWB, differentiating it from creativity, and identifying leadership as factors related to IWB. This is followed by leadership (background, definitions, and the recent development of leadership styles). The review of cultural concepts, critics of Hofstede's framework, and recent developments in measuring cultural value in the literature are discussed. This chapter concludes by presenting an overview of the study context, including the innovation status, culture norms and leadership in KSA HIEs.

2.2 Innovation

With ever-advancing technological changes, a highly turbulent environment, and intense global competition, innovation has increasingly become a key driver for organisations to gain competitive advantage (Anderson, Neil, De Dreu & Nijstad 2004; Anderson, Neil, Potočník & Zhou 2014). Innovation can improve individual and organisational performance by solving emergent challenges and paving the way for new opportunities (Wolfe 1994). It has been argued that organisations that place less emphasis on innovation are at potential risk and diminish their ability to survive in the long term. Indeed, innovation allows organisations to adapt and respond effectively to uncertain challenges. It is a key driving source behind economic growth, allowing organisations with opportunities to develop fast and increase profitability. Predominantly, it is a given priority in organisational strategy to ensure sustainable growth and build competitiveness. There is an accepted consensus that innovation is a vital element for organisational effectiveness and competitiveness; this has attracted scholars' interest in recent years. It has been regarded as the hallmark of modern business and a powerful component underlying organisational development and performance. It offers new prospects for market entry by developing innovative products, services, and solutions (Hult, Hurley & Knight 2004; Hurley & Hult 1998). Researchers have indicated that innovation is relevant to organisational learning, keeps organisations constantly updated on emerging developments, and assists them in acquiring new and relevant knowledge (Jiménez-Jiménez & Sanz-Valle 2011).

2.2.1 Definition of Innovation

The term innovation originated from the Latin word 'Novus,' which refers to both a 'new idea, method and device' or the 'process of introducing something new' (Gopalakrishnan & Damanpour 1994, p. 95). Although there is a common agreement among scholars that innovation is a valuable element, there is no accepted definition of innovation. Its definition has been subjected to many interpretations and different perspectives in the extant literature. For instance, Zaltman, Duncan and Holbek (1973) defined innovation as 'any idea, practice, or material artefact that is perceived to be new by the relevant adopting workplace.' According to Van de Ven (1986), innovation means the 'development and application of new ideas by people who over time engage in transactions with others within institutional order.' Moreover, it is described as 'a set of tasks performed by individual and group of individuals within an organisation towards creating and exploiting new ideas' (Kanter 1988). Several authors viewed innovation as an adoption of an internally generated or purchased device, system, policy, programme, product, or service that is new to the adopting organisation (Daft 1978; Damanpour 1991; Damanpour & Evan 1984). It is also understood as 'the intentional introduction and application within a role, group or organisation of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, the organisation or wider society' (West & Farr 1990).

The definitions of innovation vary, where some define it as a process or an outcome in the workplace (Daft 1978; Damanpour 1991; Damanpour & Evan 1984; Kanter 1988; Van de Ven 1986). Most of these definitions share the idea that innovation represents the initiation and implementation of a new idea. The definition (West & Farr 1990) suggested that innovation is a combination of both process and a series of outcomes. This is in line with the recent view of (Anderson, Neil, Potočnik & Zhou 2014), who defined innovation at work as 'the process, outcomes, and products of attempts to develop new and improved ways of doing things.' Innovation primarily aims to achieve beneficial outcomes for organisations by generating and implementing new ideas. Additionally, innovation is considered a dynamic phenomenon that may be examined across various levels of analysis, such as organisational, group, and individual levels. There are specific predictors of innovation and outcomes at all levels; innovation entails generating and implementing new ideas to lead to positive outcomes. For example, organisational innovation mostly refers to new business strategy and system development and is primarily determined by the structural and management variables in the organisation (Wolfe 1994). On the other hand, group innovation tends to focus on

group cohesion, potency, and effectiveness, and is oriented towards new ideas and products developed by teams (Janssen, Van de Vliert & West 2004; West et al. 2004). Finally, innovation at the individual level represents the set of activities that employees execute to create and implement new ideas that aim to benefit organisations, groups and society (Janssen 2000; Scott & Bruce 1994). Therefore, innovation at the individual level is examined in relation to individual and contextual characteristics, such as leadership and personality (Hammond et al. 2011; Scott & Bruce 1994). Basically, a new idea is presented by individuals who account for most of the new ideas at the workplace. In this context, this study is mainly focused on innovation at the individual level. It is important to distinguish innovation from related concepts that often overlap before we further elaborate on individual innovation.

2.2.2 Difference Between Creativity and Innovation

Innovation and creativity may sound similar and are often used interchangeably. However, the literature distinguishes between them based on idea generation and implementation. Creativity is considered a process of idea generation, whereas innovation is considered as the process of implementing and executing an idea (Anderson, Neil, De Dreu & Nijstad 2004; Hughes et al. 2018). Innovation is the process of developing new products or services to enhance organisational performance or resolve work-related issues or problems (Anderson, Neil, Potočnik & Zhou 2014; Janssen, Van de Vliert & West 2004). West (2002) noted that employee innovative behaviour is the process of value creation at different organisational levels through idea generation and implementation. Larson (2011) argued that innovation happens only when some real outcomes appear and actual benefits are reaped. Hughes et al. (2018) provide a detailed comparison of creativity and innovation (*see* Table 2.1).

Table 2.1 Comparison between Creativity and Innovation

Features	Creativity	Innovation
Idea generation	Yes	No
Idea promotion	No	Yes
Idea implementation	No	Yes
Novelty	Highly novel and produces something new	Does not always produce something new; rather, it involves refining and developing upon existing ideas.

Utilitarian focus	The focus is not on the utility but rather on developing something new	The basic purpose is to provide utility by improving or developing upon existing ideas
Where does it take place?	This is a highly intrapersonal and cognitive process that happens through the social exchange of ideas and refining them over a period of time.	It involves a high level of social, interpersonal, and practical dimensions.
What does it result in?	Idea creation	Implementation and functioning of idea

Source: Hughes et al. (2018, p. 551)

The fundamental difference between creativity and innovation is that innovation includes the generation and implementation of new ideas that might have already been created elsewhere, thereby transforming a new idea into an action that produces value and change in the organisation (West et al. 2004). However, creativity primarily focuses on novelty to generate new ideas and is the first step in innovation. A creative individual might not necessarily be innovative, as the new ideas they have might only be sold or supplied to interested parties (Perry-Smith & Mannucci 2017). Therefore, this study focuses on innovative employee behaviour and does not examine employee creativity because the antecedents of creativity are at the individual level e.g., self-efficacy, whereas antecedents of innovation are variables like managerial support or leadership styles. Also, despite clear conceptual and empirical differences between employee creativity and innovation, many researchers seem to be confused. For instance, Neubert et al. (2008) conceptualised creativity and examined innovative measures (Hughes et al. 2018).

2.2.3 Innovative Work Behaviour

Innovation, as employee behaviour, in an organisation is vital to success, and research has unambiguously shown that these processes are becoming increasingly important drivers of organisational performance, adaptability, and even longer-term survival (Anderson, Neil, Potočnik & Zhou 2014; Mumford & Licuanan 2004; Wang, XH et al. 2015). As organisations attempt to integrate and exploit their employees' ideas and suggestions, it is apparent that the process of idea generation and implementation has become a source of distinct competitive advantage (Lee, A, Legood, et al. 2020; Scott & Bruce 1994). There is substantive evidence showing that employees' innovative behaviour is valuable for organisational performance, helps to develop new products, services, and work procedures,

and promotes individual and organisational effectiveness (Janssen 2005; Shin, Yuan & Zhou 2017; Yuan & Woodman 2010). However, nurturing innovation requires more than just recognising the value of employee ideas. It necessitates a systemic approach that includes supportive leadership, a conducive organisational culture, and the right mechanisms to encourage risk-taking and experimentation (Carnevale et al. 2017; Mumford & Licuanan 2004). Organisations must also invest in training and development programmes that equip employees with the skills and knowledge to think creatively and innovatively. Hence, by fostering an environment that encourages innovation at every level, organisations can not only survive but thrive, adapting to external challenges and leading changes.

2.2.4 Conceptualisation of Innovative Work Behaviour

Employee innovative behaviour is a rich and elusive construct that has been defined and operationalised differently by many researchers. For instance, the model of the process of innovation developed by Kanter (1988) is considered one of the most comprehensive approaches to conceptualise and define employee innovative behaviour. He conceptualised innovation as a process that involves three main activities: idea generation, coalition building, and idea realisation. Firstly, idea generation denotes the identification of incongruities and discontinuities in the work environment, such as things that do not behave as originally prescribed or opportunities to develop new approaches that enhance work effectiveness. These discontinuities lead to idea generation, also referred to as creativity at work (Amabile 1988), which means the production of novel ideas or approaches to gain benefits from solutions or opportunities previously identified. Secondly, coalition building refers to actions that attract support to expand the energy and influence of novel ideas (Kanter, 1988). Additionally, through coalition building, novel ideas are originally generated and adjusted in response to feedback from teammates, team leaders, and managers. Finally, idea realisation denotes clear and intentional attempts to develop, adopt, or propose new ideas in practice within a work role, a group, or at the organisation level. At this point, employees can invest considerable effort to implement ideas. Amabile (1988) offered a model that differentiates between idea generation and idea realisation. However, this model mostly focused on the generation of novel ideas and overlooked the implementation process. Therefore, Amabile's model is considered an incomplete model of innovative behaviour because it is limited to creativity at work. Moreover, Scott and Bruce (1994) viewed innovative behaviour as a four multistage process, including problem recognition, ideas generation, sponsor seeking, and idea production, with different activities and behaviours that are necessary at each stage. He

stated that individual innovation starts with problem recognition and ideas generation. Next, an innovative individual seeks sponsorship for an idea and attempts to build a coalition of supporters for it. Finally, the innovative individual turns the idea into innovation that can be touched or experienced.

Furthermore, the work of Axtell et al. (2000) is constructed on the difference between suggesting novel ideas and implementing novel ideas. This contributed to the introduction of idea suggestion as an additional element of IWB, which should not be confused with coalition building because while the former only underscores speaking up about novel ideas, the latter is actively involved in searching for sponsorship of proposed ideas. However, the confusion between idea generation and idea suggestion is a limitation of this work. According to Axtell and colleagues, suggesting novel ideas is a construct closely related to creativity; nevertheless, it is argued that although suggesting novel ideas implies a previous generation of novel ideas, it is conceptually distinct from it. Novel ideas that are generated might not be suggested to others at work because some of these ideas may be actively withheld and silenced (Burriss 2012). The remaining works in Table 2.3 are closely constructed and derivations from the work of (Kanter 1988). However, a central problem among these models is the use of several labels to denote the same set of actions in the construct of innovative work behaviour (Kleysen & Street 2001). For instance, idea generation has been described as generativity, idea suggestion, and idea producing, whereas idea realisation has been named as idea production, testing idea and implementing, idea production and solution implementation (Amabile 1988; Kleysen & Street 2001; Scott & Bruce 1994). This suggests that some scholars may have been putting ‘old wine in new bottles,’ which muddles rather than contributes to the conceptualisation of innovative behaviour. If different, and even overlapping, labels are used to denominate the same construct, serious risks of construct misunderstanding are likely to occur. A review of the literature on the definition of IWB is presented in Table 2.2.

Table 2.2 Conceptualisation of IWB

Author	Conceptualisation IWB	Definition of IWB
(Kanter 1988)	<ul style="list-style-type: none"> - Idea generation - Coalition building - Idea realisation 	Employee-led initiation and realisation of new ideas within a work role designed to improve role performance.
(Amabile 1988)	<ul style="list-style-type: none"> - Setting the agenda 	Successful implementation of creative ideas

	<ul style="list-style-type: none"> - Idea producing - Testing and implementing ideas 	within an organisation
(Scott & Bruce 1994)	<ul style="list-style-type: none"> - Problem recognition - Idea generation - Sponsor seeking - Idea production 	A complex process that involves different steps. At any given point in time, different individuals may be at different stages in this process.
(Janssen 2000)	<ul style="list-style-type: none"> - Idea generation - Idea promotion - Idea realisation 	The intentional creation, introduction, and application of new ideas within a work role, group, or organisation, to benefit role performance, the group, or the organisation.
(Axtell et al. 2000)	<ul style="list-style-type: none"> - Idea suggestion - Idea implementation 	The capability of improvement in new ideas relating to the jobs within organisations
(Kleysen & Street 2001)	<ul style="list-style-type: none"> - Opportunity exploration - Generativity - Championing - Application 	Individual actions are directed at the generation, introduction and/or application of beneficial novelty at any organisational level.
(Dorenbosch, Engen & Verhagen 2005)	<ul style="list-style-type: none"> - Problem recognition - Idea generation - Idea promotion - Idea realisation 	
(De Jong, J & Den Hartog 2010)	<ul style="list-style-type: none"> - Idea generation - Idea championing - Idea implementation 	The intentional behaviours of an individual to introduce and/or apply new ideas, products, processes, and procedures to his or her work role, unit, or organisation.
(Kessel, Hannemann-Weber & Kratzer 2012)	<ul style="list-style-type: none"> - Knowledge acquisition - Idea generation - Solution implementation 	The configuration of an activity set consists of knowledge acquisition, idea generation, and solution implementation.

The work offered by Janssen (2000) is considered the most complete conceptualisation of IWB available in the literature, in relation to the process of innovation offered by (Kanter 1988) and the extension of the work of (Scott & Bruce 1994). Following (West & Farr 1989), Janssen defined IWB as the intentional creation, introduction, and application of new ideas within a work role, group, or organisation in order to benefit role performance, the group, or the organisation. From this perspective, Janssen (2000) conceptualised IWB as a set of

actions with different types of actions required at each stage. Specifically, a three-stage process describes the following set of actions as the central dimensions of IWB. First, idea generation refers to thinking of and creating new solutions or approaches to work-related issues identified in the workplace. Idea generation is therefore conceptualised as creative thinking at work. Idea promotion denotes suggesting novel ideas and building up a coalition with other relevant people in the workplace, with the aim that these ideas gain sufficient power to be adopted. Idea realisation refers to explicit attempts to implement novel ideas that are oriented to transforming work environments. These stages overlap in practice, and individuals can involve in any combination of activities at any time during the process (Bammens 2016; Janssen 2000; Scott & Bruce 1994). Overall, based on (Janssen 2000), this study defines employees' innovative behaviour as their involvement in the process of generating, promoting, and realising ideas for new technologies, processes, techniques, or products to benefit role performance, the group, or the organisation.

2.2.5 Antecedents of Innovative Work Behaviour

The importance of employee IWB in contributing towards organisational competitiveness, survival, and growth has been widely recognised in the conceptual and empirical literature (Anderson, Neil, De Dreu & Nijstad 2004; Anderson, Neil, Potočnik & Zhou 2014; Hammond et al. 2011; Yuan & Woodman 2010). Thus, organisational scientists have devoted much attention to discovering factors affecting individual innovation to develop a theoretical framework for prompting innovation in the workplace (Anderson, Neil, Potočnik & Zhou 2014; Montani, Odoardi & Battistelli 2014). A wide range of individual, job, and contextual factors have been investigated with employee innovation.

However, in reviewing the antecedents of innovative behaviour, it is important to note that this study does not claim this overview to be comprehensive. The focus of this review is to outline the scope of the research, highlighting leadership as a key antecedent of innovative behaviour in this context.

2.2.6 Individual Factors

Individual factors are related to psychological state, traits, and mechanisms that can influence an employee's IWB.

2.2.6.1 *Personality*

Personality has been described as stable individual characteristics that can influence cognitive, affective, and behavioural processes. In the early stages of research, scholars discussed how innovative ideas can be attributed, in part, to individual differences (Barron & Harrington, 1981; Gough, 1979; Kirton, 1976; Mackinnon, 1965). Accordingly, studies have focused on identifying personal characteristics that make individuals innovative (Hammond et al. 2011; Rank et al. 2009).

The Five-Factor Model regarding personality is considered the most impactful work on innovative behaviour and provides a theoretical basis for future research in this regard (George & Zhou 2001; Shalley, Zhou & Oldham 2004). The model postulates that the personality of individuals can be expressed in several aspects, such as conscientiousness, neuroticism, agreeableness, extraversion, and openness to experience (Costa & McCrae, 1992). However, openness to experience is recognised as having more visible consequences for innovative behaviour (Hammond et al. 2011; Madrid et al. 2014). Individuals who are open to experiences are inquisitive, highly imaginative, and are, therefore, very receptive to non-conformist viewpoints. Bearers of this trait display a positive approach and behaviour in their social interactions. Consequently, open-minded people are relatively more immune to forming or holding irrational opinions and resisting authority, as such people can appreciate and accommodate other people's points of view while holding their perspectives with high conviction. It is, therefore, not surprising that individuals' ingenuity at the workplace is found to be positively related to their openness to experience if they receive good support and encouraging feedback from their superiors as well as the organisation they work for (George & Zhou 2001).

Conscientiousness is reported to either decrease or have no impact on innovation. This is perhaps due to its tendency to divert attention to details (Zare & Flinchbaugh 2019). Extroversion, on the other hand, is noted to complement eagerness for new perspectives due to its interaction with the outside world. The literature on agreeableness and neuroticism, however, is very sparse, especially on its link to innovation at the workplace. The models used to describe innovative personality are often based on a restricted set of temperaments associated with innovative-related outcomes. These models distinguish highly creative and innovative individuals based on characteristics such as self-confidence, tolerance for

ambiguity, aesthetic sensitivity, originality, and intuition (Gough 1979) . In essence, creative individuals are intrigued by novel ideas and are consistent about their original viewpoints.

The last decade has seen a rise in the number of studies that focus on the impact of self-presentation propensity on innovative behaviour. The term self-presentation propensity refers to the sensitivity of individuals to their self-image and their efforts and desire to monitor and modify their actions to build their desired public image (Rank et al. 2009). Individuals with a low propensity to self-presentation are least concerned with potential failures that an innovative endeavour may entail and are, therefore, more innovative. Conversely, a high propensity for self-presentation holds back innovation, as individuals are concerned about their public image, which may be affected due to possible failures associated with innovative initiatives. Yuan and Woodman (2010) showed that concerns regarding self-image are a drag on innovation in both the presence and absence of organisational support for innovation. Even in environments that encourage innovation, individuals may avoid actions and activities that could potentially damage their self-image.

2.2.6.2 Motivation

According to Scott and Bruce (1994, p. 580), the research on innovative behaviour is mostly about what motivates individuals to be innovative and which motivation plays an important role in innovative behaviour. Intrinsic and extrinsic are the two types of motivation that have been examined with IWB. Intrinsic motivation refers to the psychological state inherent within an individual, reflecting an active and enjoyable orientation towards a work role. Existing research has confirmed the positive association between intrinsic motivation and innovative behaviour (Chen, G et al. 2013; Hammond et al. 2011). Creating positive change through innovativeness is of personal interest. Specifically, it has been empirically shown that a proactive person experiences a higher intrinsic motivation, leading to increased innovative behaviour (Chen, G et al. 2013).

2.2.6.3 Self-Efficacy

According to social cognitive theory, human functioning is guided and influenced by 'people's judgments of their capabilities to organise and perform courses of activities required to achieve certain types of performances' (Bandura 1986, p. 391). He labelled such judgment as 'self-efficacy,' arguing that affective states, motivation, and activities are predicted by what individuals believe they can attain rather than by their objective competencies. Nevertheless, the necessary conditions and skills must be present for them to effectively

achieve the job. It can explain how the effect of contextual factors transmits into innovative activities. For instance, Newman, Alexander, Herman, et al. (2018) found that creative self-efficacy has a strong influence on innovative behaviour when employees work under an entrepreneurial leader. Recent development has offered the construct role breadth self-efficacy, which refers to individual confidence and ability to perform beyond work requirements. Empirical evidence indicates that role breadth self-efficacy substantially influences innovative work behaviour. For example, Chen, G et al. (2013) found that proactive individuals experience higher role-breadth self-efficacy, which captures confidence in the ability to generate, promote, and implement new ideas.

2.2.7 Job Factors

2.2.7.1 Job Complexity

Job complexity has been shown to have a significant impact on IWB (Hammond et al. 2011). Ohly, et al. (2006) explain that employees who often perform specific tasks can use their spared cognitive and time resources to generate and implement new and useful ideas. Further, they argue that this might only be the case when routinisation appears in specific tasks, not in job content because repetition in the latter dimension might lead to boredom. Job complexity is assumed to affect the implementation of ideas because employees who fulfil complex jobs might have appropriated the necessary know-how to implement their ideas through a broad acquisition of knowledge and skills.

2.2.7.2 Job Autonomy

Job autonomy refers to the degree of decision latitude employees possess regarding the determination of which tasks to perform and how to schedule, assign, and execute them. Job autonomy has been found to affect innovative behaviours. It is positively related both to the generation and testing of ideas and innovation implementation (Axtell et al. 2000; Ramamoorthy et al. 2005). Jobs with little discretion in how, when, or where work is accomplished may stifle an employee's ability to be innovative. Alternatively, providing employees with freedom and independence to determine which procedures should be used to carry out a task increases employee obligations to implement new innovative ideas (Ramamoorthy et al. 2005).

2.2.8 Organisational Factors

2.2.8.1 Climate for Innovation

Climate for innovation reflects norms and practices that value, encourage, and reward the development of change-oriented innovative initiatives in the workplace (Scott & Bruce 1994). Climate factors such as support for innovation, psychological safety, and participative safety climate are the most investigated in research (Axtell et al. 2000; Baer & Frese 2003; Scott & Bruce 1994; Shanker et al. 2017; Volery & Tarabashkina 2021).

2.2.8.2 Leadership

Amongst several supporting factors, leadership has been posited as one of the most influential predictors of employee innovation (Anderson, Neil, Potočnik & Zhou 2014; Hughes et al. 2018; Mumford & Licuanan 2004). As such, researchers and practitioners have paid significant attention to understanding why and how leaders exert a substantial effect on employee IWB (Janssen 2005; Lee, A, Legood, et al. 2020; Scott & Bruce 1994). Mumford and Licuanan (2004) put forth a number of reasons that indicate the relevance of leadership in encouraging employee innovation in the workplace. First, as innovation tends to involve uncertainty and risks, leaders can shape the workplace environment, allocating resources such as time and finance, and providing close and supportive direction that is only possible with a cooperative effort from the leader (De Jong, JP & Den Hartog 2007; Lee, A, Legood, et al. 2020). Furthermore, leaders can influence employees to innovate by serving as role models (Carmeli, Gelbard & Gefen 2010; Makri & Scandura 2010) and managing work conditions that stimulate employee resources, i.e., motivation (Fischer, T., Dietz & Antonakis 2017; Pieterse et al. 2010). Lastly, leaders can provide access to information pertinent to innovation from external resources and create a climate wherein quality relations are highly valued (Atwater & Carmeli 2009). Accordingly, a wealth of empirical studies has confirmed the critical role that leadership behaviours play in predicting employee IWB (Hughes et al. 2018; Janssen 2005; Pieterse et al. 2010).

2.3 Leadership

2.3.1 Definition of Leadership

Leadership is among the most debated concepts around the world due to its critical role in different types of organisations, including business, educational, and social organisations (Lord et al. 2017). Despite the long history of leadership, scholarly interest in organisational

leadership only started in the early twentieth century. It has been recognised that a leader is the most influential person and plays a key role in driving organisational effectiveness (Bass, Bernard M 1985; DuBrin 2015). Currently, organisations are in dire need of individuals who possess leadership qualities to lead the organisations towards success (Northouse, Peter G 2021). An effective leader brings necessary changes to the organisation to keep up with market demands; this is believed to be the solution for many organisational issues (Podsokoff 1994; Yukl 2008). An effective leader is capable of guiding organisations towards development by proactively anticipating future events and responding promptly and adeptly to these challenges. (Ireland & Hitt 1999; Van Wart 2013). Leadership is not only confined to playing a critical role in enhancing organisational performance, but it is also expected to influence employees to better perform than initially expected to achieve organisational objectives (Bertocci 2009; Northouse, Peter Guy 2014). These attributes are important to foster organisational innovation (Al-Husseini & Elbeltagi 2016; Jung, DI, Chow & Wu 2003).

According to Yukl (2013), there is no consensus and universally accepted definition of leadership. There are several definitions of leadership based on behaviours, traits, and situations. Following are some of the proposed definitions of leadership; it is presented in Table 2.3.

Table 2.3 Review of Leadership Definitions

Definition	Reference
Leadership entails guiding and organising the work of group members in an organisation setting.	(Fiedler 1967)
Leadership is exercised when a group of individuals mobilises political, and other resources to arouse, engage and satisfy the motives of followers.	(Burns 1978, p. 18)
Leadership is defined as an attribute, behaviour, authority, or relationship between a leader and followers, or the role relationships of an administrative position.	(Yukl 1981, 2008, 2013)
Leadership is the ability to boost confidence, provide support, and encourage the members to achieve the organisational goal.	(House, Robert J 1971, 1996; House, Robert J & Mitchell 1975)
Leadership is a form of relation between leader and followers to	(Daft 1999)

bring necessary changes reflecting their shared purposes.	
Leadership is a mechanism that involves the interactions of individuals and groups to achieve a set of objectives.	Robbins and Coulter (2005)
Leadership is a social process in a group context in which a leader imparts his or her influence on the behaviour of group members to effectively meet the organisational goals.	(Oke, Munshi & Walumbwa 2009)
Leadership is a process of individual influence on group members to achieve organisational objectives.	(Northouse, Peter Guy 2014; Northouse, Peter G 2019, 2021)
Leadership is described as the ability of a leader to inspire followers with trust, motivation, and support to achieve the organisation's goals	(DuBrin 2015)

Notably, the above definitions of leadership share some commonalities. First, leadership is a process of influence in which leaders influence followers' attitudes and behaviours to achieve common shared objectives. Second, leadership occurs within a group, emerging in the interaction between leaders and followers. Third, leadership prioritises goal achievement by formulating future visions, setting clear directions and raising follower commitment to reach the desired level. Daft (1999) proposed that the elements of leadership, such as followers, common goals, change, and personal responsibility are interconnected, and that their separation can affect the success of the leadership process. He added that influence is a key element of leadership, in which the leader influences the group members to perform beyond expectation to actively achieve the desired goal.

In addition, scholars agree that leadership involves many of the same activities as management. Thus, it is important to distinguish leadership from management. According to Bennis and Nanus (1985), management is concerned with achieving activities and maintaining the status quo, whereas creating a vision for change and influence is the hallmark of leadership. According to Kotter (2008), producing order and consistency and achieving tasks through planning, controlling, organising, and budgeting fall under the domains of management. Meanwhile, the scope of the leadership process is to bring change, set direction, motivate, align, and inspire people to achieve the desired goal (DuBrin 2015). While both leadership and management handle different aspects and activities, both are important for an

organisation's success (Northouse, Peter Guy 2014). As a result, these concepts are complementary and overlapping. Managers play a leadership role when they help the people to achieve certain goals while a leader also practices management when planning, controlling, and organising.

2.3.2 Evolution of Leadership Theories

It is essential to understand the evolution of leadership theories, as it offers historical background and highlights changes in leadership over time. Hence, different perspectives and theories have evolved with respect to leadership traits, behaviours, and styles. This section traces the path from the early theories of leadership based on traits to the modern approaches in leadership theory.

In the twentieth century, trait-based research was one of the first systemic attempts to study organisational leadership (Bryman 1992). This approach attempted to classify leadership based on certain innate qualities that can make leaders universally distinct from non-leaders. It originated from the great man perspective, which assumes that leaders are born, not made (Northouse, Peter G 2019; Yukl 2013). In a major review by Stogdill, R (1974); Stogdill, RM (1948) discovered in two survey studies that intellect, initiative, patience in solving problems, self-confidence, tolerance, superiority, teamwork, and ambition were the most important leadership qualities. However, the advancements of scientific methods up till the 1990s, including the application of the Big Five personality model and meta-analysis, ceased academic interest in trait theories, as these methods demonstrated a clear relationship between leadership traits and effectiveness (Northouse, Peter G 2019). This approach was subjected to criticism, as it was unable to classify a universal attribute of a leader and listed traits with no apparent limits. Also, this approach failed to provide leadership traits best suited to every situation (Yukl 2013). People with such traits may be effective leaders in particular situations, whereas they may not be effective leaders with the same traits in other situations. The approach was further criticised due to its failure in establishing a link between leader traits and outcomes like job satisfaction and effectiveness. Since it only focuses on classifying a leader's traits, it may not be applicable in the development and training of leadership due to the fact that traits are not easy to change or train (Northouse, Peter G 2019).

The limitations and scholars' dissatisfaction with the traits approach led to an increasing interest in leadership behaviours. This approach assumes that the leaders can be trained and

taught. A key discovery within this behavioural framework was the classification of leader behaviours into two main categories, task-oriented and relationship-oriented, to clarify what leaders do and how they behave (Bertocci 2009; Yukl 2010). By exhibiting task behaviour, leaders support group members to effectively complete their tasks whereas; by putting relationship behaviour in force, leaders make people relaxed within-group and adaptive to the situation (Northouse, Peter G 2019). The approach focuses on how leaders connect the two distinct behaviours to influence the followers to achieve the desired goal. This classification has remained a central element in studies of leader behaviour for over six decades (Behrendt, Matz & Göritz 2017). However, studies within the behavioural paradigm resonated with earlier work on trait paradigm, emphasising a leader-centric view by trying to differentiate effective from ineffective leaders through their behavioural patterns. It also was unable to define a universal leadership behaviour that would be relevant in all contexts and demonstrate how leaders' styles are linked to performance outcomes.

Hersey, Blanchard and Johnson (1988) proposed this theory as a reaction to previous theories that failed to explain effective leadership. The main idea of this theory is that leaders adapt different types of leadership in line with the demands of particular situations (Northouse, Peter Guy 2014). According to Yukl (2010), leaders link their style to the commitment and capability of their followers. Thus, effective leaders are those who can realise followers' needs and adapt their own style to meet those needs accordingly. The major emphasis of this approach involves both supportive and directive behaviour of leaders, where each must be appropriately adapted in a certain situation. Supportive behaviour is more inclined towards an employee who is supposed to feel comfortable during work and in various situations. On the other hand, the directive approach is more interested in the completion of a task by assigning duties and roles and defining the timelines for the completion of tasks (Northouse, Peter G 2019). Despite its use for leadership training, Northouse, Peter G (2019) noted that this approach has some shortcomings, such as unclear conceptualisation and the fact that it does not clarify how commitment integrates with competence to shape four different levels of development. It is also criticised for its measurement challenges, content, and design when assessing competence and commitment at various levels (Thompson & Glasø 2018).

In response to the contradictory findings observed in earlier studies, scholars shifted their attention to the contingency paradigm in the late 1960s. This approach proposed that effective leadership does not follow a single, universal method. Instead, it stressed the significance of

the surrounding context on a leader's success, suggesting that the effectiveness of leadership relies on the alignment between a leader's approach and the specific context (Northouse, Peter Guy 2014). Fiedler (1967) considered the leading author of this theory, proposed that an effective leader is either 'task motivated' or 'relationship motivated' (Lorsch 2010). As suggested by the theory, these two forms measure the effectiveness of leaders through three situational factors: task structure, leader-member relations, and position power. However, Fiedler's model was eventually neglected due to issues with its theoretical underpinnings, inconsistent empirical results, and unclear metrics (Yukl 2010). It also maintains a leader-centric view, treating followers as situational variables while keeping leaders at the core of the research.

In line with Fiedler's emphasis on the alignment between leadership style and situational demands, the path-goal theory posits that a leader's primary function is to offer tailored support to assist followers in achieving their goals. This theory suggests that leadership behaviour should be adaptive, enhancing the fit between environmental constraints and follower capabilities, and addressing any challenges (House, 1971, 1996). (Evans 1970; House, Robert J 1971, 1996; House, Robert J & Mitchell 1975). According to this theory, followers can be motivated by four different types of leader's behaviour (DuBrin 2015; House, Robert J 1996; Western 2019; Yukl 2010): participative, directive, supportive, and achievement-oriented. Precisely, being approachable and respectful of followers, cultivating a collaborative atmosphere, and treating followers as equals are all examples of supportive leadership. Leaders who use the directive style show their followers what they need to do by organising, preparing, creating, planning, and establishing goals for performance at work. Followers are provided with clear rules and regulations. The initiating structure style in the Ohio State study has a resemblance to this style. Participative leadership entails eliciting followers' opinions, beliefs, and ideas, as well as encouraging their involvement in the decision-making process. Lastly, the essence of achievement-oriented leadership is in ensuring high-quality performance by stimulating followers' confidence and providing them with all the necessary support to achieve the goal (Northouse, Peter G 2019). Although the path goal theory is more well developed than the situational approach, it overlooks clarifying how leaders may practice different styles to give followers a sense of competence. It also integrates the view of expectancy theory, which assumes that followers would be driven if they assume their actions can yield results (Northouse, Peter G 2019; Yukl 2010).

In sum, while these theories offer a structured way to classify leadership, scholars recognise a historical gap in integrating these theories (Winkler 2010). This has led to the exploration of an integrative approach that merges multiple leadership variables from different theoretical backgrounds (Yukl 2013). Although these classifications are useful for educational purposes (Northouse, Peter G 2019), they often overlook theories that are crucial for understanding leadership's impact on innovation, which is central to this study.

2.3.3 Contemporary Leadership Theories

The focus on further developing new theories is relatively essential, which implies disregarding traditional approaches like the trait approach, path-goal, and situational leadership approach to leadership (Winkler 2010). These theories are immensely criticised for their confined and determined perspective, which fails to capture the reality of leadership. As such, various new theories of leadership have emerged in the leadership literature due to the critical role of leadership in affecting follower outcomes and achieving organisational effectiveness. The field of leadership continues to evolve and has undergone many developments. Several leadership styles have been added to the list that depict and designate a leader's effectiveness. These theories are transformational, authentic, servant, leader member exchange (LMX), and empowering leadership.

2.3.4 Transformational Leadership

Since the early 1980s, TL has become a highly influential and most widely studied theory in leadership literature (Northouse, Peter G 2019). This theory was initially envisioned by Burns (1978) and further extended by (Bass, Bernard M 1985). The fundamental idea of this theory is that leaders can motivate and transform followers above their self-interest by altering their morale, ideals, and values to move followers to exceed expected performance (Avolio, Bruce J & Bass 1995). The full range of leadership models differentiate TL from transactional leadership (Bass, Bernard M & Avolio 1990). Unlike transactional leadership, which exerts influence through exchanging rewards for performance, TL portrays behaviours that go beyond cost-benefit exchanges and empowers followers to be change agents to perform beyond expectations (Avolio, Bruce J. et al. 2004; Dvir et al. 2002). Bass (1985) initially classified TL as having four factors: charisma, inspirational enthusiasm, intellectual stimulation, and personal consideration. Afterwards, Bass, Bernard M and Avolio (1994) identified four unique behavioural components of TL: inspirational motivation, intellectual stimulation, idealised influence, and individualised consideration.

- ❖ **Idealised Influence:** Leaders act as role models, sacrifice for the interests of the group members, and demonstrate high ethical standards.
- ❖ **Inspirational Motivation:** Leaders develop and present attractive future visions and act as symbols to motivate followers by instilling admiration and commitment to motivate members to perform beyond expectation to achieve the desired vision.
- ❖ **Intellectual Stimulation:** Leaders encourage followers in an organisation to perform differently by questioning assumptions, traditions, and beliefs, and facing new challenges as opportunities to grow and creating new ways of solving problems.
- ❖ **Individualised Consideration:** Leaders are concerned about fulfilling each follower's developmental needs and personal feelings, and build close relations through mentoring and coaching.

TL leaders can assist followers in developing their strengths, providing individualised consideration, and encouraging intellectual thinking to enhance problem-solving skills. They articulate a compelling future vision and influence followers through motivation to raise their level of performance. In this sense, TL leaders demonstrate a personal example to inspire followers to be change-oriented and take risks to achieve organisational objectives (Bass, Bernard M & Riggio 2006). It is believed that vision is the hallmark of charismatic leadership because followers develop trust and become committed to the leader's vision (House, Robert J. & Shamir 1993). Some scholars claim that charismatic and TL are identical concepts (House, Robert J. & Shamir 1993). However, others believe that charismatic and TL are distinct from each other (Yukl 1999). Graham (1991) argued that TL is a combination of both charisma and focus on follower development. Theoretically, researchers state that leaders, in most cases, exhibit some aspects of both transactional and TL behaviours. Leaders regarded as transformational demonstrate more transformational behaviours than transactional leadership behaviours (Avolio, Bruce J., Bass & Jung 1999). On the contrary, transactional leaders exhibit more transactional behaviours than transformational ones. The different opinions have made scholars agree that TL is the opposite of transactional leadership and that effective leadership is when TL is in effect (Boerner, Eisenbeiss & Griesser 2007; Jung, DI & Avolio 2000). This is because TL practices superior leadership and can win followers' trust by attending to their needs and development (Avolio, Bruce J. et al. 2004; Jung, DI & Avolio 2000). Furthermore, TL leaders have proven to be more effective because they stimulate and inspire followers to embrace creativity and innovation (Jung, DI, Chow & Wu 2003).

Several studies on TL confirm its positive impact on beneficial employee and organisational outcomes (Dvir et al. 2002). In a review of literature, Judge and Piccolo (2004) found that the effectiveness of TL was generalisable across different organisational contexts, e.g., health, public, military and educational sectors (Avolio, Bruce J. et al. 2004; Braun et al. 2013; Dvir et al. 2002), and desirable in team and individual outcomes e.g. job satisfaction and performance (Braun et al. 2013), organisational commitment (Avolio, Bruce J. et al. 2004) and innovation (Pieterse et al. 2010; Watts, Steele & Den Hartog 2020). Although most of the idea of TL theory revolves around positive behaviours, Bass, Bernard M (1985) proposed that TL leaders can display moral and immoral behaviours based on their motives. This has led Luthans and Avolio (2003) to introduce the concept of AL into the field of positive organisational behaviour and leadership.

2.3.5 Authentic Leadership

The word authenticity has its roots in the earliest Greek philosophy, which means ‘to thine own self to be true’ (Avolio, Bruce J & Gardner 2005, p. 319). AL has emerged as a new approach and prominent concept in the past decade that has attracted the attention of academics and practitioners. As a result of the growing number of managerial irresponsibility and ethical scandals, organisations need to pay more attention to managers’ integrity and morality (May et al. 2003; Walumbwa, Fred O et al. 2008). It argues that in today’s global challenges and turbulent environment, organisations require authentic leaders who are self-aware, honest with themselves, and behave in ways that reflect their personal values and inner feelings in order to develop and sustain a competitive advantage (Harter 2002; Luthans & Avolio 2003).

Thus, Luthans and Avolio (2003) introduced the concept of AL in the field of management and academia, and this provides a basis for the current understanding of AL. Based on this conceptualisation, several scholars started to extend and provide definitions of AL (Avolio, Bruce J & Gardner 2005; Gardner et al. 2005; Walumbwa, Fred O et al. 2008). The extended and refined work by Walumbwa, Fred O et al. (2008) has led to the most common and accepted definition of AL. According to Walumbwa, Fred O et al. (2008, p. 94), AL is ‘a pattern of leader behaviours that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, internalised moral perspectives, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development.’ This concept includes a

moral component and goes beyond the idea of being true to oneself, which forms the foundation of all concepts within AL (Lemoine, Hartnell & Leroy 2019; May et al. 2003). AL requires ‘being honest with oneself, being sincere with others, and behaving in a way that reflects one’s personal values’ (Leroy et al., 2015, p. 1678). Walumbwa, Fred O et al. (2008) identify four components of AL, including:

- ❖ **Self-Awareness** refers to the degree to which leaders demonstrate an understanding of their strengths, and limitations, and how a leader’s self-image is seen by followers and how he/she influences them (Gardner et al. 2005; Walumbwa, Fred O et al. 2008).
- ❖ **Balanced Processing** indicates the way leaders objectively evaluate the available information before making any critical decisions and seek opinions that challenge profoundly held beliefs (Avolio, Bruce J & Gardner 2005; Walumbwa, Fred O et al. 2008).
- ❖ **Relational Transparency** occurs when a leader presents their authentic identity to followers, manifested in openly sharing information, expressing true feelings and thoughts, and fostering a degree of openness with followers that allows them to be forthright with their ideas, challenges, and views (Avolio, Bruce J & Gardner 2005; Gardner et al. 2005; Walumbwa, Fred O et al. 2008).
- ❖ **Internalised Moral Perspective** reflects the extent to which the leader establishes a high standard for moral and ethical behaviour and make decisions in line with such behaviours (Walumbwa, Fred O et al. 2008).

A wealth of empirical studies validate the effectiveness of promoting positive employee attitudes, behaviours, and organisational performance (Avolio & Gardner, 2005; George, 2003; Walumbwa et al., 2008). Peus et al. (2012) found that AL promotes follower outcomes e.g., satisfaction, organisational commitment, and extra-role behaviours. In their meta-analytic review, Banks et al. (2016) demonstrated the dominance of AL over TL when promoting group, organisational performance, and citizenship behaviours. Ilies, Morgeson and Nahrgang (2005) argued that AL has a positive impact on followers' behaviours and eudaemonic well-being by enhancing and supporting followers’ autonomy. Additionally, it showed that AL encourages employee creativity, voice, and innovation (Hsiung 2012; Liang 2017; Schuckert et al. 2018).

2.3.6 Servant Leadership

In the 1960s-1970s, the concept of SL was developed by Robert Greenleaf (1970-1977) because of American social turmoil and new social movements. In his seminal essay, Greenleaf (1977, p. 7) defined SL as:

“The Servant-Leader is servant first. . . . It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead. . . . The best test, and difficult to administer is this: Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, and more likely themselves to become servants? And what is the effect on the least privileged in society? Will they benefit, or at least not further be harmed?”

This quote seems to be the most renowned one in the SL field; it describes a leader who naturally and desirably starts feeling that serving others comes first, which is the fundamental feature of SL (Greenleaf 1977, p. 27). They emphasise serving followers by going beyond self-interest and prioritising the fulfilment of subordinates' needs, growth and well-being (Liden, Robert C et al. 2014; Sun, Liden & Ouyang 2019). In addition, SLs demonstrate a personal example, and are open to one-on-one communication channels to understand subordinates' potential needs and goals. As a consequence, they actively pursue fulfilling their subordinates' needs and potential to motivate them to bring the best performance for the benefit of the organisation (Liden, Robert C et al. 2014; Sun, Liden & Ouyang 2019). These altruistic behaviours displayed by SLs encourage followers to actively deliver a high-quality job service (Chen, Z, Zhu & Zhou 2015). Primarily, it is a holistic leadership approach characterised by empowering employees, acting authentically, showing humbleness, and being responsive and highly accepted in social interactions (Liden, Robert C et al. 2015). Greenleaf (1977) argued that SL is primarily concerned with developing followers to maximise their ability to perform tasks effectively, community stewardship, and building future leadership abilities. SL provides direction and challenging tasks while offering empathy, emotional support, feedback, and resources (Liden, Robert C et al. 2008).

Although the SL term was coined in the 1970s, it has only received attention in the last decade and led scholars to develop measures for the construct (Barbuto Jr & Wheeler 2006; Liden, Robert C et al. 2008; Van Dierendonck 2011). Amongst these construct measures of SL is (Liden, Robert C et al. 2008), who developed a multi-dimensional measurement of SL, which is one the most commonly utilised and psychometrically robust scales (Chiniara & Bentein 2016; Van Dierendonck 2011). Specifically, Liden, Robert C et al. (2008) identified

seven dimensions that effectively capture the central characteristics of SL. These include emotional healing (displaying sensitivity to followers' concerns), helping subordinates grow and succeed (demonstrating genuine concern for others' career growth and development by providing support and mentoring), empowering (enabling followers to take on responsibilities and handle difficult situations), putting subordinates first (demonstrating in clear activities that they place followers' best interests and success beyond their own), creating value for the community (a conscious, genuine concern for helping the community), conceptual skills (being completely aware of the organisation, its goals, and the task at hand, and providing support to followers) and behaving ethically (interacting with others openly and honestly).

Since SL claimed to share some similarities and overlaps with other leadership theories, Van Dierendonck (2011) reviewed SL literature and concluded that none of these leadership styles combines the core characteristics of SL; he, thus, placed it into a unique position. Similarly, Hoch et al. (2018, p. 502) identified SL as a form of moral compass and showed it to be a stand-alone leadership approach. According to Eva et al. (2019), the distinctiveness of SL over other forms of leadership has been empirically and conceptually verified. This is because SL works mainly on satisfying followers' psychological needs, while TL focuses on the perception of effectiveness and on organisation's objectives over follower needs (Gregory Stone, Russell & Patterson 2004; van Dierendonck et al. 2014). Empirically, increasing evidence has shown that SL is distinct from other forms of leadership. This has been indicated in the recent meta-analytic reviews by Hoch et al. (2018); Lee, A, Lyubovnikova, et al. (2020), which reveals that SL is theoretically and empirically distinct and has an incremental predictive validity on a wide range of employee outcomes over transformational, authentic and ethical leadership. Furthermore, it has been found that compared to authentic leadership, servant leader has the ability to strongly predict employees' satisfaction and adaptive performance by leveraging work engagement (Kaya & Karatepe 2020).

Therefore, although SL has been empirically related with numerous organisational outcomes and individual attitudinal outcomes e.g. follower commitment, citizenship behaviour, and in-role performance (Liden, Robert C et al. 2015; van Dierendonck et al. 2014), it is still in the early stage. Scholars have only recently begun to explore the effects of SL on employee innovative behaviours (Chiniara & Bentein 2016; Eva et al. 2019; Panaccio et al. 2015).

2.3.7 Empowering Leadership

While the introduction of empowerment research was initiated in the 1980s, scholarly emphasis on the concept of EL as a key driver of empowerment only recently started in the 2000s (Arnold et al. 2000). The concept of EL has driven its historical development in line with the research stream in participative leadership, super leadership, and supportive leadership (Cheong et al. 2019). The crux of EL as a key approach to leadership is inherent in sharing power, delegation, and allocating autonomy and responsibilities to followers to enhance internal motivation and confidence (Ahearne, Mathieu & Rapp 2005; Amundsen & Martinsen 2014; Arnold et al. 2000). EL extended the traditional view of employees' roles by involving them in the decision-making process and by allocating them more responsibilities that highlight the development of being self-directed individuals (Martin, SL, Liao & Campbell 2013). Essentially, the literature on the development of empowerment has been conceptualised from two main perspectives. The first perspective is based on the managerial and socio-structure perspective in which formal leaders who are in positions of power and authority involve subordinates at lower levels in the decision-making process, delegating power and providing a high degree of autonomy in the organisations (Arnold et al. 2000; Chen, G et al. 2011). This perspective is primarily where the EL is found. The second perspective focuses on the motivational and cognitive state engendered by meaning, competence, impact, and self-determination that reflects followers' psychological empowerment towards task performance (Sharma & Kirkman 2015; Thomas & Velthouse 1990).

Even though these two perspectives coexist in the literature, they are conceptually and empirically different from each other. Scholars highlighted the need for measurement that mainly concentrates on actual leader behaviours (Arnold et al. 2000; Kirkman & Rosen 1999). Consequently, scholars have developed the construct of EL through several multidimensional scales (Ahearne, Mathieu & Rapp 2005; Amundsen & Martinsen 2014; Arnold et al. 2000). The Leadership Empowerment Behaviour (LEB) scale, developed by Ahearne, Mathieu and Rapp (2005), appears to be the most widely used in literature. It comprises four subscale dimensions of EL: enhance the meaningfulness of work, foster participation in decision-making, express confidence in high performance, and provide autonomy from bureaucratic constraints.

Moreover, EL is frequently compared with other leadership styles, e.g., transformational, participative and LMX. Scholars have argued that EL is broader and distinct from these leadership styles (Cheong et al. 2019; Sharma & Kirkman 2015). In particular, TL stresses leader charisma, vision, individualised consideration, and intellectual stimulation; it is focused on empowerment, as a TL leader might continue to perform in an authoritarian manner (Martin, SL, Liao & Campbell 2013). Thus, delegation and autonomy are not elements of TL, yet they are indispensable for EL (Lee, A, Willis & Tian 2018). Likewise, participative leadership seeks inputs from followers and participation in decision-making, and such behaviours are typically seen as merely one component of EL (Lee, A, Willis & Tian 2018; Sharma & Kirkman 2015).

Finally, LMX mainly focuses on the dyadic quality of the relationship between leader and followers with low to high-quality differentiation (Liden, Robert C. et al. 2006). Meanwhile, EL is geared more towards building followers' self-leadership abilities (Lee, S et al. 2017). Empirically, a recent meta-analysis (Lee, A, Willis & Tian 2018) validated that EL has a significant predictivity over TL and LMX in employees' creativity, citizenship behaviour, and trust in leader and psychological empowerment (Lee, A, Willis & Tian 2018). Also, this was supported by Amundsen and Martinsen (2014), EL exhibited an incremental validity beyond TL and LMX when predicting psychological empowerment.

2.3.8 Leader Member Exchange

LMX has been one of the dominant leadership theories in organisational research for the last 50 years (Gottfredson, Wright & Heaphy 2020). The theory originated from vertical dyad linkage theory and role theory (Dansereau Jr, Graen & Haga 1975; Graen & Uhl-Bien 1995), but it was not until a seminal article published by Dienesch and Liden (1986) that it was refined to 'LMX theory.' In this, the authors defined LMX as an informal interpersonal exchange process between a leader and a follower that allows followers to define and realise their roles within a particular workplace setting. The theory hinges on the premise that followers' role development will inherently result in differentiated role definitions, which subsequently produce varied forms of leader-member exchanges. Leaders need to reinforce these differentiated roles, but time constraints drive leaders to develop close relationships with only some of their followers (Dienesch & Liden 1986; Liden, Robert C. et al. 2006)

According to Dienesch and Liden (1986), LMX describes two categories of exchanges that followers experience with leaders, namely: (a) ingroup exchanges that are high in relational aspects (e.g., trust, interaction, support, and rewards) and (b) outgroup exchanges that are low in relational aspects. Thus, the central driver for effective leadership, according to LMX, is the development of mature relationships (partnerships) between leaders and followers, which enable them to gain the ‘many benefits’ of these relationships (Graen & Uhl-Bien 1995). In support of this theory, studies provide empirical evidence that links LMX with a variety of positive outcomes for workers and organisations. For example, high-quality LMX is associated with enhanced work performance (Kim, TY, Liu & Diefendorff 2015), increased organisational citizenship behaviours, higher job satisfaction (Loi, Chan & Lam 2014), creativity, voice and innovative behaviour (Carnevale et al. 2017; Tarkang, Nange & Ozturen 2020).

2.3.9 The Importance of Leadership in Developing Innovative Behaviour

Leadership is a social and goal-oriented influence process, emerging in a temporal and spatial environment (Fischer, T., Dietz & Antonakis 2017). Especially in today’s environment, organisations need effective leadership to respond to challenges that are brought about by a rapidly changing global environment and realise the importance of innovation (Anderson, Neil, Potočnik & Zhou 2014; Rosing, Frese & Bausch 2011). Leadership shapes a context that encourages a capacity to learn, change, and adapt in turbulent environments (Carmeli, Gelbard & Gefen 2010). Researchers have reported that leaders positively influence the outcomes of innovation (Slater, Mohr & Sengupta 2014). Similarly, Dobni (2008) suggested that organisational leaders play a key role in determining the innovation propensity of their organisation. Leaders help to increase the capability and disposition of the organisation to innovate successfully by sharing an innovation vision with their followers, hiring and supporting individuals who will champion innovation-orientated change, and instilling a sense of strong innovation culture that rewards productive work (Hasen & Kahnweiler, 1997; Kanter, 1985). Leaders are responsible for recognising innovative opportunities and gathering the required innovative abilities (De Jong and Den Hartog, 2010). Janssen (2005) found that followers are more likely to engage in innovative behaviour successfully only if leaders provide the required support. Employee innovation is not automatically activated; leaders must foster employee innovation using appropriate leadership behaviours.

2.3.10 Critique and Issues of Empirical Research

Many leadership styles have been studied as predictors of employee innovation. In recent years, the relationship between leadership and innovation has been subjected to various evaluations in the literature. For instance, much of the existing research has focused on single leadership styles in isolation when investigating their influence on innovative behaviour. Particularly, TL is considered as the most studied with employee innovation and regarded as a catalyst for employee innovation (Hughes et al. 2018; Rosing, Frese & Bausch 2011). The second most studied leadership variable is a relational approach to leadership LMX. These studies overlook the potential synergistic or comparative effects of different leadership styles that can foster or hinder innovation. There is also a critique regarding the predominant and consistent positive relationship of leadership on IWB across studies, with insufficient attention paid to potential negative consequences (Guo, Peng & Zhu 2023; Hassi, Rohlfer & Jebsen 2022; Iqbal, Amjad, Ahmad & Nazir 2023; Shailja, Kumari & Singla 2023). For example, Hughes et al. (2018) critically reviewed the existing research on leadership and employee creativity and innovation. They identified transformational, servant, empowering, LMX and authentic leadership as the most studied employee innovation in the literature. However, these leadership styles largely share positive correlations with employee innovation, which demonstrates an unclear picture of the leadership styles that are strongly relevant to employee innovation (Hughes et al. 2018). This is in line with a recent study by Banks et al. (2018), where he argues that excessive emphasis on positivity can cause inefficiency in the accumulated knowledge in leadership research. This raises questions about the distinctiveness of each style's contribution to fostering innovative behaviour, thus complicating the efforts to isolate their unique effects in empirical research. Hence, the need for a new model of leadership that encompasses various styles has been emphasised (Anderson, MH & Sun 2017; Bracht et al. 2023; Hughes et al. 2018; Lee, A, Legood, et al. 2020).

Moreover, a common critique is the oversimplification of leadership styles in measurement, leading to a failure to capture the multidimensionality of leadership constructs (Antonakis et al. 2016; Banks et al. 2018; Fischer, Thomas & Sitkin 2023; Martin, R et al. 2018). In fact, many studies report that construct redundancy and misalignment between conceptualisation and measurement remain problematic for the leadership literature in general (Banks et al. 2018; Gottfredson, Wright & Heaphy 2020). This has led to a failure to capture the multidimensionality of leadership constructs, resulting in a partial or distorted understanding

of how leadership influences innovation. Gottfredson, Wright and Heaphy (2020) point out systemic issues within the LMX construct, including conceptual problems, measurement issues where measures do not align with LMX's theoretical foundations, and treatment issues such as endogeneity. Recently, Bracht et al. (2023) compared the relative effect of various leadership on innovative behaviour; they did not measure AL at full scale, which resulted in explaining its weaker role in study findings. In addition, the operationalisation of innovative behaviour often lacks consistency across studies, making it difficult to compare findings or aggregate knowledge. Some studies focus on idea generation (Deichmann & Stam 2015), others on implementation (Michaelis, Stegmaier & Sonntag 2010), and yet others on overall innovative outcomes, without clear distinctions between creativity and innovative behaviour. For instance, Neubert et al. (2008) conceptualised creativity and examined innovative measures. However, the challenges associated with measuring these leadership styles provide a unique opportunity to refine and advance methodological approaches within leadership research. This study employs a multi-dimensional approach to assess the impact of each leadership style on IWB, thus mitigating concerns related to measurement and the validity of findings. By adopting robust and employing advanced statistical techniques (PLS-SEM), this study endeavours to provide a more accurate and nuanced understanding of how these leadership styles influence innovation.

The role of leadership in innovation is complex, with various factors mediating or moderating this relationship (Denti & Hemlin 2012). While many studies establish relationships between leadership and innovative behaviour, there is often a lack of in-depth exploration into the mechanisms through which leadership exerts its influence on innovation. Understanding these underlying processes is crucial for developing effective leadership interventions. It can be seen from studies presented in (Appendix F) that few studies have considered LMX as a mediator in the relationship between leadership and IWB. However, LMX was theorised as a direct predictor, which raises the question of the validity of empirical findings (Schuh et al. 2018). LMX is an outcome of leadership and when conceptualised as predictor, essentially relates one outcome to another. The current study addresses this by considering LMX as mechanism by which transformational, servant, empowering, and authentic leadership styles facilitate or hinder innovation.

Lastly, the influence of individual differences among employees (such as cultural value and personality traits) on the relationship between leadership styles and innovative behaviour is

often overlooked. This neglect results in a one-size-fits-all model of leadership that may not be effective for every employee. Additionally, the applicability of Western-centric leadership models to diverse cultural contexts is questioned. Bracht et al. (2023); Gelfand et al. (2017) critique the assumption that leadership styles promoting innovation in Western organisations are universally effective, ignoring the influence of cultural dimensions on leadership effectiveness and employee responses to innovation initiatives. However, this current study considers these individual differences as moderating variables, examining how they interact with various leadership styles to influence innovative behaviour. This nuanced perspective acknowledges the complexity of human behaviour and provides insights into tailoring leadership approaches to diverse employee needs.

Thus, it becomes increasingly clear that leadership studies focus on breadth rather than depth, causing inefficiency in the accumulated knowledge in the leadership and innovation literature. A single design of the leader variable makes it impossible to assess the leadership that is most important for innovation and the leadership style that is the most significant predictor of the mediator (Hughes et al. 2018). Therefore, the study integrates and compares multiple leadership styles to pinpoint the influential and functional leadership that matches the complexity and process of employee innovation at the workplace. A review of leadership and IWB studies is presented in (Appendix F).

2.4 Culture

2.4.1 The Concept of Culture

Before becoming prominent in the field of social science, the concept of culture was discussed and explained by anthropologists and archaeologists who primarily focused on languages and traditions for a long time (Taras, Rowney & Steel 2009). The concept of 'culture' is quite complex, denoting various meanings and used in daily language to describe different concepts like civilisation, lifestyles and/or collective programming of the mind. It is frequently portrayed as an onion diagram with three interrelated layers: the external layer representing the explicit artefacts and products of the society, the middle layer exemplifying the values and norms of a particular society, and the inner layer symbolising all the core assumptions that drive individual behaviours (Hofstede 1980a). There is no universally accepted definition of culture in the literature. Nevertheless, culture has been defined in numerous ways by many scholars (Hofstede 1980a; House, Robert J et al. 2004; Schwartz, Shalom H. 1994; Trompenaars 1993). For instance, Hofstede (1980a, p. 25) defined culture

as “the collective programming of the mind which distinguishes the members of one group from another,” while Trompenaars (1993) described culture as a shared system of meanings, the way a societal group tends to solve the problems related to relationships with others, time, and the environment. Moreover, House, Robert J et al. (2004, p. 15) defined it as “commonly experienced language, ideological belief systems, ethnic legacy, and history.” In general, these definitions have a shared commonality; they refer to culture as shared values and beliefs among members of a society, a multilevel construct, relatively stable and developed over time (Taras, Roney & Steel 2009). Notably, Hofstede’s culture definition is the most commonly recognised and adopted by researchers from different disciplines (Taras, Kirkman & Steel 2010; Watts, Steele & Den Hartog 2020). Therefore, it is suitable to consider Hofstede’s definition as the basis of the present study.

National cultures are formed through various forces, including religions, languages, legacy, and social events. In turn, national culture is interconnected with several external factors within a country, such as government, educational, and economic systems. It is important to note that the common characteristics of culture are more difficult to generalise since most research tend to focus on multilevel analysis, such as the national or individual level, and distinctly study different values of culture (Farh, Hackett & Liang 2007; Kirkman et al. 2009). According to Taras, Roney and Steel (2009), since the introduction of quantitative analysis, the concentration has moved forward to studying values that seemingly regulate individuals’ behaviour and consequently, study values that have become important and central to social science literature. In particular, there are four most dominant frameworks of cross-cultural differences; these include the work of Hofstede (1980a), Schwartz, Shalom H (1999), Trompenaars (1993), and the GLOBE study (House, Robert J et al. 2004). However, Hofstede's framework remains the most influential and extensively applied by researchers in psychology, sociology and management research (Bing 2004; Steenkamp 2001). In 2001, the Social Citation Index ranked Hofstede's research as the 9th most influential and cited author (Bing 2004). Although the GLOBE project developed by House, Robert J et al. (2004) is perceived as an alternative to Hofstede’s work, it is only an extension and was conducted in a large sample to overcome some limitations of Hofstede’s study. Therefore, the next section discusses Hofstede’s cultural development and its limitations.

2.4.2 National Cultural Framework

Geert Hofstede was one of the first researchers to develop countrywide scores based on specified cultural dimensions. His national framework has assisted researchers in identifying reliable cultural differences that distinguish a nation or society from another. The framework has attracted considerable interest and led to an increase in empirical studies regarding the influence of culture on the performance of multinational companies (Bing 2004; Kirkman, Lowe & Gibson 2006). Hofstede's work was driven by data collected in attitudinal surveys conducted at IBM between 1967 and 1978. Almost 60,000 employees from 66 countries participated in 116,000 surveys. The IBM attitude survey was primarily designed as an employee satisfaction survey and resulted in findings that permitted Hofstede to measure cultural differences through several dimensions and based on some national characteristics that are linked to cultural values. Based on theoretical reasoning and factor analysis, it was subsequently concluded that the national culture of each society is shaped by four dimensions: uncertainty avoidance, individualism/collectivism, masculinity/femininity, and power distance (Beugelsdijk & Welzel 2018; Hofstede 1980a; Taras, Roney & Steel 2009). The cultural dimensions are discussed in the following sections.

2.4.3 Dimension of Hofstede's Cultural Framework

Hofstede (1980a) originally developed four cultural dimensions to categorise the cultural values of different nations. Subsequently, a fifth dimension, identified as Confucian dynamism or long/short term orientation was added to fit the uncertainty avoidance dimension into Asian culture. In 2010, a sixth dimension labelled indulgence versus restraint was added to the framework.

2.4.3.1 *Uncertainty Avoidance*

Uncertainty avoidance is associated with the level of society's anxiety and stress when confronted with an unexpected future event. According to Hofstede (2001), uncertainty avoidance refers to the degree to which the members of society feel threatened by uncertain and ambiguous events, as well as how they react to avoid these events, i.e., providing more job security, establishing more formal rules, and being less accepting of deviant ideas and behaviours. Members and organisations of certain cultures can be measured through this dimension of comfort and discomfort in an uncertain situation. It is perceived differently by everyone and varies, depending on systems and institutions such as technology, law, and religion. A comparison of high and low uncertainty avoidance is presented in Table 2.4.

Table 2.4 High vs Low Uncertainty

High	Low
- Risk Avoidance	- Risk taking.
- Defined structures, rules, and procedures	- Low dependency on structure and few rules.
- Promotions constructed on seniority.	- Promotions based on merit.
- Intolerance of opposing views.	- Tolerance of differing opinions.
- Harmony oriented.	- Flexibility.

2.4.3.2 Individualism versus Collectivism

As opposed to collectivism, individualism describes the extent to which members of society prefer to act as individuals rather than as members of a group (Hofstede 2001; Taras, Kirkman & Steel 2010). In individualistic societies, individual rights are valued rather than social obligations, and people are expected to look after themselves. Individualism prefers a loose social system in which people look after themselves or their immediate families (Hofstede, 1980). Collectivism, on the other hand, is characterised by a tight social framework in which people distinguish between in-groups and out-groups; they expect their in-group to look after them, and in exchange for that, they feel they owe absolute loyalty to this in-group (Taras, Kirkman & Steel 2010).

Table 2.5 Individualist vs Collectivist society

Individualist society	Collectivist society
- Importance of individual interests	- Importance of shared interests
- Right to privacy for everyone	- Privacy is taken over by the group.
- Everyone is expected to have a private opinion.	- Opinions are predetermined by the group.
- Equality	- Rules and rights vary by group.
- Individual self-actualisation is the ultimate goal.	- Harmony in society is the ultimate goal.

2.4.3.3 Masculinity versus Femininity

The distribution of emotional roles between men and women is referred to as masculinity versus femininity (Hofstede 2001). The difference is not necessarily defined by gender, but masculine refers to a tougher society and femininity refers to a more tender society. Masculinity refers to how dominant masculine qualities such as toughness, material, assertiveness, and economic aspects of life are prevalent in a society. In contrast, femininity refers to having values opposite to masculinity dominating a society, including a pleasant environment, physical conditions, position security, and cooperation (Beugelsdijk & Welzel 2018). According to Hofstede (2001), men are assertive and tough in a masculine culture, and women are modest and tender. The degree to which culture associates feminine and masculine stereotypical characteristics with women and men varies by culture. In some societies, women and men are described with feminine and masculine stereotypes more than in other societies. In a simplified manner, men are expected to concentrate on performance roles in masculine cultures, whereas women are expected to focus on caring and relationship roles (Kirkman, Lowe & Gibson 2006). Feminine culture is more supportive of women as it provides them with access to jobs, promotions, and a more balanced career (Hofstede 2001).

Table 2.6 Masculinity vs Feminism

Masculinity	Feminism
- Gender roles are clearly distinct.	- Social gender roles overlap.
- Men should be confident, tough, and focused on material success.	- Both men and women should be modest, tender, and concerned with the quality of life.
- Does not place great importance on kindness.	- Desired traits in husbands are the same as desired traits in boyfriends.
- Places importance on the value of ability (of jobs, nature, people, etc.)	- Emphasises non-materialistic aspects of success.
- Dominant values in society are material success and progress	- Dominant values in society are caring for others and preservation

2.4.3.4 Power Distance

According to Hofstede (1980a, p. 45), power distance can be defined as ‘the extent to which members of society accept the unequal distribution of power and authority.’ He characterised it in an organisation as the perceived disparity (inequality) in the amount of

power (influence) held by a supervisor versus that held by a follower. Predominately, the extent of inequality is generally recognised by both the supervisors and the followers and is bolstered by their social and national environments (Hofstede 2001). Power distance is a value that divides people, organisations, nations, and groups based on how power differences are accepted, either as inevitable or functional (Beugelsdijk & Welzel 2018). The interaction among individuals with superior power is widely shaped by the degree of acceptability of the inequality (Taras, Kirkman & Steel 2010). Since power in organisations is distributed unequally, power distance is a value that is specifically applicable to organisational contexts (Kirkman, Lowe & Gibson 2006). For instance, within organisations, the level of participation in decision-making, centralisation, and formal hierarchy is influenced by power distance (Hofstede 2001). In high power distance societies, individuals with power are considered as superior, unapproachable, and are expected to lead autocratically (Kirkman, Lowe & Gibson 2006; Taras, Rowney & Steel 2009). Individuals with authority are seen as superior, and others with less power accept their leadership and place in the hierarchy, have great trust in them, and are loyal, submissive, and obedient to their leaders (Beugelsdijk & Welzel 2018). Accordingly, individuals with higher power distance tend to value status, power, and prestige. In a culture with high power distance, power and position provide the basis for individualistic differences. On the other hand, in a culture with low power distance, there is a preference for participative decision-making and equality (Hofstede 2001; Kirkman, Lowe & Gibson 2006; Taras, Kirkman & Steel 2010).

Table 2.7 High vs Low Power Distance

High Power Distance Society	Low Power Distance Society
- Centralised authority and power	- Decentralised authority
- Authoritarian leadership	- Participative leadership
- Hierarchical structure	- Flat structures
- Large number of supervisory staff	- Small proportion of supervisory staff
- Acceptance of inequality of power	- Unacceptance of inequality of power
- Expectation of inequality and power differences	- Fairness

2.4.3.5 *Future Orientation*

In terms of long-term or short-term orientation, future orientation is associated with the choice of priority of an individual's effort, the present, or the future (Hofstede 2001). The key difference is in the individual's time focus, which is either short-term or long-term. Individuals who work in an organisation on a long-term basis emphasise developing social relationships, gaining positions, marrying business and family affairs, and trying to draw a higher level of satisfaction from daily social relations. On the other hand, individuals with short-term orientation focus on short-term goals. Usually, they tend to be less happy in their daily human interaction and keep their business and family affairs separate (Beugelsdijk & Welzel 2018; Hofstede 2001; Taras, Roney & Steel 2009).

2.4.3.6 *Indulgence versus Restrain*

This dimension was recently added to the five dimensions of national cultural model. It can be referred to as the level of happiness in the society (Beugelsdijk & Welzel 2018). Indulgence 'stands for a society that allows relatively free gratification of basic and natural human desires related to enjoying life and having fun.' Restraint stands for 'a society that controls gratification of needs and regulates it using strict social norms' (Hofstede, 2011, p. 15).

In short, a fundamental influence of Hofstede's model is witnessed among academics and practitioners. However, there is also strong criticism of his proposed definition of culture and methodological approach (McSweeney 2002a). Furthermore, the Confucian dynamism dimension's base, known as short versus long term orientation, has also been largely criticised (McSweeney 2002b; Taras, Kirkman & Steel 2010). In leadership analysis, Hofstede's cultural dimensions are the most well-known and criticised. Consequently, arguments against Hofstede's framework are deliberated upon in the next section.

2.4.4 **Limitations of Hofstede's Framework**

Hofstede's approach to studying national culture has been subjected to many critics who question the validity of the scientific foundation in methodology and representative findings (Jones 2007; McSweeney 2002a). A criticism of his approach was his use of a survey instrument to measure cultural differences and values; opponents claim this is not an adequate technique to build generalisability across all countries (Jones 2007). Hofstede claims that the population in each country is homogenous in nature, whereas there are

different ethnicities and groups in every society (Nasif et al. 1991, p. 82). This seems to be particularly evident when the dimension being evaluated is culturally rooted, reactive, and subjective, which is sometimes hard to capture (Schwartz, Shalom H 1999, 2003). Accordingly, the model is not inclusive because the study builds on a single corporation's findings. In a similar vein, a study like this cannot reflect on the entire culture's functioning systems, beliefs, social norms, and values. In addition, in the analysis of findings, he grouped some countries into clusters. For instance, 22 Arab countries were treated as one cluster as he claimed that the social cultural differences are equivalent. However, there could be countries that have inner cultures and regions with unique social values that are different from what had been assumed. This brings the issue of bias as the research is limited to American and European workers in a single company. Thus, claiming generalisability based on this selective population is erroneous. In other words, the research lacks rigorous justifications and was overstated in terms of identifying cultural values and differences by attempting to validate his own pre-convictions instead of offering intact results.

Hofstede continued to extend his model by adding Asian culture in response to critics on the validity of the uncertainty avoidance dimension. This led to the addition of the fifth dimension, which is described as long vs short term orientation (McSweeney 2002a). This actively revealed the shortcomings of sampling across cultures, specifically in Asian nations. Others went beyond the validity and instrumentation used in the approach by criticising it as old-fashioned and outdated, since it was conducted in the 20th century. This is particularly significant in today's rapidly changing environment, where culture and values are reactive and cannot remain still as a result of globalisation and technology. Cultural dynamics change over time, and what was done in the mid-70s could not be broadly representative of today's contemporary world and young generation (Beugelsdijk & Welzel 2018; Smith, Dugan & Trompenaars 1996).

Even though the critics of Hofstede's work might be reasonable in essence, the framework remains the one extensively applied by researchers in sociology, psychology, and business management studies (Bing 2004; Steenkamp 2001). Due to its persuasive attributes, in 2001, the Social Citation Index ranked Hofstede as the 9th most influential and cited author (Bing 2004). With the passage of time, Hofstede's influence has been more widespread and has grown to establish several offshoots. Despite the opposing views and disputes by many scholars with his theory and findings, they must, at least, recognise it. The national cultural

work is deemed to be influential as it offers the baseline that paves the way towards building and advancing the theory in social-cultural studies. It is an integrated, clear, and realistic framework that can be applied to fit any research. According to Nakata and Sivakumar (1996), Hofstede's model is among the most comprehensive breakdowns of border cultural differences and is widely being employed in business management research (Zhang et al., 2005). Overall, there are more compelling arguments that support Hofstede's pioneering work than critics who want to invalidate its findings.

2.4.5 The Issue in Level of Analysis in Cultural Research

The level of analysis is a common issue in cultural research. When establishing theories regarding culture based on one country, researchers must determine the extent to which variance exists within the country on cultural dimensions (Clugston, Howell & Dorfman 2000; Taras, Roney & Steel 2009). A macro evaluation of culture at the country level is not necessarily analogous to a particular individual's orientation to the same cultural variables. It is questionable to interpret findings at the national level and apply them to the individual level (Hofstede 1980a, 2001). Likewise, it is inappropriate to apply individual-level findings to the national level. In either case, the same dimension could have differing meanings at different levels, and thus, relations between constructs at each level may largely vary (McSweeney 2002a). For instance, Spector et al. (2001) revealed no relationship between collectivism and job satisfaction at the national level. Hence, it may be assumed that such a relationship between these variables may not possibly exist at the individual level. However, Kirkman and Shapiro (2001) demonstrated a positive relationship between collectivism and job satisfaction at the individual level. This variance shows that collectivism, job satisfaction, and the relationship between them operate differently at these two levels. Research has supported the use of the construct of collectivism at the individual level of analysis (Jackson et al., 2006). Therefore, it is vital to consider the level of analysis when making theoretical predictions and interpreting results.

Moreover, another analysis issue to consider with cross-cultural research is the assumption that culture must be a shared group phenomenon. For instance, some studies draw from Hofstede Hofstede (1980a) and generalise these cultural values to individuals based on their nationalities. However, not all members of a particular country endorse the same values to the same degree. This raises two important issues. First, the generalisation of values based on nationalities may not appropriately represent any given individual or group. Second,

assigning members of society the same value score ignores important within-country variance that might be substantively important in explaining phenomena. Another shortcut often used by culture researchers is to use a country as a proxy for cultural values and then make comparisons between two or more countries. However, countries differ on variables other than cultural values; these variables include language, economic development, systems of government, and climate. It is impossible in these cases to disentangle the effects of other factors. Thus, researchers are encouraged to directly model the country-level value scores in their analyses and use a large sample size of countries to mitigate these other effects. Fischer (2009) recommends using these country-level scores in multilevel models only if data are available from at least ten countries. He argues that researchers should “unpack” culture further to the individual level to isolate the effects of cultural values.

In recent years, there has been an increase in empirical studies to examine cultural values at the individual level. These studies show that cultural values at the individual level vary considerably from the national level (Farh, Hackett & Liang 2007; Kirkman et al. 2009; Lin, W et al. 2018; Lin, X et al. 2019). Therefore, the current study considers and discusses the power distance at the individual level.

2.4.6 Power Distance at the Individual Level

Power distance varies at the individual, organisational, and societal levels. As such, the level of the analysis issue must be considered, as well as how to conceptualise and measure it. Furthermore, while it is important to examine cultural elements on a macro level, it is also important to consider individual differences of cultural values (e.g., power distance). Power distance is a cultural value that is especially important in organisational research because power is fundamental to all relationships, is inherent in hierarchical organisations, and affects many organisational processes and outcomes. Hofstede asserted that power distance is only applicable at the national level. However, recent research has discovered that there is a huge variation in the cultural values held by individuals despite being in the same culture (Farh, Hackett & Liang 2007; Kirkman et al. 2009; Lian, Ferris & Brown 2012; Zhang, X & Zhou 2014).

Individual power distance orientation refers to the degree to which individual vary in accepting the unequal power distribution, as perceived in authority, leaders, status, and hierarchy within organisations (Kirkman et al. 2009). It is a personality trait that reflects

individual fundamental beliefs and recognition regarding the power difference in institutions. Unlike other cultural values, previous research suggest that power distance orientation plays a significant role on how employees react and respond to leadership styles, which in turn affects their work outcomes (Kirkman et al. 2009; Lin, W, Wang & Chen 2013; Matthews, Kelemen & Bolino 2021). Therefore, this study applies power distance at the individual level of analysis to test how power distance orientation influence followers in perceiving leader behaviours.

2.4.7 The Influence of Power Distance Orientation on Leadership

Evaluation

Follower cultural values significantly influence the effectiveness and reception of leadership styles, suggesting that leadership effectiveness is contingent upon the cultural context and values of the followers (Matthews, Kelemen & Bolino 2021). Research has begun to examine the interaction of leadership behaviours and employee cultural value orientations (Lian, Ferris & Brown 2012; Zhang, Yucheng, Guo, et al. 2021). Power distance has been emphasised as especially relevant to leadership research, given its implications for how leaders are perceived and assessed (Kirkman et al. 2009). In high power distance cultures like KSA, deference to authority figures is common, and there is a strong acceptance of centralised power, reluctance to challenge superiors, and a preference for autocratic leadership (Alofan, Chen & Tan 2020; Hofstede 2011). Leaders in similar cultures are often evaluated based on their ability to maintain authority and make decisions unilaterally. As such, subordinates expect their leaders to be assertive, directive, and in control (House, Robert J et al. 2004). On the other hand, low power distance cultures value equality, cooperation, and shared responsibility in decision-making. Leaders are evaluated based on their ability to empower and involve subordinates in the decision-making process. Leadership is perceived as a collaborative effort, with leaders who listen, consult, and facilitate rather than dictate (Hofstede 1980a). However, cultural value, as developed by Hofstede (1980, 2001), not only varies among nations, but differs between individuals in the same culture (Clugston, Howell & Dorfman 2000). For instance, while most people in a particular country are high on individualism, in contrast, there are other people high on collectivism (Li, S-L et al. 2015). Similarly, power distance value was proposed and generalised for the social level; recent research found a variation among individuals in the same and high-power culture nations (Kirkman et al. 2009).

The concept of analysing cultural value dimensions at the individual level was first applied by (Dorfman & Howell 1988). Moreover, it is proven that differences in cultural values at the individual level can be greater than country-level cultural differences (Matthews, Kelemen & Bolino 2021; Zhang, Yucheng, Zheng, et al. 2021). This concept proposes that cultural differences at the individual level can influence leadership processes, probably to a larger degree than at the country level of analysis (Kirkman et al. 2009; Li, S-L et al. 2015). For instance, empowering leadership is found to be significant only among followers who have low power distance orientation in China (Li, S-L et al. 2015). A more recent study conducted by Vuong and Hieu (2023) found that EL positively influences job performance through knowledge sharing and IWB. The study further revealed that employees with high power distance orientation diminish the positive effects of EL on these mediating factors, suggesting that power distance orientation plays a crucial role in determining the effectiveness of leadership styles aimed at empowerment. Zhang, Yucheng, Guo, et al. (2021) found that in high power distance countries such as China, the effect of authentic leadership on affective commitment and leader satisfaction was stronger when followers have lower power distance. Kirkman et al. (2009) studied power distance dimension at the individual level. Using 560 followers and 174 leaders in China and United States, they found that individual followers' power distance orientation and their group's shared perceptions of TL were positively related to follower's procedural justice perceptions. Power distance orientation also moderated TL's cross-level relationship with procedural justice; the relationship was more positive when power distance orientation was lower rather than higher. Procedural justice, in turn, linked the unique and interactive relationships of TL and power distance orientation with followers' organisational citizenship behaviour. Hence, individual tendencies to behave in a particular way, such as individual values, are believed to be a sign of individuals' favouring things such as leadership behaviours (Matthews, Kelemen & Bolino 2021). These individual differences could affect how individuals rate the leadership practice. Therefore, this study argues that followers' power distance orientation will influence the evaluation and effectiveness of leadership styles in KSA HEIs.

2.5 Study Context: Saudi Arabia

2.5.1 Geographical and Cultural Overview

Saudi Arabia, the heartland of Islam, is strategically located at the crossroads of Asia, Africa, and Europe. This geographical positioning has historically made it a nexus of diverse cultures

and trade. The country's vast deserts, including the Rub' al Khali (Empty Quarter), contrast with the fertile areas in the southwest, coastal regions along the Red Sea, and the Arabian Gulf. KSA's cultural heritage is deeply influenced by Islam, shaping its societal norms, values, and leadership practices. The societal framework emphasises respect for authority, hierarchy, and collective well-being, which permeates organisational behaviour and leadership styles (Hofstede 2001). These cultural norms prioritise community, loyalty, and respect for established hierarchies, influencing the expectations for leaders to be paternalistic yet benevolent. This cultural backdrop is pivotal in understanding how leadership is practised and perceived within Saudi organisations, including educational institutions. The emphasis on collective over individual interests, coupled with a high-power distance culture, means that leadership style needs to be adapted to align with local expectations and values.

2.5.2 Economic Landscape

The economic landscape of KSA is shaped by its significant oil reserves, making it one of the largest oil producers and exporters in the world. This has historically provided the kingdom with substantial revenue streams, fuelling its economy and allowing for a high degree of economic stability and growth (Khorsheed 2015). However, recognising the risks of over-reliance on oil, KSA has embarked on ambitious economic reforms to diversify its economy. A key initiative in this regard is Vision 2030, a strategic plan to reduce the kingdom's dependence on oil, diversify its economic base, and develop public service sectors such as health, education, infrastructure, and tourism (Nurunnabi 2017). In 2023, the kingdom's budget reflected robust economic health and commitment to the Vision 2030 objectives. The budget outlined expenditures aimed at promoting economic growth and efficiency in spending, with significant investments in education, healthcare, and social development. Public revenues for 2023 were forecasted to remain high, with tax revenues expected to account for 28.5% of the total. The anticipated budget surplus was SAR 16 billion, equal to 0.4% of the GDP, indicating a healthy fiscal position amid global economic uncertainties (Kpmg 2021). Moreover, it has been reported that the Kingdom was the fastest-growing G20 economy, with an overall growth rate of 8.7%. This expansion was driven by strong oil production and a notable 4.8% growth in the non-oil GDP, fuelled by private consumption and investment in mega projects. Sectors such as wholesale, retail trade, construction, and transport were pivotal in non-oil growth (IMF 2023).

Central to this vision is the development of new industries, including renewable energy, and the attraction of foreign investment through liberalising market regulations and creating a more business-friendly environment. Moreover, the Saudi government is also investing heavily in technology and innovation as part of its economic diversification strategy. It aims to establish itself as a regional hub for technology and innovation, leveraging its strategic location and financial resources to attract tech companies and start-ups (Khan, MK & Khan 2020). This includes significant investments in digital infrastructure, e-government initiatives, and smart city projects like NEOM, a planned \$500 billion mega-city that promises to incorporate futuristic technologies across all facets of life. Additionally, KSA is working to enhance its non-oil exports sector, including mining, logistics, and manufacturing, to bolster economic resilience and sustainability. The kingdom's geographical position makes it a pivotal logistics hub connecting three continents, which KSA is capitalising on to enhance its global trade relations and economic ties. Despite these ambitious plans, the Saudi economy faces challenges, including the need for labour market reforms to reduce unemployment among its young population and the task of managing the social and economic implications of transitioning away from an oil-dependent economy. Nevertheless, the ongoing reforms under Vision 2030 showcase KSA's commitment to transforming its economic landscape to ensure long-term prosperity and stability.

2.5.3 Higher Education System

The higher education landscape in KSA is characterised by a dynamic and expansive network of institutions, including over 28 public universities with the majority funded by the government. There are also numerous private universities and a variety of colleges and technical schools that cater to a wide range of disciplines and specialisations. This system is overseen by the Ministry of Education, which is responsible for setting educational policies, standards, and accreditation requirements (MOE 2019). The governance structure of these institutions often features a centralised model, with significant oversight and direction coming from governmental bodies. This model ensures that higher education institutions align with national goals and priorities, such as those outlined in Vision 2030. Universities in KSA are pivotal centres for research and development and they play a crucial role in the country's efforts to diversify its economy and enhance its educational outcomes. The government's substantial investment in higher education infrastructure has facilitated state-of-the-art facilities, research centres, and technological advancements, making Saudi universities competitive on both regional and international stages (Khayati & Selim 2019).

2.5.4 Higher Education Policies and Reforms: Vision 2030

In recent years, the Saudi government has introduced several policies and reforms to enhance the quality and global standing of its higher education system. These initiatives are part of broader efforts under Vision 2030 to transform the country into a knowledge-based economy (Allmnakrah & Evers 2020). Key policies have focused on increasing funding for research, encouraging academic freedom, and fostering international collaborations (Khan, MK & Khan 2020; Nurunnabi 2017). For instance, the government has significantly increased the budget for scientific research, aiming to position Saudi universities among the world's leading institutions in terms of research output and innovation (Khayati & Selim 2019). Additionally, efforts to promote academic freedom are designed to attract world-class faculty and foster an environment where critical thinking and innovation can thrive. International collaborations with prestigious universities around the globe are encouraged, facilitating exchange programmes, joint research projects, and the sharing of best practices in higher education management and pedagogy. This strategy encompasses attracting global academic talent and students, creating branch campuses of foreign universities within the kingdom, and facilitating Saudi students' education abroad through scholarships. These efforts are poised to enrich the educational landscape, equipping graduates with the requisite skills to thrive in an interconnected world.

Essential to ensuring the competitiveness and relevance of Saudi higher education on the world stage is the stringent emphasis on quality assurance and accreditation. The National Commission for Academic Accreditation and Assessment (NCAAA) has been established to ensure that institutions and their programmes adhere to international benchmarks (Allam 2020). This focus on quality not only elevates the educational experience but also enhances the employability and global mobility of Saudi graduates. Moreover, a noteworthy aspect of the kingdom's educational reforms under Vision 2030 is the emphasis on female empowerment through enhanced access to higher education (Topal 2019). This initiative not only aims to enrich the academic milieu but also to bolster women's participation in the workforce and, by extension, the national economy. These reforms are instrumental in creating a more vibrant, innovative, and competitive higher education sector in KSA. Thus, the government's investment in education and research infrastructure, coupled with initiatives to foster partnerships with international universities, underscores the critical role that higher education institutions are expected to play in achieving these economic goals.

2.5.5 Leadership Challenges in Saudi Higher Education

Leadership in KSA higher education is faced with a myriad of challenges, ranging from aligning the universities' missions with the national Vision 2030 agenda to fostering an environment that encourages innovation and academic excellence. As a result, leadership is required to address these difficulties and to ensure that higher education institutions prosper in the future. However, the sector is grappling with identifying an effective leadership approach that is capable of fostering innovation and collaboration (Khayati & Selim 2019; Oplatka & Arar 2017). In addition, ensuring quality educational outcomes is a primary challenge. KSA universities are tasked with not only improving the content and delivery of their academic programmes but also with adopting modern teaching methods and technologies (Ghabban, Selamat & Ibrahim 2018). These efforts aim to foster critical thinking and creativity among students, preparing them for the demands of the global job market. However, a recent study found that the universities' readiness to produce qualified graduates to meet the demand of labour market is relatively moderate (ALSharari 2020). This challenge is complicated by the need to equip students with both technical skills and soft skills.

Another significant challenge is the difficulty in identifying and developing competent leaders within the higher education sector (Khan, MK & Khan 2020). Traditional recruitment and promotion practices in many KSA universities may not prioritise the leadership qualities and strategic thinking necessary for managing modern educational institutions. This is due to the prevailing cultural norms and the belief that effective leaders should excel in research or teaching even when the candidates may lack the essential leadership skills (Gonaim 2019). This practice raises concerns regarding the alignment between leadership capabilities and the selection process. Similarly, Khayati and Selim (2019) state that cultural, social, organisational, and personal factors significantly influence the promotion of individuals to leadership positions. This underscores the need for leadership development programmes designed to prepare individuals for the complexities of higher education administration. Moreover, the persistence of traditional leadership models presents an additional challenge (Alqahtani & Ayentimi 2021). These models, often characterised by hierarchical decision-making, may not be suitable for the fast-paced and evolving landscape of global higher education. Today's educational leaders need to adopt more collaborative and flexible approaches to leadership that encourage innovation and responsiveness to change.

A study by Wirba & Shmaila (2015) indicates that middle-level leaders in higher education mostly rate themselves as transformational leaders, but the results showed that they incorporate aspects of transactional leadership. Gonaim (2019) explores the impact of SL in Saudi higher education. The findings indicate that department chairs' adoption of SL by has positive impacts on the working environment, which can be advantageous. Additionally, this research highlights the significance of SL in achieving departmental goals and overall reform in the country. There is a noticeable shift in leadership styles in response to the dynamic changes and reform initiatives sweeping through the higher education sector in KSA. While traditional, hierarchical models of leadership have dominated, there is a growing appreciation for more modern approaches that emphasise change, inspiration, and the engagement of all stakeholders in the pursuit of educational excellence. This shift is partly driven by the recognition that achieving the ambitious goals set forth by higher education reforms requires innovative thinking, flexibility, and a willingness to change. Thus, effective leaders in KSA's higher education system are those who navigate these cultural nuances adeptly, blending traditional values with modern leadership practices to inspire innovation, while still respecting the cultural context in which they operate.

2.5.6 Innovation in Saudi Higher Education

The current status of innovative behaviour within KSA universities is marked by a dynamic interplay of strengths and barriers that shape the landscape of innovation in higher education. On the strength side, KSA's substantial investment in higher education infrastructure, including state-of-the-art facilities, research centres, and technology, has created a solid foundation for innovation. The government's emphasis on education and research, as part of its Vision 2030 objectives, has further accelerated efforts towards cultivating an innovative ecosystem. Universities are increasingly engaging in research activities, patent registrations, and the development of incubators and accelerators to support entrepreneurship among students and faculty. Collaborations with international institutions have also introduced global perspectives on innovation, enhancing the capacity for innovative research and teaching methods. Moreover, there is a growing emphasis on the use of technology and digital tools in the academic realm. Professors and researchers are leveraging online platforms, virtual reality, and artificial intelligence to enhance learning, engage students, and conduct cutting-edge research (Alahmari et al. 2019). This digital transformation not only enriches the educational process but also prepares students for a workforce increasingly reliant on technological proficiency.

Despite these strengths, there are barriers that hinder the full realisation of innovative potential in Saudi higher education institutions. Cultural norms that prioritise conformity and risk aversion can stifle creative thinking and experimentation, which are critical for innovation (Iqbal, Adnan 2011). The hierarchical structure of many universities, coupled with a high-power distance culture, may limit open communication and the free exchange of ideas between students and faculty, as well as among faculty members themselves. Additionally, while there is significant funding for research, the focus tends to be on applied research with immediate practical applications, which can sometimes limit the pursuit of foundational, exploratory research that fuels long-term innovation. Research shows that while there is an increasing development of higher education in KSA, the innovation in universities does not fully match the country's potential (Khayati & Selim 2019). Challenges include a slow pace of innovation and persistent constraints, despite significant financial investments in the sector. These investments have not sufficed to substantially improve innovation. Regulatory frameworks and bureaucratic processes also present challenges, potentially slowing down the implementation of innovative projects and collaborations (Alqahtani & Ayentimi 2021). Addressing these barriers while leveraging the existing strengths is crucial for fostering a more vibrant culture of innovation within KSA's higher education sector. This requires a concerted effort from policymakers, university leaders, and the academic community to create an environment that not only values but actively promotes innovative thinking, interdisciplinary collaboration, and entrepreneurial initiatives. The emphasis on innovation and education in Vision 2030 highlights both challenges and opportunities for leadership within the higher education sector, requiring leaders who are not only aware of global trends in education and innovation but are also capable of navigating and leading change within the context of KSA's cultural and economic landscape. Therefore, the current study aims to identify the leadership style that can be adopted by the academic leaders in KSA to bring about innovation among faculty members.

2.6 Chapter Summary

This chapter reviewed the existing literature associated with study's aim and objectives. It started by explaining the innovation concept, differentiating it from creativity, as well identifying leadership as important factors to IWB. It also highlighted the historical background of leadership and modern development in the fields. This was followed by a review of the culture and critics of Hofstede's dreamwork in measuring culture values. The

chapter concluded by presenting an overview of the study context and the current state of innovation in KSA HEIs and leadership.

Chapter 3: Hypothesis Development

3.1 Introduction

This chapter sets the stage for a detailed exploration of the relationships between various leadership styles and IWB, drawing upon foundational theories of Social Exchange Theory and Leader-Member Exchange (LMX) Theory. These theories provide the theoretical lens for understanding how leadership dynamics influence employee innovation within organisations. The chapter outlines a research framework designed to systematically examine the effect of transformational, servant, empowering, and authentic leadership on IWB. It delves into the hypothesis development, articulating specific predictions about the nature of these relationships. Additionally, the chapter investigates the role of LMX in mediating the effects of leadership styles on innovation and explores how Power Distance Orientation might moderate these relationships. This chapter aims to shed light on the complex interplay between leadership, LMX, and innovation, paving the way for empirical testing that seeks to enrich our understanding of effective leadership practices in fostering innovative work environments.

3.2 Supporting Theories

Various theories have been applied to explain the dynamic relationship between leadership and IWB. These theories include social exchange theory, social learning theory, expectancy theory, and LMX theory.

Expectancy Theory, proposed by Vroom (1964), asserts that individuals make deliberate choices regarding their actions, driven by their perceptions, beliefs, and attitudes, to maximise pleasure and minimise pain. In a similar vein, Porter and Lawler (1968), building upon Vroom's work, developed a theoretical model suggesting that an individual's level of effort is influenced by their expectations of achieving a desired outcome and the value they place on that outcome. This model highlights the importance of individuals' beliefs about the likelihood of success and the significance they attribute to the outcomes in shaping their motivation and behaviour.

Social Learning Theory, first introduced by Albert Bandura, proposes that individuals acquire and shape their behaviour through the process of observation, imitation, and reinforcement. Unlike other theories like Expectancy Theory and Identity Theory that focus on individual

motivations and cognitive processes, Social Learning Theory highlights the role of social influence in shaping behaviour. According to this theory, individuals learn by observing and modelling the behaviour of others. Bandura emphasised the importance of cognitive processes such as attention, retention, reproduction, and motivation in social learning. Additionally, Social Learning Theory emphasises the role of reinforcement and punishment in the adoption and modification of behaviours. Individuals are more likely to imitate behaviours that are rewarded and avoid those that are punished. Thus, Social Learning Theory provides a comprehensive framework for understanding how individuals learn and acquire behaviour through social interactions, observational learning, and the influence of external factors.

3.2.1 Social Exchange Theory

The social exchange theory (SET) serves as an appropriate theoretical foundation to understand the relationship between leadership styles and IWB. SET (Blau 1964), which is based on the norms of reciprocity (Gouldner 1960), is the key theoretical framework commonly invoked in examining employees' behavioural and attitudinal outcomes. The theory suggests that employees and employers enter reciprocal relationships to maximise their benefits and minimise the costs. The exchange approach views relationships in terms of social or economic exchanges. Economic exchange is based on the exchange of comparatively concrete goods or services; mostly, economic benefits are typically exchanged for work performance. Meanwhile, social exchange is based on long-lasting efforts geared towards supporting the other party by means of undetermined contributions of immaterial and individual value. The essence of SET and reciprocity norms is the concept of unspecified obligations. These obligations imply that when one party does a favour for another, there is an expectation of a reciprocal favour in the future. Over time, this exchange can lead to innovative behaviours and the development of a reciprocal pattern, ensuring a perceived fairness in the exchange relationship.(Blau 1964; Gouldner 1960). SET is widely utilised in leadership-IWB studies (Aryee et al. 2012; Iqbal, Amjad, Latif & Ahmad 2020; Jada, Mukhopadhyay & Titiyal 2019), suggesting that follower behaviour reflects their interactions and exchanges with their leader. As IWB is likely to be under an individual's control and, hence, more likely to be a salient mode of reciprocation, a leader's positive treatment of their follower gives them the confidence and motivation to reciprocate in new or better ways, or implement new ideas, triggering IWB. As for this study, TL leaders inspire followers to exceed their own self-interests for the greater good of the organisation, thus creating an

environment ripe for innovative thinking (Amankwaa, Gyensare & Susomrith 2019). SL, by focusing on the growth and well-being of team members, establish a foundation of trust and encouragement that naturally leads to the exploration of new ideas (Van Dierendonck 2011). EL, through the delegation of authority and promotion of autonomy, foster a sense of ownership and accountability among team members, directly stimulating creative efforts and innovation (Rai & Kim 2021). Lastly, AL, characterised by genuine and transparent interactions, cultivates a safe space for team members to experiment and propose novel solutions without fear of repercussion (Yıkılmaz & Sürücü 2023). Collectively, it can be said that these leadership styles can enhance innovation through positive exchanges and supportive atmospheres, as highlighted by SET.

3.2.2 Leader Member Exchange Theory

LMX serves as a relevant theoretical basis for explaining the mediating mechanism in the connection between leadership styles and IWB. LMX theory holds that leaders develop different quality of work relationships with followers (Dansereau Jr, Graen & Haga 1975; Graen & Uhl-Bien 1995; Liden, Robert C, Sparrowe & Wayne 1997). The theory further argues that leaders do not maintain the same style; instead, they develop different quality relationships in dealing with all their subordinates. In low LMX, the relationship is strictly based on formalised job descriptions and employment contracts, while in high LMX, the relationship is characterised by emotional support, mutual trust, respect, and reciprocal influence. Dienesch and Liden (1986); Liden, Robert C, Sparrowe and Wayne (1997) argued that high LMX members enjoy high exchange quality relationships, characterised by loyalty, liking, professional respect, and contributory behaviours. However, an alternative way of viewing LMX is as a mediator between leadership and outcomes. Indeed, an interesting plurality exists within the leadership literature, whereby LMX, a relational approach to leadership, can be viewed either as a predictor or as a mediator explaining the effects of other leadership styles (Kim, M-S & Koo 2017; Mascareño, Rietzschel & Wisse 2020). LMX relies heavily on social exchange principles as a theoretical basis. As such, LMX has been posited as a mechanism that explicates the process through which leaders influence employees to act beyond their job role e.g., voice and citizenship behaviours (Henderson et al. 2009; Jada & Mukhopadhyay 2019a; Newman, A. et al. 2017; Wang, Hui et al. 2005). Although limited empirical research has explored LMX as a mediator between leadership styles and IWB, the study seeks to add clarity to the literature by examining the mediating role of LMX as an outcome of leadership style.

3.3 Research Framework

The research framework of this study focuses on the relationship between leadership styles and innovative work behaviour as well as the mediating role of LMX and moderating role of power distance orientation. The figure 3.1, given below demonstrates the direct and indirect relationships between the variables related to this study.

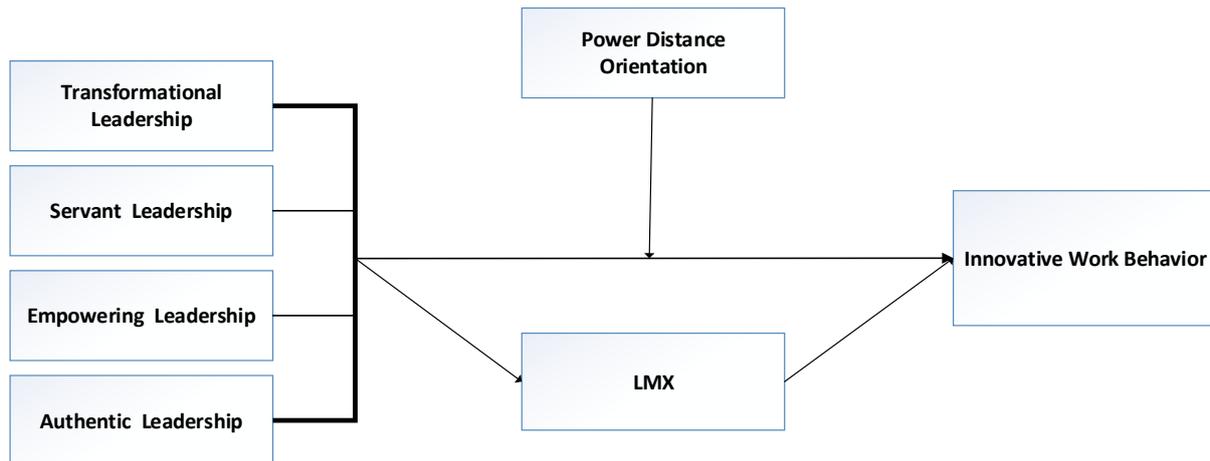


Figure 3.1 Research Framework

3.4 Hypothesis Development

The importance of employee innovation in contributing to organisational competitiveness and survival has been extensively acknowledged in the literature, particularly in today's knowledge-based economy. Nevertheless, leadership has been argued to play a critical role in driving employee innovation in organisations. However, limited studies have compared the effects of different leadership styles on fostering employee innovation. Therefore, there is a need to compare leadership styles and identify the most influential leadership style to develop IWB. This section defines the relationship between different leadership styles (transformational, servant, empowering and authentic) and IWB. Also, it describes the mediating role of LMX and the moderating role of power distance orientation in the relationship of leadership styles and IWB.

3.4.1 Transformational Leadership and Innovative Work Behaviour

The positive influence of TL on numerous employees' attitudes and behavioural outcomes, including employee innovation, has been extensively documented in the literature (Afsar, F. Badir & Bin Saeed 2014; Aryee et al. 2012; Pieterse et al. 2010). TL is oriented towards transforming and motivating followers to act beyond self-interest by altering their morale, ideals, and values in order to achieve higher performance than initially expected (Bass, Bernard M 1985; Bass, Bernard M & Avolio 1990). It has been theorised as a multidimensional concept in which leadership practice is manifested by exerting an idealised influence, providing inspirational motivation, intellectual stimulation, and individualised consideration to followers (Avolio, Bruce J & Bass 2001; Avolio, Bruce J., Bass & Jung 1999). These unique features of a leader can help reshape followers' norms and beliefs while inspiring and building employees' trust and respect to bring out the best of their efforts (Judge & Piccolo 2004).

More specifically, through idealised influence, TL leaders act as role models, express an inspiring vision, and motivate members to attain higher performance by instilling admiration and commitment. They share risks and emphasise having a collective sense in achieving organisational objectives (Dvir et al. 2002; Piccolo & Colquitt 2006). These features inspire followers to engage in hard work, which leads to innovative activities. Members who feel positive and loyal because of a TL's charisma and self-confidence are likely to be eager to perform well in their role activities and display innovative endeavours (Bass, Bernard M. et al. 2003). Moreover, providing individualised consideration that reflects the leader's fulfilment of each follower's developmental needs and concern about their personal feeling helps to build close relations through mentoring and coaching (Kark, Shamir & Chen 2003). Leaders support employees to understand their capabilities by motivating them and providing feedback. In such an environment, subordinates who are offered individualised support form a valued relationship with leaders in which they are more inclined to reciprocate with constructive contributions and engage in innovative changes (Qu, Janssen & Shi 2015).

Similarly, intellectual stimulation demonstrated by TL leaders encourages followers in an organisation to participate in generating and implementing new ideas by questioning assumptions, traditions, and beliefs, as well as doing things differently (Kark, Shamir & Chen 2003). The leader provides essential cognitive inputs to followers to produce new ideas and motivates them to implement those ideas to discover solutions for outstanding problems

(Avolio, Bruce J., Bass & Jung 1999). Thus, under this style, followers are risk-taking and not fearful of being criticised when openly sharing their perspectives and ideas with the leader. Followers who are intellectually stimulated by leaders are expected to pursue innovative ways of approaching their tasks, which promotes and enhances innovation activities (Bass, Bernard M. et al. 2003). Finally, TLs elaborate appealing organisational vision and specific objectives, thereby growing inspirational motivation among employees (Jung, DI & Avolio 2000, p. 951). Leaders not only articulate a future vision; they also show direction and communicate optimism about future goal achievement by fostering a collaborative environment and supporting followers to understand the importance of such goals (Judge & Piccolo 2004). Accordingly, it is believed that TL can support innovation by signalling organisational support for potential innovative changes, setting expectations to motivate employees to generate unconventional ideas, and encouraging them to take risks. (Jaiswal & Dhar 2015).

According to Jaiswal and Dhar (2015), TL has the ability to build a supportive innovation climate by inspiring, motivating, and providing personalised considerations to employees. A supportive workplace efficiently grows employees' motivation and makes a dynamic platform for followers to be creative and innovative in the workplace. Also, a supportive workplace gives support and information when employees are seeking to understand innovation and the best solutions (Khalili 2016). TL develops a commitment to change among employees and such commitment contributes to involvement in innovative implementation behaviour (Michaelis, Stegmaier & Sonntag 2010).

Several empirical studies have demonstrated the positive relationship between TL and IWB. For instance, through the lens of social exchange, Amankwaa, Gyensare and Susomrith (2019) tested the direct and indirect relationship between TL and IWB on 385 employees working in large retail banks in Ghana. The findings revealed that TL positively affects IWB and indirectly through affective commitment autonomy. In the same vein, Pieterse et al. (2010) conducted a study on 230 Dutch government employees with their immediate supervisor. They revealed that TL is positively related to employees' IWB only when such a leader makes employees feel psychologically empowered. Results further confirmed that transactional leadership is negatively associated with IWB when psychological empowerment is low. A study of 356 workers in South Korean manufacturing firms by Choi et al. (2016) confirmed that TL facilitated IWB. The study also showed that knowledge sharing played a

mediating role and that perceived organisational support moderated the relationship. A survey of 335 Australian health professionals by Reuvers et al. (2008) indicated the important role of TL in predicting IWB. They found that the manager's gender played a moderating role; TL leadership displayed by a male was ideal and encouraged employee IWB more than if it was displayed by a female. Recently, research has provided evidence on the evaluation of employee innovative behaviour for such gender bias whereby males may find more idea support from followers than females (Luksyte, Unsworth & Avery 2018).

In addition, Feng, Huang and Zhang (2016) tested a multilevel study to investigate the effect of TL on group IWB through dual organisational change on 192 managers and 756 direct employees from 112 groups in China. The results support the direct influence of TL on group IWB, and such relation was moderated by radical change. A sample of 571 leader-follower dyads survey in a Danish municipality was carried to understand the effect of TL and transactional leadership on IWB during the execution of an innovative strategy. The findings revealed that TL and verbal reward were closely related to IWB. However, some empirical studies found a negative (Basu & Green 1997), and insignificant (Gu, Duverger & Yu 2017; Miao, Newman & Lamb 2012) relationship between TL and IWB. Recently, Bednall et al. (2018), argued that the relationship of TL and IWB is non-linear, stating that followers' IWB would be more pronounced at a low and high level of TL. Contrary to their argument, the results showed a non-significant relationship. Chung and Li (2021) demonstrated that the relationship of TL and IWB is non-linear, in which an excessive practice of TL is negatively related to IWB and positively related to the modest practice of TL. These contradictory results entail further investigation. Therefore, based on the above discussion, the current study hypothesises that:

H1: TL has a significant positive effect on IWB.

3.4.2 Servant Leadership and Innovative Work Behaviour

SL denotes a behaviour where the leader emphasises serving followers by going beyond self-interest and making followers' needs, development and well-being a priority (Liden, Robert C et al. 2008; Wu et al. 2021). A leader who is described as a servant naturally and desirably feels that serving others comes first; this is the fundamental feature of SL (Greenleaf 1977, p. 27). At its core, SL stresses the fulfilment of employees' needs and gives priority to their growth in order to exploit their higher performance for the benefit of the organisation (Liden, Robert C et al. 2014; Sun, Liden & Ouyang 2019). These altruistic behaviours displayed by

SL leaders can encourage followers to actively deliver a high-quality job service (Chen, Z, Zhu & Zhou 2015). It is described as a holistic leadership approach characterised by empowering employees, acting authentically, showing humbleness, and being responsive and highly accepted in social interactions (Liden, Robert C et al. 2015). According to Eva et al. (2019), the uniqueness of SL over other forms of leadership has been empirically and conceptually verified. This has been indicated in the recent meta-analytic reviews by Hoch et al. (2018); Lee, A, Lyubovnikova, et al. (2020), which reveals that SL is theoretically and empirically distinct and has an incremental predictive validity on a wide range of employee outcomes over TL and AL. Furthermore, it has been found that in comparison to AL, SL has the ability to strongly predict employees' satisfaction and adaptive performance by leveraging work engagement (Kaya & Karatepe 2020).

According to Hoch et al. (2018, p. 502), SL is a form of moral compass, and has been shown to be a stand-alone leadership approach. This is because SL leaders work mainly to satisfy followers' psychological needs while TLs work through the perception of effectiveness. They focus on the organisation's objectives over follower needs (Gregory Stone, Russell & Patterson 2004; van Dierendonck et al. 2014). Thus, significant studies attest to the desired outcomes of SL with various attitudinal and behavioural outcomes at the individual, team and organisational level (Yang, Liu & Gu 2017). For example, there is a positive relationship between SL and work engagement (Bao, Li & Zhao 2018; van Dierendonck et al. 2014), satisfaction (Mayer, Bardes & Piccolo 2008) organisational citizenship behaviour (Chiniara & Bentein 2016; Newman, A. et al. 2017), and voice behaviour (Liao et al. 2021). Additionally, SL promotes creative behaviours by empowering and nurturing psychological safety among followers (Schaubroeck, Lam & Peng 2011). Despite the utility of SL, it is still in the infancy stage and scholars have only recently begun to explore the effect of SL on IWB (Chiniara & Bentein 2016; Eva et al. 2019; Panaccio et al. 2015).

Employee innovation, which is aimed at introducing and executing new ideas, is critical for gaining a competitive advantage and addressing complex organisational issues (Janssen 2000; Scott & Bruce 1994). Although previous research have paid significant attention to the effect of SL on employees' creativity (Jaiswal & Dhar 2017; Ruiz-Palomino & Zoghbi-Manrique-de-Lara 2020; Yang, Liu & Gu 2017), creativity and innovation are different concepts that stem from varied processes and result in diverse outcomes (Hughes et al. 2018). In fact, an idea cannot be considered creative unless bringing about beneficial outcomes for the

organisation's needs and practically implementing such an idea, which is the core of IWB. SET serves as a proper theoretical basis to understand the relationship between SL and IWB. This theory suggests that mutual respect and trust between employees and leaders foster a reciprocating relationship, encouraging employees to respond positively to the altruistic and supportive behaviours of servant leaders (Iqbal, Amjad, Latif & Ahmad 2020; Shailja, Kumari & Singla 2023). Such a dynamic, characterised by trust and mutual benefit, motivates employees towards innovative actions and behaviours, underscoring the profound effect of SL on fostering innovation behaviours. Empirically, there is growing literature that directly examines SL on stimulating employees' IWB. For example, through the theoretical lens of SET and based on 347 samples in Pakistani large IT companies, Iqbal, Amjad, Latif and Ahmad (2020) revealed that SL has a positive direct relationship with IWB. Similarly, Shailja, Kumari and Singla (2023) show that practicing SL in HEIs developed faculty members' innovative behaviour in Indian universities. Additionally, Li, F et al. (2021), surveyed 1021 supervisees and their 229 direct supervisors in 54 China-based hotels, aiming to assess the influence of SL on service IWB and through customer orientation. The findings indicated that SL directly promotes employee IWB and indirectly through customer orientation. The support of positive direct relationships has been further confirmed by (Karatepe, Aboramadan & Dahleez 2020; Khan, MM, Mubarik & Islam 2020; Su et al. 2020); by directly enhancing intrinsic motivation, through trust and job crafting, and by providing a positive and direct climate for creativity.

In addition to the direct influence of SL on IWB, Yoshida et al. (2014) posited that SL leaders develop a strong relationship with their followers by enhancing a high sense of psychological safety, which in turn encourages subordinates to take risks and exhibit innovative activities. In the same vein, a survey of 101 manager-employee dyads in production and distribution company was conducted in the USA (Panaccio et al. 2015) to understand how SL affect extra-role performance, including IWB. Findings confirmed that SL leaders nurture the perception of psychological contract fulfilment, which in turn promotes followers' innovative endeavours. Others researchers further confirmed that SL leaders create a culture of knowledge-sharing behaviour (Zhu, C & Zhang 2020) and develop a thriving work environment that inspires employees to actively engage in innovation implementation behaviours (Wang, Z, Meng & Cai 2019). This leadership style can foster a culture of trust, motivation, and collaboration, which are crucial for IWB (Su et al. 2020; Zhang, Yucheng, Zheng, et al. 2021). They are also known for their humility and

interpersonal acceptance, traits that can inspire and motivate employees to engage in innovative activities (Liden, Robert C. et al. 2014). Furthermore, SL has been associated with increased self-actualisation, positive job attitudes, and performance (Van Dierendonck 2011), all of which are conducive to IWB. However, some studies have reported inconsistent relationships between SL and IWB. For example, Newman, Alexander, Neesham, et al. (2018) conducted a survey of 169 employees and 42 social entrepreneurs in the UK, Canada and Australia, and revealed that SL was insignificant in predicting employees' IWB. Similarly, a study conducted by (Cai et al. 2018) on 288 employees working in Chinese high tech companies revealed insignificant relationships between SL and IWB. The above research provides mixed results about the relationship between SL and IWB. Furthermore, the contradictory results call for a thorough investigation to determine the link between SL and employees' IWB. Therefore, based on the above discussion, the current study hypothesises that:

H2: SL has a significant positive effect on IWB.

3.4.3 Empowering Leadership and Innovative Work Behaviour

Beyond TL and SL, the essence of EL resides in delegation to and power-sharing with followers to enhance their level of autonomy, responsibility and confidence (Ahearne, Mathieu & Rapp 2005; Zhang, X & Bartol 2010). EL has been conceptualised as involving a set of behaviours exhibited to enhance work meaningfulness, prompt confidence in high performance, foster decision-making involvement, and provide autonomy from bureaucratic constraints (Ahearne, Mathieu & Rapp 2005, p. 949). It is primarily viewed as a motivational approach that seeks to enrich subordinates' self-confidence by allowing them to actively participate in the decision-making process (Amundsen & Martinsen 2014). Such leaders willingly share power to elevate employees' job autonomy in a way that evokes their abilities and ensures development through being self-directed (Kim, M & Beehr 2020; Martin, SL, Liao & Campbell 2013). Thus, EL is more likely to trigger favourable psychological responses and lead to positive outcomes from subordinates (Kim, M, Beehr & Prewett 2018). This is because EL elevates employee motivation and self-efficacy and encourages their contribution to work practices. Employees in such a constructive environment become highly confident and motivated, which instils positive feelings and work experiences (Cheong et al. 2016; Sharma & Kirkman 2015). Furthermore, EL removes bureaucratic constraints, provides necessary resources, and nurtures self-responsibility to decide how to execute and

complete tasks, thus cueing followers' perceptions about their competencies and giving them a sense of being appreciated by the leader in their contributions to the organisation (Dong et al. 2015; Martin, SL, Liao & Campbell 2013).

Despite some research indicating overlap and similarities of EL with other forms of leadership e.g. TL, participative and LMX, scholars have argued that EL is broader and distinct from these concepts (Sharma & Kirkman 2015). In particular, TL stresses the leader's charisma, vision, individualised consideration and intellectual stimulation; it is likely not to engage in followers' empowerment as a TL leader might continue to perform in an authoritarian manner (Martin, SL, Liao & Campbell 2013). Thus, delegation and autonomy cannot be elements of TL, yet they are indispensable for EL (Lee, A, Willis & Tian 2018). Likewise, participative leadership embraces inputs from followers and participation in decision making, and such behaviours are typically seen as merely one component of EL (Lee, A, Willis & Tian 2018; Sharma & Kirkman 2015). LMX mainly focuses on the dyadic quality of the relationship between leader and followers with low to high-quality differentiation (Liden, Robert C. et al. 2006). Meanwhile, EL is more geared towards building followers' self-leadership abilities (Lee, S et al. 2017). A recent meta-analysis (Lee, A, Willis & Tian 2018) validated that EL has a significant predictivity over TL and LMX in employees' creativity and organisational citizenship behaviour, as well as their trust in leader and psychological empowerment (Lee, A, Willis & Tian 2018). This was supported by (Amundsen & Martinsen 2014); when predicting psychological empowerment, EL exhibited an incremental validity beyond TL and LMX.

There is mounting empirical evidence to demonstrate the positive association between EL and various employees' attitude and behavioural outcomes at all levels (Ahearne, Mathieu & Rapp 2005; Chen, G et al. 2011; Fong & Snape 2015; Zhang, X & Zhou 2014). For instance, EL is positively related to job satisfaction (Vecchio, Justin & Pearce 2010), commitment (Hassan et al. 2013; Kim, M & Beehr 2020), work engagement (Tuckey, Bakker & Dollard 2012), in-role and extra-role behaviours (Humborstad, Nerstad & Dysvik 2014; Raub & Robert 2010), organisational innovation (Lim & Ok 2021), citizenship behaviours (Lee, A, Willis & Tian 2018; Li, M et al. 2016; Li, N, Chiaburu & Kirkman 2017) and voice behaviour (Jada & Mukhopadhyay 2018). It has also been linked to individual creativity (Harris et al. 2014; Zhang, X & Bartol 2010), ascribed to the intervening role of self-efficacy, psychological empowerment, intrinsic motivation, and creative process engagement in

transferring the positive effect of EL. Perhaps, the positive effect is credited to EL via nurturing followers' self-development and independence and assuring their success in the workplace (Sharma & Kirkman 2015).

Despite the positive effect of EL on various desirable outcomes, the association between EL and IWB has only recently attracted researchers attention (Jada, Mukhopadhyay & Titiyal 2019). Owing to the nature of the delegation, motivational, and supportive aspects of EL, it is anticipated that EL has a positive relationship with IWB. It triggers a state of promotion-focus in subordinates, which encourages them to express their opinions and speak up for ideas aimed at improving the working environment (Wang, S et al. 2020). Employees who are empowered perform better because they are ready to take risks and undertake new approaches in problem-solving and are self-confident in their capability to create and execute innovative ideas (Fernandez & Moldogaziev 2013). Using social exchange theory, Jada, Mukhopadhyay and Titiyal (2019) surveyed 235 managers-employees working in Indian pharmaceuticals and confirmed a direct positive relation between EL and IWB as well as an indirect one through knowledge sharing. Similarly, Rai and Kim (2021), using a sample of 343 employees working in service sector organisations, found that EL cultivates trust and eliminates emotional exhaustion, which encourages employees to exhibit IWB and disengage from deviance.

Furthermore, Günzel-Jensen et al. (2018) showed the effectiveness of EL on IWB in Denmark hospitals. A recent meta-analysis of 55 papers by Kim, M, Beehr and Prewett (2018), revealed that EL has a positive link with a wide range of employee attitudes and behavioural outcomes, including IWB. Mutonyi, Slåtten and Lien (2020) tested the direct and indirect relationship between EL and IWB on 385 employees working in Norwegian public transportation organisations. The results revealed that EL positively affects IWB indirectly through learning orientation. According to Slåtten, Svensson and Sværi (2011), EL creates a humorous working environment that inspires employees to introduce and implement new ideas in the workplace. Gkorezis (2016) believes that the flexibility showed by EL enhances exploration activities in workplaces, which establishes grounds for employee innovations. The presence of EL develops follower psychosocial empowerment, which ultimately positively impacts their IWB (Chen, G et al. 2011; Zhu, J, Yao & Zhang 2019). In such a setting, employees experience meaningful work and high job autonomy and are intrinsically motivated to implement innovative actions (Chen, G et al. 2011; Hassi, Rohlfer & Jebsen

2021; Zhang, X & Bartol 2010). Nevertheless, most of these studies were conducted in business organisations, and scarce research has been found in HEIs. Therefore, based on the above discussion, this study hypothesises that:

H3: EL has a significant positive effect on IWB.

3.4.4 Authentic Leadership and Innovative Work Behaviour

AL has emerged as a prominent concept in the past decade and has attracted academics and practitioners' attention. AL has been grouped into four components: self-awareness, balanced processing, relational transparency, and internalised moral perspectives (Gardner et al. 2005; Walumbwa, Fred O et al. 2008). To begin with, self-awareness refers to the degree to which leaders demonstrate an understanding of their strengths, and limitations; how a leader's self-image is seen by followers and how he/she influences them (Gardner et al. 2005; Walumbwa, Fred O et al. 2008). Many scholars claim that self-awareness is the most vital element of AL (Avolio, Bruce J et al. 2004; Lemoine, Hartnell & Leroy 2019). In addition, balanced processing indicates the way the leader objectively evaluates available information before making any critical decisions and seeking opinions that challenge profoundly held beliefs (Avolio, Bruce J & Gardner 2005; Walumbwa, Fred O et al. 2008). Furthermore, relational transparency is when a leader presents his/her real authentic identity to followers. Such behaviour is manifested in openly sharing information, expressing true feelings and thoughts, and fostering a degree of openness with followers that allow them to be forthright with their ideas, challenges, and views (Avolio, Bruce J & Gardner 2005; Gardner et al. 2005; Walumbwa, Fred O et al. 2008). Lastly, an internalised moral perspective reflects the extent to which the leader establishes a high standard for moral and ethical behaviour and makes decisions in line with such behaviours (Walumbwa, Fred O et al. 2008).

A growing body of literature has presented positive relations between AL and various individual and work-related outcomes (Avolio, Bruce J et al. 2004; Zhang, Yucheng, Guo, et al. 2021). It has been found to positively relate to individual creativity (Rego et al. 2012; Rego et al. 2014), citizenship behaviour (Banks et al. 2016; Walumbwa, Fred O. et al. 2010), voice behaviour (Liang 2017), work engagement and commitment (Hsieh & Wang 2015; Walumbwa, Fred O. et al. 2010; Zhang, Yucheng, Guo, et al. 2021), and follower performance (Ribeiro, Duarte & Filipe 2018; Wang, HUI et al. 2014). Thus, since research has established the effectiveness of AL in encouraging individual creativity and voice behaviour, scholars believed that AL is positively related to IWB (Schuckert et al. 2018). In

particular, this is attributed to the fact that an AL leader's endeavours are guided by values and by being aware of his/her own strength and weakness, thus building a working environment that is characterised by honesty, openness, and mutual respect, which encourages innovation (Rego et al. 2012; Walumbwa, Fred O et al. 2008). AL instils psychological support and safety through openness and supporting followers, which is considered to be important factors in promoting IWB and risk taking (Rego et al. 2012). Specifically, by being transparent and internally ethical, AL involves objectively evaluating necessary information, including opposing and idiosyncratic viewpoints, before making decisions (Walumbwa et al., 2008). With such behaviours, AL can motivate employees to come up with innovative ideas and express themselves freely (Černe, Jaklič & Škerlavaj 2013).

Yamak and Eyupoglu (2021) revealed a positive relationship of AL with IWB, using a sample of 428 employees working in Cyprus banks. Muceldili, Turan and Erdil (2013) conducted a survey on 142 employees working in Turkish manufacturing and service companies, and revealed a positive link between the AL and IWB, mediated by employees' creativity. Similarly, Černe, Jaklič and Škerlavaj (2013) confirmed the positive relationship on 23 AL teams and 289 team members in a Slovenian manufacturing company. Additionally, using a sample of 336 hotels in South Korea, Schuckert et al. (2018) demonstrated that AL has a significant effect on IWB, as compared to TL. Grošelj et al. (2020) compared the moderating role of psychological empowerment on the relationship between AL, TL and IWB. The result showed positive direct and indirect impact of both AL and TL on IWB. Conducting a survey of 201 employees in multiple Chinese industries, Niu et al. (2018) found that AL predicted voice behaviour and IWB by developing relational identification. Yet, it is evident that research has been predominately conducted in business companies, while limited research has been dedicated to HEIs environment. The relationship of AL and IWB can be defined from the perspective of the social exchange theory (Blau 1964), which implies that 'mutual reciprocation is the most basic form of human interaction.' When employees perceive their leader as guided by high ethical standards, values, and being authentic, they tend to develop a strong obligation and reciprocation via developing and implementing new ideas in work environments (Zhang, Yucheng, Guo, et al. 2021). The pertinent research also indicates that AL builds a positive, open, and fair environment that positively impacts how willing employees are to participate in innovation (Niu et al. 2018;

Walumbwa, Fred O et al. 2008). Therefore, based on the above discussion and outcomes, this study hypothesises;

H4: AL has a significant positive effect on IWB.

3.4.5 Leadership Styles and LMX

LMX theory reflects the dyadic relationships between leaders and employees in the workplace (Dansereau Jr, Graen & Haga 1975; Graen & Uhl-Bien 1995). Leaders tend to develop a quality-differentiated relationship with each subordinate that varies from low to high (Dienesch & Liden 1986; Liden, Robert C, Sparrowe & Wayne 1997). Specifically, low-quality LMX is depicted by formal communication and job rules and is based on employment contracts (Dulebohn et al. 2012). On the other hand, a high-quality LMX engenders mutual trust, respect, and increasingly produces reciprocal behaviour (Liden, Robert C, Sparrowe & Wayne 1997). According to Graen and Uhl-Bien (1995), such followers gain resources, support, autonomy, and greater space to make decisions. Such effective leadership occurs when leaders and followers maintain a high-quality relationship that is characterised by mutual trust, respect, and obligation (Graen & Uhl-Bien 1995).

In this context, a TL leader is particularly capable of developing a high relationship with subordinates (Bass, Bernard M 1997; Wang, Hui et al. 2005). TL tends to exhibit high moral and ethical standards while addressing individual needs and requirements (Shunlong & Weiming 2012). It has been shown that TL builds a high degree of LMX through individualised consideration and idealised influence behaviours (Chen, T-J & Wu 2017; Wang, Hui et al. 2005). Such individualised consideration operates primarily at the dyadic level, which reflects leaders' fulfilment of each follower's developmental needs, concern about their personal feeling, and building close relations through mentoring and coaching (Kark, Shamir & Chen 2003; Shunlong & Weiming 2012). Additionally, idealised influence prompts higher degrees of personal identification from followers. This increase of personal identification also encourages followers to internalise their leaders' values and beliefs, which, in turn, increases their interaction with their leaders (Basu & Green 1997). Inspirational motivation motivates followers to perform beyond expectations and develop self-perceptions of competence and self-efficacy, which have been linked to a higher quality of LMX. Also, it has been found that intellectual stimulation pushes followers to reciprocate their leaders' efforts and pursue the collective goals of their organisations, both of which reflect a higher degree of LMX (Chen, T-J & Wu 2017). (Walumbwa, Fred O. & Hartnell 2011) found that

followers are encouraged to develop interpersonal relationships with a TL, which leads to relational identification. Previous empirical studies have confirmed the effectiveness of TL in nurturing quality LMX (Basu & Green 1997; Chen, T-J & Wu 2017; Shunlong & Weiming 2012; Wang, Hui et al. 2005). Therefore, based on the above findings, this study proposes that followers can be encouraged to develop close interpersonal relationships with their supervisor, which, in turn, results in heightened relational identification with the supervisor. Therefore, this study proposes the following:

H5a: TL leadership has a significant positive effect on LMX.

In addition, SL emphasises serving followers by going beyond self-interest and making followers needs, personal growth and well-being a priority to foster high quality relationship with them (Mayer, Bardes & Piccolo 2008; Van Dierendonck 2011). Van Dierendonck (2011, p. 1244) argues that followers generally experience high quality LMX when their leaders work from a motivation to serve. By focusing on career growth and development to acquire new skills, an SL develops social relational with followers, which triggers a strong sense of identification (Yoshida et al. 2014). SL provides support and opens a channel of communication that encourages followers to detect and solve related work problems. Also, by seeking followers' ideas and motivating them to become engaged in the decision-making process (Newman, A. et al. 2017), an SL will develop high-quality LMX relationships with followers that go beyond specified economic exchange (Chiniara & Bentein 2016). By emphasising the importance of creating value for the community to their followers, SLs are viewed as moral decision-makers who care about others (Walumbwa, Fred O., Hartnell & Oke 2010). This will lead to role model leaders who can satisfy the role expectation of the followers; such leaders act in the followers' best interests, resulting in enhanced LMX from higher levels of loyalty and emotional connectedness. Even though some researchers have proposed that leaders may develop differentiated LMX relationships with their followers (Martin, R et al. 2018), Henderson et al. (2009, p. 521) argue that an SL is likely to develop a high LMX with all followers. Hence, by developing high-quality relationships with their followers, an SL will minimise LMX differentiation among the subordinates. Although there are a number of empirical studies that found positive relationships between SL and LMX (Bao, Li & Zhao 2018; Mostafa & El-Motalib 2018; Newman, A. et al. 2017; Yoshida et al. 2014; Zou, Tian & Liu 2015), research in this respect is still limited and further study is needed. Therefore, this study proposes the following:

H5b: SL has a significant positive effect on LMX.

The spirit of ELs lies in sharing authority and delegating tasks to subordinates (Ahearne, Mathieu & Rapp 2005; Kirkman & Rosen 1999). Thus, EL fosters a high-quality LMX in various ways. It is a motivational approach that seeks to enhance subordinates' self-confidence, job autonomy and performance by actively involving them in decision-making (Amundsen & Martinsen 2014). Such behaviour indicates that the leader believes in the followers' abilities and skills to achieve a demanding task and at being self-directed (Kim, M & Beehr 2020; Martin, SL, Liao & Campbell 2013). It is believed that EL leaders can instil a perception of fair treatment among followers, build respect and nurture a high level of trust in followers, which is a central to high-quality relationship (Rai & Kim 2021; Zhang, X & Zhou 2014). It has been found that leaders who develop high-quality relations often consult with and seek ideas and suggestions from their followers on important decisions (Yukl, O'Donnell & Taber 2009). This allows leaders and followers to interact with each other and build relational identification, which results in high quality LMX (Kwak & Jackson 2015). Moreover, EL removes bureaucratic constraints, providing access to valuable resources and support, thus bringing a strong sense of followers' obligation and reciprocation (Sharma & Kirkman 2015; Zhang, S et al. 2018). EL tends to provoke followers' personal identification by internalising the values and beliefs of empowerment. Followers come to believe that they are appreciated, which in turn develops high LMX quality relationships (Kwak & Jackson 2015). Studies on the relationship between EL and LMX is still scarce; recent empirical research confirm the effectiveness of EL in building high quality LMX relationship (Hassan et al. 2013; Kwak & Jackson 2015; Kwan, Chen & Chiu 2020; Yukl, O'Donnell & Taber 2009). Consequently, based on previous studies, this study proposes the following:

H5c: EL has a significant positive effect on LMX.

AL encourages the development of quality relationship exchange with subordinates (Walumbwa, Fred O et al. 2008). For instance, the unique behaviours of self-awareness, balanced processing, relational transparency, and internalised moral perspective collectively exemplify the truthfulness, morality, and trustworthiness of AL (Avolio, Bruce J et al. 2004). These are essential components in building high-quality LMX relationships with followers (Wang, HUI et al. 2014). It is believed that AL seeks for feedback and inputs to develop relationships with followers that are characterised by openness and truthfulness (Avolio, Bruce J et al. 2004; Yıkılmaz & Sürücü 2021). AL is more inclined to share information and

opinions and display true feelings to foster transparent decisions (Walumbwa, Fred O et al. 2008). Such an environment can lead to the cultivation of trust, relational identification, and loyalty among followers (Hsieh & Wang 2015; Niu et al. 2018) Avolio et al., 2004). Since an AL leader demonstrates high moral standards, honesty, and integrity (Sidani and Rowe (2018), it contributes to long term mutual exchange with followers and builds high LMX relationships (Hsiung 2012). Further, it is understood that AL acts in a balanced way and processes affairs in such a way that all employees' ideas are taken into equal consideration (Gardner et al. 2005). This, in turn, instils a perception of fairness among followers and gives them a strong sense of being respected and valued (Avolio, Bruce J et al. 2004). Empirical studies have revealed that AL positively influences LMX (Hsiung 2012; Lyu et al. 2019; Wang, HUI et al. 2014; Zhang, Yucheng, Guo, et al. 2021). Therefore, to extend the stream of research in this respect, the study hypothesises the following:

H5d: AL has a significant positive effect on LMX.

3.4.6 LMX and Innovative Work Behaviour

Employees exhibit innovative behaviours when organisations show and provide support for their generation and implementation of innovative ideas. According to Janssen (2005), supportive supervisors encourage employees to develop and execute innovative activities in the workplace. Thus, LMX reflects an example of supportive leadership in facilitating IWB through the development of quality relationships with employees (Newman, A. et al. 2017; Qu, Janssen & Shi 2015). This indicates that leaders are considered important to exchange dynamics as they can influence their relationships with their subordinates through numerous exchanges. Basically, leaders-subordinates interactions demonstrate that leaders do not treat followers in the same way; rather, they build social relationships with subordinates which vary in quality, ranging from low to high (Graen & Uhl-Bien 1995; Liden, Robert C, Sparrowe & Wayne 1997). Specifically, while low-quality relationships are grounded on contractual exchanges characterised by direct influence, limited support, and formal interactions, high-quality relationships are characterised by mutual trust, respect, and obligation that generate high levels of information exchange, reciprocal influence, and greater decision latitude for followers (Dulebohn et al. 2012; Liden, Robert C, Sparrowe & Wayne 1997; Maslyn & Uhl-Bien 2001). According to the LMX theory, the positive assessment of quality LMX engenders beneficial organisational and behavioural outcomes (Dulebohn et al. 2012; Liden, Robert C, Sparrowe & Wayne 1997). Hence, considerable studies have

demonstrated that high quality LMX is predictive of favourable employee outcomes, such as job satisfaction, citizenship and voice behaviour, creativity, organisational commitment, and increased job performance (Kim, TY, Liu & Diefendorff 2015; Qu, Janssen & Shi 2017).

Apparently, high quality relationships are well harmonised with employee innovation by cultivating a healthy interaction climate and improving workplace conditions, which is crucial for idea development and implementation (Scott & Bruce 1994). For instance, in a high-quality LMX, employees perceive leaders as supportive and reliable, and enjoy trustworthy working relationships (Atwater & Carmeli 2009; Walumbwa, Fred O et al. 2010). Such relationships tend to develop mutual trust and nurture a sense of belonging, which enables employees to take risks and engage in imaginative thinking (Kim, M-S & Koo 2017). Furthermore, mutual trust in high-quality LMX allows supervisors and employees to exchange information, ideas, and technical experience, which enables them to perform innovative activities (Wang, XH et al. 2015). These kinds of relationships make leaders concerned about employees' requirements and provide guidance and constructive feedback on how to deal with challenges that demands new approach (Carnevale et al. 2017).

Under these supportive environments, employees are able to better understand organisational issues and react through their domain knowledge by introducing ideas that are practical and useful for organisations (Saeed et al. 2019). Research has shown that employees feel psychologically empowered and bring beneficial, functional changes to jobs and organisations as a result of high-quality relationships with their supervisors (Kim, TY, Liu & Diefendorff 2015). Taken together, factors such as trust, advocacy, information exchange, and constructive feedback that are central aspects of a high LMX, produce a supportive context that theory and research have highlighted to be conducive for employee innovation (Scott & Bruce 1994).

Previous studies have confirmed the positive effect of LMX on IWB (Carnevale et al. 2017; Hussain, Iren & Rice 2020; Wang, XH et al. 2015). High-quality LMX relationships create a supportive climates for employees' IWB (Scott & Bruce 1994) and nurture the high confidence that innovative efforts receive favourable evaluations and performance rating from the supervisor (Schuh et al. 2018; Yuan & Woodman 2010). Additionally, in a field-related study of 294 professionals working in banking sectors, Garg and Dhar (2017) found that LMX has a direct and positive effect on IWB and that such relationships are mediated by work engagement and moderated by autonomy. This indicates that employees who perceive

high-quality relationships with their supervisors engage in and exhibit innovative activities. Similarly, in a survey of 290 hotel employees and 18 of their immediate supervisors in South Korea, Kim, M-S and Koo (2017) revealed that LMX significantly affects IWB, which, in turn, increases job performance (Tarkang, Nange & Ozturen 2020). Also, in another study of 979 managers in service industry firms in India, Agarwal et al. (2012) revealed that LMX indirectly affects IWB through work engagement. In contrast, some studies found a non-significant relationship between LMX and IWB (Mascareño, Rietzschel & Wisse 2020; Park & Jo 2018; Schermuly, Meyer & Dämmer 2013; Volery & Tarabashkina 2021). Therefore, based on the above theoretical and empirical studies, this study assumes a positive relationship between LMX and employees' IWB.

H6: LMX has a significant positive effect on IWB.

3.4.7 The Mediating Role of LMX Between Leadership Styles and Innovative Work Behaviour

LMX theory has been put forward as a mechanism that explicates the process through which leaders effect employees to act beyond their job role and involve themselves in positive behaviours that benefit group members and the organisation as a whole (Henderson et al. 2009; Jada & Mukhopadhyay 2019a; Newman, A. et al. 2017; Wang, Hui et al. 2005). The effect of LMX on employee IWB stems from the social exchange theory, which suggests that high quality relationships - characterised by mutual trust, respect and reciprocity - inspires followers to exhibit innovative behaviour. Previous studies state that as a result of high-quality exchange relationships, subordinates develop a strong feeling of leader approachability and have a safe environment to introduce and execute innovative ideas (Hsiung 2012; Jada & Mukhopadhyay 2019a). The mutual trust fostered through high-quality LMX reduces employees' risk of being misunderstood, which motivates them to exhibit innovative endeavours. Given the fact that high-quality relationships development is primarily contingent upon the leadership style, which in turn motivates followers to exhibit innovation behaviour, it is noteworthy to posit the mediating effect of LMX between TL, SL, EL, AL and innovative behaviour.

In fact, the positive effect of TL on LMX has been well documented in the literature (Boer et al. 2016; Wang, Hui et al. 2005). Through individualised consideration and idealised influence behaviours, TL builds a high quality of LMX (Chen, T-J & Wu 2017; Wang, Hui et

al. 2005). Especially, individualised consideration is relational and operates at the dyadic level, which reflects leaders' fulfilment of each follower's developmental needs, concern about their personal feeling, and their nurturing of close relationship through mentoring and coaching (Kark, Shamir & Chen 2003; Shunlong & Weiming 2012). Moreover, idealised influence, intellectual stimulation, and inspirational motivation demonstrated by a TL leader prompts personal and relational identification, which encourages followers to internalise their leaders' values and beliefs, which, in turn, increases their interaction with their leaders (Basu & Green 1997; Qu, Janssen & Shi 2015). Thus, this closeness motivates followers to voice new ideas to their leaders (Liu, Zhu & Yang 2010). Empirical studies have found that high quality LMX developed by TL serves as a prerequisite to increase followers' task performance and citizenship behaviour (Wang, Hui et al. 2005), job satisfaction and work commitment (Boer et al. 2016), and creativity (Qu, Janssen & Shi 2015). Therefore, the high quality LMX based on TL behaviours are expected to inspire followers to exhibit innovative behaviours at workplace.

In addition, a servant leader is more likely to facilitate the development of high quality LMX relationships, which in turn enhance followers' IWB. Such relationships are represented by mutual trust, support, and the exchange of social and economic benefits (Liden, Robert C et al. 2008; Zou, Tian & Liu 2015). Past studies have postulated LMX as a crucial mediator and outcome of the SL relationship, building on the assumption that a core characteristic of SL is to develop high quality relationships with followers (Newman, A. et al. 2017; Van Dierendonck 2011). SLs are trusted by followers because they act with high moral standards, which makes them socially acceptable (Jaiswal & Dhar 2017). Given the primary focus on follower needs and wellbeing (Chiniara and Bentein (2016), SL develops a social relational climate in which followers feel valued and respected (Yoshida et al. 2014). Thus, providing followers with a safe environment to generate and experiment new ideas is a way to reciprocate and sustain high LMX relationships with the leader. It has been found that followers who perceive themselves as close to the leader will be more eager to execute new ideas because there is a strong sense of safety in such a relationship (Yoshida et al. 2014). Recent empirical studies have showed that SL predicts favourable employee outcomes through the development of high LMX e.g., citizenship, helping, proactive behaviour, creativity, and team innovation (Mostafa & El-Motalib 2018; Newman, A. et al. 2017; Yoshida et al. 2014; Zou, Tian & Liu 2015). Therefore, it is expected that LMX would mediate the relationship between SL and IWB.

Moreover, EL is likely to develop high quality LMX relationships with followers by sharing authority, adopting participative decision-making, providing autonomy, and expressing confidence in follower performance (Ahearne, Mathieu & Rapp 2005; Lee, A, Willis & Tian 2018). These behaviours give followers a strong sense that their leaders are treating them with consideration, dignity, and deference (Rai & Kim 2021; Zhang, X & Zhou 2014). This, in turn, increases the level of the followers' confidence to speak out new ideas and seek acceptance from the leader (Jada & Mukhopadhyay 2019a). The development of quality LMX relationships under EL fosters a smooth environment for exchanges by providing access to valuable resources, support and positive feedback and ideas in the workplace (Kim, M, Beehr & Prewett 2018; Zhang, S et al. 2018). EL provides facilitating conditions for high-quality LMX, which ultimately motivates followers to reciprocate by prompting their ideas and suggestions to attain desirable organisational outcomes (Hassan et al. 2013; Kwak & Jackson 2015; Lee, A, Willis & Tian 2018). A recent meta-analytic study demonstrated the mediating role of LMX between EL and creativity and individual performance (Lee, A, Willis & Tian 2018). Li, S-L et al. (2015) found that EL developed high LMX relationships, which resulted in followers voluntarily taking charge and bringing constructive changes to the organisation. In a similar vein, Jada and Mukhopadhyay (2019a) confirmed that high LMX relationships mediate the relationship between EL and constructive employee voice behaviours. Therefore, it is expected that high quality LMX would mediate the relationship between EL and IWB.

Finally, AL leaders are able to foster positive social exchange relationships at the dyadic level with their followers by sharing information, demonstrating internal feelings and creating transparent and open communication channel (Avolio, Bruce J et al. 2004). It is believed that AL seeks for feedback and inputs to develop relationships with followers that are characterised by openness and truthfulness (Avolio, Bruce J et al. 2004; Yıkılmaz & Sürücü 2021). Their high morality and honesty pave the way to establishing enduring and reciprocal exchange relationships, which bring about mutual trust, commitment and being relationally identified from their followers (Niu et al. 2018). Hence, AL establishes high-quality LMX exchanges that allow followers to acquire necessary information and the autonomy essential for ideas development (Yıkılmaz & Sürücü 2021). In addition, high-quality LMX mitigate followers' risk and build a psychological safety environment wherein they can involve in imaginative thinking (Wang, HUI et al. 2014; Xu et al. 2017). In this case, followers might not be concerned about their personal risks and thus have higher positive moods and

psychological capacities to bring useful ideas and improve organisational practices (Hsiung 2012; Wang, HUI et al. 2014). Empirical evidence found that LMX plays a mediating role in the relationship between AL and creativity (Xu et al. 2017; Yıkılmaz & Sürücü 2021), voice behaviour (Hsiung 2012) and individual performance (Wang, HUI et al. 2014). Despite the scarcity of studies in this respect, it is estimated that high-quality LMX mediates the relationship between AL and employee innovative behaviours. Therefore, this study proposes the following hypothesis:

H7a: LMX mediates the relationship between TL and IWB.

H7b: LMX mediates the relationship between SL and IWB.

H7c: LMX mediates the relationship between EL and IWB.

H7d: LMX mediates the relationship between AL and IWB.

3.4.8 The Moderating Role of Power Distance Orientation Between Leadership Styles and Innovative Work Behaviour

Power distance refers to ‘the extent to which a society accepts the unequal power distribution in organisations’ (Hofstede 1980a, p. 45). Power distance has been originally proposed at the national level as one of the four cultural values dimensions in Hofstede’s model. Although Hofstede asserted that power distance is only applicable at the national level, recent research has discovered that there is a huge variation in the cultural values held by individuals despite being in the same culture (Farh, Hackett & Liang 2007; Kirkman et al. 2009; Lian, Ferris & Brown 2012; Zhang, X & Zhou 2014). Individual power distance orientation refers to the degree to which individuals vary in accepting unequal power distribution, as perceived in authority, leaders, status and hierarchy within organisations (Kirkman et al. 2009). It is a personality trait that reflects the individual’s fundamental beliefs and recognition regarding the power difference in institutions. Unlike other cultural values, previous research suggest that power distance orientation plays a significant role in how employees react to and respond to leadership styles, which in turn affects their work outcomes (Kirkman et al. 2009; Lin, W, Wang & Chen 2013; Matthews, Kelemen & Bolino 2021).

When employee hold high power distance orientation, they tend to believe that they are unequal to and lower in status to leaders, and consider the imbalanced leader’s power as legitimate (Farh, Hackett & Liang 2007). They like to display high respect, loyalty, and great

readiness to accept the difference to authorities (Lin, W et al. 2018). In the working environment, such employees have a tendency to be provided with clear job requirements and direction from their leader instead of being empowered and engaged in the decision-making process (Ahmad & Gao 2018; Kirkman et al. 2009). Furthermore, higher power distance followers are expected to view their leaders as isolated authority figures and to maintain a far distance both socially and psychologically from them (Farh, Hackett & Liang 2007; Kirkman et al. 2009). Such detachment hampers personal relationships at work and engagements between employees and their leaders, hence declining the effect that leadership exerts on employees' performance, attitudes, and behaviours (Lian, Ferris & Brown 2012). In comparison, employee with lower power distance tend to believe that they are equal to their leaders and not inferior to them in status (Farh, Hackett & Liang 2007). Usually, lower distance employees expect leaders to lean upon informal rules and consistently get involved in decision-making. Additionally, such employees seem to value close social relationships with their leaders and prefer to have control and autonomy in work-related activities (Kirkman et al. 2009). Hence, as IWB is future oriented behaviour, such employees have great confidence in taking risks and making constructive changes to existing work conditions. They are self-directed and may respond positively to leaders and introduce new innovative ideas to work related issues (Farh, Hackett & Liang 2007; Newman, Alexander & Butler 2014).

There is growing empirical evidence that demonstrates the moderating role of employee power distance orientation in attenuating and mitigating the effect of various leadership styles. For instance, Kirkman et al. (2009) found that the relationship between TL and perceived procedural justice was stronger for employees who hold low power-distance orientation; this was based on a sample from USA and China. Similarly, Newman, Alexander and Butler (2014), confirmed that follower power-distance orientation moderates the relationship between TL and affective commitment on 398 Chinese hotels employees. Employees with low power distance displayed a high level of affective commitment under TL. Additionally, a study by (Lin, X et al. 2019) reported that power-distance orientation weakens the indirect association between humble leaders' and followers' voice. On a team level, Yang, Liu and Gu (2017) found that SL was positively associated with team efficacy when team power distance was low rather than high. Hu et al. (2018) reported that power-distance orientation weakened the existing relationship between humble leaders' behaviours and team information sharing. However, some studies argue that high power distance

orientation reinforces the positive relationship between benevolent leadership and individual and creativity (Lin, W et al. 2018), as well as empowering leader and employee self-efficacy (Li, S-L et al. 2015).

Given the positive behaviours exhibited by TL, SE, EL and AL, it is expected that employees who are low in power distance rather than high will react positively to these kinds of leadership by displaying innovation endeavours (Kirkman et al. 2009). This is because followers with low power distance orientation perceive their leader as changed-oriented, caring about their development, and sharing power and valued inputs with them, which makes them willing to introduce changes and take an innovative approach to existing work conditions. Kirkman et al. (2009) claimed that employees with low power distance orientation experience a high level of motivation to speak their thoughts rather than their counterparts with high power distance orientation, who rely on detailed directions and assistance to perform the work from leaders. (Zhang, Yi & Begley 2011) suggest that low power distance individuals are likely to have a strong sense of security, which encourages innovation activities at work. Based on existing studies, the current study suggests that power distance orientation would moderate the relationship between leadership TL, SE, EL, AL and IWB. Therefore, this study hypothesises that:

H8a: PDO moderates the relationship between TL and IWB such that low PDO strengthens the effect of TL on IWB and vice versa.

H8b: PDO moderates the relationship between SL and IWB such that low PDO strengthens the effect of SL on IWB and vice versa.

H8c: PDO moderates the relationship between EL and IWB such that low PDO strengthens the effect of EL on IWB and vice versa.

H8d: PDO moderates the relationship between AL and IWB such that low PDO strengthens the effect of AL on IWB and vice versa.

3.5 Chapter Summary

This chapter provided a comprehensive analysis of the development of a theoretical framework. Prior to formulating the research framework, two relevant theories, namely social exchange theory and leader-member exchange (LMX), were thoroughly examined as the fundamental bases for this study. Subsequently, the research framework was presented, and the variables within the framework were defined. Building upon this framework, several hypotheses were proposed to investigate the relationships between TL, SL, EL, and AL

styles, and IWB. Additionally, the chapter explored the mediating role of LMX in the relationship between leadership styles and innovative behaviour, as well as the moderating influence of power distance orientation on the relationship between leadership styles and employees' IWB. Each hypothesis was supported and discussed through a comprehensive review of relevant literature and empirical findings. In the following chapter, the research methodology employed in this study is justified and elaborated upon.

Chapter 4: Research Methodology

4.1 Introduction

Research methodology is the process through which researchers investigate a research problem and answer research questions (Silverman, 2001). This section presents discussions on the research philosophy, data collection, research instruments, and data analysis techniques.

4.2 Research Philosophy

Research philosophy has been described as ‘a system of abstract principles and assumptions in seeking the development of new knowledge and truth’ (Saunders, Lewis & Thornhill 2016, p. 124). These sets of principles are related to the philosophy termed as ontology, ‘the nature of the reality’ and epistemology, ‘the nature of the relationship between researcher and participants’ (Crotty & Crotty 1998; Mertens 2007). The process of how to acquire such knowledge (methodology) is grounded in ontological and epistemological philosophy, which is collectively described as worldview (Creswell & Creswell 2017; Lincoln, Lynham & Guba 2011). Thus, the research philosophy is a framework that guides, provides clear orientation, and directs how a researcher views different phenomenon and takes consistent action (Bell, Bryman & Harley 2018; Mertens 2007). According to Bell, Bryman and Harley (2018, p. 25), the methodological approach of any research study is inherently underpinned by implicit or explicit philosophical assumptions, i.e., ontology and epistemology, which shapes the research practice and data collection methods, and drives the conclusion.

Ontology is the theory of reality concerned with the question of the nature of reality in the real world and whether it exists independently of human thoughts or if it is dependent on human awareness (Becker & Niehaves 2007; Mertens 2007). Ontology is a subdivision of metaphysics that contemplates the actual occurrence of existence. The focal point of ontology is on whether the understanding of social phenomena should be perceived as objectively existing and external to observers, or whether they are socially constructed by human activities and the meanings attributed to them by observers (Bryman 2016). Two main distinct positions shape ontological assumption: objectivism and constructivism. Specifically, objectivism believes that there is an independent reality, whereas constructionism assumes that reality is the creation of social processes (Bell, Bryman & Harley 2018).

Epistemology is the theory of knowledge and, in particular, how knowledge of social reality is gained (Creswell & Creswell 2017). This philosophy is concerned with the nature of relationship between the knower (researcher) and would be known (participants). In other words, this concerns how the researcher is involved in collecting the empirical evidence from the participants: should the researcher be interactive to gain a deeper understanding of participants' experience or be neutral and keep his/her distance by means of indirect observation or measurements aspects (Mertens 2007). Clearly, epistemology is logically underpinned by ontology, in which a specific ontological position in the understanding of reality indicates a specific epistemological position in the understanding of how knowledge can be acquired of such reality (Bell, Bryman & Harley 2018). According to Grix (2002, p. 177), ontology is the central axis for any study, from which researchers' epistemological and methodological perspectives logically emerge and flow. For instance, in the adoption of objectivist ontology, the knowledge can be logically reached through indirect attachment to social actors, while knowledge can be gained through observing and interviewing social actors in an attempt to understand how they shape and understand the world under constructionist ontology (Bell, Bryman & Harley 2018).

4.2.1 Justification of Adopted Philosophical Paradigm

Positivism, interpretivism/constructivism, and critical realism are three main epistemological positions/paradigms (Bryman 2016). In particular, epistemological positivism paradigm advocates that observed objects only constitute reality and deserve an investigation, hence confirmed knowledge should be obtained via measurable proprieties (Myers 2019, p. 43). It is related to hypotheses testing, which assumes that empirical data should be used to confirm or reject theories and seek generalisation of the results (Bell, Bryman & Harley 2018). Consequently, causal linkages are often depicted in positivism as a conjugation between explanation and prediction as well as expected control. On the other hand, epistemological interpretivism/constructivism position believes that the reality is constructed, clarified, explained, and experienced by social actors and by the means of reciprocal action and interaction with broader social systems (Creswell & Creswell 2017). It accepts that knowledge should be attained by inductive reasoning and understanding of social and human interactions, where the subjective sense of the realism is built (Sekaran & Bougie 2016). Thus, human conducts are viewed as a method of interpreting meanings and activities. Also, actual fact is relative to the viewer, and must be comprehended and interpreted in order to produce specific knowledge about the social reality (Creswell & Creswell 2017). Finally,

critical realism aims at a deep understanding and development of profound knowledge of the structure of the phenomenon. This is done by incorporating the two epistemological positivism paradigms (Sekaran & Bougie 2016, p. 29).

The decision between positivism, interpretivism, and critical realism on the philosophical basis of ontological and epistemological should not be completely reliant on which paradigm seems preferable. All research philosophies are set for certain phenomenon of interest and researchers should be aware of the implications of their study decisions and apply accurate philosophy and paradigm to arrive at the knowledge and reality that is being sought (Orlikowski & Baroudi 1991). Therefore, objectivist ontological and positivistic epistemological paradigm is best suited for this study. The positivist paradigm confirms empirical observations by quantifiable measures to discover the truths and facts of the relationship between leadership behaviour and innovation. The thesis aims to develop a framework and confirm the theory with examinable hypotheses to determine whether the effect of different leadership styles on employees' IWB as well as assessing the mediating role of LMX and moderating role of power distance orientation in the context of Saudi HEIs. Thus, the positivist paradigm is highly compatible in the field of leadership and innovation.

4.2.2 Research Approach

Research approach mainly falls under two classifications: the deductive and inductive approach. The deductive approach aims to elucidate the relationship between a set of factors based on numerical data. The researcher initially theorises a group of ideas in the form of hypotheses and tests them empirically (Lune & Berg 2017). Variables are required to be specifically operationalised, which allows the researcher to arrive at accurate and reliable findings. Based on a large sample size, the study is statistically generalisable to a large scale of population. This approach is explanatory and is grounded in the positivism paradigm (Saunders, Lewis & Thornhill 2016).

On the other side, the inductive approach is mostly concerned with theory development and digging into new insight from unknown research areas. The findings evolve from qualitative data by which emergent themes permit new theory to be established. Unlike deductive paradigm, this approach is exploratory in nature and the used sample size is relatively small even through generalisability cannot be drawn. It falls under the interpretivism paradigm (Bryman 2016).

In general, the decision related to the adoption of the given approaches is determined by the aim of the study, whether the purpose is exploratory or explanatory. Failing to classify the research study as to which paradigm and approach to embrace would affect the validity of the findings and distort the conclusion. Therefore, the current study adopts the deductive explanatory approach that aims to test the series of hypotheses to test the theory and explain the relationship between the set of variables. According to Sekaran and Bougie (2016, p. 24), it provides a valuable and systematic approach for creating knowledge to resolve relevant problems in managerial settings. This approach seems to fit the current study, as the objective is to examine leadership styles and innovative work behaviour in Saudi HEIs.

4.2.3 Research Design

Research design has been described as ‘the systematic planning of research in order to find a valid conclusion’ (Reis & Judd 2000). A typical research can be designed according to the study objectives and can be classified under three approaches: qualitative, quantitative, or mixed (Creswell & Creswell 2017). This study explores the effects of various leadership styles on innovative behaviour within the workplace. To achieve this, a quantitative research methodology has been identified as the most fitting approach. The rationale behind this choice is twofold: firstly, quantitative methodology, with its deductive reasoning, allows for the systematic measurement of variables to elucidate the phenomena. Secondly, it facilitates the statistical validation of hypotheses, thereby permitting the generalisability of findings to a broader population. Importantly, scientific hypotheses are devoid of the researcher's personal inclinations, ensuring that the investigation remains unaffected by individual biases or subjective predilections. Qualitative research, while offering in-depth insights, typically focuses on a smaller, more specific sample, limiting the ability to generalise findings to a larger population. In this setting, given the large academic community within Saudi HEIs, it is imperative to gather a sizable sample to ensure the significance of the findings. Therefore, a quantitative approach is not only appropriate but also more efficient in terms of time investment.

The quantitative survey method offers uniformity across various research settings, as respondents answer with identical, standardised questions, allowing them ample time for consideration. This approach significantly reduces the potential for interviewer bias, which might arise from the involvement of individuals with a stake in the research outcomes. Likewise, the assurance of confidentiality and the provision of anonymity are critical in

enhancing the likelihood of receiving truthful answers, particularly in situations where participants are evaluating their supervisors' behaviours.

4.3 Population and Sampling

A significant part of research design is related to the identification and definition of the study population. This represents the specific individuals whose participation is essential for achieving study objectives (Kothari 2004). Consequently, the careful determination of the study population is paramount, ensuring alignment with the research objectives and the acquisition of pertinent data to facilitate accurate and insightful analysis. Given the wider nature of research populations, it becomes impractical to include every individual. As a result, researchers commonly employ a study sample which is a carefully selected subset of the larger population to facilitate research endeavours (Bell, Bryman & Harley 2018; Bryman 2016). Sampling involves the deliberate selection of individuals from a larger population to act as representatives. In essence, it entails focusing the study on a specific subset of the population rather than attempting to study the entire populace. Despite this narrowed focus, the insights gained from the sample are often deemed reflective of the broader population. The process typically begins with the identification of the key attributes and characteristics of the ideal study population. Subsequently, researchers proceed to select a sample that best represents the target population (Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016). Therefore, in the context of this study, the population is public universities in KSA. The reason will be discussed in the following sections.

4.3.1 Sample Frame

Hair, Joseph F et al. (2010) indicated that a sampling frame is a comprehensive list of the elements from which the sample is drawn. Thus, in this study, the sampling frame is a list of Saudi public universities listed in MOH databases. Additionally, the target population of the study consists of academic staff in Saudi higher education institutions, comprising of assistant lecturers, lecturers, assistant professors, and professors. The main reason for selecting academic staff is because they represent the single most important source of innovation in universities and the main facilitator of innovation in HEIs. Academic staff are one of the most important assets of HEIs and the basis of competitive advantage because of their knowledge creation and sharing activities. Also, they are equivalent to the brain and blood of the university, as they have the ability to personally and professionally develop students, as well as advance the universities' quality and performance. According to the

ministry of higher education, there are 28 public universities in KSA and a total academic staff of 69,716.

Table 4.1 List of Public Universities in KSA

Region	No	University Name	Year Established	Academic staff
Middle	1	Imam Muhammad Ibn Saud Islamic University	1974	4009
	2	King Saud University	1957	7211
	3	King Saud bin Abdul-Aziz University for Health Sciences	2005	1150
	4	Princess Noura University	1970	2149
	5	Shaqra University	2009	1660
	6	Prince Sattam University	2009	2234
	7	Almajmaa University	2009	1534
	8	Saudi electronic University	2011	500
	9	Qaseem University	2004	4174
	10	King Faisal University	1975	2016
East	11	Imam Abdulrahman Bin Faisal University	1975	3248
	12	University of Hafr Al Batin	2014	755
	13	King Fahd University of Petroleum & Minerals	1963	1095
	14	Umm Alqura University	1949	5003
West	15	Islamic University of Madinah	1961	968
	16	King Abdul-Aziz University	1967	7382
	17	Jeddah University	2014	1534
	18	Taibah University	2003	3289
	19	Taif University	2004	2812
North	20	Hail University	2005	2097
	21	Aljouf University	2005	1558
	22	University of Tabuk	2006	1829
	23	Northern Border University	2007	1231
South	24	King Khalid University	1998	3526
	25	Jazan University	2006	2586
	26	Al baha University	2006	1597

27	Najran University	2006	1530
28	University Bisha	2014	1030
Total	28 public universities		69707

Based on Table 4.1, the study selected the top five universities in KSA, which are listed in The World University Ranking 2020. These universities include King Abdul-Aziz University (N=7,382), Imam Abdulrahman Bin Faisal University (N=3,248), King Saud University (N=7,211), King Fahd University of Petroleum and Minerals (KFUPM) (N=1,095) and King Khalid University (N=3526).

No	University Name	Year Established	World Ranking	Academic Staff
1	King Abdul-Aziz University	1967	201-250 th	7382
2	King Saud University	1957	401–500 th	7211
3	King Fahd University of Petroleum and Minerals	1963	501-600 th	1095
4	King Khalid University	1998	501-600 th	3526
5	Imam Abdulrahman Bin Faisal university	1975	800-1000 th	3248
	Total			22462

Table 4.2 KSA Universities Ranking

Source: Times (2020)

The reasons for selecting these five public universities are: (1) they are the oldest, most prestigious, and highest-ranked universities in KSA. (2) They are geographically well dispersed, covering the three main areas in KSA, including the western, central, and eastern regions. (3) Apart from KFUPM, a major university that specialises in petroleum and minerals that are the basic resources of the country, all are large universities and teach most major disciplines for both male and female students. (4) Older Saudi public universities frequently have higher standing and resources, a better skilled and more stable workforce and are often the most preferred universities for academics to work in.

4.3.2 Profile of Targeted Universities

The following section provides a concise overview of the five universities chosen to participate in this study: King Abdul-Aziz University, King Saud University, King Fahd

University of Petroleum and Minerals, King Khalid University, and Imam Abdulrahman bin Faisal University.

4.3.2.1 King Abdul-Aziz University

Established in 1967, King Abdul-Aziz University (KAU) is in Jeddah, KSA. The university has a large student population, with over 40,000 students enrolled in various undergraduate, graduate, and doctoral programmes. KAU offers a wide range of disciplines, including arts and humanities, social sciences, natural sciences, engineering, medicine, business administration, and more. It has faculties dedicated to these various fields of study. KAU is known for its strong emphasis on research and innovation, with numerous research centres and institutes fostering scholarly pursuits. The university has collaborations with international institutions and actively participates in hosting conferences, symposiums, and workshops to promote knowledge exchange and scientific advancements.

4.3.2.2 King Saud University

King Saud University (KSU), established in 1957, is the largest university in KSA. It is in Riyadh. With an enrolment of over 70,000 students, KSU offers a comprehensive range of academic programmes across various disciplines. KSU has faculties dedicated to natural sciences, engineering, medicine, business administration, humanities, social sciences, and more. The university is known for its commitment to academic excellence and research. It has research centres and institutes that contribute to scientific advancements. KSU also fosters collaborations with national and international institutions, providing students with opportunities for knowledge exchange and research collaboration.

4.3.2.3 King Fahd University of Petroleum and Minerals

Located in Dhahran, KSA, the King Fahd University of Petroleum and Minerals (KFUPM) is a leading institution specialising in engineering, sciences, and business administration programmes. Established in 1963, KFUPM has developed strong industry ties and collaborates extensively with companies in the energy sector for research and training opportunities. The university's curriculum and research focus on petroleum, minerals, and related disciplines. KFUPM is recognised for its high-quality education and research in the field of energy, making it a preferred choice for students pursuing careers in the petroleum and minerals industry. The university aims to provide students with a strong foundation in technical knowledge and practical skills, preparing them for successful careers in the energy sector.

4.3.2.4 King Khalid University

King Khalid University (KKU) is a public university located in Abha, KSA. It was established in 1998. It offers a diverse range of undergraduate, graduate, and doctoral programmes in various fields of study. The university aims to provide a comprehensive and high-quality education that equips students with the knowledge and skills necessary for their future careers. With a focus on academic excellence, KKU encourages research and innovation among its students and faculty. The university has faculties dedicated to fields such as humanities, sciences, engineering, business administration, and health sciences. KKU also engages in community outreach initiatives and partnerships to contribute to the social and economic development of the region.

4.3.2.5 Imam Abdulrahman Bin Faisal University

Imam Abdulrahman Bin Faisal University (IAU), located in Dammam, KSA, and established in 1975, is a public university offering a wide range of academic programmes across multiple disciplines. The university is committed to promoting Islamic values and traditions while providing a modern and comprehensive education to its students. IAU emphasises research and innovation, with research centres and institutes focusing on various fields. The university offers programmes in disciplines such as humanities, sciences, engineering, health sciences, and business administration. IAU strives to create a supportive and intellectually stimulating environment for students, fostering their personal and professional development. Through community engagement and partnerships, IAU contributes to the social and cultural advancement of the region.

4.3.3 Sampling Technique

Sampling technique is another essential aspect that should be carefully employed to ensure the representativeness and validity of study findings (Hair, Joseph F et al. 2010). Researchers typically distinguish between two types of sampling techniques: probability and non-probability. Probability sampling involves selecting samples with each member of the population having a known, nonzero chance of being included in the sample. This method ensures that the sample is representative of the population and allows for the calculation of statistical measures of precision and accuracy. Common probability sampling techniques include simple random sampling, systematic sampling, stratified sampling, and cluster sampling (Bryman 2016). Non-probability sampling does not rely on random selection and does not ensure that every member of the population has an equal chance of being included in

the sample. Instead, individuals are selected based on convenience, judgment, or availability. While non-probability sampling techniques are less rigorous in terms of statistical inference, they are often used in situations where probability sampling is impractical or impossible due to logistical constraints. Common non-probability sampling techniques include convenience sampling, purposive sampling, snowball sampling, and quota sampling (Saunders, Lewis & Thornhill 2016).

In this study, the sampling technique employed can be characterised as a purposive sampling technique, particularly focusing on criterion-based selection. This approach was evident in the initial phase, where higher education institutions within KSA were chosen based on their international rankings, leading to the selection of the top five public universities as the research setting. This method ensures that the sample is representative of the highest standards in the educational sector and within the context. Furthermore, to address the challenge of a low response rate from an online survey, the researcher implemented a physical distribution method for the survey. Printed surveys were provided directly to deans and heads of departments at these institutions for further dissemination among faculty members. This technique, while maintaining the purposive nature of the sampling, introduced an element of convenience sampling through the reliance on institutional leaders to distribute and collect the surveys. This mixed approach underscores the adaptability of the sampling methodology to practical constraints, aiming to enhance response rates and, subsequently, the robustness of the data collected.

4.3.4 Sample Size and Power Analysis

It is essential to determine a suitable sample size before collecting and estimating the characteristics of targeted population. Identification of appropriate sample size plays an important role in assessing and anticipating sufficient statistical power for testing the proposed model and carrying out required analyses (Cohen 1988; Dillman, Smyth & Christian 2014; Faul et al. 2009; Hair, Joseph F et al. 2010). The sample size can be driven from power analysis or population-based proportions through formulas and/or different rule of thumbs. This study used different techniques to conclude an appropriate sample size for this study. Power analysis measures the probability of rejecting a false null hypothesis that is a function of the effect size, sample size, and alpha level (Cohen 1988). This study used a priori calculation to determine the minimum study sample, using the G*Power 3.1.9.7 software (Faul et al. 2009). The F test for linear multiple regression is used to estimate fixed

models considering R2 deviation from zero, as the SEM models are estimated through a series of multiple regressions (Chin 1998a; Faul et al. 2009; Faul et al. 2007). Applied along with the conventionally utilised medium effect size $F^2 = 0.15$ at error probability level $\alpha = .05$, the minimum sample size is predicted to be 166 to reach at least % 95 statistical power. The input-output data pertaining to a priori calculation of minimum sample size is exhibited in Figure 4.1 below:

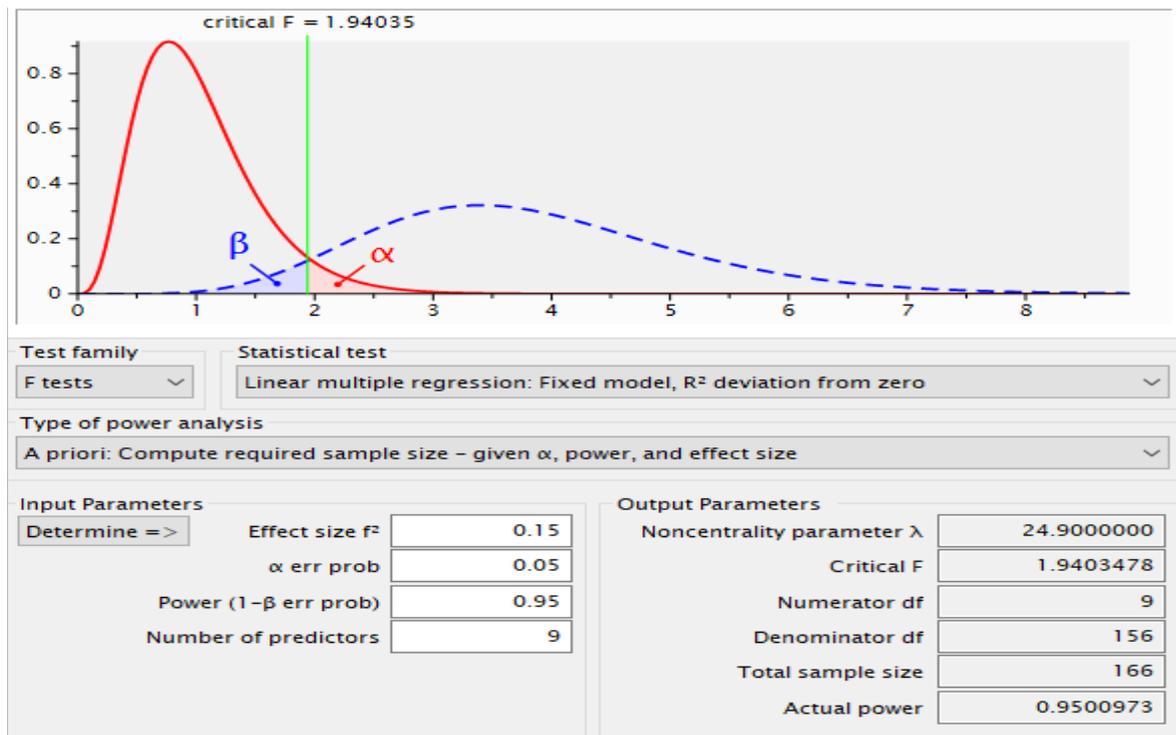


Figure 4.1 G*power: A Priori Calculation of Minimum Sample Size

Concluding the above, a priori calculation for determining the minimum study sample by means of the G*Power software yielded a sample size of 166. Although a priori sample size is determined based on the desired level of the power test, it has been suggested that the definition of sample size in structural equation modelling (SEM) remains flexible and fluid (Gunzler et al. 2013; MacCallum, Browne & Sugawara 1996; Wolf et al. 2013). This concedes the challenges pertaining to sample size determination. Accordingly, Hair, Joseph F et al. (2010); Wolf et al. (2013) stated that sample size in multivariate research should be greater than 100 for simple and complex models in order to provide statistical power. However, the determined sample size of 166 for the large population of 22,462 appears to be insufficient. Therefore, it is imperative to look for a different technique for sample size determination. Hence, the sample size calculated through Krejcie and Morgan (1970) is examined, as a generalised scientific guideline is used for determining the sample size.

Consequently, a total of 377 as sample size for the population of 22,462 were indicated to be suitable and sufficient. According to Hair, Joseph F et al. (2010), the sample size in PLS-SEM should be greater than 100 to provide acceptable statistical power. Therefore, giving the above calculation, the sample size of 377 seems to be suitable and adequate for the current study.

4.4 Survey Design

According to Bell, Bryman and Harley (2018, p. 59), survey design involves collecting data commonly at one point in time and using questionnaires to gather quantitative data on multiple variables, aiming to identify patterns and correlation among them. Generally, surveys are broadly categorised into descriptive and analytical types. Descriptive surveys aim to capture the characteristics of a specific population across different times, facilitating the observation of variations within various phenomena (Ghauri, Grønhaug & Strange 2020). In contrast, the analytical survey attempts to confirm a theory and to discover whether there is a link between the independent variables and the dependent variables (Bell, Bryman & Harley 2018). Based on the study objectives, analytical survey was appropriate to examine and identify relationships between leadership styles, LMX, power distance orientation, and employees' innovation.

Moreover, Saunders, Lewis and Thornhill (2016) delineated two primary forms of survey questions: open and closed. Open questions or open-ended questions are instrumental for extracting in-depth responses, as they require participants to elaborate on their answers using text or numbers. However, excessive openness might deter respondents due to the potential for ambiguity. Conversely, closed questions or closed-ended questions, offer a predefined set of answers for selection, ranging from a spectrum of options that may include a simple yes/no or a scale extending from positive to negative outcomes. These questions facilitate a more straightforward and expedient response process.

In this investigation, a self-administered questionnaire featuring closed-ended questions was chosen as the data collection method for surveying staff members at HEIs in KSA. The design of the survey questionnaire aims to ensure ease and speed of completion for participants. Bryman (2016, p. 221) highlights the importance of an introductory section that briefs participants about the study's objectives and guarantees confidentiality, as this significantly encourages participant engagement. Accordingly, this study incorporates a cover

page that clarifies the research's purpose and provides contact information for any queries participants might have. The questionnaire is structured to prompt faculty members to evaluate their leadership (including deans, deputy deans, and department heads) through statements reflecting on the leadership styles observed and their perceived effect on IWB.

4.4.1 Measurement of Variables

In this thesis, all variables were assessed using a seven-point Likert scale spanning from 1= strongly disagree to 7= strongly agree, irrespective of demographic characteristics. The dependent variable under investigation is innovative behaviour, with LMX serving as the mediating variable, and power distance orientation as the moderating variable. The independent variables consist of TL, SL, EL, and AL. Detailed descriptions of the variable measurements are presented in the subsequent sections.

4.4.2 Transformational Leadership

TL is characterised by leaders inspiring their followers to go beyond their individual interests for the achievement of broader organisational objectives (Burns 1978). The assessment of TL was conducted using the Multifactor Leadership Questionnaire Form 5X, developed by Bass, Bernard M (1997), recognised for its extensive application and consistent reliability (Amankwaa, Gyensare & Susomrith 2019; Antonakis, Avolio & Sivasubramaniam 2003). This instrument comprises of 20 items, and evaluates four key facets: idealised influence, individualised consideration, inspirational motivation, and intellectual stimulation.

Data for this thesis was gathered through 19 items, excluding one (TL1) due to its insufficient reliability and validity. Participants evaluated the extent of their leaders' engagement in the dimensions. A sample item from the idealised influence is, 'Goes beyond self-interest for the good of the group.' A sample item from inspirational motivation is, 'Talks optimistically about the future.' A sample item from the behaviours of idealised influence is, 'Considers the moral and ethical consequences of decisions.' A sample item from intellectual stimulation is, 'Seeks differing perspectives when solving problems,' and a sample item from individualised consideration is, 'Helps me to develop my strengths.' The MLQ scale is commonly used in previous studies and known for its accepted validity for measuring TL behaviours (Amankwaa, Gyensare & Susomrith 2019; Ng 2017). In this thesis, the scale was converted into one higher-order factor which is in line with current empirical findings (Afsar, F. Badir

& Bin Saeed 2014; Amankwaa, Gyensare & Susomrith 2019). This conversion aligns with the theoretical development of TL by (Avolio, Bruce J., Bass & Jung 1999).

4.4.3 Servant Leadership

SL is characterised by behaviours that prioritise the well-being and needs of followers over the leader's own interests. Existing research has introduced multiple instruments scales for evaluating SL behaviour (Liden, Robert C et al. 2008; Sendjaya et al. 2019; Van Dierendonck 2011) . The 28-item scale developed by Liden, Robert C et al. (2008), known for its rigorous methodology, is among the most applied. This instrument delineates the seven qualities of the SL. Nevertheless, a drawback of the scale is its extensive length, which could potentially lead to respondent fatigue. In response to this issue, Liden, Robert C et al. (2015) developed short unidimensional versions of seven items based on original scales; there were intended to maintain the integrity of the original scale while enhancing respondent engagement. This shorter version has demonstrated reliability and convergent validity on par with the original scale (Liden, Robert C et al. 2015). Furthermore, this scale has been validated through previous research (Aboramadan et al. 2022; Iqbal, Amjad, Latif & Ahmad 2020). In alignment with these findings, this study incorporates the 7-item scale (SL-7) devised by Liden, Robert C et al. (2015), with an illustrative sample item being, 'my manager puts my best interests ahead of his/her own.' The reliability of this scale within the context of this thesis is evidenced by a Cronbach alpha value of 0.903, aligning with prior studies that have reported reliability scores ranging between 0.88 and 0.96 (Aboramadan et al. 2022; Iqbal, Amjad, Latif & Ahmad 2020).

4.4.4 Empowering Leadership

The concept of EL has been conceptualised in various ways in the existing literature (Lee, A, Willis & Tian 2018). One perspective focuses on the actions and behaviours of leaders, encompassing activities such as coaching, encouraging employee initiative, fostering teamwork, and promoting self-management (Kim, M, Beehr & Prewett 2018). The second form emphasises how leaders delegate power to subordinates and evaluates team and individual responses in terms of performance incentives (Mutonyi, Slåtten & Lien 2020). These two perspectives of EL are often discussed together in research, with some studies suggesting that EL can be measured based on the observable behaviours of leaders. Thus, the EL has been measured through various scales development (Ahearne, Mathieu & Rapp 2005; Arnold et al. 2000; Srivastava, Bartol & Locke 2006). The scale developed by Arnold et al.

(2000) consists of 38 items in five factors of AL, including informing, leading by example, showing concern, participative decision-making, and coaching. The five factors of EL were found with higher internal consistency reliability with Cronbach's alpha values between 0.89 and 0.94. A short version of Arnold et al. (2000) was developed by Srivastava, Bartol and Locke (2006) with 15 items to measure EL within a single factor.

In the current study, the measurement instrument was based on the definition of EL proposed by (Ahearne, Mathieu & Rapp 2005). This scale comprises 12 items categorised into four factors: providing autonomy from bureaucratic constraints, enhancing the meaningfulness of work, expressing confidence in high performance, and fostering participation in decision making. This scale has been widely used in previous research and reported high validity and reliability $\alpha = 0.92$ (Günzel-Jensen et al. 2018; Wang, Honglei et al. 2023). A sample item was 'My manager helps me understand how my job fits into the bigger picture.'

4.4.5 Authentic Leadership

AL is conceptualised as a leadership style that fosters an ethical environment and enhances followers' psychological strengths through the application of self-awareness, an internal moral compass, balanced processing of information, and relational transparency, thereby facilitating followers' positive self-growth (Walumbwa, Fred O et al. 2008). AL was operationalised using an AL questionnaire, ALQ, developed by Walumbwa et al. (2008). It comprises a 16-item scale, including four key dimensions; each dimension consists of four items. These dimensions are self-awareness, balanced processing, relational transparency, and internalised moral perspective. The ALQ has been extensively used in previous research and shows high reliability and validity. It is a robust instrument to measure the behaviour of AL and has been used and validated across countries, cultures, and contexts (Sengupta et al. 2023). In this thesis the scale was converted into higher order following previous empirical studies (Duarte et al. 2021; Niu et al. 2018).

4.4.6 Leader Member Exchange

To analyse the quality of LMX exchange relationship, seven items measured the employee perspective using the LMX 7 scale developed by (Graen & Uhl-Bien 1995). Meta-analytical evidence has indicated that the LMX 7 provides the soundest psychometric properties and the highest correlations with outcomes, compared to all other available instruments (Gerstner & Day, 1997). LMX is usually a dyadic construct; however, for the purpose of the current

study, LMX is viewed in terms of employees' perceptions of the supervisor–subordinate relationship. The participants were asked to respond to the questions according to the degree to which they felt they had a better relationship with their supervisor. Higher scores on this scale indicated that respondent had a high-quality relationship with their supervisor. The participants' responses on this scale were recorded using a Likert scale ranging from 1 defining 'Strongly Disagree' to 7 stating 'Strongly Agree'. A sample of a scale item is 'My working relationship with my manager is extremely effective.' Cronbach's alpha value for this scale in this thesis was 0.903.

4.4.7 Power Distance Orientation

The scale of PDO developed by (Dorfman & Howell 1988) aims to measure the degree to which individuals within a particular society or organisation accept and expect hierarchical power structures. This scale consists of six items that reflect attitudes and beliefs related to power distance. These items are designed to capture the extent to which individuals endorse and support the concentration of power at the top of the hierarchy, as well as the expectation that decisions will be made by those in authority without consulting subordinates. Sample items were '*Managers should make most decisions without consulting subordinates*' and '*Employees should not disagree with management decisions.*' Cronbach's alpha value for this scale in this study was 0.936.

4.4.8 Innovative Work Behaviour

Nine items were adapted from previous work of (Janssen 2000). The items were designed to capture employees' behaviours aimed at improving processes, products, or procedures, or planning new ideas in a work role or workplace. In particular, the deployed scale operates in three stages, drawing on Kanter's (1988) work on the components of individual innovation and spanning from idea generation to promotion to realisation of ideas. Sample items include, '*Creating new ideas for difficult issues (idea generation). Mobilising support for innovative ideas (idea promotion) Transforming innovative ideas into useful applications (idea realisation).*' Cronbach's alpha value for this scale in this study was 0.944.

4.5 Pre-Testing

Pre-testing a survey questionnaire is a critical step before administering a survey to the study participants. It is important to pre-test the questionnaire to identify any problem in the questionnaire design, for example ambiguity in wording, conciseness of questions,

misunderstanding of questions, inability to answer a question, sensitive questions, and time taken to complete, which should be under ten minutes (Grimm 2010). In addition, pre-testing includes consulting with a small number of potential participants, subject experts and/or conducting informal meetings with colleagues for their view of the items, wordings structure, and phrases included in the instruments (Forza 2010). In line with this, the original draft of the measures was shared with four academic experts, including my supervisor and six PhD candidates who are familiar with the constructs. Thus, some of the items were reworded to fit the higher education context as well as improve clarity. In addition, necessary modifications were made to refine the questionnaire in line with the pre-test feedback. For instance, one item from TL was removed following the advice received from two subject experts that it was an ambiguous and vague item. This item states that '*My manager instils pride in me when associated with others.*' Thus, the total TL items reduced from 20 to 19.

4.6 Pilot Study

A pilot study is a scaled-down version of the main survey study that assesses the weaknesses of the main study project, evaluates the validity and feasibility of proposed instruments, and determines whether the main study procedures can be effectively implemented (Kothari 2004; Van Teijlingen & Hundley 2002). The primary purpose of a pilot study is to inspect the feasibility of the approach, which is ultimately intended to be used in the final study (Bell, Bryman & Harley 2018). In the pilot test of the current study, 60 questionnaires were distributed among KSA academic staff. Forty-six questionnaires were received back; nevertheless, only 36 were valid after data cleaning from missing values and various errors. The pilot study was carried out in August 2021 and the process continued almost for four weeks to receive the data. Hence, reliability assessments were conducted using the widely recognised method of internal consistency reliability testing. This method evaluates the degree to which items within a given construct converge together and are independently capable of measuring the same construct; and at the same time the items are correlated with each other. As shown in Table 4.3 below, the results confirmed that all measures reached an acceptable reliability coefficient, ranging from 0.685 to 0.933. Scholars consider a reliability coefficient of .60 as average reliability, and a coefficient of .70 and above as high reliability (Hair, Joe F, Ringle & Sarstedt 2011; Sekaran & Bougie 2016).

Table 4.3 Reliability Results

Construct	No of items	Cronbach's alpha
Transformational leadership	19	0.933
Servant leadership	7	0.689
Empowering leadership	12	0.886
Authentic leadership	16	0.924
Leader-member exchange	7	0.851
Power distance orientation	6	0.685
Innovative work behaviour	9	0.732

Source: Researcher

4.7 Data Collection Process

An online and paper survey questionnaire was used to collect data from faculty members working in five universities in KSA, namely King Saud, King Khalid, King Abdelaziz imam Abdulrahman bin Faisal, and King Fahad. Researcher received support from these institutions to collect the data from academic staff data as the institutions helped the researcher in the distribution of the online survey link and the hard copies of the surveys. Furthermore, the ethics department at Victoria University approved the questionnaire to carry out this research under reference HRE21-077. The questionnaire was designed through Victoria University's recommended web-based survey tool 'Qualtrics' and translated into both Arabic and English languages. This tool enables researchers to develop and distribute the questionnaire link as well as to capture participants' responses and draw insights from them in real-time. In this study, email was employed as the primary method for distributing the questionnaire and collecting data.

However, the researcher came across a number of challenges and hindrances during data collection. For instance, in the first month, the response from the participants was only 49 cases, which is considered as a very low response rate. Moreover, despite their agreement to help with data collection, some universities did not reply through email to distribute the survey link among faculty members. Therefore, the researcher had to shift from relying on the online survey to printing copies of the questionnaire and organising a trip back to KSA

to physically visit the universities. Therefore, the researcher visited each university to enlist the support of deans and heads of department in distributing the questionnaire and collecting data. Follow-up communications occurred after two weeks to monitor the progress of data collection and remind participants to complete the task promptly. After two months, the researcher had gathered 394 responses. The survey took place between February and April 2022 and involved academic staff from all five public universities during this timeframe.

4.8 Data Analysis Techniques

The study used two analytical techniques, partial least squares structural equation modelling (PLS-SEM) and necessary condition analysis (NCA), to analyse the empirical data. The following section presents detailed discussion of each technique.

4.8.1 Partial Least Squares (PLS-SEM)

The study adopted structural equation modelling using partial least squares structural equation modelling (PLS-SEM), which is considered to be the most suitable and popular technique in research (Hair, Joe F, Ringle & Sarstedt 2011; Hair, Joseph F et al. 2019). Initially, covariance-based structural equation modelling (CB-SEM) was considered superior to analyse the complex interrelationship among variables and ruled the field till 2010. However, the PLS-SEM is currently amongst the most popular method to examine complex relations; this is evident through a plethora of research publications in the field (Hair, J. F. et al. 2017). Its application to social sciences and especially in management sciences is ever-growing. The distinct feature of PLS-SEM is its ability to estimate large complex models, with numerous indicators and structural paths. It is more suitable for this study, having multiple leadership styles, and having a simultaneous effect on employee innovative work behaviour, as well as assessing the mediation (LMX) and moderation (power distance) in these effects. Another distinctive advantage of using PLS-SEM is that it does not account for distribution assumption, which is crucially important for the CB-SEM technique (Byrne 2010). In other words, PLS-SEM treats non-normal data relatively well. Generally, PLS-SEM path modelling was selected for this study to help avoid any normality problem that might arise during data analysis. In comparison to CB-SEM, PLS-SEM works well with smaller as well as much larger samples, and readily incorporates formative as well as reflective constructs. Hence, PLS-SEM is a more suitable approach for this study since most of the measurement items are reflective. Hence, the study will follow the guidelines provided by Hair, Joseph F et al. (2019) in the following manner:

- i) The study shall examine the indicator loading (i.e., loading > 0.70)
- ii) The study shall examine the internal consistency reliability (i.e., C.R > 0.60, Cronbach's alpha > 0.70)
- iii) The study shall examine the convergent validity (i.e., AVE>0.50)
- iv) The study shall examine the discriminate validity i.e. Fornell and Larcker (1981), metric and Henseler and Sarstedt (2013) ratio called heterotrait-monotrait (HTMT) ratio).

4.8.2 Necessary Condition Analysis (NCA)

NCA is a new data analysis technique developed by (Dul 2016), which allows the identification of necessary conditions in data sets. The main aim of is to discover areas in scatter plots of dependent and independent variables that may indicate the presence of necessary condition. While ordinary least squares regression-based techniques e.g., PLS-SEM analyses the average relationships between variables, NCA reveals the necessary effect by testing if a determinant is required for the outcome to exist. The regression or PLS-SEM finds a linear function through a dashed line through the centre of the relevant data points. NCA determines a ceiling line addressing the empty area in the upper-left corner (Dul 2016).

There are two default ceiling lines (Figure 4.2), the ceiling envelopment free disposal hull (CE-FDH) line, which is a nondecreasing stepwise linear line; and the ceiling regression free disposal hull (CR-FDH) line, which is a simple linear regression line through the CE-FDH line. The ceiling line separates the space with observations from the space without observations. The larger the empty space, the larger the constraint that X puts on Y. The ceiling line also indicates the minimum level of X that is required to obtain a certain level of Y. For instance, as shown in Figure 4.2, X must have at least a level of 6 to achieve a level of Y = 8. There is no Y of 8 or higher for X values that are below 6. This NCA outcome differs from the interpretation of linear regression, where an increase of X leads, on average, to an increase of Y. Alternatively, the bottleneck table presents the ceiling line results in a tabular form. The first column of the table shows the outcome, whereas the next column represents the condition that must be satisfied to achieve the outcome (Dul 2016; Richter et al. 2020). The results of both the outcome and the condition may refer to the actual values, percentage values of the range, and percentiles.

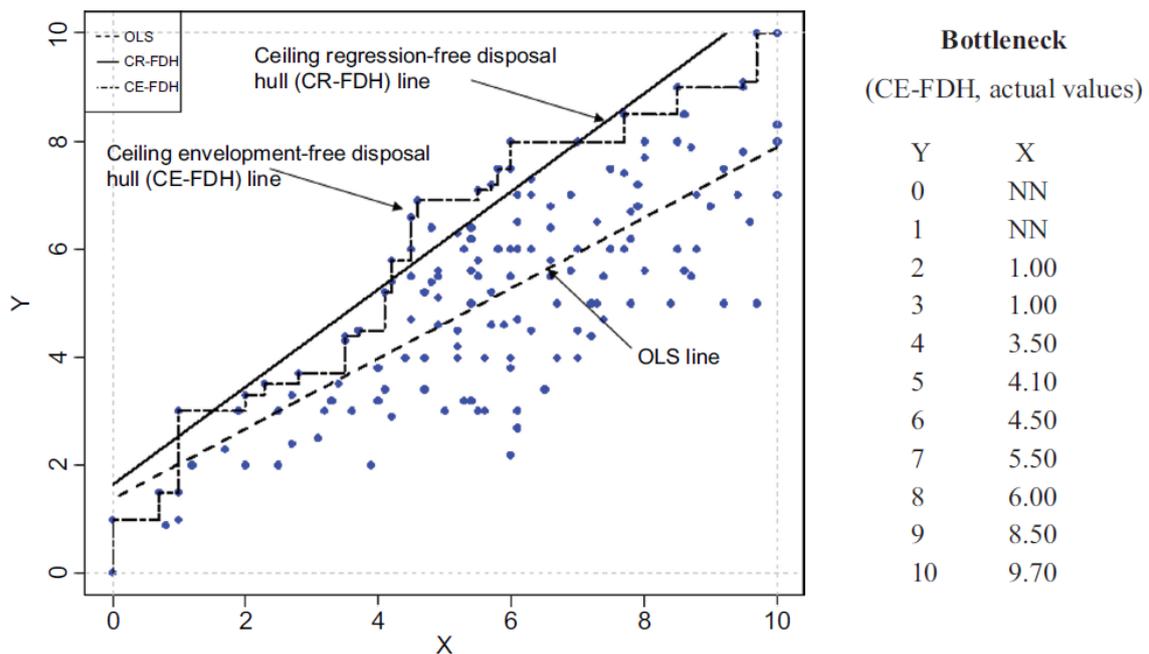


Figure 4.2 NCA ceiling Line and Bottleneck

In Figure 4.2, the bottleneck table indicates the same relationships as the ceiling line, namely that for an outcome of $Y=8$, X needs to be at a level of 6. For example, if Y measures an information system's success on a 0–10 scale and X measures the system use on a 0–10 scale, the scatter plot indicates that system use is a necessary condition for success, whereas the bottleneck table specifies the levels of usage that are necessary for certain levels of success, i.e., that the system use must be at a level of 6 to achieve a success level of 8 (Richter et al. 2020).

Therefore, NCA can be performed with a free software package that is implemented in R. The software's main functions are to draw ceiling lines, calculate all NCA parameters and generate the bottleneck tables and p-values (Dul 2016). Richter et al. (2020) recently presented guideline describing how to combine PLS-SEM and NCA.

4.9 Ethics Consideration

Since the survey requires human participation, ethics is a fundamental element of human research. The researcher ensured that no participants was exposed or put in peril as a consequence of the research activities (Cooper, D & Schindler 2013). The researcher is aware of confidentiality, privacy, and participants' personal identification. Additionally, researcher followed the ethical guidelines and adhered to the ethical codes and standards of Victoria

University to avoid any potential ethical harms during data collection stage. Hence, application for human ethics has been logged and approved by the ethics committee under the reference HRE21-077.

4.10 Chapter Summary

This chapter clarified the research methodology employed for achieving the objectives set in Chapter 1. This explanation includes the research strategies, philosophical research-paradigms, research designs, data collection methods, data analysis techniques, and ethical considerations. It also covered the survey measurement, pretesting, and the pilot study for evaluating the validity and reliability of the questionnaires. This research has followed all the ethical guidelines recommended by the ethical committees of Victoria University.

Chapter 5: Data Analysis and Findings

5.1 Introduction

The chapter commences with the thorough screening and preparation of data for analysis, encompassing steps to identify missing data, outliers, conducting tests for normality, assessing common method variance, and scrutinising multicollinearity. Moreover, the chapter presents the survey response rate, along with an overview of the participants, including their age, gender, experience, educational background, position, and affiliations with specific universities. The processes applied for data analysis using PLS-SEM are expounded upon within this chapter, encompassing an evaluation of both the measurement and structural models. Finally, it includes the technique used for analysing the data using NCA.

5.2 Preliminary Analysis

Preliminary analysis was conducted after coding variables and entering data into the data file. This involves a thorough examination of the data file to gain an understanding of the characteristics of the variables before engaging in the hypothesis testing. More specifically, these procedures include summarising the data by calculating the mean and standard deviation and assessing the distribution of scores for continuous constructs, which includes evaluating normality and identifying any outliers, among other aspects. Thus, within the scope of this study, the preliminary analysis was executed utilising SPSS V29.

5.2.1 Data Screening

Data for this study was gathered from faculty members working in KSA universities through a combination of web-based and paper-based questionnaires. Initially, 443 responses were collected. Specifically, data obtained through Qualtrics (56 responses), were retrieved in an Excel file, while those from paper-based questionnaires (387 responses), were manually entered into a separate Excel sheet. Subsequently, both Excel files were merged to create a master database incorporating all responses from both online and paper questionnaires.

Hair Jr, Joseph F et al. (2021) recommended a comprehensive examination of data before applying multivariate methods, aiming to gain a better understanding of the data characteristics. Visual inspection of the master Excel sheet, which contains all responses collected from paper and online surveys, revealed that out of the initial 443 responses, seven were deemed invalid due to incompleteness. Consequently, these responses were omitted,

leaving 436 valid responses to proceed with further data analysis. The next step involved loading these responses into SPSS for additional analysis, which included identifying missing data, outliers, assessing normality, examining common method bias, and conducting tests for multicollinearity.

Table 5.1 Summary of Unfinished Responses

Case ID	Missing %
9	100
18	100
54	100
10	100
12	100
13	100
7	100

5.2.2 Treatment of Missing Data

The presence of missing values in data is a significant issue in applied quantitative studies, as it has the potential to adversely impact the results. This issue arises when survey respondents fail to answer one or more questions in a given questionnaire (Hair, J et al. 2014). Generally, if the missing responses account for less than 10% of the total and are not categorical, these can be fixed by imputing in SPSS. (Hair, J et al. 2014). However, when the missing data exceed 10% of the overall response, it may be advisable to consider excluding those respondents.

This study followed the recommended procedures outlined by Hair, J et al. (2014) for appropriately treating missing values. Initially, it is important to identify the type of data that is missing and decide whether it can be overlooked. If the missing data cannot be overlooked, the next step is to assess the extent of the missing data for each variable, ultimately determining whether specific cases should be excluded. Furthermore, it is crucial to examine the randomness of the missing data process, distinguishing between data missing at random or completely at random. Lastly, the suitable method of imputation for the missing values is to be implemented.

Missing data typically falls into two categories: ignorable and non-ignorable missing data. In the current study, all the missing data were the consequence of non-response from participants, making them non-ignorable. To address this, the percentage of missing data was calculated for all cases to determine the overall extent of missing values. IBM-SPSS was employed as an effective tool for analysing missing data. The results showed that out of 436 data points, 46 cases had missing values. After a complete analysis, it was determined that all 46 cases should be removed due to the high percentage of missing data, exceeding the 10% threshold (Hair, J et al. 2014). Consequently, 390 responses remained for further analysis. Table 5.2 presents a summary of removed missing data.

Table 5.2 Summary of Removed Missing Data

Case ID	# Missing	Missing %	Case ID	# Missing	Missing %
44	9	11	390	69	83.1
33	22	26.5	117	63	75.9
35	22	26.5	269	61	73.5
50	22	26.5	367	64	77.1
51	22	26.5	99	53	63.9
66	51	61.4	350	47	56.6
160	55	66.3	329	55	66.3
299	75	90.4	441	53	63.9
15	76	91.6	181	61	73.5
16	76	91.6	399	57	68.7
17	76	91.6	417	61	73.5
30	76	91.6	281	52	62.7
31	76	91.6	161	59	71.1
32	76	91.6	67	61	73.5
8	76	91.6	437	48	57.8
34	76	91.6	136	52	62.7
40	76	91.6	184	45	54.2
45	76	91.6	197	54	65.1
46	76	91.6	439	46	55.4

47	76	91.6	14	76	91.6
48	76	91.6	52	76	91.6
49	76	91.6	53	76	91.6
11	76	91.6	55	76	91.6

5.2.3 Assessment of Outliers

Outliers refer to values that stand out significantly from the majority of the surveyed population, thereby potentially distorting the statistical results (Kline 2023). The presence of outliers in the data triggers errors in models and can also adversely affect the analysis outcomes (Pallant 2016). Hence, the existence of outliers in data can be identified at univariate, bivariate, and multivariate levels.

Univariate outlier detection involves examining the distribution of observations for each variable to pinpoint potential outliers with values that fall well outside the typical ranges, whether exceptionally low or high (Hair, Joseph F et al. 2010). In the bivariate approach, dispersion plots are employed to assess pairs of variables, identifying cases that deviate significantly from the rest of the data points on scatterplots. Multivariate outliers, on the other hand, are characterised by extreme values across multiple variables (Hair Jr, Joseph F et al. 2021). The most effective approach among the available methods appears to be the multivariate method, which overcomes the limitations of univariate and bivariate techniques by evaluating each observation's position in a multidimensional space rather than just one variable at a time (as with univariate) or two variables (as with bivariate). Therefore, multivariate analysis was recommended as the approach for outlier detection (Hair, Joseph F et al. 2010).

Examining outlier at multivariate levels can be performed through assessing Mahalanobis distance (D^2) (Tabachnick & Fidell 2007). It measures the distance of each observation in multidimensional space from the mean centre of all observations, yielding a single value for each observation, regardless of the number of variables considered (Hair, Joseph F et al. 2010). In this study, D^2 was calculated in SPSS, where higher D^2 values indicate the presence of outliers. Outliers are identified when their significance values are $p < .001$ (Hair, Joseph F et al. 2010). Thus, 390 cases were scrutinised, and nine cases were removed as outliers,

leaving 381 participants for further data analysis. The detected cases with their results are presented in Table 5.3.

Table 5.3 Multivariate Outlier Analysis

Case ID.	D²	Sig.
442	30.33029	0.00003
303	29.82549	0.00004
84	29.57185	0.00005
145	28.53009	0.00007
366	28.11497	0.00009
237	26.71617	0.00016
218	25.24639	0.00031
433	24.74622	0.00038
94	24.2941	0.00046

Note: outliers are significant at <.001

5.2.4 Assessment of Normality

Normality is as an essential prerequisite in multivariate analysis. It entails an examination of whether data adheres to a typical distribution pattern across the dataset, enabling the identification of exceptionally high or low values that could impact the study's overall findings. As per Hair, Joseph F et al. (2010), data deviations from the normality assumption can significantly affect the interpretation of results. Consequently, a breach of the normality assumption renders all other statistical tests unreliable (Tabachnick, Fidell & Ullman 2007). Moreover, it is essential to account for the sample size when evaluating the extent of non-normality's influence. In instances of a small sample size (fewer than 50), non-normality can exert a substantial influence on results, whereas the effect may be less pronounced with larger sample sizes (200 or more).

Kurtosis and skewness are two key measures that contribute to the shape of the distribution (Bell, Bryman & Harley 2018). Kurtosis is related to the extent of peakiness or flatness in a distribution. Positive kurtosis values signify peaked distributions, while negative values denote flatter distributions. Additionally, the distribution's balance is characterised by using skewness. An unbalanced distribution implies that the data is skewed either to the left

(positive skewness values) or to the right (negative skewness values) (Hair, Joseph F et al. 2010).

Normality analysis can be performed either graphically through assessing the normal probability plot or statistically using kurtosis and skewness. Consequently, SPSS v29 was used to compute skewness and kurtosis values for all variables, and the results indicated that they all fell within acceptable limits. Specifically, they were less than the acceptable threshold of ± 2 for skewness and less than 7 for kurtosis, aligning with the recommendations (Curran, West & Finch 1996; Hair, Joseph F et al. 2010). The results for the multivariate normality test are presented in Table 5.4.

Table 5.4 Multivariate Normality Test

Factor	Mean	Std. Deviation	Skewness	Kurtosis
Transformational	4.5586	0.04471	-0.818	-0.081
Servant	4.7394	0.05194	-1.332	1.308
Empowering	4.2601	0.05056	-0.980	0.143
Authentic	4.4482	0.05133	-1.195	0.577
LMX	4.7450	0.05161	-1.643	2.010
Power Distance Orientation	3.0363	0.07874	0.339	-1.545
Innovative Behaviour	4.4809	0.05782	-1.218	.549

In addition, Tabachnick and Fidell (2007) mentioned that normality test can be performed through graphs. The normality of data can be shown in the histogram graph. Data is normal when the distribution of data in the curve appears to follow a normal curve pattern of histogram graph. Accordingly, Figure 5.1, confirmed that data distribution is approximately normal and follows a normal curve.

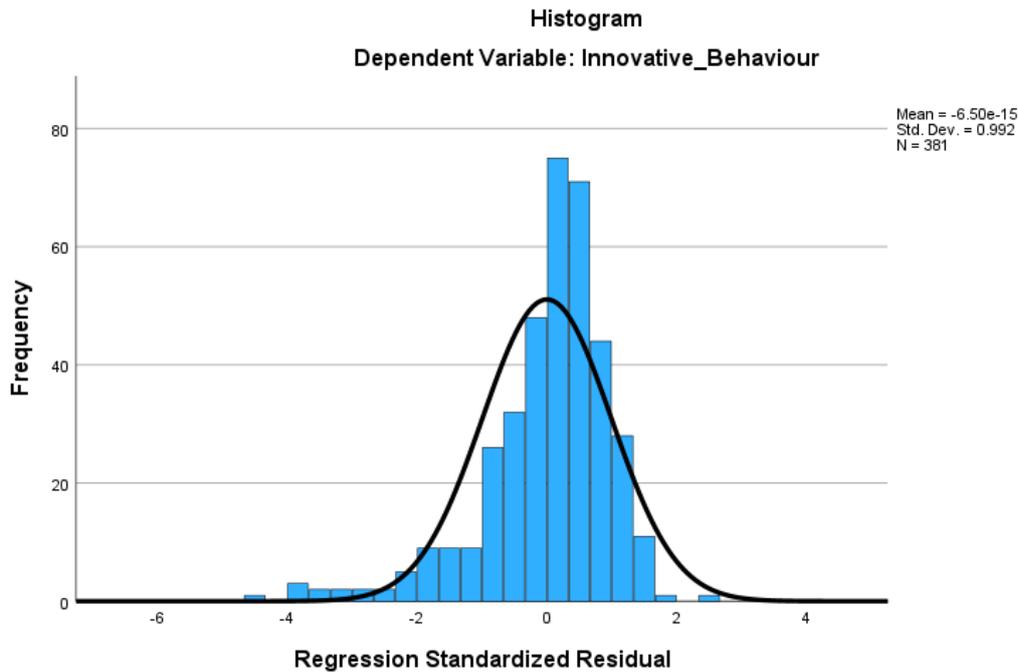


Figure 5.1 Histogram of Normality Test

5.2.5 Test for Common Method Variance

Common method variance/bias refer to the variance stemming from the measurement method rather than the constructs, the measurements represent (Podsakoff et al. 2003, p. 879). Issues related to common method variance occur when the same individual provides self-reported data for both independent and dependent variables. In the present study, all variables were collected from the same group of respondents, which raises concerns about potential common method variance. Scholars have proposed several remedies to mitigate the influence of common method variance on data (Cooper, B et al. 2020). One such approach, Harman's single-factor test, is employed in this research because it is widely acknowledged in previous studies (Podsakoff et al. 2003). This method is effective in evaluating whether the overall variance can be accounted for by a single factor. Essentially, all measurement items are consolidated into a single composite item to calculate the total variance. In other words, all identified variables are included in the formula, thus reducing the number of factors to just one. This is carried out using an unrotated approach to assess a single factor representing the total variance.

Table 5.5 demonstrates that 29.671 percent of the overall model variance can be attributed to a single general factor. Therefore, it can be concluded that the proportion of variance

explained by a single factor is less than the accepted threshold of 50 percent. This implies that the data in this study is not biased due to the approach employed.

Table 5.5 Common Method Bias Test

Factor	Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	23.191	30.514	30.514	22.55	29.671	29.671
2	6.421	8.449	38.963			
3	5.5	7.237	46.2			
4	4.303	5.662	51.862			
5	3.043	4.004	55.866			
6	2.251	2.961	58.827			
7	1.576	2.073	60.901			
8	1.428	1.879	62.78			
9	1.29	1.698	64.477			
10	1.111	1.462	65.939			
11	0.941	1.238	67.177			
12	0.902	1.187	68.364			
13	0.858	1.129	69.493			
14	0.828	1.089	70.583			
15	0.796	1.048	71.631			
16	0.749	0.986	72.617			
17	0.721	0.948	73.565			
18	0.697	0.917	74.481			
19	0.669	0.88	75.362			
20	0.648	0.853	76.215			
21	0.632	0.832	77.047			
22	0.619	0.815	77.862			
23	0.61	0.803	78.665			
24	0.584	0.769	79.433			
25	0.566	0.745	80.178			
26	0.55	0.724	80.902			

27	0.54	0.710	81.612			
28	0.534	0.703	82.314			
29	0.51	0.671	82.986			
30	0.493	0.648	83.634			
31	0.48	0.631	84.265			
32	0.46	0.606	84.871			
33	0.452	0.595	85.465			
34	0.44	0.579	86.044			
35	0.424	0.558	86.602			
36	0.411	0.54	87.142			
37	0.402	0.529	87.671			
38	0.398	0.524	88.195			
39	0.394	0.518	88.713			
40	0.389	0.511	89.224			
41	0.375	0.494	89.718			
42	0.36	0.473	90.191			
43	0.355	0.467	90.658			
44	0.333	0.438	91.095			
45	0.326	0.429	91.524			
46	0.322	0.424	91.948			
47	0.313	0.412	92.36			
48	0.311	0.409	92.769			
49	0.293	0.385	93.154			
50	0.287	0.377	93.532			
51	0.277	0.365	93.896			
52	0.27	0.355	94.251			
53	0.268	0.352	94.603			
54	0.259	0.341	94.944			
55	0.252	0.331	95.276			
56	0.248	0.326	95.602			
57	0.239	0.315	95.917			
58	0.23	0.303	96.22			
59	0.219	0.288	96.508			
60	0.21	0.276	96.785			

61	0.204	0.269	97.053			
62	0.197	0.259	97.312			
63	0.192	0.253	97.565			
64	0.183	0.241	97.806			
65	0.181	0.238	98.044			
66	0.172	0.227	98.27			
67	0.164	0.216	98.486			
68	0.157	0.206	98.693			
69	0.147	0.193	98.886			
70	0.142	0.186	99.073			
71	0.131	0.172	99.245			
72	0.129	0.17	99.415			
73	0.12	0.158	99.573			
74	0.115	0.152	99.725			
75	0.11	0.145	99.87			
76	0.099	0.13	100			

Extraction Method: Principal Axis Factoring.

5.2.6 Assessment of Multicollinearity

Collinearity and multicollinearity refer to the degree of correlation among independent variables within a dataset. Multicollinearity occurs when a significant correlation exists between an independent variable and one or more other independent variables, while singularity refer to an extreme form of collinearity. Meanwhile, multicollinearity happens when one variable can be perfectly predicted from another (Hair, Joseph F et al. 2010). These issues can introduce redundancy into the data, complicating statistical analyses and potentially compromising their validity. It is therefore crucial to rigorously assess for multicollinearity prior to analysis. This is typically done through the examination of tolerance and the variance inflation factor (VIF), where tolerance measures the proportion of variance in an independent variable not explained by other variables, and VIF quantifies how much of the variance of an estimated regression coefficient increases because of collinearity (Pallant 2016). According to Hair, Joseph F et al. (2019), VIF values above 5.0 and tolerance values below 0.2 suggest a problematic level of collinearity.

In this thesis, as detailed in Table 5.6, all examined variables displayed VIF values below 5.0 and tolerance values above 0.2, indicating an absence of multicollinearity. In summary, the satisfaction of the four statistical assumptions of multivariate analysis (outliers, common method variance, normality, and multicollinearity) affirmed that the data was devoid of statistical errors and was ready for the final analysis.

Table 5.6 Multicollinearity Test

Factor	Tolerance	VIF
Transformational	0.754	1.325
Servant	0.419	2.385
Empowering	0.517	1.934
Authentic	0.593	1.686
LMX	0.466	2.145
Power Distance	0.940	1.064

a. Dependent Variable: IWB

5.2.7 Survey Response Rate

The study respondents were 443 academic staff members selected from five public universities in KSA, to whom questionnaires were distributed and subsequently collected. These universities comprise King Khaled, King Saud, King Abdelaziz, King Fahad Petroleum and Minerals, and Imam Abdulrahman bin Faisal University. Of the 443 questionnaires distributed, 381 were deemed suitable for analysis. Responses were excluded for two primary reasons: incomplete cases (7 cases) where multiple data points were missing (53 cases), and secondly, the presence of multivariate outliers (9 cases). It was imperative to exclude these cases from analysis as they did not adequately represent the sample.

Therefore, 381 respondents made up the study sample, constituting a rate of response of 63.5% and covering a good range of academic staff in five KSA universities (*see* Table 5.7). This rate of response is also consistent with previous studies conducted in the same sector (Alshaikhmubarak, Da Camara & Baruch 2020). It is a sufficient rate based on the argument brought forward by Sekaran and Bougie (2016, p. 143), stating that a 30% rate of response is acceptable in survey studies.

Table 5.7 Questionnaire Distribution

Questionnaire	Frequency	%
Distributed	600	100%
Returned	443	%73.83
Rejected	62	%10.33
Valid	381	%63.5

5.2.8 Profile of Participants

This section provides an overview of the demographic characteristics of the respondents, including gender, age, marital status, work experience, academic qualifications, and position. Table 5.8 presents general descriptive statistics for the demographic questions in the questionnaire distributed.

Table 5.8 Descriptive Statistics for Demographics

	Gender	Age	Marital status	Work Experience	Academic Qualifications	Position
Valid	381	381	381	381	381	381
Missing	0	0	0	0	0	0
Mean	1.35	2.38	1.91	2.4	3.3	2.52
Median	1.00	2.00	2.00	2.00	3.00	2.00
Std. Deviation	0.476	0.874	0.417	1.174	0.841	1.065
Minimum	1	1	1	1	1	1
Maximum	2	5	4	5	4	5

5.2.9 Gender

The demographic section in the questionnaire includes several questions, and the first question was about the gender of the participant. The results obtained revealed that around 65.4% per cent of the respondents were male, thus 249 respondents were male. However, only 34.6% per cent of the respondents were female, thus 132 of the respondents were female (see Table 5.9). These findings were expected, as previous studies in Saudi higher education

reported a higher percentage of male participants in the survey than their female counterparts (Alshaikhmubarak, Da Camara and Baruch (2020).

Table 5.9 Respondents by Gender

Gender	Frequency	Percentage (%)
Male	249	65.4
Female	132	34.6
Total	381	100

5.2.10 Age

Analysis on the age of the participants revealed that 52.8 percent were between 30 to 39 years old, 25.2 per cent were between the ages of 40 to 49, 11 per cent were aged between 25 to 29 years old, 8.9 per cent were between the ages of 50 to 59, and only 2.1 per cent were 59 and over. However, the age group of over 59 years of age accounted for only .2.1 per cent (*see* Table 5.10). Such percentages seem to be very normal, as a recent report demonstrates that the middle age group of 15-64 (64.8%) years is the largest proportion of KSA's total population (World & Population 2023).

Table 5.10 Respondents by Age

Age	Frequency	Percentage (%)
25-29	42	11
30-39	201	52.8
40-49	96	25.2
50-59	34	8.9
>59	8	2.1
Total	381	100

5.2.11 Marital Status

In terms of the marital status, most of the participants were married, representing 82.7% (n=315), while single people accounted for only 13.1% of the participants (n=50). The other

participants were divorced and widowed: 3.90% (n=15) and 0.30% (n=1), respectively (see Table 5.11).

Table 5.11 Respondents by Marital Status

Marital Status	Frequency	Percentage (%)
Single	50	13.1
Married	315	82.7
Divorced	15	3.90
Widowed	1	0.30
Total	381	100

5.2.12 Work Experience

Moving on to work experience, 123 respondents, constituting 32.3% of the sample, reported having 11-15 years of experience, followed by 98 respondents, constituting 25.7% of the sample, who reported having 1-10 years of experience, and 94 respondents, constituting 24.7% of the sample, with 16-20 years of experience. Additionally, 40 respondents, constituting 10.5% of the sample, had 21-25 years of experience, and lastly, 26 respondents, constituting 6.8% of the sample, had 25 and more years of work experience (see Table 5.12).

Table 5.12 Respondents by Work Experience

Experience	Frequency	Percentage (%)
1-10	98	25.7
11-15	123	32.3
16-20	94	24.7
21-25	40	10.5
>25	26	6.8
Total	381	100

5.2.13 Academic Qualifications and Position

The educational levels indicated that the most participants hold postgraduate degrees such as master (n=158) 41.5% and PhD degrees (n=183) 48%, both collectively representing

approximately 90% of the total study sample. Meanwhile, respondents with a bachelor's degree are only 7.1 per cent ($n=27$), followed by 3.4 per cent of respondents ($n=13$) who completed high diploma, thus representing a very small proportion of the total study sample. (see Table 5.13). Moreover, of the respondents, 138 (36.7%) were lecturers and 98 (31.1%) were assistant professors, collectively representing two thirds of the total sample. Sixty-six (17.3%) were assistant lecturers, followed by 60 (15.7%) titled as associate professors. Lastly, the lowest sample of the respondents were professors, being 14 (3.7%) in number.

Table 5.13 Respondents by Qualification and Position

Academic Qualification	Frequency	Percentage (%)
Diploma	13	3.4
Bachelor	27	7.1
Master	158	41.5
PhD	183	48
Academic Position		
Assistant Lecturer	66	17.3
Lecturer	138	36.2
Assistant Professor	103	27
Associate Professor	60	15.7
Professor	14	3.7

5.2.14 University Name

The academic profile of the study participants is presented in Table 5.14. All the participants ($n=381$) were working in five Saudi public universities. The participants from KKU, KSU, and KFPM, KAU and IMAMF were 90, 84, 40, 82 and 85 faculty members representing 23.6%, 22%, 10.5%, 21.5% and 22.3 % of the total sample for the study, respectively. The participants from KFPM represented the lowest percent of the total sample of the study (see Table 5.14).

Table 5.14 Respondents by University

University Name	Frequency	Percentage (%)
KKU	90	23.6
KSU	84	22
KFPM	40	10.5
KAU	82	21.5
IMAMF	85	22.3
Total	381	100

5.3 PLS-SEM

This study utilised PLS-SEM to analyse the theoretical postulations to accomplish the objective of the research. The PLS-SEM path modelling was applied to assess the hypothesised relationship between the endogenous and exogenous construct; this can be visualised through the path diagrams (Hair, Joseph F et al. 2010). The analysis of data using PLS-SEM comprises two fundamental steps: the assessment of measurement and the structural model (Hair, Joseph F et al. 2019). Evaluation of the measurement model entails assessing item reliability (factor loadings) and internal consistency (Construct Reliability). Furthermore, the instrument's validity is gauged using the criterion outlined by (Fornell & Larcker 1981) to assess the convergence and discrimination.

In structural path modelling, bootstrapping techniques are leveraged to gauge the statistical significance of the path model and compute the standard error of the estimate. Bootstrapping offers a precise estimation of a given measure (Hair, Joseph F et al. 2019). Specifically, in this study, bootstrapping is employed to analyse the significance level of the path coefficients and ascertain the standard error of the estimate. Bootstrapping accomplishes this by repeatedly resampling the estimator's distribution, and drawing samples with replacement from the original sample (Hair, Joseph F et al. 2019). Further elaboration on these procedures is provided in the following sections.

5.4 Assessment of Measurement Model

Data analysis using PLS-SEM as a technique encompasses two fundamental steps: measurement and structural model evaluation (Hair, Joseph F et al. 2010). In this study, the latent constructs fall into two distinct categories: Reflective and Formative constructs. Therefore, the assessment of the measurement model aligns with the nature of these

constructs. Consequently, the study examines the instrument's reliability and validity. This involves the examination of factor loading/reliability, internal consistency, convergent validity, and discriminant validity (Fornell & Larcker 1981; Hulland 1999).

Conversely, the measurement model for formative constructs is assessed based on specific criteria stipulated by (Hair, Joseph F et al. 2010). The initial criterion entails evaluating the collinearity of indicators for formative constructs by analysing tolerance and the variance inflation factor (VIF). Next, the evaluation of the formative construct entailed an assessment of the significance level of the T values and a thorough evaluation of the relevance and significance of the outer weights and loadings. These measures are elaborated upon in the subsequent sections.

5.4.1 Reflective Construct Validation

This study developed a conceptual framework that includes two types of constructs: reflective and formative. It is noteworthy to mention that all the constructs integrated into the developed research model are reflective, except for the transformational, empowering, and authentic leadership constructs, which are higher-order formative. Consequently, each type necessitates a specific assessment procedure. The assessment of the reflective constructs follows the PLS-SEM procedures outlined by Hair, Joseph F et al. (2019) and Hulland (1999). These procedures encompass factor loading/reliability, internal consistency, convergent validity, and discriminant validity. In more detail, the research reflective first-order measurement model of this study can be seen in Figure 5. 2.

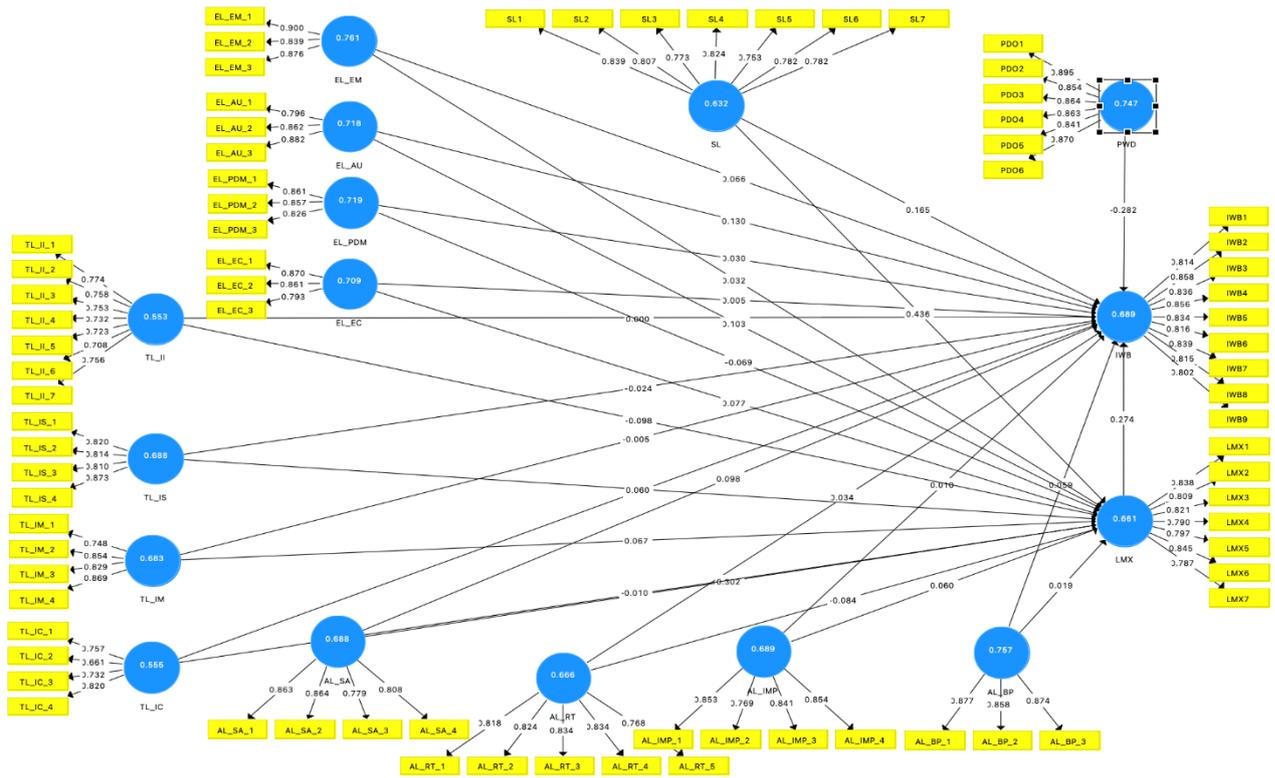


Figure 5.2 Assessment of Reflective First-Order Constructs

Note: EL-EL; EM-Enhancing the Meaningfulness of Work; PDM - Participating in decision making; EC - Expressing Confidence; AU - Providing Autonomy from Bureaucratic Constraints; TL-Transformational leadership; II- Idealised Influence; IM- Inspirational Motivation; IS Intellectual Stimulation; IC- Individualised Consideration; AU-Authentic leadership; SA- Self-Awareness; RT- Relational Transparency; IMP- Internalised Moral perspective; BP- Balanced Processing; SL-Servant leadership; LMX- Leader member exchange; PDI- power distance orientation; IWB- Innovative behaviour.

5.4.2 Indicator Reliability

The evaluation of individual item reliability was carried out by examining the outer loading. Indicator loading involves estimating the degree of variance in each individual item's measurement attributed to the construct (Hulland 1999). It assesses the relevance of these measures to their respective constructs by examining their correlations or standard loading scores (Hulland 1999). Ideally, an item loading value of 0.70 is sought, as it signifies that the item accounts for nearly 50% of the variance in its corresponding construct (Hair, Joseph F et al. 2019; Hair Jr, Joseph F et al. 2021) Additionally, Hair Jr, Joseph F et al. (2021) advised that items with loadings averaging between 0.40 and 0.70 should only be removed if their elimination enhances the composite reliability value or AVE. Consequently, all items in this study exhibited loadings above the recommended threshold of 0.70 (Hair, Joseph F et al. 2019). Table 5.15 presents the significant loadings of reflective indicators.

Table 5.15 Loading of Reflective Constructs

Variable	Item	Loadings/ Reliability
Empowering Leadership		
Enhancing the Meaningfulness (EM)	EM_1	0.900
	EM_2	0.839
	EM_3	0.876
Participating in decision-making (PDM)	PDM_1	0.861
	PDM_2	0.857
	PDM_3	0.826
Expressing Confidence in high Performance (EC)	EC_1	0.870
	EC_2	0.861
	EC_3	0.793
Providing Autonomy from Bureaucratic constraints (AU)	AU_1	0.796
	AU_2	0.862
	AU_3	0.882
Authentic leadership		
Self-Awareness (SA)	SA_1	0.863
	SA_2	0.864
	SA_3	0.779
	SA_4	0.808
Relational Transparency (RT)	RT_1	0.818
	RT_2	0.824
	RT_3	0.834
	RT_4	0.834
	RT_5	0.768
Internalised Moral perspective (IMP)	IMP_1	0.853
	IMP_2	0.769
	IMP_3	0.841
	IMP_4	0.854
Balanced Processing (BP)	BP_1	0.877

	BP_2	0.858
	BP_3	0.874
Transformational leadership		
Idealised Influence (II)	II_1	0.774
	II_2	0.758
	II_3	0.753
	II_4	0.732
	II_5	0.723
	II_6	0.708
	II_7	0.756
Inspirational Motivation (IM)	IM_1	0.748
	IM_2	0.854
	IM_3	0.829
	IM_4	0.869
Intellectual Stimulation (IS)	IS_1	0.820
	IS_2	0.814
	IS_3	0.810
	IS_4	0.873
Individualised Consideration (IC)	IC_1	0.757
	IC_2	0.661
	IC_3	0.732
	IC_4	0.820
Servant Leadership (SL)	SL_1	0.839
	SL_2	0.807
	SL_3	0.773
	SL_4	0.824
	SL_5	0.753
	SL_6	0.782
	SL_7	0.782
Leader Member Exchange (LMX)	LMX_1	0.838
	LMX_2	0.809

	LMX_3	0.821
	LMX_4	0.790
	LMX_5	0.797
	LMX_6	0.845
	LMX_7	0.787
Power distance orientation (PDO)	PDO_1	0.895
	PDO_2	0.854
	PDO_3	0.864
	PDO_4	0.863
	PDO_5	0.841
	PDO_6	0.870
	Innovative Work Behaviour (IWB)	IWB_1
IWB_2		0.858
IWB_3		0.836
IWB_4		0.856
IWB_5		0.834
IWB_6		0.816
IWB_7		0.839
IWB_8		0.815
IWB_9		0.802

5.4.3 Internal Consistency Reliability

Measuring internal consistency relies on both the Cronbach alpha and composite reliability values (Hair et al., 2017). Therefore, this study employs both Cronbach alpha and composite reliability for the purpose of internal consistency measurement. According to Hair, Joseph F et al. (2019, p. 8), composite reliability values that exceed 0.70 are considered satisfactory, while composite reliability values falling between 0.70 and 0.90 are deemed acceptable. As observed in Table 5.16, the Cronbach alpha for each construct ranged from 0.740 to 0.944. Simultaneously, the composite reliability values fell within the range of 0.832 to 0.952. Consequently, both the Cronbach alpha and composite reliability values align with the stipulations set forth by (Hair, Joseph F et al. 2019).

Table 5.16 Cronbach Alpha and Composite Reliability

Variable	Cronbach's Alpha	Composite Reliability
Empowering Leadership		
Enhancing the Meaningfulness (EM)	0.843	0.905
Participating in decision making (PDM)	0.805	0.885
Expressing Confidence for high Performance (EC)	0.796	0.880
Providing Autonomy from Bureaucratic Constraints (AU)	0.804	0.884
Authentic leadership		
Self-Awareness (SA)	0.851	0.898
Relational Transparency (RT)	0.875	0.909
Internalised Moral perspective (IMP)	0.849	0.898
Balanced Processing (BP)	0.840	0.903
Transformational leadership		
Idealised Influence (II)	0.871	0.896
Inspirational Motivation (IM)	0.845	0.896
Intellectual Stimulation (IS)	0.850	0.898
Individualised Consideration (IC)	0.740	0.832
Servant Leadership (SL)	0.903	0.923
Leader Member Exchange (LMX)	0.915	0.932
Power distance orientation (PDO)	0.936	0.947
Innovative Work Behaviour (IWB)	0.944	0.952

5.4.4 Convergent Validity

Convergent validity was employed to assess the degree to which a measurement is positively correlated with measures of the same construct (Fornell & Larcker 1981). This assessment is established by examining the average variance extracted (AVE), with an acceptable threshold set at ≥ 0.50 . (Hair, Joseph F et al. 2019). This signifies that a construct explains more than 50% of the variances among its indicators. However, it is noteworthy that researchers commonly accept AVE values below 0.50. As per Fornell and Larcker (1981), even if the AVE falls below 0.50 but the composite reliability surpasses 0.60, the convergent validity of the construct remains acceptable, as these results may be influenced by measurement error. Hence, in this study, all constructs exhibited AVE values ranging from 0.50 to 0.76, as depicted in Table 5.17. These values fall within the recommended range.

Table 5.17 Average Variance Extracted (AVE)

Variable	AVE
Empowering Leadership	
Enhancing the Meaningfulness (EM)	0.761
Participating in decision making (PDM)	0.719
Expressing Confidence in high Performance (EC)	0.709
Providing Autonomy from Bureaucratic Constraints (AU)	0.718
Authentic leadership	
Self-Awareness (SA)	0.688
Relational Transparency (RT)	0.666
Internalised Moral perspective (IMP)	0.689
Balanced Processing (BP)	0.757
Transformational leadership	
Idealised Influence (II)	0.553
Inspirational Motivation (IM)	0.683
Intellectual Stimulation (IS)	0.688

Individualised Consideration (IC)	0.555
Servant Leadership (SL)	0.632
Leader Member Exchange (LMX)	0.661
Power distance orientation (PDO)	0.747
Innovative Work Behaviour (IWB)	0.689

Note: Average Variance Extracted (AVE) = summation of the square of the factor loadings/summation of the square of the factor loadings + summation of the error variances.

5.4.5 Discriminant Validity

Discriminant validity assesses the degree to which a construct is genuinely distinguishable from other constructs within the research model (Hair Jr, Joseph F et al. 2021). Traditionally, researchers have employed three key measures to evaluate discriminant validity: cross-loadings, the Fornell–Larcker criterion, and the Heterotrait-monotrait Ratio (Fornell & Larcker 1981; Hulland 1999). These measurement techniques will be elucidated upon in the subsequent sections.

5.4.5.1 Fornell-Larcker Criterion

Prior research frequently applied both the Fornell-Larcker criterion and cross-loadings as essential techniques for assessing the discriminant validity of reflective constructs (Hair, Joseph F et al. 2016; Hair, Joe F, Ringle & Sarstedt 2011). The Fornell-Larcker criterion, in particular, is often regarded as a rigorous benchmark for evaluating discriminant validity across the chosen constructs (Henseler, Ringle & Sinkovics 2009; Wetzels, Odekerken-Schröder & Van Oppen 2009). According to the Fornell-Larcker criterion, the correlations among the measured constructs should be less than the square root of the AVE for each construct. As illustrated in Table 5.18, the criteria have been met, affirming the establishment of discriminant validity at the construct level.

5.4.5.2 Cross-Loading Matrix

The cross-loading matrix illustrates the correlations among items across all constructs. The findings reveal that each set of items pertaining to their respective constructs exhibited higher loadings compared to their cross-loadings with other distinct constructs. Consequently, it can be concluded that discriminant validity has been achieved at the item level. Detailed cross-loading results are presented in Table 5.19.

5.4.5.3 *Heterotrait-Monotrait Ratio (HTMT)*

Henseler, Ringle and Sarstedt (2015) introduced a method that involves assessing the correlations' ratio, known as HTMT, to scrutinise discriminant validity. This contemporary approach provides a more accurate estimation of the actual correlation between two latent variables. A recommended threshold of 0.90 has been proposed for the HTMT (Henseler, Ringle & Sarstedt 2015). Values exceeding 0.90 indicate a lack of discriminant validity. In Table 5.20, the HTMT ratios for this study are presented, all of which fall below 0.90, thus meeting the established threshold for acceptability.

Table 5.18 Correlation of Latent Variables and Square root of AVE

	AL_BP	AL_IMP	AL_RT	AL_SA	EL_AU	EL_EC	EL_EM	EL_PDM	IWB	LMX	PDO	SL	TL_IC	TL_II	TL_IM	TL_IS
AL_BP	0.870															
AL_IMP	0.741	0.830														
AL_RT	0.677	0.765	0.816													
AL_SA	0.655	0.683	0.692	0.829												
EL_AU	0.418	0.407	0.370	0.597	0.847											
EL_EC	0.309	0.274	0.310	0.512	0.617	0.842										
EL_EM	0.369	0.380	0.438	0.687	0.679	0.692	0.872									
EL_PDM	0.361	0.334	0.359	0.567	0.699	0.682	0.705	0.848								
IWB	0.403	0.403	0.393	0.532	0.497	0.419	0.495	0.488	0.830							
LMX	0.457	0.455	0.417	0.655	0.571	0.462	0.555	0.481	0.567	0.813						
PDO	0.162	0.118	0.118	0.226	0.205	0.041	0.131	-0.015	-0.124	0.206	0.865					
SL	0.475	0.455	0.443	0.661	0.623	0.457	0.591	0.554	0.558	0.707	0.177	0.795				
TL_IC	0.365	0.326	0.284	0.382	0.290	0.214	0.236	0.259	0.267	0.316	0.033	0.330	0.745			
TL_II	0.374	0.351	0.350	0.558	0.440	0.452	0.491	0.422	0.357	0.429	0.106	0.480	0.584	0.744		
TL_IM	0.231	0.196	0.197	0.327	0.308	0.341	0.301	0.282	0.237	0.322	0.071	0.323	0.619	0.729	0.826	
TL_IS	0.278	0.218	0.221	0.368	0.310	0.319	0.331	0.294	0.266	0.350	0.042	0.354	0.715	0.672	0.743	0.830

Note: The values showed in bold are the square root of AVE of reflective latent constructs.

Table 5.19 Cross-Loading Matrix

	AL_BP	AL_IMP	AL_RT	AL_SA	EL_AU	EL_EC	EL_EM	EL_PDM	IWB	LMX	PDO	SL	TL_IC	TL_II	TL_IM	TL_IS
AL_BP_1	0.877	0.632	0.576	0.577	0.345	0.261	0.297	0.265	0.321	0.389	0.161	0.379	0.306	0.311	0.189	0.240
AL_BP_2	0.858	0.687	0.612	0.569	0.320	0.249	0.287	0.333	0.348	0.353	0.122	0.360	0.306	0.305	0.201	0.238
AL_BP_3	0.874	0.620	0.580	0.564	0.416	0.294	0.372	0.341	0.377	0.442	0.139	0.487	0.338	0.354	0.212	0.246
AL_IMP_1	0.605	0.853	0.653	0.622	0.407	0.289	0.395	0.323	0.350	0.407	0.113	0.441	0.246	0.318	0.175	0.233
AL_IMP_2	0.588	0.769	0.636	0.474	0.266	0.168	0.234	0.229	0.321	0.311	0.077	0.297	0.280	0.242	0.143	0.149
AL_IMP_3	0.579	0.841	0.625	0.564	0.309	0.193	0.274	0.267	0.280	0.347	0.094	0.342	0.261	0.232	0.103	0.150
AL_IMP_4	0.679	0.854	0.631	0.594	0.353	0.245	0.339	0.282	0.377	0.428	0.104	0.410	0.295	0.352	0.215	0.184
AL_RT_1	0.588	0.678	0.818	0.615	0.341	0.284	0.399	0.338	0.360	0.395	0.150	0.434	0.252	0.272	0.138	0.186
AL_RT_2	0.628	0.657	0.824	0.643	0.342	0.327	0.421	0.356	0.332	0.361	0.098	0.376	0.261	0.363	0.181	0.199
AL_RT_3	0.554	0.605	0.834	0.555	0.288	0.234	0.340	0.255	0.309	0.318	0.088	0.357	0.181	0.277	0.172	0.191
AL_RT_4	0.559	0.636	0.834	0.546	0.307	0.225	0.340	0.293	0.321	0.333	0.069	0.344	0.247	0.269	0.177	0.164
AL_RT_5	0.402	0.522	0.768	0.434	0.207	0.173	0.260	0.195	0.266	0.275	0.063	0.272	0.206	0.236	0.134	0.159
AL_SA_1	0.508	0.497	0.485	0.863	0.646	0.567	0.728	0.571	0.562	0.674	0.218	0.687	0.365	0.607	0.361	0.424
AL_SA_2	0.530	0.518	0.586	0.864	0.533	0.463	0.618	0.501	0.436	0.560	0.252	0.543	0.312	0.437	0.262	0.291
AL_SA_3	0.591	0.655	0.638	0.779	0.319	0.296	0.417	0.378	0.349	0.440	0.082	0.428	0.262	0.361	0.201	0.231
AL_SA_4	0.581	0.662	0.647	0.808	0.404	0.297	0.433	0.380	0.366	0.437	0.172	0.475	0.312	0.386	0.223	0.221
EL_AU_1	0.351	0.352	0.329	0.490	0.796	0.509	0.535	0.586	0.353	0.380	0.190	0.492	0.286	0.449	0.354	0.288
EL_AU_2	0.375	0.371	0.347	0.532	0.862	0.535	0.621	0.588	0.463	0.523	0.175	0.516	0.216	0.336	0.221	0.241
EL_AU_3	0.339	0.316	0.270	0.497	0.882	0.527	0.567	0.609	0.435	0.527	0.163	0.573	0.248	0.356	0.235	0.268
EL_EC_1	0.271	0.249	0.251	0.456	0.512	0.870	0.598	0.545	0.377	0.425	0.038	0.393	0.150	0.397	0.268	0.271
EL_EC_2	0.248	0.211	0.249	0.431	0.545	0.861	0.585	0.604	0.373	0.417	0.060	0.392	0.217	0.407	0.338	0.312
EL_EC_3	0.268	0.236	0.294	0.406	0.505	0.793	0.569	0.584	0.301	0.311	-0.001	0.370	0.176	0.328	0.248	0.213
EL_EM_1	0.343	0.370	0.403	0.672	0.604	0.603	0.900	0.609	0.464	0.544	0.136	0.571	0.240	0.469	0.288	0.331
EL_EM_2	0.303	0.311	0.353	0.543	0.566	0.575	0.839	0.594	0.403	0.413	0.112	0.461	0.199	0.415	0.277	0.282
EL_EM_3	0.319	0.310	0.387	0.573	0.608	0.635	0.876	0.642	0.424	0.484	0.093	0.504	0.173	0.397	0.225	0.249
EL_PDM_1	0.276	0.257	0.296	0.458	0.564	0.562	0.575	0.861	0.388	0.360	-0.085	0.475	0.218	0.346	0.221	0.249

EL_PDM_2	0.287	0.262	0.292	0.446	0.557	0.577	0.555	0.857	0.384	0.420	-0.021	0.496	0.269	0.372	0.271	0.298
EL_PDM_3	0.348	0.323	0.320	0.528	0.647	0.591	0.652	0.826	0.460	0.434	0.054	0.441	0.175	0.353	0.225	0.205
IWB1	0.430	0.440	0.422	0.632	0.568	0.450	0.573	0.485	0.814	0.570	-0.029	0.560	0.300	0.465	0.270	0.298
IWB2	0.365	0.393	0.384	0.497	0.498	0.443	0.511	0.535	0.858	0.563	-0.213	0.565	0.260	0.326	0.227	0.256
IWB3	0.327	0.300	0.271	0.381	0.390	0.296	0.363	0.339	0.836	0.443	-0.046	0.398	0.203	0.268	0.170	0.190
IWB4	0.329	0.339	0.335	0.431	0.350	0.316	0.364	0.394	0.856	0.400	-0.123	0.401	0.208	0.268	0.163	0.177
IWB5	0.336	0.303	0.322	0.422	0.388	0.352	0.425	0.416	0.834	0.451	-0.131	0.482	0.243	0.289	0.179	0.237
IWB6	0.263	0.275	0.284	0.383	0.344	0.312	0.352	0.373	0.816	0.391	-0.097	0.428	0.157	0.198	0.148	0.165
IWB7	0.295	0.298	0.279	0.379	0.362	0.293	0.329	0.383	0.839	0.446	-0.139	0.410	0.230	0.265	0.179	0.207
IWB8	0.291	0.290	0.270	0.341	0.338	0.275	0.306	0.294	0.815	0.410	-0.119	0.382	0.172	0.240	0.166	0.175
IWB9	0.326	0.317	0.310	0.423	0.392	0.318	0.378	0.340	0.802	0.492	-0.011	0.462	0.177	0.276	0.234	0.232
LMX1	0.464	0.476	0.428	0.721	0.638	0.523	0.656	0.567	0.570	0.838	0.214	0.700	0.331	0.469	0.315	0.365
LMX2	0.341	0.336	0.311	0.515	0.412	0.329	0.397	0.356	0.386	0.809	0.168	0.574	0.229	0.344	0.286	0.277
LMX3	0.413	0.390	0.347	0.521	0.465	0.354	0.435	0.342	0.453	0.821	0.172	0.554	0.288	0.328	0.292	0.331
LMX4	0.361	0.349	0.322	0.482	0.419	0.323	0.392	0.348	0.465	0.790	0.111	0.567	0.227	0.326	0.225	0.230
LMX5	0.255	0.294	0.297	0.460	0.385	0.326	0.401	0.354	0.417	0.797	0.173	0.542	0.204	0.292	0.196	0.240
LMX6	0.353	0.359	0.326	0.506	0.437	0.373	0.418	0.392	0.472	0.845	0.123	0.543	0.270	0.331	0.259	0.281
LMX7	0.375	0.344	0.313	0.458	0.433	0.351	0.389	0.317	0.427	0.787	0.205	0.506	0.218	0.313	0.243	0.235
PDO1	0.161	0.114	0.119	0.224	0.232	0.035	0.174	-0.002	-0.085	0.237	0.895	0.206	0.046	0.105	0.046	0.060
PDO2	0.064	0.035	0.039	0.130	0.140	0.077	0.095	-0.013	-0.167	0.114	0.854	0.087	-0.028	0.048	0.036	-0.010
PDO3	0.162	0.139	0.117	0.221	0.205	0.008	0.120	-0.024	-0.074	0.208	0.864	0.197	0.030	0.121	0.055	0.039
PDO4	0.179	0.128	0.151	0.225	0.192	-0.001	0.083	-0.026	-0.094	0.195	0.863	0.157	0.044	0.096	0.053	0.015
PDO5	0.162	0.122	0.103	0.205	0.134	0.017	0.105	-0.022	-0.091	0.186	0.841	0.163	0.086	0.114	0.113	0.079
PDO6	0.203	0.157	0.164	0.249	0.212	0.043	0.130	0.020	-0.052	0.198	0.870	0.185	0.053	0.119	0.101	0.103
SL1	0.463	0.450	0.429	0.654	0.665	0.481	0.615	0.577	0.579	0.715	0.230	0.839	0.305	0.454	0.294	0.339
SL2	0.333	0.339	0.319	0.490	0.465	0.372	0.460	0.429	0.410	0.508	0.088	0.807	0.289	0.415	0.291	0.324
SL3	0.382	0.348	0.364	0.463	0.467	0.325	0.443	0.407	0.382	0.472	0.152	0.773	0.269	0.351	0.273	0.248
SL4	0.371	0.328	0.339	0.538	0.474	0.351	0.438	0.433	0.445	0.587	0.132	0.824	0.262	0.418	0.257	0.314
SL5	0.292	0.318	0.318	0.507	0.415	0.298	0.419	0.383	0.376	0.504	0.089	0.753	0.234	0.339	0.214	0.216

SL6	0.419	0.377	0.362	0.510	0.498	0.356	0.445	0.433	0.449	0.545	0.148	0.782	0.271	0.356	0.271	0.296
SL7	0.350	0.343	0.315	0.472	0.423	0.319	0.422	0.378	0.410	0.546	0.112	0.782	0.196	0.316	0.191	0.208
TL_IC_1	0.243	0.218	0.235	0.299	0.241	0.249	0.224	0.284	0.234	0.284	-0.018	0.296	0.757	0.514	0.632	0.666
TL_IC_2	0.247	0.206	0.137	0.230	0.156	0.082	0.105	0.082	0.096	0.191	0.032	0.205	0.661	0.341	0.342	0.450
TL_IC_3	0.258	0.223	0.177	0.239	0.155	0.070	0.088	0.102	0.130	0.177	0.058	0.164	0.732	0.408	0.423	0.498
TL_IC_4	0.334	0.310	0.259	0.339	0.269	0.175	0.226	0.226	0.272	0.256	0.044	0.278	0.820	0.446	0.401	0.491
TL_II_1	0.370	0.382	0.352	0.656	0.499	0.498	0.616	0.469	0.406	0.506	0.167	0.556	0.367	0.774	0.428	0.422
TL_II_2	0.297	0.281	0.305	0.503	0.325	0.370	0.427	0.354	0.287	0.322	0.091	0.332	0.348	0.758	0.454	0.409
TL_II_3	0.267	0.268	0.257	0.345	0.319	0.312	0.299	0.287	0.218	0.270	0.002	0.285	0.498	0.753	0.628	0.549
TL_II_4	0.202	0.193	0.208	0.264	0.286	0.272	0.263	0.267	0.228	0.202	0.021	0.267	0.475	0.732	0.649	0.537
TL_II_5	0.231	0.164	0.178	0.282	0.210	0.231	0.230	0.208	0.194	0.250	0.074	0.272	0.466	0.723	0.596	0.517
TL_II_6	0.214	0.226	0.203	0.298	0.183	0.233	0.219	0.182	0.141	0.221	0.045	0.267	0.506	0.708	0.561	0.582
TL_II_7	0.263	0.190	0.212	0.289	0.285	0.262	0.230	0.253	0.229	0.273	0.061	0.333	0.510	0.756	0.648	0.621
TL_IM_1	0.142	0.129	0.132	0.227	0.252	0.269	0.209	0.218	0.183	0.250	0.046	0.259	0.480	0.579	0.748	0.627
TL_IM_2	0.233	0.184	0.161	0.294	0.238	0.314	0.236	0.226	0.186	0.242	0.058	0.245	0.491	0.638	0.854	0.613
TL_IM_3	0.196	0.150	0.133	0.235	0.211	0.259	0.208	0.219	0.150	0.220	0.069	0.251	0.496	0.576	0.829	0.582
TL_IM_4	0.195	0.180	0.207	0.311	0.300	0.282	0.317	0.261	0.245	0.329	0.063	0.302	0.564	0.614	0.869	0.631
TL_IS_1	0.175	0.159	0.177	0.271	0.220	0.234	0.229	0.190	0.199	0.265	0.001	0.264	0.581	0.601	0.686	0.820
TL_IS_2	0.217	0.166	0.156	0.306	0.208	0.213	0.246	0.237	0.171	0.280	0.080	0.310	0.605	0.585	0.647	0.814
TL_IS_3	0.231	0.194	0.167	0.275	0.253	0.254	0.249	0.225	0.173	0.261	0.002	0.231	0.598	0.522	0.541	0.810
TL_IS_4	0.283	0.203	0.222	0.353	0.325	0.335	0.349	0.304	0.306	0.339	0.049	0.351	0.599	0.539	0.605	0.873

Table 5.20 HTMT Criterion

	AL_BP	AL_IMP	AL_RT	AL_SA	EL_AU	EL_EC	EL_EM	EL_PDM	IWB	LMX	PDO	SL	TL_IC	TL_II	TL_IM	TL_IS
AL_BP																
AL_IMP	0.876															
AL_RT	0.781	0.882														
AL_SA	0.787	0.821	0.812													
EL_AU	0.505	0.489	0.436	0.692												
EL_EC	0.379	0.329	0.370	0.592	0.772											
EL_EM	0.434	0.440	0.501	0.775	0.822	0.846										
EL_PDM	0.433	0.397	0.418	0.660	0.865	0.853	0.851									
IWB	0.443	0.438	0.420	0.562	0.551	0.467	0.538	0.542								
LMX	0.511	0.503	0.455	0.708	0.643	0.524	0.613	0.544	0.593							
PDO	0.201	0.148	0.144	0.260	0.249	0.056	0.151	0.078	0.120	0.234						
SL	0.533	0.507	0.487	0.723	0.717	0.530	0.664	0.641	0.583	0.760	0.201					
TL_IC	0.457	0.403	0.333	0.460	0.361	0.250	0.270	0.302	0.284	0.362	0.076	0.383				
TL_II	0.409	0.370	0.372	0.564	0.491	0.494	0.506	0.459	0.348	0.430	0.116	0.492	0.732			
TL_IM	0.274	0.224	0.222	0.366	0.379	0.412	0.348	0.338	0.253	0.354	0.087	0.365	0.752	0.878		
TL_IS	0.322	0.252	0.251	0.407	0.371	0.374	0.380	0.350	0.279	0.385	0.075	0.392	0.889	0.809	0.879	

5.5 Formative Construct Validation

Formative composite measurement models represent a linear combination of a set of indicators that collectively constitute the construct (Hair, Joseph F et al. 2019; Hair Jr, Joseph F et al. 2021). In other words, each indicator variable is not necessarily correlated with the others. Formative indicators may exhibit positive, negative, or even no correlations amongst themselves (Wong 2013). As a result, internal indicator reliability, consistency reliability, and discriminant validity are typically not applicable within the framework of a formative measurement model. This is due to the fact that metrics such as AVE, CR, and outer loadings are meaningless for constructs composed of uncorrelated measures (Wong 2013). Researchers employ specific criteria to evaluate formative measurement models, including the assessment of indicator collinearity and the significance and relevance of indicator weights. Consequently, following the guidelines set forth by Hair, Joseph F et al. (2019), TL, EL and AL as higher-order formative constructs, have been evaluated as follows.

5.5.1 Multi-Collinearity

High correlations among the indicators in a formative measurement model are typically not anticipated. Furthermore, extreme correlation between formative items signifies collinearity, which is generally considered problematic (Hair, Joseph F et al. 2019). To assess the presence of multicollinearity, it is crucial to compute the Variance Inflation Factor (VIF) values. As recommended by Hair, Joseph F et al. (2019), VIF values should ideally fall below 5. As demonstrated in Table 5.21, all the included formative items in this study met the prescribed criteria, boasting VIF values less than 5. Consequently, there were no issues related to multicollinearity.

Table 5.21 VIF Values

Formative Construct	Measures	VIF
Empowering Leadership	Enhancing the Meaningfulness (EM)	2.608
	Participating in decision making (PDM)	2.660
	Expressing Confidence in high Performance (EC)	2.287

Providing Autonomy from Bureaucratic constraints (AU)	2.307
Authentic Leadership	
Self-Awareness (SA)	2.278
Relational Transparency (RT)	2.849
Internalised Moral perspective (IMP)	3.231
Balanced Processing (BP)	2.510
Transformational Leadership	
Idealised Influence (II)	2.360
Inspirational Motivation (IM)	2.877
Intellectual Stimulation (IS)	3.039
Individualised Consideration (IC)	2.158

5.5.2 Significance of Indicator's Weight

The significance and relevance analysis of each indicator's weight and loading was assessed using the bootstrapping procedure. The findings in Table 5.22 revealed that four out of twelve indicators, namely EL_AU, EL_EM, AL_SA, and TL_II, displayed high significance at ($p=0.000$). However, it is important to note that non-significant indicator weights should not be automatically removed from the model or considered indicative of poor measurement model quality. Even when an indicator's outer weight is not deemed significant, it may still be retained if its outer loading is substantial (i.e., exceeding 0.50) (Hair Jr, Joseph F et al. 2021). Consequently, items with non-significant outer weights were assessed for their outer loadings. As presented in Table 5.22, there were eight nonsignificant outer weight indicators with high outer loading values. These include EL_EC (0.756), EL_PDM (0.829), AL_BP (0.716), AL_IMP (0.715), AL_RT (0.673), TL_IC (0.720), TL_IM (0.696) and TL_IS (0.764). The results show the items forming EL, AL and TL had loading over .50 and were found significant.

Following the guidelines specified by Hair Jr, Joseph F et al. (2021), if an indicator's weight is not significant and the outer loading is higher than 0.50, the indicator should not be deleted from the formative measurement model. However, removal of any formative indicators based

solely on statistical results should be done with caution, considering their theoretical relevance and the potential for content overlap with other indicators of the same construct (Hair, Joseph F et al. 2019, p. 10). Thus, this study retained eight indicators with high outer loadings (> 0.50) in the formative constructs, despite their non-significant outer weights. Consequently, the validity of the formative constructs EL, AL, and TL can be considered as established. As a result, the data in Table 5.22 confirms the overall satisfaction with the formative constructs.

Table 5.22 Test of Significance of Indicator's Weight

Formative Constructs	Indictors	T-Value	Outer weight	P Value	Outer Loading
Empowering Leadership	EL_AU -> EL	5.595	0.490	0.000	0.918
	EL_EC -> EL	0.576	0.060	0.282	0.756
	EL_EM -> EL	3.884	0.424	0.000	0.902
	EL_PDM -> EL	1.827	0.147	0.034	0.829
Authentic Leadership	AL_BP -> AL	1.479	0.129	0.070	0.716
	AL_IMP -> AL	0.564	0.062	0.286	0.715
	AL_RT -> AL	1.037	-0.118	0.150	0.673
	AL_SA -> AL	11.533	0.949	0.000	0.994
Transformational Leadership	TL_IC -> TL	1.195	0.205	0.116	0.720
	TL_II -> TL	5.604	0.886	0.000	0.973
	TL_IM -> TL	1.028	-0.207	0.152	0.696
	TL_IS -> TL	0.711	0.175	0.239	0.764

5.6 Assessment of Structural Model

After establishing the reliability and validity of the constructs in the measurement model, the subsequent phase involved testing hypotheses through the evaluation of the structural model. To ensure the stability of the result of bootstrapping, it is advisable to use large numbers, typically 5000, as bootstrap subsample. According to Hair Jr, Joseph F et al. (2021); Henseler, Ringle and Sinkovics (2009), using 5000 subsamples aims to verify that every parameter in the model has undergone empirical sampling, ensuring that the standard deviation distribution accurately represents the empirical standard error of each parameter.

Specifically, this section tested the direct effect, mediating effect and moderating effect hypothesised in the model. Therefore, hypotheses testing were carried out by utilising the 5000 bootstrapping samples with 381 valid cases in SmartPLS3 to evaluate the path coefficients' significance in the model (Hair, Joe F et al. 2012; Henseler, Ringle & Sinkovics 2009). Furthermore, the predictive power of the structural model was measured by evaluating the coefficient of determination (R^2) of the endogenous latent construct, effect size (f^2), and Stone-Geisser's Q^2 values (Hair, Joseph F et al. 2019). Consequently, the following subsections presents the results of the postulated relationships.

5.6.1 Hypothesis Testing

Hypothesis testing was performed using the bootstrapping procedure to assess both the direct effects between independent (leadership) and dependent variable (IWB), the indirect effects and the moderating effects. The results of all hypotheses are presented in three main sections. First section covers the results from the direct relationships between TL, SL, EL, AL and LMX with IWB as well as direct relationships between TL, SL, EL and AL with LMX. The second section presents the mediation effect of LMX between leadership styles and IWB. The third section presents the evaluation of the moderating effect of PDO between leadership styles and IWB. All relationships are represented by standardised beta values and T value. In testing the structural model relationships, the choice of significance level was set at significance level = 5% and $p < 0.05$ (Hair Jr, Joseph F et al. 2021).

5.6.2 Results of Direct Effect Hypotheses

In alignment with the objectives of this study, this section unveils the results regarding the direct effects of empowering, authentic, servant, transformational, and LMX on innovative

behaviour, as previously hypothesised. Statistically, t -values that significantly deviate from 0 are almost deemed to be statistically significant. However, it is mostly contingent on the degree of freedom, confidence interval and directionality of hypothesis; thus p -values and t -values were used to confirm if the paths are significant (Hair Jr, Joseph F et al. 2021).

Table 5.23 displays the standardised path coefficient (β), t -values, p -value, and decision taking of the direct hypotheses testing. The results reveal that TL has an insignificant relationship with IWB ($\beta=-0.008$, $p=0.423$). Therefore, hypothesis (**H1**) was not supported. On the other hand, SL ($\beta = 0.118$, $p= 0.024$), EL ($\beta = 0.152$, $p= 0.009$), AL ($\beta = 0.160$, $p= 0.005$), LMX ($\beta= 0.225$, $p= 0.000$) and PDO ($\beta = 0.160$, $p= 0.005$) have demonstrated significant positive effects on IWB. Hence, these results support the other proposed hypotheses (**H2**, **H3**, **H4**, **H6**, and **H7**).

Furthermore, the results presented in Table 5.23 reveal that the direct effects of TL, SL, EL and AL on LMX. It was hypothesised that each of these leadership styles would exhibit a significant and positive relationship with LMX. Based on PLS-SEM results shown in Table 5.23, which revealed that SL ($\beta= 0.435$, $p= 0.000$), EL ($\beta =0.130$, $p= 0.014$) and AL ($\beta =0.279$, $p= 0.000$) have significant direct relationships with LMX. These results offer support for hypotheses **H5b**, **H5c**, and **H5d**. However, TL is shown to be insignificantly related to LMX ($\beta= -0.281$, $p=0.000$). Therefore, the results conclude that hypothesis (**H5a**) was not supported.

Table 5.23 Results of Direct Hypotheses

Hypothesis	Relationship	(β)	T Value	P Values	Decision
H1	TL -> IWB	-0.008	0.195	0.423	Not supported
H2	SL -> IWB	0.118	2.973	**0.024	Supported
H3	EL -> IWB	0.152	2.382	***0.009	Supported
H4	AL -> IWB	0.160	2.549	***0.005	Supported
H5a	TL -> LMX	0.002	0.036	0.486	Not supported

H5b	SL -> LMX	0.435	8.942	***0.000	Supported
H5c	EL -> LMX	0.130	2.206	**0.014	Supported
H5d	AL -> LMX	0.279	4.654	***0.000	Supported
H6	LMX -> IWB	0.225	3.516	***0.000	Supported
H7	PDO -> IWB	-0.281	5.111	***0.000	Supported

*Note: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.010$*

5.6.3 Mediation Analysis

Mediation analysis was conducted to examine whether a mediator variable can effectively convey the influence of an independent variable to a dependent variable (Hayes 2013). This analysis essentially evaluates the indirect effect of the independent variable on the dependent variable through the intermediary role of a mediator variable. According to Hayes (2013), mediation analysis in multivariate research encompasses various techniques, including traditional methods like the causal steps approach (Baron & Kenny 1986) or the Sobel test (Sobel 1982), as well as newer methods that require fewer unrealistic statistical assumptions. The latter category includes techniques such as the distribution of the product method (MacKinnon, Lockwood & Williams 2004), and resampling approaches like bootstrapping (Preacher & Hayes 2004).

Hence, the mediation analysis utilised in this study was based on the PLS-SEM approach. The PLS-SEM technique is increasingly gaining acceptance by researchers for its suitability in examining complex multivariate direct and indirect effects. Although PLS is often used within smaller sample sizes (Preacher & Hayes 2004), it is also proficient in making inferences about parameters in studies involving larger sample sizes. In this study, bootstrapping was employed within the PLS procedure to assess the statistical significance of relevant path coefficients, thus providing precise estimations of measures (Hair, Joseph F et al. 2019). Although PLS incorporates path analysis and considers both direct and indirect effects simultaneously, similar to other mediation techniques like (Baron & Kenny 1986), there is yet no mechanism for simultaneous treatment of mediating models. The PLS method provides only general guidelines for determining the presence of mediation among certain variables; other details concerning whether the mediation is partial or full remains unanswered. Despite this, PLS-SEM has been widely acknowledged as a highly suitable

technique for mediation studies (Chin 1998b; Hair Jr, Joe F et al. 2014; Henseler, Ringle & Sinkovics 2009; Nitzl, Roldan & Cepeda 2016).

Based on the research framework of this study, the mediating effect of LMX has been posited between transformational, servant, empowering and authentic leadership on one hand and innovative behaviour on the other hand. From Table 5.24, results indicate that EL ($\beta= 0.029$, $p=030$), AL ($\beta= 0.063$, $p=004$) and SL ($\beta= 0.098$, $p=001$) have confirmed to be statistically significant mediating effect of LMX on IWB. Notably, results reveal that among the three significant hypothesised meditational effects, LMX strongly mediates the relationship between SL and IWB. Hence, these results show support for hypotheses **H5, H6 and H7**. However, the results have shown that LMX has statistically failed to mediate the relationship between TL ($\beta= 0.000$, $p=0.485$) and IWB. Therefore, the results conclude that hypothesis (**H7a**) was not supported.

Table 5.24 Results of Mediating Hypotheses

Hypothesis	Mediating Path	(β)	t- Statistics	p- Values	Decision
H7a	TL>LMX>IWB	0.000	0.035	0.486	Not supported
H7b	SL>LMX>IWB	0.118	3.836	0.000	Supported
H7c	EL>LMX>IWB	0.035	1.963	0.023	Supported
H7d	AL>LMX>IWB	0.075	2.965	0.002	Supported

With regard to the estimation of the indirect effect of LMX, the variance accounted for (VAF) formula was employed, following the guidelines by (Hair Jr, Joseph F et al. 2021; Nitzl, Roldan & Cepeda 2016):

$$VAF = \frac{\text{Indirect effect}}{\text{Total effect}}$$

VAF values of <20%, 20–80%, and >80% represent no mediation, partial mediation, and full mediation, respectively (Nitzl, Roldan & Cepeda 2016). The results of indirect effect of LMX between SL, EL, and IWB fall in the range between 20% and 80%; thus considered LMX in all three relationships are partial mediation.

5.6.4 Moderation Analysis

According to Hair Jr, Joe F et al. (2014, p. 115), ‘moderation occurs when the effect of an exogenous construct on an endogenous construct depends on the values of third variable, which influences the relationship.’ In PLS-SEM, there are three recognised approaches for analysing moderating effects, as elucidated by Henseler and Fassott (2010): the product indicator approach (Chin, Marcolin & Newsted 2003), the two-stage approach (Chin, Marcolin & Newsted 2003; Henseler & Fassott 2010) and the orthogonalising approach (Little, Bovaird & Widaman 2006). Thus, the moderation analysis in this study was assessed using regression bootstrapping and the product indicator approach in Smart PLS. Chin, Marcolin and Newsted (2003) suggested that this approach is capable of delivering more precise and reliable estimates, ultimately enhancing theory validation. Additionally, independent variables are multiplied with moderators in this approach to create an interaction construct to predict the dependent variable (Hair Jr, Joe F et al. 2014).

In this thesis, it was postulated that PDO would moderate the relationship between leadership styles and IWB, such that the relationship is more positive with low power distance than with high power distance. Based on the findings presented in Table 5. 25, results confirm that PDO significantly moderated the effect of SL ($\beta=-0.133$, $p<0.007$) and EL ($\beta=-0.158$, $p<0.004$) on IWB. These results indicated that the effect of SL and EL on IWB is stronger for lower PDO than higher, thus supporting hypotheses **H8b** and **H8c**. In contrast, it is observed that there are statistically insignificant results for the effect of TL ($\beta=0.062$, $p=0.072$) and AL ($\beta=-0.027$, $p=0.344$) on IWB via PDO, hence hypotheses **H8a** and **H8d** were not supported. Figure 5.3 presents the results of these tests.

Table 5.25 Results of Moderating Hypotheses

Hypothesis	Moderating Path	(β)	t-Statistics	p-Values	Results
<i>H8a</i>	Moderating Effect (PDO) TL \rightarrow IWB	0.062	1.459	0.072	Not supported
<i>H8b</i>	Moderating Effect (PDO) SL \rightarrow IWB	-0.133	2.433	0.007	Supported
<i>H8c</i>	Moderating Effect (PDO) EL \rightarrow IWB	-0.158	2.647	0.004	Supported
<i>H8d</i>	Moderating Effect (PDO) AL \rightarrow IWB	-0.027	0.401	0.344	Not supported

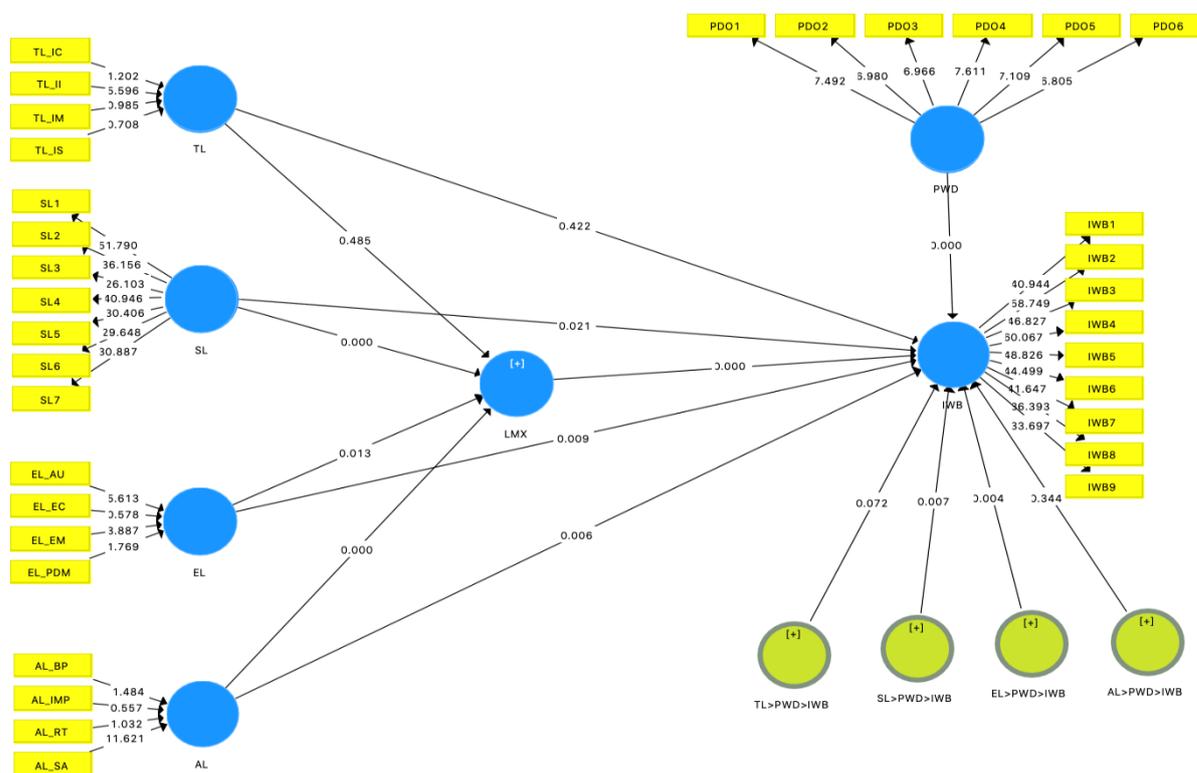


Figure 5.3 PLS Bootstrapping (Moderating Effect)

Figure 5. 4 depicts the plot of the significant interaction term designed to calculate the strength and direction of moderating effect. As shown, the association between EL (*see* figure 5.4) and SL (*see* figure 5. 5) and IWB is stronger when individuals have low rather than high PDO. Therefore, the researcher concludes that PDO only moderates the relationship between SL and EL behaviour and IWB.

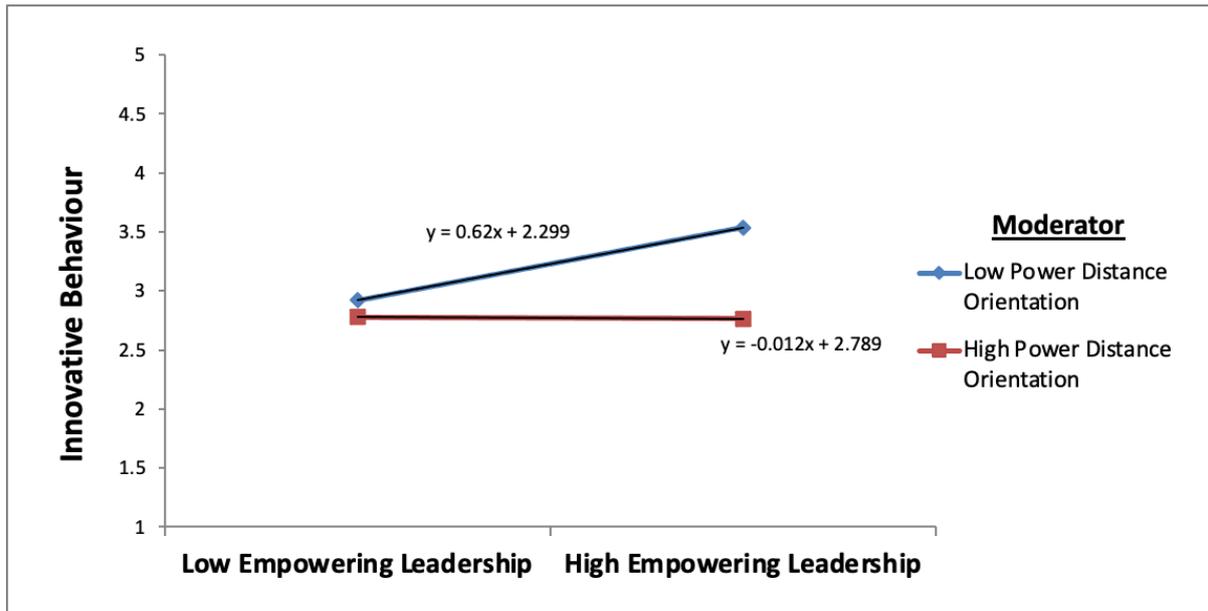


Figure 5.4 Interaction of EL and Power Distance Orientation on Innovative Behaviour

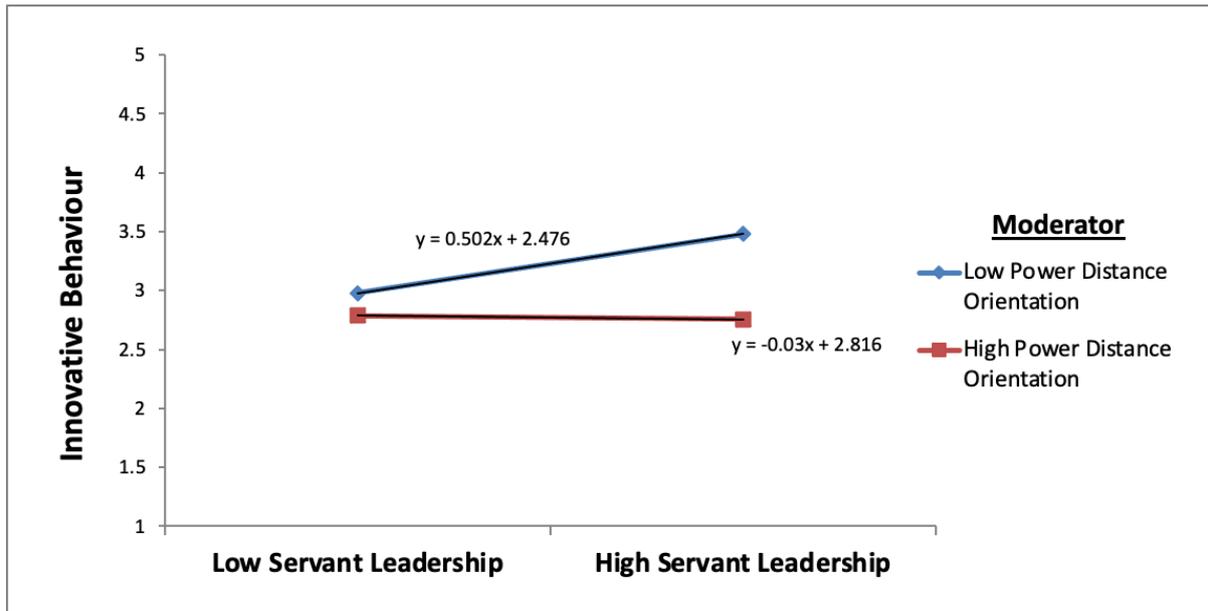


Figure 5.5 Interaction of Servant Leadership and Power Distance Orientation on Innovative Behaviour

5.6.5 Control Variables

Consistent with prevailing innovative behaviour research such as Scott and Bruce (1994); Yoshida et al. (2014), the researcher controlled for employees' age, gender, and job experience due to their potential effect on the results of proposed relationships. The analysis of the extended path model demonstrated that all three control variables did not influence IWB or cause any noteworthy changes in the R² change. As displayed in Table 5.26, the analysis unveiled insignificant relationship of gender ($p=0.825$), age ($p=0.423$) and experience ($p=0.973$) with IWB.

Table 5.26 Results of Control Variables

Control Variables	(β)	t-Statistics	P Values
Gender > IWB	0.008	0.221	0.825
Age > IWB	0.053	0.802	0.423
Experience > IWB	0.002	0.034	0.973
R-Sq.			
IWB	0.487		

5.6.6 R Square (R²)

The coefficient of determination (R²) is a measure of the model's predictive power. That is, the coefficient represents the amount of variance in the endogenous constructs explained by all the exogenous constructs linked to it (Hair Jr, Joseph F et al. 2021). Defining acceptable R² values can be challenging, as they are contingent on the model's complexity and the field of research. While Cohen (1988) suggested that values of 0.02, 0.13, and 0.26 denote small, medium, and large effects, this study adheres to the guidelines provided by Hair Jr, Joseph F et al. (2021); Henseler, Ringle and Sinkovics (2009). According to them, R² values of 0.75, 0.50, and 0.25 are considered substantial, moderate, and weak, respectively.

In this study, Table 5.28 indicates that the R² value for innovative behaviour is 0.525, indicating that EL, AL, SL, TL, LMX, and power distance collectively explain a total variance in the endogenous variable. Furthermore, the R² value for LMX is 0.572, suggesting that EL, AL, SL, and TL explained a suitable level of variance. Hence, it could be concluded that the level of variance explained in this research model for endogenous variables (IWB and LMX) is considered moderate. Table 5.27 illustrates the variance results for all the endogenous variables in this study.

Table 5.27 R² Values for Endogenous Constructs

Endogenous Constructs	R ² value
IWB	0.525
LMX	0.572

5.6.7 Effect Size (f²)

Effect size (f²) is the change in the R² value when a specified exogenous construct is excluded from the model to evaluate whether the excluded construct significantly influences the endogenous constructs (Cohen 1988). It is considered a crucial metric for evaluating the overall structural model quality. Notably, a f² value of 0.02 represents a small effect size, 0.15 indicates a medium effect size, and values exceeding 0.35 correspond to a large effect size (Cohen 1988; Hair, Joseph F et al. 2019).

Error! Reference source not found. presents all the f² values with respect to all developed relationships in the research model. As depicted in Table 5.28, EL, AL, and SL demonstrate a

small effect size (> 0.02) on innovative behaviour. Conversely, power distance orientation exhibits a medium effect size (> 0.15) on innovative behaviour. For the LMX, results showed that all variables have a small effect size < 0.15 , except SL which has a moderate effect size. On the other hand, it was found that TL has no effect on the endogenous variables (innovative behaviour and LMX).

Table 5.28 Effect Size for Each Construct

Hypotheses	f² value	f² Interpretation
EL → IWB	0.032	Small
EL → LMX	0.017	Small
AL → IWB	0.022	Small
AL → LMX	0.074	Small
TL → IWB	0.000	None
TL → LMX	0.000	None
SL → IWB	0.023	Small
SL → LMX	0.209	Medium
LMX → IWB	0.060	Small
PDO → IWB	0.144	Medium

5.6.8 Predictive Relevance (Q²)

Prediction relevance or Stone-Geisser's Q² was evaluated to confirm predictive relevance (Q²) from exogenous latent variables to endogenous latent variables by using a blindfolding procedure (Hair Jr, Joe F et al. 2014; Shmueli et al. 2016). However, test of construct Cross-Validated Redundancy (Q²) square can only be conducted for endogenous constructs with reflective indicators (Hair Jr, Joe F et al. 2014). This is because the Q² redundancy calculation aligns more with the PLS-SEM approach, which focuses on paths related to endogenous variables. Thus, a model is considered to have predictive relevance if the Q² value is over zero (Chin 1998b; Henseler, Ringle & Sinkovics 2009). In this study, the cross-validated redundancy Q² test was carried out on endogenous constructs of innovative behaviour and LMX. The Q² values obtained for all the dependent variables in this study are

considerably greater than 0. Hence, these results confirm that the structural model indicated predictive relevance. Table 5.29 shows all Q^2 values for endogenous variables.

Table 5.29 Q^2 Values

	SSO	SSE	$Q^2 (=1-SSE/SSO)$
IWB	3429.000	2341.182	0.317
LMX	2667.000	1696.322	0.364

5.6.9 Model Fit

Evaluating the model fit of a study has long been an issue for researchers using PLS-SEM (Hair Jr, Joseph F et al. 2021; Henseler & Sarstedt 2013). An early attempt to address this concern was the introduction of the Goodness-of-Fit index (GoF) (Tenenhaus et al. 2005). However, Henseler and Sarstedt (2013) questioned the suitability and validity of GoF. They contended that GoF is not suitable for formative models and unable to distinguish between valid and invalid frameworks. Given that the research model tested in this study included multiple formative variables, evaluating the model's fit based solely on GoF would be inappropriate (Henseler & Sarstedt 2013, p. 570).

Instead, recent indices, SRMR and RMSttheta, have been introduced to assess models in PLS-SEM (Henseler et al. 2014). While it is recognised that these two indices are still in the early stages of development, they are often overlooked to avoid compromising the model's predictive power for improved model fit (Hair Jr, Joseph F et al. 2021) . However, Sarstedt et al. (2014) emphasised that model fit assessment is crucial to minimise model misspecification when using established procedures in PLS-SEM.

In this study, the standardised root means square residual (SRMR) and root mean square residual covariance (RMSttheta) were utilised to evaluate the model's fit (Hair Jr, Joseph F et al. 2021; Henseler et al. 2014; Henseler & Sarstedt 2013; Sarstedt et al. 2014). A model is considered to have a good fit when its calculated SRMR value is below 0.08 (Hair Jr, Joseph F et al. 2021). In this research, the SRMR value was found to be 0.05, which is below the threshold of 0.08, indicating a well-fitting model. Additionally, the RMSttheta value, which measures the root mean square difference between observed and model-implied covariances, should fall between 0 and 1, with a value closer to 0 being preferable (Hair Jr, Joseph F et al.

2021). Henseler et al. (2014) suggested that the RMSttheta value should be less than 0.12. In this study, the RMSttheta value was calculated as 0.11, indicating a well-fitting model.

5.7 Necessary Condition Analysis

NCA was employed to further explore the relationship between innovative behaviour and leadership styles. Following the guidelines by Richter et al. (2020), latent variable scores were generated using PLS-SEM as the basis for conducting NCA. These scores were then imported into R software. We then rigorously followed the steps defined in the quick start guide for running NCA, as provided by (Dul 2023). To avoid introducing additional linear assumptions between the predictors and the outcome variables, the recommended approach of employing the ceiling envelopment-free disposal hull (CE-FDH) line was adopted. The CE-FDH is a non-decreasing step function derived from the scatterplot depicting the relationship between predictor and outcome variables (Dul 2016, 2023; Dul, Van der Laan & Kuik 2020). Using the CE-FDH ceiling line was also justified by having discrete data within a relatively narrow range and displaying a limited number of levels (Richter et al. 2020). The CE-FDH line served to separate the observation space from the non-observation space, allowing for an assessment of how each leadership styles constrains innovative behaviour. Furthermore, the CE-FDH line indicated the minimum level of leadership styles required to attain a specific level of innovative behaviour. Furthermore, Figure 5.6 visually represents a ceiling regression-free disposal hull (CR-FDH), which is applicable when the data exhibit numerous levels and can be considered to be continuous. The figure also incorporates an ordinary least squares (OLS) regression line that serves as a reference point and passes through the centre of the data for context. Figure 5.6 presents scatter plots illustrating all the relevant relationships with IWB.

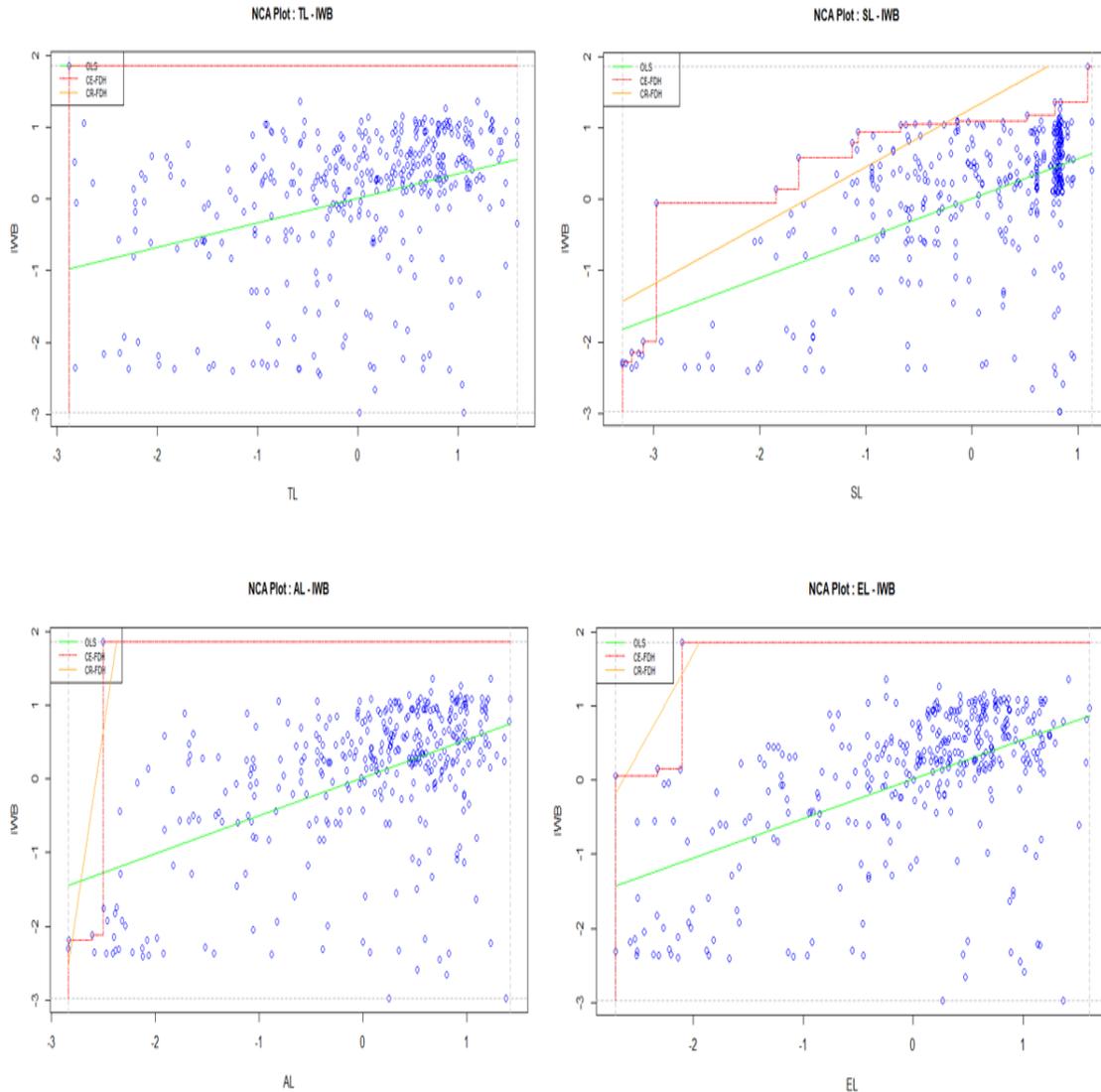


Figure 5.6 Scatterplot of Leadership Variables on Innovative Behaviour

5.7.1 Effect Size Test

First, the effect sizes (d) of the latent variable scores were examined by evaluating their statistical significance based on a recommended random sample size of 10,000 (Dul 2016, 2023). As delineated by Dul, Van der Laan and Kuik (2020), for a condition to be deemed necessary, it must satisfy three essential criteria: 1) a theoretical rationale, 2) a positive effect size ($d > 0$), and 3) a small p-value ($p < .05$).

The NCA results (*see* Table 5.30) reveal that only SL meets all these criteria. More specifically, SL is both necessary and sufficient for innovative behaviour, showcasing a

medium effect size ($d = 0.287$), which is statistically significant ($p < .000$). In contrast, Transformational ($p < 1.000$), Empowering ($p < .870$), and Authentic ($p < .845$) demonstrate no statistically significant relationship with innovative behaviour.

Table 5.30 NCA Effect Size Results

Construct	CE-FDH Effect size^(d)	Accuracy	p-value
Transformational → IWB	0.000	100%	1.000
Servant → IWB	0.287	100%	0.000
Empowering → IWB	0.052	100%	0.870
Authentic → IWB	0.066	100%	0.845

Note(s): $0 < d < 0.1$ = small effect size; $0.1 \leq d < 0.3$ = medium effect size; $0.3 \leq d < 0.5$ = large effect size; $d \geq 0.5$ = very large effect size.

5.7.2 Bottleneck Table

A bottleneck analysis was subsequently performed to provide in-depth insights as shown in Table 5.31. For the desired outcome variable (IWB) in the first column, Table 5.31 presents the minimum values necessary for the predictor variables (Transformational, Servant, Empowering, and Authentic) in the following columns. According to Table 5.31, the necessary level of SL needs to manifest at a minimum of 24.1% to attain a medium level of employee innovation (50%). However, for a high of employee innovation (100%), leaders should demonstrate servant behaviours measuring at least 90.6%. This signifies that if a certain minimum level of servant behaviours (90.6%) is not attained, then the outcome of a high level of employee innovation will remain unattainable.

Table 5.31 also highlights Empowering and Authentic as conditions deemed necessary for high overall employee innovation. Nonetheless, as these attributes exhibited a small effect size and yielded large p-values during significance testing (Empowering, $p = .870$; Authentic, $p = .845$), they failed to meet the criteria to qualify as relevant necessary conditions (Dul, Van der Laan & Kuik 2020; Richter et al. 2020). Thus, they may be considered as showing randomness or false positives. Hence, they were excluded as relevant necessary conditions.

In summary, NCA confirms that SL stands as the only significant necessary condition, and that, to attain a high level of innovation 100%, employees need to experience at least 90.6 % of SL behaviours. In essence, leaders must exhibit high level servant leader behaviours to foster a high level of employees' innovation.

Table 5.31 Bottleneck Table (%)

IWB	AL	EL	SL	TL
0	NN	NN	NN	NN
10	0.2	NN	NN	NN
20	1.4	NN	NN	NN
30	2.6	NN	NN	NN
40	3.8	NN	10.8	NN
50	5.0	NN	24.1	NN
60	6.2	1.0	37.4	NN
70	7.4	5.2	50.7	NN
80	8.6	9.4	64.0	NN
90	9.7	13.6	77.3	NN
100	10.9	17.8	90.6	NN

5.8 Chapter Summary

The preliminary data analysis results and the results of PLS-SEM, and NCA were discussed and reported in this chapter. The chapter started with the data preparation and data cleaning processes in terms of the evaluation of existing missing data, outliers, and normality. In addition, data examination tests like the common method bias test were presented. The examination test indicated that no bias issues were found in this study. The profile of survey participants was presented in the chapter, including their age, gender, marital status, education level, academic position, and university name. This chapter also presented the analysis undertaken to assess both the measurement model and structural model using PLS-SEM. Finally, the findings from NCA analysis were presented in the chapter.

Chapter 6: Discussion and Conclusion

6.1 Introduction

This chapter discusses the findings from Chapter 5 in-depth and illuminates how and why these transformational, servant, empowering, and authentic leadership vary in their influence on LMX and innovative behaviour. It investigates the mediating role of LMX in leadership and innovation, and how power distance orientation moderates these relationships. Additionally, the chapter highlights the unique role of servant leadership as a necessary and sufficient condition in fostering employee innovation. It discusses theoretical, practical, and methodological implications of the findings, acknowledges the study's limitations, and suggests avenues for future research. This chapter provides a comprehensive discussion aimed at understanding and enhancing leadership-driven innovation in organisations.

6.2 Summary of Findings

As seen in Table 6.1, 13 hypotheses out of 18 were accepted. The results revealed that servant, empowering, and authentic leadership have strong positive influences on the employees' innovative behaviour in KSA HEIs. However, transformational leadership was found to be an insignificant predictor of employees' innovative behaviour. Regarding the mediating effect of LMX, results demonstrate that LMX mediates only the relationship between servant, empowering and authentic leadership and employees' innovative behaviour. Furthermore, the study results illustrated that power distance orientation moderates the relationship between servant and empowering leadership. On the other hand, power distance orientation did not moderate transformational and authentic leadership on IWB. Additionally, the results from NCA revealed that servant leadership is the only necessary and sufficient condition for IWB.

Table 6.1 Summary of the Research Findings

Hypothesis	Relationship	Path Coefficient (β)	t-Statistics	p-Values	Results
<i>H1</i>	TL -> IWB	-0.008	0.195	0.423	Not supported
<i>H2</i>	SL -> IWB	0.118	2.973	**0.024	Supported

H3	EL -> IWB	0.152	2.382	***0.009	Supported
H4	AL -> IWB	0.160	2.549	***0.005	Supported
H5a	TL -> LMX	0.002	0.036	0.486	Not supported
H5b	SL -> LMX	0.435	8.942	***0.000	Supported
H5c	EL -> LMX	0.130	2.206	**0.014	Supported
H5d	AL -> LMX	0.279	4.654	***0.000	Supported
H6	LMX -> IWB	0.225	3.516	***0.000	Supported
H7a	TL>LMX>IWB	0.000	0.035	0.486	Not supported
H7b	SL>LMX>IWB	0.118	3.836	***0.000	Supported
H7c	EL>LMX>IWB	0.035	1.963	**0.023	Supported
H7d	AL>LMX>IWB	0.075	2.965	***0.002	Supported
H8	PDO > IWB	-0.229	4.284	***0.000	Supported
H8a	Moderating Effect (PDO) TL → IWB	0.062	1.459	0.072	Not Supported
H8b	Moderating Effect (PDO) SL → IWB	-0.133	2.433	***0.007	Supported
H8c	Moderating Effect (PDO) EL → IWB	-0.158	2.647	***0.004	Supported
H8d	Moderating Effect (PDO) AL → IWB	-0.027	0.401	0.344	Not supported

The assessment of the study's structural model showed that most of the proposed hypotheses were accepted. It could be concluded that the coefficient of determination (R^2) or the level of variance explained in this research model for endogenous variables (innovative behaviour and LMX) is considered moderate, at 0.525 and 0.572. In addition, results related to the f^2 values showed that all leadership styles were found to have a small effect size of < 0.15 on the employees' innovative behaviour. Q^2 values calculated for all the endogenous variables in this study are noticeably > 0 . Consequently, these findings confirm that the structural model

revealed predictive relevance. The RMStheta value was found to be 0.112 in this study, thus indicating a well-fitting model.

Finally, findings from NCA showed that SL is the only necessary and sufficient condition for employee innovation. Therefore, to reach a high level of innovation - 100%, employees need to experience at least 90.6 % of SL behaviours.

6.3 Discussion of Findings

This section discusses results concerning all the direct relationships between transformational, servant, empowering, authentic and LMX and employee innovative behaviour. It also sheds light on the mediating effect of LMX. Additionally, the chapter presents the discussion on the moderating role of power distance orientation between leadership styles and innovative behaviour. Finally, the result of NCA related to the necessary and sufficient leadership style in predicting innovative behaviour is discussed.

6.4 Direct Effect

6.4.1 Transformational, Servant, Empowering and Authentic Leadership on Innovative Work Behaviour

Understanding how leadership styles promote innovative behaviour has become an important research question for innovation researchers (Hughes et al. 2018; Lee, A, Legood, et al. 2020). Hence, the study makes a novel attempt to examine the effect of TL, SL, EL and AL on IWB in KSA HIEs. It further explored the mediating role of LMX and the moderating role of power distance orientation in such relationships in KSA HEIs. In addition, it answers the **RQ1**: ‘Which (if any) leadership styles namely (transformational, servant, empowering, and authentic) affect innovative work behaviour?’

The results of the study signified a differential effect of these leadership styles on IWB. Notably, the result from **H1** revealed a surprisingly insignificant effect of TL on IWB, whereas SL, EL and AL were positively related to such behaviour. Typically, a wealth of research underscores a positive association between TL and IWB, emphasising how such leaders, known for their inspirational, intellectually stimulating, and individually considerate approaches, are often catalysts for fostering IWB (Afsar, F. Badir & Bin Saeed 2014; Amankwaa, Gyensare & Susomrith 2019; Choi et al. 2016). However, this study shows similar results to other studies (Basu & Green 1997; Gu, Duverger & Yu 2017; Miao,

Newman & Lamb 2012), revealing an insignificant relationship between TL and IWB. So, why does TL have no positive effect on innovative behaviour in the KSA? This could be attributed to cultural, individual, and organisational factors. For instance, in highly bureaucratic or risk-averse cultures, TL may struggle to encourage innovative behaviours effectively. This could be apparent in KSA, a country characterised by high power distance, a feature that fundamentally influences organisational dynamics and the reception of leadership styles. High power distance cultures are defined by a pronounced hierarchy and a significant emphasis on authority (Hofstede 2001). This cultural norm might not align well with the egalitarian and change-oriented ethos of TL, which encourages challenging the status quo and fostering a culture of equality and open dialogue. In a society where deference to authority and traditional hierarchies are normative, TL might struggle to gain traction. This is consistent with prior theories that assert that cultural and societal factors can greatly affect leadership effectiveness (Jaskyte 2004; Peterson 2004). Recently, in line with this finding, Bracht et al. (2023) found similar results of TL having an insignificant effect on innovation in Middle east culture. Therefore, while TL may be effective in some cultural contexts, it may face challenges in others.

A possible explanation also might arise from the possibility that TL, which emphasises individual motivation and achievement (Bass, Bernard M & Riggio 2006), may not always line up with cultures that prioritise group cohesion and conformity (Wang, Y-S & Huang 2009). This is particularly evident in the Saudi culture, which tends to be more collectivist than individualist (Hofstede 2001). This means that the emphasis is often on group harmony, family values, and collective achievement. TL, which often relies on motivating individuals through inspiring individual achievement, might not be valued perfectly with a such culture. Research has shown that the effectiveness of TL in collectivist cultures is influenced by various factors. For instance, Jung, DI, Bass and Sosik (1995) suggest that certain characteristics of collectivist cultures can facilitate the effectiveness of TL. However, Walumbwa, Fred Ochieng and Lawler (2003) found that collectivism can moderate the relationship between TL and work-related outcomes, indicating that the effectiveness of this leadership style may be limited in collectivist cultures.

Furthermore, a compelling argument is presented by Basu and Green (1997), suggesting that under certain conditions, TL, particularly its charismatic aspect, may inadvertently discourage innovation. Followers might feel intimidated by a charismatic leader's presence,

leading to a lower incidence of innovation. Therefore, academic institutions globally, and likely in KSA, value academic freedom and autonomy (Brown & Moshavi 2002). The personalised approach of individualised consideration might be perceived as intrusive or unnecessary in their professional activities. Research by Jiang, Gu and Wang (2015), observed that differentiated individual-focused TL has been found to have a negative effect on team innovation.

On the other hand, consistent with the proposed hypotheses, the study revealed that SL, EL, and AL styles have a statistically significant and positive effect on IWB. These leadership styles, which prioritise the well-being, development, empowerment and autonomy of followers, seem to foster an environment that is ripe for innovative thought and action (Liden, Robert C et al. 2014; Panaccio et al. 2015). To begin with, SL, which focuses on the growth and welfare of people and the community motivates individuals to go above and beyond in their roles, often leading to innovation. These results are consistent with previous empirical studies that highlighted the positive effects of SL on employees' innovative behaviour (Cai et al. 2018; Iqbal, Amjad, Latif & Ahmad 2020; Khan, MM et al. 2022; Shailja, Kumari & Singla 2023). This result maintains that SL is instrumental in shaping employees' IWB, particularly in HEIs. At the core of SL lies a leader's genuine concern for the well-being and growth of their subordinates (Liden, Robert C et al. 2008). This orientation creates a supportive and inclusive work environment, wherein employees feel valued and empowered. Such an atmosphere becomes conducive to risk-taking, which is an essential element of innovative behaviour. SLs, by prioritising the needs of their members, inspire a sense of psychological safety and help fulfil employees' basic psychological needs (Chiniara & Bentein 2016), which emboldens employees to voice unconventional ideas without fear of retribution. Furthermore, SLs are characterised by their commitment to developing the full potential of their team members (Zhang, Yucheng, Zheng, et al. 2021). This commitment manifests in mentorship, coaching, and providing opportunities for skill development. By investing in the growth and professional development of employees, SLs not only increase their individual capacities but also contribute to the overall innovative capacity of the organisation. The fact that SL is always employee-oriented also meets the socio-emotional needs of the employees and provides meaningful support in producing innovative ideas and behaviours.

The results further corroborate the SET, which posits that when SLs demonstrate a strong commitment to the development of their subordinates, they earn admiration from their team members, fostering a sense of reciprocity among them (Eva et al. 2019). This serving behaviour of a leader motivates employees to actively contribute to positive work outcomes such as IWB.

Similarly, central to the positive impact of EL on employees' IWB is the delegation of authority and responsibility (Chen, G et al. 2011). As hypothesised, the study found that EL is positively associated with IWB. However, a few prior studies reported contradictory findings on the relationship between EL and innovation (Hoang, Wilson-Evered & Lockstone-Binney 2019). The study result corroborates prior research findings that positively linked EL to IWB (Chen, G et al. 2011; Guo, Peng & Zhu 2023; Jada, Mukhopadhyay & Titiyal 2019; Kim, M, Beehr & Prewett 2018; Rai & Kim 2021), and supports the argument of scholars that EL is most effective at influencing work behaviours that require creativity and innovation (Lee, A, Willis & Tian 2018; Martin, SL, Liao & Campbell 2013). For example, it has been argued that EL behaviours can help employees gain a sense of competence and autonomy, thus enhancing intrinsic motivation and subsequently creativity and innovative behaviour. This manifested in the findings of previous studies; these studies show that EL boost creativity in general (Zhang, X & Zhou 2014) as they inspire followers to exhibit proactive behaviours at work (Martin, SL, Liao & Campbell 2013) due to the trust and confidence they show (Rai & Kim 2021).

Further, ELs entrust their members with meaningful tasks and decision-making responsibilities, creating a sense of ownership and accountability (Arnold et al. 2000; Guo, Peng & Zhu 2023). This empowerment serves as a powerful motivator, as employees are more likely to engage in innovative behaviours when they perceive themselves as key contributors to the organisation's success. Consistent with the argument of SET that EL influences follower behaviours through the establishment of a positive social exchange relationship, Blau (1964) emphasised that when leaders who empower and stimulate their personnel through participatory decision-making, employees will feel more eager about such enabling behaviours by exhibiting their innovative behaviours (Lee, A, Willis & Tian 2018). Followers of ELs can sense they have their leaders' trust, and such feelings, combined with their own reciprocated trust in the leader, heighten their desire to engage in innovative behaviours. In fact, innovation and risk-taking behaviour flow from a trusting relationship,

which is consistent with the full mediation of trust in the EL and IWB relationship (Rai & Kim 2021).

In addition, the autonomy granted by ELs provides the necessary space for employees to experiment, take risks, and explore novel solutions, fostering a culture where innovation is not only welcomed but expected (Hassi, Rohlfer & Jebsen 2022). Moreover, EL is closely tied to the enhancement of employees' self-efficacy, as well as the belief in their ability to accomplish tasks and overcome challenges. Leaders invest in developing the confidence of their members by acknowledging their competencies and providing constructive feedback to cultivate an environment where individuals feel psychologically empowered to pursue innovative initiatives (Chen, G et al. 2011). This boost in self-efficacy serves as a crucial driver of innovative behaviour, as employees are more likely to proactively seek out and implement innovative ideas when they have confidence in their abilities.

Lastly, the empirical finding of this study illuminates a compelling and affirmative relationship between AL and IWB, thereby contributing significant insights to the burgeoning field of leadership research. Specifically, the positive association between ALs and IWB can be explained by the capacity of AL to undertake the unbiased processing of relevant information, to show integrity and to practise relational transparency (Avolio, Bruce J et al. 2004; Luthans & Avolio 2003). This relationship suggests that when leaders in Saudi HEIs exhibit genuine, transparent, and ethical behaviours, it stimulates the development of capabilities of faculty members and fosters an environment where innovation is promoted and encouraged. In support, Al-Moamary, Al-Kadri and Tamim (2016) found that AL behaviour is essential in an educational environment for instilling admiration, showing openness, motivating faculty staff to improve, and creating ethical culture and change. Faculty members are more innovative because they take and develop courses, research projects, and participate in training programmes, when their leaders trust them and create a psychologically safe environment. Despite the inconsistent results of Elrehail et al. (2018), who found that AL did not affect products and process innovation in Jordanian HEIs, the current study is in harmony with earlier studies, which have repeatedly shown that the perception of authenticity in leadership within an organisation stimulates innovative behaviour among followers (Černe, Jaklič & Škerlavaj 2013; Khan, MM, Ahmed & Khan 2021; Müceldili, Turan & Erdil 2013; Sengupta et al. 2023; Yamak & Eyupoglu 2021).

Besides, the result also validates the argument of social exchange theory (Blau 1964), which states that mutual reciprocation is the most basic form of human interaction. In the workplace, this theory proposes that when followers perceive their leaders as authentic, they develop a strong sense of obligation and reciprocate by engaging more in favourable behaviours beyond their formal roles. According to Walumbwa, Fred O. et al. (2011, p. 5), AL facilitates a positive social exchange relationship where leaders and followers openly share information and provide constructive feedback, thus yielding effective decision-making and communication as well as support for innovation. Hence, the study findings also support the exchange base relationship between leaders and followers by showing the positive influence of AL on followers' innovative behaviours.

It is apparent that when individuals in leadership positions demonstrate AL behaviour, followers exhibit higher levels of innovative behaviours. Perhaps, the authenticity of leaders who demonstrate self-awareness and a congruence between their values, words, and actions, cultivates a climate of trust and openness (Peus et al. 2012). AL gives importance to the development of employees, ensures the flow of information within the organisation, and establishes a psychologically safe environment that enables change. Schuckert et al. (2018) stated that employees always expect support and attention from their leaders to achieve innovation. In this context, AL acts in a supportive way by encouraging open communication channels and facilitating the exchange of diverse perspectives and ideas. Such an environment, marked by honesty and openness, not only fuels creativity but also ensures that employees feel valued and heard, contributing to their motivation to engage in innovative endeavours. Researchers have argued that AL successfully encourages employees to express their opinions within the organisation because ALs promote inclusive communication, actively soliciting input and encouraging employees to express their viewpoints (Hsiung 2012). This authenticity creates psychological safety and positive emotions (Rego et al. (2014); Zhou et al. (2014)), which in turn employees feel secure in expressing their innovative ideas without fear of judgment.

Further possible explanations can be attributed to balanced processing, a key element of AL, which plays a crucial role in promoting critical thinking and innovation among employees. ALs are characterised by their ability to consider multiple viewpoints, make decisions based on objective analysis, and foster an environment where dissenting opinions are welcomed (Avolio, Bruce J et al. 2004). This balanced approach to decision-making nurtures a culture

of intrinsic motivation, encouraging employees to question the status quo and explore alternative solutions. This is critical for generating a wide range of ideas and perspectives and actively seeking out opportunities to contribute inventive ideas to organisational challenges. Moreover, the ethical and moral perspective embedded in AL aligns with the innovation. Leaders who prioritise ethical considerations in their decision-making processes create a value-driven organisational culture that resonates closely with employees. This alignment of values contributes to a shared sense of purpose, motivating employees to engage in innovative behaviour that aligns with the organisation's ethical standards. This is supported by a range of studies. For instance, Yidong and Xinxin (2013) found that ethical leadership, a key component of AL, positively influences innovative work behaviour. Further, Nunn and Avella (2015) argue that moral leadership, which is inherent in AL, can enhance and inspire innovation. In support, the relationship between AL and ethical behaviour is also explored by Hannah, Avolio and Walumbwa (2011), who highlight the positive impact of AL on ethical and pro-social behaviours. AL, by emphasising the importance of doing what is right, not just what is expedient, fosters a culture where innovation is not only a strategic imperative but also a responsible and ethical endeavours. Therefore, by embodying the principles of AL, leaders can foster an environment where employees are inspired to think creatively, challenge assumptions, and contribute to the continuous development and success of the organisation.

In brief, the lack of significance for TL in promoting innovation might be explained by a saturation effect where the transformational behaviours have become expected and no longer provide a unique stimulus that elicits an innovative response from employees. Alternatively, in an organisational context where empowerment, servant behaviours, and authenticity are more culturally congruent, these leadership styles may naturally elicit a stronger reciprocal exchange conducive to innovation. The study's setting within the organisational environment of the KSA adds another layer of cultural context to these findings. The KSA has been undergoing significant transformation, with initiatives like Vision 2030 that aim to foster a knowledge-based economy. Within this context, leadership styles that align with the values of empowerment, servant-oriented growth, and authenticity may resonate more deeply with the local culture and the national vision for the future. These styles may be more effective in engaging employees' innovative capabilities and aligning with the social and economic transformation occurring within the country. Moreover, the findings suggest that in the KSA context, where collective goals and social cohesion are highly valued, the individualised and vision-centric approach of TL might not be as effective in fostering a sense of shared purpose

and collective engagement necessary for innovation. The significance of SL, EL, and AL could reflect a cultural shift towards more inclusive and participatory forms of leadership that are perceived as more authentic and trustworthy by employees. The results of this study suggest a need to re-evaluate the effectiveness of different leadership styles across various contexts and cultures. They challenge the notion of a one-size-fits-all approach to leadership and innovation, highlighting the importance of contextual and cultural alignment in leadership practices. They also reinforce the idea that innovation is not merely a product of visionary leadership but is deeply rooted in the social and reciprocal exchanges within an organisation.

6.4.2 Transformational, Servant, Empowering and Authentic Leadership on LMX

This section covers the second objective of the study and discusses the direct impact of leadership styles on LMX in Saudi HEIs. It also answers **RQ2**: *'Do leadership styles namely (transformational, servant, empowering and authentic) affect LMX?'*

Notably, the result from **H5a** revealed a surprisingly insignificant effect of TL on LMX, whereas SL, EL, and AL styles were positively related to LMX. LMX theory emphasises the importance of the quality of relationships between leaders and their followers, suggesting that higher-quality relationships result in better organisational outcomes (Graen & Uhl-Bien 1995). The insignificance of TL in impacting LMX may seem counterintuitive, given that TL is often associated with a substantial body of existing literature that typically positions TL as having a positive effect on various aspects of organisational performance, including developing high LMX quality relationships with followers (Bass, Bernard M. et al. 2003; Ng 2017; Shunlong & Weiming 2012).

TL, characterised by the ability to inspire and motivate followers to achieve beyond expectations and to prioritise the group's interest over the individual's interests, is often cited for its positive relationships with employee satisfaction, motivation, creativity and in role performance (Boer et al. 2016; Dvir et al. 2002; Qu, Janssen & Shi 2015). However, this study shows similar results to other studies that revealed an insignificant relationship between TL and LMX (Basu & Green 1997). Therefore, this finding could be interpreted in several ways. In the context of KSA, this can be attributed to the higher level of collectivist culture (Hofstede 1980b, 2010). KSA culture tends to be collectivistic, emphasising group harmony,

loyalty and conformity. This cultural orientation may diminish the significance of individualised consideration and intellectual stimulation, two key components of TL (Goncalo & Staw 2006). In support, Walumbwa, Fred Ochieng and Lawler (2003) demonstrated the moderating effect of collectivism on the relationship between TL and work-related outcomes. Similarly, it has been found that the association between TL and leader effectiveness is moderated by followers' attitudes and collectivistic orientation (Jung, D, Yammarino & Lee 2009).

Moreover, a possible explanation might suggest that TL, while being influential in enhancing motivation and performance, may not necessarily translate to improved dyadic relationships between leaders and followers as measured by LMX. Transformational leaders often emphasise inspirational motivation and intellectual stimulation focused on achieving visionary organisational goals (Jung, DI, Chow & Wu 2003). This broad focus might come at the expense of personal, one-on-one interactions that are crucial for developing high-quality LMX relationships. Leaders may prioritise organisational change over individual follower needs, potentially neglecting the personalised attention and personal bonds that foster strong LMX relationships (Basu & Green 1997). Further, TL involves identifying and developing followers' potential, which can sometimes lead to perceptions of favouritism if not all members receive equal attention and opportunities. Because members typically work closely together, they are likely to be frequently confronted with evidence of differential treatment by the leader (Martin, R et al. 2018). This perceived inequity or LMX differentiation can undermine the quality of LMX relationships with those who feel overlooked or less favoured, impacting overall team dynamics and effectiveness.

On the other hand, the positive impacts of SL, EL, and AL styles on LMX can be further justified by examining the core of these leadership styles. Firstly, SL, with its foundational emphasis on serving others, inherently prioritises the development and well-being of followers (Liden, Robert C et al. 2014). This leadership style is deeply relational and focuses on empathy, listening, and stewardship, which directly contributes to building strong, trust-based relationships with followers. By placing the needs of followers first, servant leaders naturally foster high-quality LMX relationships, where followers feel genuinely cared for and valued. Thus, the current study's findings are consistent with the revealed recent studies which demonstrated that SL is positively related to LMX. (Mostafa & El-Motalib 2018; Newman, A. et al. 2017; Yoshida et al. 2014). This suggests that serving faculty members,

supporting them, and treating them in a selfless and caring manner is an important means for the development of strong interpersonal relationships between both parties. The finding is significant, as it adds to the growing body of literature that underscore the pivotal role of leadership styles in enhancing the quality of interactions and relationships within the workplace especially in the context of HEIs. One possible explanation for this positive impact is the inherent characteristics of SL, which emphasises empathy, ethical behaviour, and a commitment to the growth and well-being of followers (Hoch et al. 2018).

SL, by its very nature, fosters an environment where leaders are deeply invested in the personal and professional development of their team members. This investment can lead to a higher degree of trust and mutual respect between leaders and followers, which is a cornerstone of strong LMX relationships. In support, Jaiswal and Dhar (2017) found from a dyadic sample of 48 teams that servant leaders create an environment of mutual trust by displaying forgiveness and authenticity, thereby gaining the confidence of subordinates which subordinates reciprocate by exhibiting creative behaviour. According to Legood et al. (2021), Trust in leaders and relational quality is not merely a consequence of SL but a fundamental component that facilitates open communication, transparency, and collaboration. These elements are essential for the development of high-quality LMX, where both parties feel valued and understood. Another possible explanation for the observed positive impact of SL on LMX lies in the role-modelling behaviour exhibited by servant leaders. These leaders demonstrate high ethical standards, commitment to the organisation's goals, and a genuine concern for the welfare of their followers (Hoch et al. 2018). Such behaviour encourages followers to emulate these qualities, fostering a culture of integrity, altruism, and collective responsibility. This has been confirmed by Ruiz-Palomino and Zoghbi-Manrique-de-Lara (2020), who found from 21 employees in five focus groups working in seven Spanish hotels that servant attitude is one of the mechanisms servant leaders use to foster creative behaviours. As followers internalise these values, the alignment between their own beliefs and those of their leaders strengthens the leader-follower relationship, further enhancing the quality of LMX.

Similarly, as hypothesised, EL was found to positively enhance LMX by promoting a sense of ownership and responsibility among faculty members in KSA. Although studies from the higher education context are lacking, the findings are consistent with broader research findings that identified a positive association between EL and LMX (Jada & Mukhopadhyay

2019a; Kwak & Jackson 2015; Kwan, Chen & Chiu 2020; Lee, A, Willis & Tian 2018). The positive impact of EL on LMX in KSA's higher education can also be explained by its ability to navigate and mitigate the challenges posed by bureaucratic constraints. By empowering faculty members and encouraging a more flexible approach to governance and administration, leaders can reduce the friction and frustration often associated with bureaucratic processes. This improves the overall quality of the leader-member relationship by demonstrating a commitment to removing barriers to academic and professional growth.

Moreover, a possible explanation for the observed relationship between EL and LMX quality lies in the foundational aspect of trust and respect that EL establish with their followers. EL demonstrate profound confidence in their followers' abilities by delegating meaningful tasks, granting autonomy in decision-making, and encouraging participation in problem-solving processes (Amundsen & Martinsen 2014; Kim, M & Beehr 2021). This delegation is not merely a transfer of responsibilities but a clear signal of trust and respect for the followers' capabilities and judgment. Such trust fosters a robust sense of self-efficacy among team members, who in turn feel more valued and competent. This mutual respect and trust are critical components of high-quality LMX relationships, as they encourage open communication, mutual support, and a deepened sense of commitment to shared goals (Kwak & Jackson 2015). Furthermore, EL promotes open communication and information sharing (Ahearne, Mathieu & Rapp 2005). Leaders who empower their followers are more likely to engage in transparent communication practices, sharing important information and insights that enable employees to perform their roles more effectively. This openness fosters a culture of trust and mutual support, which are cornerstone elements of a strong LMX (Jada & Mukhopadhyay 2019a). By being included in the communication and having access to the information they need to succeed, employees are more likely to feel an integral part of the team and the organisation. This inclusiveness strengthens the relational ties between leaders and members, further enriching the LMX quality.

Lastly, as hypothesised, AL was found to have a positive effect on LMX in KSA HEIs. These results suggest that AL has a significant role in the interaction between leaders and followers and the findings corroborate the earlier studies (Khan, MM, Ahmed & Khan 2021; Wang, HUI et al. 2014; Zhang, Yucheng, Guo, et al. 2021). The result from the current study indicates that AL can be a potent enhancer of these high-quality exchanges especially in HEIs. The reasons behind this could be multifaceted. Als, by their very nature, are more

likely to engage in open and honest communication, fostering a transparent and trusting environment. Such an environment is conducive to building strong relationships. Through transparent communication and aligning behaviours with core beliefs, subordinates become attentive to their leader's true character and motivations, which fosters trust relationships (Wang, HUI et al. 2014). Such an interaction in an open and non-defensive manner creates a condition for subordinates to personally identify with a leader, which translates into affective attachment. Moreover, AL leads by example, demonstrating ethical behaviour and making decisions based on fairness and integrity. This commitment to ethics inspires followers to uphold the same high standards. A shared commitment to ethics and integrity strengthens the bond between leaders and followers, enhancing the quality of the LMX. Followers are more likely to admire and respect leaders who consistently act ethically and justly.

In brief, the findings from the study illuminate the complex dynamics between various leadership styles and LMX, suggesting that the effectiveness of a leadership style in enhancing LMX relationships may depend on its ability to foster trust, respect, and mutual understanding through direct, social interactions with followers. While TL has its merits in inspiring and motivating followers towards a collective vision, it may fall short in cultivating the high-quality LMX relationships that SL, EL, and AL leadership styles naturally promote. These insights underscore the importance of adopting a multifaceted approach to leadership, one that balances the pursuit of organisational goals with the need to nurture strong, positive relationships with each follower.

6.4.3 LMX and Innovative Work Behaviour

This section covers the third objective of the study and discusses the direct effect of LMX on innovative behaviour in Saudi HEIs. It also answers **RQ3**: *'Does LMX affect employee innovative work behaviour?'*

The study found significant positive effects of LMX on innovative behaviour within the context of Saudi higher education. It appears that when faculty members perceive their relationships with their leaders as being built on a foundation of trust, respect, and mutual obligation, they are more likely to exhibit behaviours that contribute to innovation. This is particularly compelling, suggesting that the relational aspect between leaders and members is crucial for encouraging not just the generation of new ideas but also their practical implementation (Scott & Bruce 1994). Despite the limited studies found in HEIs and

inconsistent findings reported in previous studies (Mascareño, Rietzschel and Wisse (2020); Park and Jo (2018); Volery and Tarabashkina (2021), the current study supports prior studies that show that positive LMX creates mutual trust, which facilitates knowledge sharing, thoughts, ideas, and technical expertise, enabling employees to generate novel ideas and solutions (Bani-Melhem, Al-Hawari & Quratulain 2020; Carnevale et al. 2017; Hussain, Iren & Rice 2020; Yuan & Woodman 2010). It also validates the premise of social exchange theory which posits that social interactions characterised by high levels of trust, mutual respect, and reciprocal obligations lead to stronger relationships and, consequently, more favourable outcomes for both parties involved. In the context of LMX, when leaders invest in their relationships with team members by providing support, guidance, and recognition, employees are likely to reciprocate with positive behaviours, including increased voice behaviour, job performance, creativity and innovation (Kim, M-S & Koo 2017; Tarkang, Nange & Ozturen 2020). This reciprocal nature of exchange underpins the motivational mechanism through which high-quality LMX relationships encourage employees to go above and beyond their formal job requirements, contributing to the innovative capacity of the organisation.

A possible explanation of the positive findings can be referred to the enhanced communication and information sharing inherent in high-quality LMX relationships; this establishes a foundation where ideas can flow freely, unencumbered by the barriers of hierarchy or fear of reprisal. This is quite relevant in the KSA academic environment, where hierarchical structures are prevalent (Hofstede (2011); a high-quality LMX relationship can stand out as a particularly strong driver of innovation. In environments where deference to authority is the norm, having a leader who actively engages with and supports their members can be especially empowering and conducive to innovative endeavours (Schermuly, Meyer & Dämmer 2013). Leaders are often looked upon as paternal figures. In such environments, when leaders engage in high-quality exchanges with their members, it enhances respect and encourages followers to express their ideas and suggestions openly, believing that their contributions will be valued and considered. This open exchange is vital for innovation, as it allows for the cross-fertilisation of ideas, encourages questioning of the status quo, and facilitates the collaborative refinement of nascent concepts.

Moreover, the provision of resources by leaders to followers within the ambit of high-quality LMX relationships is another pivotal factor in promoting innovative behaviour. Leaders who

have strong, positive relationships with their members are more inclined to invest in those individuals' ideas by allocating time, financial resources, and organisational support (Agarwal et al. 2012). This investment not only enables the practical pursuit of innovative projects but also signals to employees that the organisation is committed to innovation and willing to support experimental endeavours, even when they carry a risk of failure. In support, Garg and Dhar (2017) found that high-quality LMX was indicative of supervisors' support towards their followers, which in turn stimulates employees to engage and motivates them to reciprocate by bringing innovative solutions to the banking sectors.

Briefly, high-quality LMX relationships are instrumental in creating a fertile ground for innovation. By fostering open communication, providing necessary resources, supporting risk-taking, offering personalised development opportunities, and recognising followers' innovative efforts, leaders can significantly enhance the innovative capabilities of their teams (Carnevale et al. 2017). This underscores the importance of nurturing strong leader-member relationships as a strategic approach to driving innovation and achieving sustainable competitive advantage, especially in the academic environment.

6.5 Mediating Effects

6.5.1 The Mediating Effect of LMX between Leadership Styles and Innovative Work Behaviour

This section covers the fourth objective of the study and discusses the direct effect of LMX on innovative behaviour in Saudi HEIs. It also answers **RQ4: Does LMX mediate the relationship between leadership styles namely (transformational, servant empowering and authentic) on employee innovative work behaviour?**

Apart from the above discussion of direct relationships, the study also sought to examine the mediating role played by LMX between leadership styles and IWB. Contrary to the traditional belief that high leader-member relationships enhance the positive effect of TL on innovative behaviour, this study could not find support for the indirect mediating effect of LMX between TL and employee innovative behaviour, as evident from the results of **H1a**. The insignificant indirect path between TL and employee innovative behaviour is possible because of the insignificant relation between TL and LMX (Basu & Green 1997). As a result, the lack of a significant relationship between TL and LMX diminishes the potential for LMX to serve as a mediator in the relationship. Since TL did not significantly enhance the

quality of their relationships with followers, there was no significant indirect effect of TL on employee innovative behaviour through the mediating role of LMX.

Conversely, the findings that LMX partially mediates the relationship between SL, EL, and AL styles and innovative behaviour underscore the importance of these leadership approaches in creating a supportive context for innovation through high-quality interpersonal relationships. The results of the study validate that high-quality LMX relationships are crucial for translating the positive effects of SL, EL, and AL into innovative behaviour (Graen & Uhl-Bien 1995). This is grounded in the LMX theory that strong, trust-based relationships enable better communication, more personalised support, and a greater understanding of organisational goals, which are conducive to innovation. Firstly, SL, with its emphasis on serving the needs of followers, likely enhances innovation by creating a nurturing and supportive environment. The results suggest that because servant leaders put followers' development and interests above those of the organisation, followers developed intense personal bonds marked by shared values, open-ended commitment, mutual trust, and concern for the welfare of the other party. In sequence, followers take risks and explore new ideas, knowing they have the support and backing of their leader. The finding is in alignment with recent empirical studies showing that SL predicted favourable outcomes through the development of high LMX e.g., citizenship, helping, proactive behaviour, creativity, and team innovation (Mostafa & El-Motalib 2018; Yoshida et al. 2014; Zou, Tian & Liu 2015). For instance, Newman, A. et al. (2017) examined the relative importance of LMX and psychological empowerment as mediators of the relationship between SL and OCB. They found that it primarily exerts its influence on followers at the individual level by developing high-quality LMX. This highlighted the role of LMX and suggests that the trust, personal interactions, and mutual understanding developed through SL are critical for fostering an environment where followers feel safe to innovate.

Similarly, the findings of the current study indicate the pivotal role of LMX in mediating the relationship between EL and IWB, thereby supporting *H7c*, and expanding to the broader literature on leadership dynamics. This finding aligns with the empirical studies which underscored the instrumental role of LMX in linking EL with various organisational outcomes, including creativity, affective commitment, voice behaviour, and performance (Hassan et al. 2013; Jada & Mukhopadhyay 2019b; Kwak & Jackson 2015; Lee, A, Willis & Tian 2018). According to LMX theory (Graen and Uhl-Bien (1995), a high dyadic

relationship emerges from a series of positive interactions between the leader and the follower. Hence, the findings suggest that because EL behaviours, such as the provision of opportunities for personal growth and self-development, are perceived as favourable social exchanges from the leader, stimulating a mutual response from the follower. ELs are adept at cultivating high LMX and trust-based relationships with their followers, which, in turn, encourages individuals to proactively engage in the exploration of novel ideas and innovative solutions. Furthermore, the findings can be attributed to the tendency of empowering leaders to acknowledge and incentivise innovative efforts. This recognition not only reinforces the high-quality exchanges that characterise the leader-member relationship but also creates a self-reinforcing cycle that enables a culture of innovation. In support, a study conducted by Schuh et al. (2018) examined how the quality of LMX relationships impacts the recognition conveyed to employees for their innovative work behaviours. The study revealed that employees entrenched in high-quality LMX relationships are more likely to receive favourable performance evaluations for engaging in innovative behaviours. In a similar vein, Jada and Mukhopadhyay (2019a) validated that higher LMX relationships serve as a mediating conduit between EL and constructive employee voice behaviours. The high LMX emerges as a critical determinant in stimulating followers to participate in innovative behaviours. Hence, it can be concluded that the exchange-based mechanism is important in fostering an organisational environment that is conducive to innovation and creative expression among followers.

Finally, hypothesis **H7d** stated that high LMX mediates the relationship between AL behaviour and innovative behaviour. Results proved positively that dyad quality LMX transmits the influence of AL to subordinates' innovative behaviour. AL helps to develop quality relations by sharing information, demonstrating internal feelings and creating transparent and open communication channels (Walumbwa, Fred O. et al. 2010), which, in turn, has a positive impact on subordinates' innovative behaviour. This suggests that ALs exemplify honesty, openness, commitment to the success of followers, a willingness to acknowledge their own limitations, transparency and a commitment to be held accountable for their actions and reward honesty and integrity (Avolio, Bruce J et al. 2004). Such leadership behaviours enable followers to connect with their leaders and the values, beliefs, goals, and activities that are identified with the leader over time. This indicates that leaders who exercise AL behaviours could have influenced their followers to exhibit innovation behaviours by shaping social interactions and relationally identify with leaders. Indeed,

through their exemplary role modelling, AL become the foci of identification for their followers, in ways that inspire followers to identify shared values with their leaders. Thus, innovation becomes a means by which followers can consolidate this growth-enhancing relationship with their leaders (Niu et al. 2018). This supports previous studies demonstrating that an ethical climate fosters a cooperative environment that functions for leaders and subordinates equally to achieve organisational goals (Fladerer & Braun 2020; Yidong & Xinxin 2013). Further, in accordance with findings by Wang, HUI et al. (2014); Xu et al. (2017), high-quality LMX reduces followers' risk and builds a psychologically safe environment wherein they can involve in creative thinking. In this case, followers might not be concerned about their risks and thus have higher positive moods and psychological capacities to bring useful ideas and improve organisational practices (Hsiung 2012; Wang, HUI et al. 2014). Therefore, this thesis provides further support to the growing body of literature on AL demonstrating that AL influences innovative behaviours through the development of high quality LMX.

6.6 Moderating Effect

6.6.1 The Moderating Effect of Power Distance Orientation between Leadership Styles and Innovative Work Behaviour

This section covers the fifth objective of the study and discusses the moderating effect of PDO on innovative behaviour in Saudi HEIs. It also answers **RQ5**: *Does power distance orientation moderate the effect of leadership styles namely (transformational, servant empowering and authentic) on employee innovative work behaviour in Saudi HEIs?*

Apart from direct and mediation effects, the study further explored the moderating role of PDO between different leadership styles and IWB. Hence, it added an essential layer to understanding how cultural dimensions influence the dynamics of leadership effectiveness in promoting innovation within organisations. This examination not only extends the discussion of direct relationships between leadership styles and innovative behaviour but also delves into how these relationships are altered by the cultural context.

Results from hypothesis **H8a**, which investigated whether PDO moderates the relationship between TL and IWB were found to be insignificant. The rejection of hypothesis **H8a** is primarily justified by the underlying absence of both direct and indirect relationships that TL is presumed to have with IWB and LMX. This absence directly challenges the premise

required for PDO to act as a meaningful moderator in this context. In other words, the anticipation that PDO could serve as a critical moderating factor in the relationship between TL and IWB hinges on the existence of a significant relationship through both direct and mediation paths. In essence, the rejection of H8a can be seen as a logical outcome stemming from the absence of a direct relationship between TL and IWB. Therefore, the collective rejection of H1, H5a, and H7a dismantles this framework, suggesting that the role of TL in IWB cannot be effectively moderated by power distance when the foundational relationships are absent.

However, results support hypotheses *H8b* and *H8c*, which signal that the effect of SL and EL on IWB is more pronounced for followers who are lower on power distance. It is shown that only employees with low power distance respond positively to the behaviours made by their leaders and in turn exhibit innovative endeavours. This is possibly because followers lower on power distance may be more receptive to the more personalised approach adopted by servant leaders and to capitalise on the greater decision-making latitude and growth opportunities provided to them, this may be more likely to enhance their IWB. For example, Yang, Liu and Gu (2017) found that SL may exert a stronger effect on both creative self-efficacy and team efficacy when team members report lower power distance. They argued that employees with lower power distance see themselves as more equal in status and more interpersonally close to their supervisor, which strengthens the effect of SL leader behaviour. More recently, Zhang, Yucheng, Zheng, et al. (2021) emphasised that the effectiveness of SL styles can be influenced by cultural factors such as traditionalism, masculinity, individualism, and power distance. Thus, the current study complements this previous work by demonstrating that SL may also more strongly influence IWB when followers are lower on power distance (Yang, Liu & Gu 2017; Zhang, Yucheng, Zheng, et al. 2021).

Similarly, the impact of EL on IWB is significantly influenced by the cultural value of power distance. In other words, followers with low PDO, who prefer less hierarchical structures and value egalitarian relationships, are more receptive to EL practices. This is because followers are likely to see opportunities for autonomy and self-leadership as motivational, leading to enhanced innovative work behaviours. Employees reacted positively to the participative decision-making style of the leaders, which in turn stimulated high engagement in pursuing new ideas. In support, Vuong and Hieu (2023) found that EL, which shares principles with SL, positively influences job performance through knowledge sharing and IWB. The study

further revealed that employees with high PDO diminish the positive effects of EL on these mediating factors, suggesting that power distance orientation plays a crucial role in determining the effectiveness of leadership styles aimed at empowerment. In a similar vein, Qing and JinHua (2023) demonstrate that participative leadership significantly enhances public employees' voice behaviours by strengthening their organisational identification. This suggests that when leaders involve employees in decision-making processes, it not only encourages them to speak up but also fosters a sense of belonging and identification with the organisation. It was found that the relationship between participative leadership and organisational identification is influenced by employees' PDO, implying that individuals who are less accepting of hierarchical structures are more likely to respond positively to participative leadership styles. This is because only employees with low PDO identify their leaders as welcoming and feel secure in interacting with them. Low PDO is assumed to be vital in the case of IWB because of its riskier nature and higher chances of disapproval and punishment from the leader (Anderson, Neil, Potočnik & Zhou 2014). This alignment between the leadership styles and the follower's cultural expectations creates a conducive environment for the follower to exercise initiative, suggest new ideas, and engage in problem-solving activities.

Moreover, in the context of KSA higher education, these findings are particularly noteworthy. KSA, with its traditionally hierarchical and patriarchal societal structure, has been undergoing significant socio-economic and educational reforms aimed at fostering innovation and progress (Nurunnabi 2017). The cultural backdrop of KSA, characterised by a high-power distance norm, makes the observed moderating effect of power distance orientation on the impact of SL and EL on innovative behaviour even more significant. SL and EL styles, which emphasise shared power, collaboration, and the development of followers, naturally resonate more with individuals holding these values. This alignment between leadership style and individual cultural orientation facilitates a more fertile environment for innovative behaviour, as such followers are more likely to feel valued, understood, and supported in their innovative endeavours. This is in line with the findings by (Arain, Hameed & Crawshaw 2019) who indicate that SL positively affect employee voice behaviour in Saudi universities. It suggests that within the higher education sector, there is a shifting paradigm towards more inclusive, participative, and EL practices that resonate with a globally emerging trend towards flattening hierarchies and fostering innovation through collaboration and empowerment.

Contrary to hypothesis *H8d*, PDO does not moderate the relationship between AL and IWB. The results showed that AL is positively related to IWB regardless of the employee's PDO, suggesting that the effect of AL on innovative behaviour does not significantly vary with power distance orientation. A couple of explanations might be provided for such a finding. It could be argued that the universal appeal of AL might be a significant factor in this context. This suggests that the qualities inherent in AL transparency, integrity, and inclusivity are potent enough to transcend cultural barriers, promoting an environment where innovative ideas are encouraged and valued. This perspective challenges the traditional view that in high power distance cultures, hierarchical structures significantly impact the dynamics of leadership and innovation, suggesting instead that the nature of leadership itself could be a more critical factor. Zhang, Yucheng, Guo, et al. (2021) conducted a meta-analytic review of AL outcomes and showed that AL exerts a strong effect on affective commitment and satisfaction in China. They concluded that AL may be more useful in Asian countries that are high in power distance. Similarly, Hanges et al. (2016) have shown that ethical leadership is universally accepted, particularly the universal attributes of honesty, integrity, a coherent set of moral values, fairness, and transparency. Secondly, the findings may reflect broader organisational and societal shifts within KSA. As the country undergoes significant transformations, aiming to diversify its economy and enhance its educational sector through Vision 2030, there is a palpable shift towards more egalitarian and participative forms of governance and leadership. This evolution might be contributing to a decrease in the traditional impact of power distance on leadership effectiveness, particularly in the context of fostering innovation within higher education. It implies that as organisations and societies evolve, the influence of cultural dimensions like power distance on leadership dynamics may diminish, especially when leadership styles that emphasise authenticity and inclusivity are practised. Lastly, the role of the higher education sector in spearheading societal and cultural change cannot be underestimated. Universities and colleges are often the crucibles for innovation and change, shaping future leaders and contributing to the cultural zeitgeist. The emphasis on AL within this context may be indicative of a broader trend towards adopting leadership practices that not only challenge traditional norms but also align more closely with global educational and organisational best practices. This sector-specific dynamic suggests that educational institutions might be at the forefront of redefining leadership effectiveness in a way that minimises the traditional constraints imposed by power distance. Therefore, the core principles of AL self-awareness, relational transparency, ethical behaviour, and balanced

processing may be effective in encouraging innovation irrespective of the hierarchical or power structures within the organisation.

In brief, these findings contribute valuable insights into the interplay between leadership, culture, and innovation, highlighting the importance of considering cultural dimensions such as power distance when implementing leadership development and organisational change initiatives. They suggest that while some leadership styles may be universally effective in promoting innovation, others may require adaptation to align with the cultural context of the organisation. This underscores the need for organisations to be culturally aware and adaptable, choosing, and tailoring leadership development strategies that not only resonate with their cultural values but also effectively foster an environment conducive to innovation.

6.7 Servant Leadership as Necessary and Sufficient Condition for Innovative Work Behaviour

The study combined PLS-SEM with NCA to identify leadership styles that are necessary and sufficient for innovation. In other words, NCA is a methodological approach used to determine whether a particular condition (in this case, a leadership style) is essential for a specific outcome to occur (innovative behaviour). The analysis showed that among the leadership styles examined (transformational, servant, empowering, and authentic), only servant leadership consistently emerged as a necessary and sufficient condition that must be present to ensure innovative behaviour within an organisation. This suggests that innovation is less likely to occur without the presence of servant leadership qualities. This is consistent with findings presented by Lee, A, Lyubovnikova, et al. (2020), who revealed that servant leadership offers incremental predictive validity over transformational, authentic, and ethical leadership, particularly in fostering trust, procedural justice, and leader–member exchange, which in turn can enhance individual and team-level behavioural outcomes. Similarly, Hoch et al. (2018) demonstrated that servant leadership stands out as a potentially effective stand-alone leadership approach, capable of explaining a wide range of outcomes beyond those explained by authentic and ethical transformational. A possible explanation can be attributed to the fact that the servant leadership style is built on trust and mutual respect (Lee, A, Lyubovnikova, et al. 2020). This trustful environment encourages open communication and the sharing of new ideas without fear of ridicule or punishment, which is essential for innovation. Moreover, According to van Dierendonck et al. (2014), servant leadership functioned mainly through follower need satisfaction while transformational leadership

worked through perceived leadership effectiveness. This is because servant leaders prioritise the growth and well-being of their team members (Liden, Robert C et al. 2008). By empowering employees and supporting their professional development, servant leaders create an environment where innovative ideas are encouraged and valued.

Empirical studies have also indicated that servant leadership can explain incremental variance in innovative behaviour above and beyond TL, suggesting that SL's emphasis on follower development and empowerment may be more directly conducive to fostering an innovative mindset (Iqbal, Amjad, Ahmad & Nazir 2023; Zhang, Yucheng, Zheng, et al. 2021). Further, servant leaders focus on the greater good beyond the organisation's immediate interests, unlike transformational leaders, who develop followers for the sake of the organisation's objectives (Avolio, Bruce J., Bass & Jung 1999). This broader perspective encourages looking beyond conventional boundaries for innovative solutions that benefit the wider community. Therefore, servant leadership is necessary for promoting innovative behaviour as it provides a foundational leadership approach that prioritises follower development, empowerment, and service. This is perhaps because it promotes a holistic view of the workplace, seeing the connections between well-being, job satisfaction, and performance (Chiniara & Bentein 2016; Lee, A, Lyubovnikova, et al. 2020). This holistic approach fosters an integrated environment where innovation is a natural outcome of satisfied and engaged employees.

Viewing servant leadership in HEIs, it is effective in supporting well-being and engagement among faculty during disruptive times, such as the COVID-19 pandemic, by promoting altruistic principles and mitigating stress (Turner 2022). The implementation of servant leadership in higher education has also been associated with positive academic outcomes through increased job satisfaction among academics, which, in turn, enhances work engagement and affective commitment (Aboramadan, Dahleez & Hamad 2021). It has a significant positive impact on both the career and life satisfaction of faculty members, indicating its role in improving the overall quality of life within academic settings (Latif et al. 2021). Lastly, servant leadership facilitates teaching effectiveness among faculty members; Haider, Khan and Taj (2020) showed a strong positive and significant impact on teaching effectiveness, suggesting the nuanced influence of servant leadership on educational outcomes.

It can be concluded that, while transformational, empowering, and authentic styles contribute significantly to fostering innovative behaviour, servant leadership, with its unique focus on serving and developing followers, appears to be a particularly effective catalyst for innovation. servant leadership is vital in higher education for creating an environment that supports the growth and well-being of faculty, staff, and students, while also enhancing academic performance and educational outcomes. Its emphasis on service, empowerment, and community well-being aligns with the values and goals of educational institutions, making it an essential leadership model for higher education.

6.8 Study Implications

The outcomes of the present thesis study hold significant implications for theory, practice, and methodology. The implications are presented separately in the next sub-sections.

6.8.1 Theoretical Implications

From the theoretical perspective, this study significantly extends the leadership and innovation literature by comparing the effects of TL, SL, EL, and AL on IWB within KSA HEIs. It enriches the literature, which lacks sufficient comparative studies to allow a full understanding of leadership behaviours associated with IWB. While many studies have examined how existing leadership styles relate to employees' IWB, few have investigated which leadership styles are most significant in specific contexts for enhancing IWB. The findings uniquely contribute to the field by establishing that SL, EL, and AL styles are positively associated with IWB, and answer recent scholarly calls to compare the effect of various leadership styles on employees' IWB (Bracht et al. 2023; Hughes et al. 2018; Lee, A, Legood, et al. 2020). Furthermore, this study contributed to the SET (Blau 1964), by demonstrating how the quality of the exchange relationship between leaders and followers can influence IWB, suggesting that the reciprocal nature of these leadership styles is characterised by trust, support, and mutual respect to motivate employees to reciprocate in engaging in innovative endeavours.

Secondly, the study advances the understanding of the mechanisms underlying these relationships by demonstrating the mediating role of LMX in the link between SL, EL, AL and IWB. This investigation deepens the theoretical discourse by illustrating that the quality of leader-member relationships is a critical pathway through which these three leadership styles - SL, EL, and AL facilitate IWB. This suggests that the quality of the interpersonal

relationships between leaders and their followers is a key channel through which these leadership styles enhance innovative behaviours. It highlights the importance of relational dynamics in the leadership process, providing empirical support for the notion that high-quality leader-member relationships and exchange-based mechanisms are instrumental in realising the full potential of SL, EL, and AL for innovation. Furthermore, by integrating LMX theory into the analysis of leadership and innovation, this research enriches the theoretical landscape, suggesting that future models of leadership and innovation should incorporate relational dynamics as a central element.

In addition to these contributions, the study also generated a counterintuitive finding concerning the insignificant contribution of TL to IWB and LMX. In line with this finding, Bracht et al. (2023); Hughes et al. (2018) found similar patterns. One potential reason might be that, on its own, a leader's charisma may be intimidating or confusing for followers. This may mean that without the support of other positive characteristics such as serving followers, caring for their development and growth, relational transparency, a strong and positive moral compass, or balanced processing of information, followers might be less motivated to share their innovative ideas with their leader. These findings contribute to a more nuanced theoretical framework that recognises the multifaceted nature of leadership effects on innovation. It challenges the conventional view that primarily focuses on TL as the main driver of innovation, broadening the scope of leadership styles that are considered beneficial for promoting IWB.

Thirdly, the study contributes to the leadership literature by applying insights from cross-cultural leadership research to test boundary conditions of leadership-PDO-IWB links. The findings contribute to a deeper understanding of how cultural dimensions, specifically PDO, influence the effectiveness of different leadership styles in fostering innovation within organisations. This underscores the importance of contextualising leadership styles to incorporate cultural values, challenging the universality of leadership effectiveness across cultures. It suggests that the efficacy of SL and EL styles in promoting IWB is contingent upon the power distance orientation of followers. This insight extends current leadership models by integrating cultural sensitivity, advocating for a more nuanced application of leadership practices that consider the cultural orientation of followers. Further, the findings offer a nuanced perspective on power distance as not merely a national culture dimension but as an individual orientation that can significantly impact the leadership-follower dynamic.

This challenge potentially refines existing models of power distance by suggesting that individual variations within a culture can influence the effectiveness of leadership behaviours. It proposes that future research should consider individual-level cultural orientations alongside national culture to fully understand the leadership process in diverse cultural settings.

Further, the findings indicate that PDO did not moderate the link between AL and IWB within high power distance cultures like KSA. Corroborating the suggestion that AL may be more useful in countries that are high in power distance (Zhang, Yucheng, Guo, et al. 2021). The absence of a moderating effect of PDO on the relationship between AL and IWB could imply that the principles of AL are perceived as universally applicable, regardless of individual or national cultural orientations towards power distance. This challenges existing assumptions about the need for leadership styles to adapt to cultural contexts, proposing instead that the core values of authenticity may be globally resonant. This insight contributes to the ongoing debate on the universality versus cultural specificity of leadership effectiveness, suggesting that AL may bridge cultural divides by fostering an environment where innovation is nurtured regardless of power dynamics. This validates the work of Hanges et al. (2016), who argue that ethical leadership is universally accepted, particularly the universal attributes of honesty, integrity, a coherent set of moral values, fairness, and transparency.

6.8.2 Practical Implications

The findings of this study have significant implications for educational leadership and policymakers in the context of Saudi higher education. The findings illuminate a critical pathway for fostering an environment conducive to innovation within the Saudi higher education sector. The empirical evidence presented underscores the distinct roles of SL, EL, and AL in enhancing innovative behaviour among faculty members, with a noteworthy emphasis on the unique effectiveness of SL. The superior impact of SL over empowering and AL in promoting innovative behaviour suggests a pivotal managerial strategy and a need for nuanced leadership development programmes.

These programmes should aim to cultivate leadership behaviours that not only foster strong, reciprocal relationships between leaders and followers but also align with the cultural values and orientations of the institutional context. HEIs in KSA are encouraged to adopt SL as a

foundational leadership philosophy. This involves training and developing leaders who prioritise serving their followers and caring for their growth. Such leaders are instrumental in nurturing quality exchanges that not only foster a supportive environment but also stimulate innovative behaviours. By demonstrating fairness, concern, and trust, servant leaders can effectively encourage faculty members to share constructive ideas and suggestions without fear of reprimand. It is recommended for institutions to invest in leadership development programmes by focusing on cultivating the skills and behaviours associated with SL, such as empathy, active listening, stewardship, and a commitment to the growth of others. Furthermore, these programmes should also address how to effectively manage and leverage the dynamics of power distance to create an environment where innovative behaviour is not just encouraged but thrives. This approach is critical in a culture where hierarchical distinctions and power dynamics are prevalent.

Overall, the study highlights the importance of a strategic approach to leadership development and policy formulation that considers the complex interplay of leadership style, relational dynamics, and cultural context in driving innovation within Saudi higher education institutions.

6.8.3 Methodological Implications

The combined use of PLS-SEM and NCA presents a novel methodological approach in the exploration of leadership styles conducive to innovation within organisations. This methodological approach transcends the capabilities of traditional statistical analyses (i.e. correlation, regression, and latent variable analysis), which typically deal with average relationships; they also estimate the relationship across the distribution of raw scores. Using NCA, this research not only sheds light on the varying effects of leadership styles but also distinctly identifies those that are necessary and sufficient for fostering innovation, thus offering a richer and more complex view of leadership effectiveness in organisational settings. The application of NCA is particularly noteworthy for its ability to differentiate between conditions that are essential for achieving a desired outcome and those that are not (Dul, Van der Laan & Kuik 2020; Richter et al. 2020). In this study, SL emerged as the only leadership style that consistently proved to be both necessary and sufficient for the presence of innovative behaviour in organisations. This finding emphasises the importance of supportive, employee-centred leadership in creating an environment conducive to innovation. The methodological framework employed here, therefore, not only contributes to our

theoretical understanding of leadership's role in innovation but also has significant implications for research and practical applications in leadership development. Briefly, the methodological approach adopted in this research contributes significantly to the methodological rigour in organisational studies. It not only demonstrates the utility and feasibility of combining PLS-SEM with NCA but also challenges the traditional assumptions underlying many statistical analyses in the field. By providing a more comprehensive framework for understanding the complex dynamics of leadership and innovation, this study offers valuable insights for both researchers and practitioners aiming to cultivate innovative organisational environments.

6.9 Limitations

Despite the significant implications of this study, the results need to be interpreted with caution given the following limitations. First, the current research applied a cross-sectional strategy and consequently, conclusions regarding causality are difficult to confirm. The cross-sectional design is limited in its explanation of the directions of associations between the variables of the research model. Although the use of PLS-SEM allowed simultaneous testing of all constructs in this study's theoretical model, the obtained results merit caution. Secondly, the reliance on self-reported measures to collect data from faculty members introduces the potential for same-source bias. Although the construct of innovative behaviour addresses individuals' internal state, it was deemed appropriate for this study to directly collect data from the respondents. However, to mitigate the reliance on self-reported measures, data for constructs such as leadership styles LMX could be gathered from managers instead. Additionally, this study used IWB only as a one-dimensional construct instead of a multidimensional construct composed of idea generation, promotion, and realisation (Janssen 2000) because the research model would have been very large and too many relationships would have to be tested.

Third, limitations apply to the study regarding the single sector context, which was the higher education sector. Although the data was collected from five public universities from all regions of KSA, private universities were not considered. It would have been better to include private universities and other higher educational institutions. A better generalisation would have been possible had the data been collected from private educational institutions. In private universities, leadership practice and innovation may be different because of their profit orientation compared to the public universities which are mostly funded by the KSA

government. These results, therefore, need to be interpreted with caution regarding the effect of leadership on faculty members' innovation in public universities. Similarly, the study has focused only on the academic staff, and it is a fact that the number of non-teaching staff is larger than the teaching staff. The result would have been different had they been included in the sample. Another limitation of this present research is the nature of the data collection technique. The data was collected using a survey questionnaire. In addition to the survey questionnaire, other data collection methods such as interviews should be included to crosscheck the results and to strengthen the conclusion of the study.

The fourth limitation pertains to the fact that this present study was confined to only TL, SL, EL, and AL styles without considering additional leadership approaches that might influence innovative behaviour in Saudi higher education. This narrow scope may overlook the potential effect of other leadership styles, limiting the comprehensiveness of the findings and their applicability in understanding the full spectrum of leadership dynamics that could foster innovation. Finally, the study's focus on Saudi higher education, while providing in-depth insights into the relationship between leadership styles and innovative behaviour within this context, introduces a limitation by not considering other cultural values beyond power distance orientation. This oversight means the study may not fully capture how different cultural dimensions influence the effectiveness of leadership styles in fostering innovation. The exclusion of other cultural values limits the study's broader applicability and understanding of how leadership and innovation interplay across diverse cultural landscapes, potentially missing key insights relevant to a global educational context.

6.10 Future Research Directions

It is expected that regardless of its limitations, the findings offered in this thesis deliver valuable insights for future research directions. It is recommended for future research to conduct longitudinal studies or time-lag design which gather data at two points in time. Such design would provide a valuable and enhanced understanding of the effects of the leadership styles on IWB. Further, future research would benefit from utilising dyadic relationships to gather data and hence use different units of analysis such a team level and organisational level data, which might yield different results. Secondly, this study identifies differential effect of leadership styles that positively motivate employees' IWB in the KSA HEIs. Future research could include private universities, other service sectors and other countries. The external validity of this study could be improved by selecting samples from private HEIs,

service and cross countries as well as exploring how and which of these leadership styles account for fostering IWB in different specific contexts.

Thirdly, it is suggested that researchers include and compare the effects of other leadership styles, such as inclusive, ethical, spiritual, paternalistic and intrapreneurial leadership, or transactional leadership to further investigate their uniqueness in developing effects on IWB. Further, the assessment of studied leadership styles at the component level can lead to a greater understanding of the factorial effect of leadership on IWB. It could be argued that each subdimension of SL, EL, and AL leadership is a necessary, but not sufficient aspect to IWB.

Fourth, beyond the mediating of LMX, future studies could examine the role of psychological empowerment as a mediator to deliver a more complete understanding of how leadership styles affect IWB. In other words, psychological empowerment mediates the effects of approximately all leader variables, which is considered to be problematic. Investigating multiple leader styles and psychological empowerment as a concurrent mediator would exclude some of the leadership effects and build a more parsimonious and useful picture.

Finally, the study's focus on Saudi higher education, while providing in-depth insights into the relationship between leadership styles and IWB within this context, introduces a limitation by not considering other cultural values beyond power distance orientation. This oversight means the research may not fully capture how different cultural dimensions influence the effectiveness of leadership styles in fostering innovation. The exclusion of other cultural values restricts the study's broader applicability and understanding of how leadership and innovation interplay across diverse cultural landscapes. It is recommended that future studies incorporate other cultural values such as collectivism and uncertainty avoidance. Thus, the inclusion of culture study will expand the body of knowledge regarding leadership behaviours' influence on innovation in different contexts.

6.11 Concluding Remarks

In conclusion, fostering innovation stands as a paramount objective for leaders globally, embodying a crucial driver of progress and competitiveness in today's rapidly evolving landscape. The essence of this pursuit lies in the recognition that leadership and innovation are fundamentally intertwined, each driving the other forward. Thus, the study has

illuminated the intricate dynamics of leadership styles within the context of KSA's higher education sector, contributing valuable insights into the predictors of employee innovation by comparing the effect of various leadership on innovation. Through the analysis of data collected from 381 academic faculty members working in the top five universities, the study findings underscore the significance of servant, empowering and authentic leadership as pivotal elements in fostering an environment conducive to innovation. While the traditional expectations regarding transformational leadership's impact on innovation were not substantiated, this does not diminish the relevance of exploring diverse leadership paradigms. Instead, it accentuates the unique cultural and organisational landscapes in which these leadership styles operate. Notably, the study reveals the distinct advantage of servant leadership in stimulating innovation among faculty members, suggesting that the ethos of serving followers resonates more profoundly with the values and motivations of academic staff in this context. This study, therefore, not only expands the theoretical understanding of leadership's role in promoting innovation but also offers practical implications for academic institutions in KSA and similar settings. By embracing a servant leadership approach that aligns with the cultural nuances of their faculty, higher education institutions can unlock the full potential of their human capital and elevate their innovation level, thereby enhancing their contribution to the knowledge economy, societal advancement and achieving the objectives of Vision 2030.

References

- Aboramadan, M, Dahleez, K & Hamad, MH 2021, 'Servant leadership and academics outcomes in higher education: the role of job satisfaction', *International Journal of Organizational Analysis*, vol. 29, no. 3, pp. 562-584.
- Aboramadan, M, Hamid, Z, Kundi, YM & El Hamalawi, E 2022, 'The effect of servant leadership on employees' extra-role behaviors in NPOs: The role of work engagement', *Nonprofit Management and Leadership*, vol. 33, no. 1, pp. 109-129.
- Afsar, B, F. Badir, Y & Bin Saeed, B 2014, 'Transformational leadership and innovative work behavior', *Industrial Management & Data Systems*, vol. 114, no. 8, pp. 1270-1300.
- Agarwal, UA, Datta, S, Blake-Beard, S & Bhargava, S 2012, 'Linking LMX, innovative work behaviour and turnover intentions', *Career Development International*, vol. 17, no. 3, pp. 208-230.
- Ahearne, M, Mathieu, J & Rapp, A 2005, 'To empower or not to empower your sales force? An empirical examination of the influence of leadership empowerment behavior on customer satisfaction and performance', *Journal of applied psychology*, vol. 90, no. 5, p. 945.
- Ahmad, I & Gao, Y 2018, 'Ethical leadership and work engagement: The roles of psychological empowerment and power distance orientation', *Management Decision*, vol. 56, no. 9, pp. 1991-2005.
- Al-Husseini, S & Elbeltagi, I 2016, 'Transformational leadership and innovation: a comparison study between Iraq's public and private higher education', *Studies in Higher Education*, vol. 41, no. 1, pp. 159-181.
- Al-Moamary, MS, Al-Kadri, HM & Tamim, HM 2016, 'Authentic leadership in a health sciences university', *Medical Teacher*, vol. 38, no. 1, pp. 19-25.
- Alahmari, M, Issa, T, Issa, T & Nau, SZ 2019, 'Faculty awareness of the economic and environmental benefits of augmented reality for sustainability in Saudi Arabian universities', *Journal of Cleaner Production*, vol. 226, no. 1, pp. 259-269.
- Alghamdi, MG, Topp, R & AlYami, MS 2018, 'The effect of gender on transformational leadership and job satisfaction among Saudi nurses', *Journal of advanced nursing*, vol. 74, no. 1, pp. 119-127.
- Allam, Z 2020, 'Demystifying the Aspect of Quality in Higher Education: Insights From Saudi Arabia', *SAGE Open*, vol. 10, no. 1, pp. 1-8.
- AllmnaKrah, A & Evers, C 2020, 'The need for a fundamental shift in the Saudi education system: Implementing the Saudi Arabian economic vision 2030', *Research in Education*, vol. 106, no. 1, pp. 22-40.

Alofan, F, Chen, S & Tan, H 2020, 'National cultural distance, organizational culture, and adaptation of management innovations in foreign subsidiaries: A fuzzy set analysis of TQM implementation in Saudi Arabia', *Journal of Business Research*, vol. 109, pp. 184-199.

Alqahtani, M & Ayentimi, DT 2021, 'The devolvement of HR practices in Saudi Arabian public universities: Exploring tensions and challenges', *Asia Pacific Management Review*, vol. 26, no. 2, pp. 86-94.

Alshaikhmubarak, A, Da Camara, N & Baruch, Y 2020, 'The impact of high-performance human resource practices on the research performance and career success of academics in Saudi Arabia', *Career Development International*, vol. 25, no. 6, pp. 671-690.

ALSharari, MRM 2020, 'Evaluating Universities' Readiness in Qualifying Graduates to Achieve Saudi Vision 2030: A Constructive Analysis of Baldrige Scale', *Education and Urban Society*, vol. 52, no. 5, pp. 800-842.

Alvesson, M & Einola, K 2019, 'Warning for excessive positivity: Authentic leadership and other traps in leadership studies', *The leadership quarterly*, vol. 30, no. 4, pp. 383-395.

Amabile, TM 1988, 'A model of creativity and innovation in organizations', *Research in organizational behavior*, vol. 10, no. 1, pp. 123-167.

Amabile, TM, Conti, R, Coon, H, Lazenby, J & Herron, M 1996, 'Assessing the work environment for creativity', *Academy of management journal*, vol. 39, no. 5, pp. 1154-1184.

Amankwaa, A, Gyensare, MA & Susomrith, P 2019, 'Transformational leadership with innovative behaviour: Examining multiple mediating paths with PLS-SEM', *Leadership & Organization Development Journal*, vol. 40, no. 4, pp. 402-420.

Amundsen, S & Martinsen, ØL 2014, 'Empowering leadership: Construct clarification, conceptualization, and validation of a new scale', *The leadership quarterly*, vol. 25, no. 3, pp. 487-511.

Anderson, MH & Sun, PY 2017, 'Reviewing leadership styles: Overlaps and the need for a new 'full-range' theory', *International Journal of Management Reviews*, vol. 19, no. 1, pp. 76-96.

Anderson, N, De Dreu, CK & Nijstad, BA 2004, 'The routinization of innovation research: A constructively critical review of the state-of-the-science', *Journal of Organizational Behavior*, vol. 25, no. 2, pp. 147-173.

Anderson, N, Potocnik, K, Bledow, R, Hülsheger, U & Rosing, K 2018, *Innovation and creativity in organizations.*, 8.

Anderson, N, Potočník, K & Zhou, J 2014, 'Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework', *Journal of management*, vol. 40, no. 5, pp. 1297-1333.

Anderson, NR & West, MA 1998, 'Measuring climate for work group innovation: development and validation of the team climate inventory', *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, vol. 19, no. 3, pp. 235-258.

Anning-Dorson, T 2018, 'Innovation and competitive advantage creation', *International Marketing Review*, vol. 35, no. 4, pp. 580-600.

Antonakis, J, Avolio, BJ & Sivasubramaniam, N 2003, 'Context and leadership: an examination of the nine-factor full-range leadership theory using the Multifactor Leadership Questionnaire', *The leadership quarterly*, vol. 14, no. 3, pp. 261-295.

Antonakis, J, Bastardo, N, Jacquart, P & Shamir, B 2016, 'Charisma: An ill-defined and ill-measured gift', *Annual Review of Organizational Psychology and Organizational Behavior*, vol. 3, pp. 293-319.

Arain, GA, Hameed, I & Crawshaw, JR 2019, 'Servant leadership and follower voice: the roles of follower felt responsibility for constructive change and avoidance-approach motivation', *European Journal of Work and Organizational Psychology*, vol. 28, no. 4, pp. 555-565.

Arnold, JA, Arad, S, Rhoades, JA & Drasgow, F 2000, 'The empowering leadership questionnaire: The construction and validation of a new scale for measuring leader behaviors', *Journal of Organizational Behavior*, vol. 21, no. 3, pp. 249-269.

Aryee, S, Walumbwa, FO, Zhou, Q & Hartnell, CA 2012, 'Transformational leadership, innovative behavior, and task performance: Test of mediation and moderation processes', *Human Performance*, vol. 25, no. 1, pp. 1-25.

Atitumpong, A & Badir, YF 2018, 'Leader-member exchange, learning orientation and innovative work behavior', *Journal of Workplace Learning*, vol. 30, no. 1, pp. 32-47.

Atwater, L & Carmeli, A 2009, 'Leader-member exchange, feelings of energy, and involvement in creative work', *The leadership quarterly*, vol. 20, no. 3, pp. 264-275.

Avolio, BJ & Bass, BM 1995, 'Individual consideration viewed at multiple levels of analysis: A multi-level framework for examining the diffusion of transformational leadership', *The leadership quarterly*, vol. 6, no. 2, pp. 199-218.

Avolio, BJ & Bass, BM 2001, *Developing potential across a full range of Leadership : Cases on transactional and transformational leadership*, Psychology Press.

- Avolio, BJ, Bass, BM & Jung, DI 1999, 'Re-examining the components of transformational and transactional leadership using the Multifactor Leadership', *Journal of Occupational and organizational psychology*, vol. 72, no. 4, pp. 441-462.
- Avolio, BJ & Gardner, WL 2005, 'Authentic leadership development: Getting to the root of positive forms of leadership', *The leadership quarterly*, vol. 16, no. 3, pp. 315-338.
- Avolio, BJ, Gardner, WL, Walumbwa, FO, Luthans, F & May, DR 2004, 'Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors', *The leadership quarterly*, vol. 15, no. 6, pp. 801-823.
- Avolio, BJ, Zhu, W, Koh, W & Bhatia, P 2004, 'Transformational leadership and organizational commitment: mediating role of psychological empowerment and moderating role of structural distance', *Journal of Organizational Behavior*, vol. 25, no. 8, pp. 951-968.
- Axtell, CM, Holman, DJ, Unsworth, KL, Wall, TD, Waterson, PE & Harrington, E 2000, 'Shopfloor innovation: Facilitating the suggestion and implementation of ideas', *Journal of Occupational and organizational psychology*, vol. 73, no. 3, pp. 265-285.
- Ayman, R & Lauritsen, M 2018, 'Contingencies, context, situation, and leadership', in *The nature of leadership*, 3rd edn, Sage Publications, Inc, Thousand Oaks, CA, US, pp. 138-166.
- Baer, M & Frese, M 2003, 'Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance', *Journal of Organizational Behavior*, vol. 24, no. 1, pp. 45-68.
- Bammens, YPM 2016, 'Employees' Innovative Behavior in Social Context: A Closer Examination of the Role of Organizational Care', *Journal of Product Innovation Management*, vol. 33, no. 3, pp. 244-259.
- Bandura, A 1986, *Social foundation of thought and action: A Social Cognitive Theory*, Englewood cliffs, NJ: prentice Hall.
- Bani-Melhem, S, Al-Hawari, MA & Quratulain, S 2020, 'Leader-member exchange and frontline employees' innovative behaviors: the roles of employee happiness and service climate', *International Journal of Productivity and Performance Management*, vol. ahead-of-print, no. ahead-of-print.
- Banks, GC, Gooty, J, Ross, RL, Williams, CE & Harrington, NT 2018, 'Construct redundancy in leader behaviors: A review and agenda for the future', *The leadership quarterly*, vol. 29, no. 1, pp. 236-251.
- Banks, GC, McCauley, KD, Gardner, WL & Guler, CE 2016, 'A meta-analytic review of authentic and transformational leadership: A test for redundancy', *The leadership quarterly*, vol. 27, no. 4, pp. 634-652.

Bao, Y, Li, C & Zhao, H 2018, 'Servant leadership and engagement: a dual mediation model', *Journal of Managerial Psychology*, vol. 33, no. 6, pp. 406-417.

Barbuto Jr, JE & Wheeler, DW 2006, 'Scale development and construct clarification of servant leadership', *Group & Organization Management*, vol. 31, no. 3, pp. 300-326.

Baron, RM & Kenny, DA 1986, 'The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations', *Journal of personality and social psychology*, vol. 51, no. 6, pp. 1173-1182.

Bass, BM 1985, *Leadership and performance beyond expectations*, New York: Free Press.

Bass, BM 1997, 'Does the transactional–transformational leadership paradigm transcend organizational and national boundaries?', *American psychologist*, vol. 52, no. 2, p. 130.

Bass, BM & Avolio, BJ 1990, 'The implications of transactional and transformational leadership for individual, team, and organizational development', *Research in organizational change and development*, vol. 4, no. 1, pp. 231-272.

Bass, BM & Avolio, BJ 1994, *Improving organizational effectiveness through transformational leadership*, Sage, CA.

Bass, BM, Avolio, BJ, Jung, DI & Berson, Y 2003, 'Predicting unit performance by assessing transformational and transactional leadership', *Journal of applied psychology*, vol. 88, no. 2, pp. 207-218.

Bass, BM & Riggio, RE 2006, *Transformational leadership*, Psychology press.

Basu, R & Green, SG 1997, 'Leader-member exchange and transformational leadership: an empirical examination of innovative behaviors in leader-member dyads', *Journal of applied social psychology*, vol. 27, no. 6, pp. 477-499.

Becker, J & Niehaves, B 2007, 'Epistemological perspectives on IS research: a framework for analysing and systematizing epistemological assumptions', *Information Systems Journal*, vol. 17, no. 2, pp. 197-214.

Bednall, TC, E. Rafferty, A, Shipton, H, Sanders, K & J. Jackson, C 2018, 'Innovative Behaviour: How Much Transformational Leadership Do You Need?', *British Journal of Management*, vol. 29, no. 4, pp. 796-816.

Behrendt, P, Matz, S & Göritz, AS 2017, 'An integrative model of leadership behavior', *The leadership quarterly*, vol. 28, no. 1, pp. 229-244.

Bell, E, Bryman, A & Harley, B 2018, *Business research methods*, 5th edn, Oxford university press.

Bennis, W & Nanus, B 1985, 'The strategies for taking charge', *Leaders*, New York: Harper. Row, vol. 41.

Bertocci, DI 2009, *Leadership in organizations: There is a difference between leaders and managers*, University Press of America.

Beugelsdijk, S & Welzel, C 2018, 'Dimensions and dynamics of national culture: Synthesizing Hofstede with Inglehart', *Journal of cross-cultural psychology*, vol. 49, no. 10, pp. 1469-1505.

Bing, JW 2004, 'Hofstede's consequences: The impact of his work on consulting and business practices', *Academy of Management Perspectives*, vol. 18, no. 1, pp. 80-87.

Blau, PM 1964, *Exchange and power in social life*, J. Wiley, New York.

Boer, D, Deinert, A, Homan, AC & Voelpel, SC 2016, 'Revisiting the mediating role of leader–member exchange in transformational leadership: the differential impact model', *European Journal of Work and Organizational Psychology*, vol. 25, no. 6, pp. 883-899.

Boerner, S, Eisenbeiss, SA & Griesser, D 2007, 'Follower Behavior and Organizational Performance: The Impact of Transformational Leaders', *Journal of Leadership & Organizational Studies*, vol. 13, no. 3, pp. 15-26.

Bracht, EM, Monzani, L, Boer, D, Haslam, SA, Kerschreiter, R, Lemoine, JE, Steffens, NK, Akfirat, SA, Avanzi, L & Barghi, B 2023, 'Innovation across cultures: Connecting leadership, identification, and creative behavior in organizations', *Applied psychology*, vol. 72, no. 1, pp. 348-388.

Braun, S, Peus, C, Weisweiler, S & Frey, D 2013, 'Transformational leadership, job satisfaction, and team performance: A multilevel mediation model of trust', *The leadership quarterly*, vol. 24, no. 1, pp. 270-283.

Brown, F & Moshavi, D 2002, 'Herding Academic Cats: Faculty Reactions to Transformational and Contingent Reward Leadership by Department Chairs', *Journal of leadership studies*, vol. 8, no. 3.

Bryman, A 1992, *Charisma and leadership in organizations*, Sage London.

Bryman, A 2016, *Social research methods*, 5th edn, Oxford university press, United Kingdom.

Bunce, D & West, MA 1995, 'Self perceptions and perceptions of group climate as predictors of individual innovation at work', *Applied psychology*, vol. 44, no. 3, pp. 199-215.

Burns, J 1978, *Leadership*, Harper & Row, New York.

Burris, ER 2012, 'The risks and rewards of speaking up: Managerial responses to employee voice', *Academy of management journal*, vol. 55, no. 4, pp. 851-875.

Byrne, BM 2010, *Structural equation modeling with Mplus: Basic concepts, applications, and programming*, 2ed edn, Routledge, New York, NY.

Cai, W, Lysova, EI, Khapova, SN & Bossink, BAG 2018, 'Servant Leadership and Innovative Work Behavior in Chinese High-Tech Firms: A Moderated Mediation Model of Meaningful Work and Job Autonomy', *Frontiers in psychology*, vol. 9, no. 1, pp. 1-13.

Carmeli, A, Gelbard, R & Gefen, D 2010, 'The importance of innovation leadership in cultivating strategic fit and enhancing firm performance', *The leadership quarterly*, vol. 21, no. 3, pp. 339-349.

Carnevale, JB, Huang, L, Crede, M, Harms, P & Uhl-Bien, M 2017, 'Leading to stimulate employees' ideas: A quantitative review of leader-member exchange, employee voice, creativity, and innovative behavior', *Applied psychology*, vol. 66, no. 4, pp. 517-552.

Ceri-Booms, M, Curşeu, PL & Oerlemans, LA 2017, 'Task and person-focused leadership behaviors and team performance: A meta-analysis', *Human resource management review*, vol. 27, no. 1, pp. 178-192.

Černe, M, Jaklič, M & Škerlavaj, M 2013, 'Authentic leadership, creativity, and innovation: A multilevel perspective', *Leadership*, vol. 9, no. 1, pp. 63-85.

Chatzoglou, P & Chatzoudes, D 2018, 'The role of innovation in building competitive advantages: an empirical investigation', *European Journal of Innovation Management*.

Che, T, Wu, Z, Wang, Y & Yang, R 2019, 'Impacts of knowledge sourcing on employee innovation: the moderating effect of information transparency', *Journal of knowledge management*.

Chen, G, Farh, J-L, Campbell-Bush, EM, Wu, Z & Wu, X 2013, 'Teams as innovative systems: Multilevel motivational antecedents of innovation in R&D teams', *Journal of applied psychology*, vol. 98, no. 6, pp. 1018-1027.

Chen, G, Sharma, PN, Edinger, SK, Shapiro, DL & Farh, J-L 2011, 'Motivating and demotivating forces in teams: cross-level influences of empowering leadership and relationship conflict', *Journal of applied psychology*, vol. 96, no. 3, p. 541.

Chen, T-J & Wu, C-M 2017, 'Improving the turnover intention of tourist hotel employees', *International Journal of Contemporary Hospitality Management*, vol. 29, no. 7, pp. 1914-1936.

Chen, Z, Zhu, J & Zhou, M 2015, 'How does a servant leader fuel the service fire? A multilevel model of servant leadership, individual self identity, group competition climate, and customer service performance', *Journal of applied psychology*, vol. 100, no. 2, pp. 511-521.

Cheong, M, Spain, SM, Yammarino, FJ & Yun, S 2016, 'Two faces of empowering leadership: Enabling and burdening', *The leadership quarterly*, vol. 27, no. 4, pp. 602-616.

Cheong, M, Yammarino, FJ, Dionne, SD, Spain, SM & Tsai, C-Y 2019, 'A review of the effectiveness of empowering leadership', *The leadership quarterly*, vol. 30, no. 1, pp. 34-58.

Chin, WW 1998a, *Commentary: Issues and opinion on structural equation modeling*, JSTOR, 0276-7783.

Chin, WW 1998b, 'The partial least squares approach to structural equation modeling', *Modern methods for business research*, vol. 295, no. 2, pp. 295-336.

Chin, WW, Marcolin, BL & Newsted, PR 2003, 'A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study', *Information systems research*, vol. 14, no. 2, pp. 189-217.

Chiniara, M & Bentein, K 2016, 'Linking servant leadership to individual performance: Differentiating the mediating role of autonomy, competence and relatedness need satisfaction', *The leadership quarterly*, vol. 27, no. 1, pp. 124-141.

Choi, SB, Kim, K, Ullah, SE & Kang, S-W 2016, 'How transformational leadership facilitates innovative behavior of Korean workers', *Personnel Review*, vol. 45, no. 3, pp. 459-479.

Chung, DS & Li, JM 2021, 'Curvilinear effect of transformational leadership on innovative behavior among R&D teams in South Korea', *Journal of Organizational Change Management*, vol. 34, no. 1, pp. 252-270.

Clugston, M, Howell, JP & Dorfman, PW 2000, 'Does cultural socialization predict multiple bases and foci of commitment?', *Journal of management*, vol. 26, no. 1, pp. 5-30.

Cohen, J 1988, *Statistical power analysis for the behavioral sciences*, Academic press.

Colbert, A, Yee, N & George, G 2016, 'The Digital Workforce and the Workplace of the Future', *Academy of management journal*, vol. 59, no. 3, pp. 731-739.

Cole, MS, Carter, MZ & Zhang, Z 2013, 'Leader–team congruence in power distance values and team effectiveness: The mediating role of procedural justice climate', *Journal of applied psychology*, vol. 98, no. 6, p. 962.

Cooper, B, Eva, N, Fazlelahi, FZ, Newman, A, Lee, A & Obschonka, M 2020, 'Addressing common method variance and endogeneity in vocational behavior research: A review of the literature and suggestions for future research', *Journal of vocational behavior*, vol. 121, no. 3, pp. 103-117.

- Cooper, D & Schindler, P 2013, *Business research methods*, New York, USA: McGraw-Hill.
- Creswell, JW & Creswell, JD 2017, *Research design: Qualitative, quantitative, and mixed methods approaches*, Sage publications.
- Crotty, M & Crotty, MF 1998, *The foundations of social research: Meaning and perspective in the research process*, Sage.
- Curran, PJ, West, SG & Finch, JF 1996, 'The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis', *Psychological methods*, vol. 1, no. 1, pp. 16-29.
- Daft, RL 1978, 'A dual-core model of organizational innovation', *Academy of management journal*, vol. 21, no. 2, pp. 193-210.
- Daft, RL 1999, *Leadership: Theory and practice*, Harcourt College Pub.
- Damanpour, F 1991, 'Organizational innovation: A meta-analysis of effects of determinants and moderators', *Academy of management journal*, vol. 34, no. 3, pp. 555-590.
- Damanpour, F & Evan, WM 1984, 'Organizational innovation and performance: the problem of "organizational lag"', *Administrative science quarterly*, pp. 392-409.
- Dansereau Jr, F, Graen, G & Haga, WJ 1975, 'A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process', *Organizational behavior and human performance*, vol. 13, no. 1, pp. 46-78.
- Davila, T, Epstein, M & Shelton, R 2012, *Making innovation work: How to manage it, measure it, and profit from it*, FT press.
- de Boer, H 2021, 'COVID-19 in Dutch higher education', *Studies in Higher Education*, vol. 46, no. 1, pp. 96-106.
- De Jong, J & Den Hartog, D 2010, 'Measuring innovative work behaviour', *Creativity and Innovation Management*, vol. 19, no. 1, pp. 23-36.
- De Jong, JP & Den Hartog, DN 2007, 'How leaders influence employees' innovative behaviour', *European Journal of Innovation Management*.
- Deichmann, D & Stam, D 2015, 'Leveraging transformational and transactional leadership to cultivate the generation of organization-focused ideas', *The leadership quarterly*, vol. 26, no. 2, pp. 204-219.

- Denti, L & Hemlin, S 2012, 'Leadership and innovation in organizations: A systematic review of factors that mediate or moderate the relationship', *International Journal of Innovation Management*, vol. 16, no. 03, pp. 1-20.
- Dienesch, RM & Liden, RC 1986, 'Leader-member exchange model of leadership: A critique and further development', *Academy of management review*, vol. 11, no. 3, pp. 618-634.
- Dillman, DA, Smyth, JD & Christian, LM 2014, *Internet, phone, mail, and mixed-mode surveys: the tailored design method*, John Wiley & Sons.
- Dong, Y, Liao, H, Chuang, A, Zhou, J & Campbell, EM 2015, 'Fostering employee service creativity: Joint effects of customer empowering behaviors and supervisory empowering leadership', *Journal of applied psychology*, vol. 100, no. 5, p. 1364.
- Dorenbosch, L, Engen, MLv & Verhagen, M 2005, 'On-the-job Innovation: The Impact of Job Design and Human Resource Management through Production Ownership', *Creativity and Innovation Management*, vol. 14, no. 2, pp. 129-141.
- Dorfman, PW & Howell, JP 1988, 'Dimensions of national culture and effective leadership patterns: Hofstede revisited', *Advances in international comparative management*, vol. 3, no. 1, pp. 127-150.
- Duarte, AP, Ribeiro, N, Semedo, AS & Gomes, DR 2021, 'Authentic Leadership and Improved Individual Performance: Affective Commitment and Individual Creativity's Sequential Mediation', *Frontiers in psychology*, vol. 12, no. 1660, pp. 1-11.
- DuBrin, AJ 2015, *Leadership: Research findings, practice, and skills*, Cengage Learning.
- Dul, J 2016, 'Necessary condition analysis (NCA) logic and methodology of "necessary but not sufficient" causality', *Organizational Research Methods*, vol. 19, no. 1, pp. 10-52.
- Dul, J 2023, 'Necessary Condition Analysis (NCA) with R (Version 3.3. 2): A Quick Start Guide'.
- Dul, J, Van der Laan, E & Kuik, R 2020, 'A statistical significance test for necessary condition analysis', *Organizational Research Methods*, vol. 23, no. 2, pp. 385-395.
- Dulebohn, JH, Bommer, WH, Liden, RC, Brouer, RL & Ferris, GR 2012, 'A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future', *Journal of management*, vol. 38, no. 6, pp. 1715-1759.
- Dutta, S, Lanvin, B & Wunsch-Vincent, S 2020, *The Global Innovation Index 2020: Who Will Finance Innovation*.

Dvir, T, Eden, D, Avolio, BJ & Shamir, B 2002, 'Impact of Transformational Leadership on Follower Development and Performance: A Field Experiment', *Academy of management journal*, vol. 45, no. 4, pp. 735-744.

El Nemar, S, Vrontis, D & Thrassou, A 2020, 'An innovative stakeholder framework for the Student-Choice Decision making process', *Journal of Business Research*, vol. 119, pp. 339-353.

Elrehail, H, Emeagwali, OL, Alsaad, A & Alzghoul, A 2018, 'The impact of Transformational and Authentic leadership on innovation in higher education: The contingent role of knowledge sharing', *Telematics and Informatics*, vol. 35, no. 1, pp. 55-67.

Erdogan, B & Bauer, TN 2014, 'Leader-member exchange (LMX) theory: The relational approach to leadership', in *The Oxford handbook of leadership and organizations.*, Oxford University Press, New York, NY, US, pp. 407-433.

Eva, N, Robin, M, Sendjaya, S, van Dierendonck, D & Liden, RC 2019, 'Servant leadership: A systematic review and call for future research', *The leadership quarterly*, vol. 30, no. 1, pp. 111-132.

Evans, MG 1970, 'The effects of supervisory behavior on the path-goal relationship', *Organizational behavior and human performance*, vol. 5, no. 3, pp. 277-298.

Fagerberg, J & Srholec, M 2008, 'National innovation systems, capabilities and economic development', *Research Policy*, vol. 37, no. 9, pp. 1417-1435.

Farh, J-L, Hackett, RD & Liang, J 2007, 'Individual-level cultural values as moderators of perceived organizational support–employee outcome relationships in China: Comparing the effects of power distance and traditionality', *Academy of management journal*, vol. 50, no. 3, pp. 715-729.

Faul, F, Erdfelder, E, Buchner, A & Lang, A-G 2009, 'Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses', *Behavior research methods*, vol. 41, no. 4, pp. 1149-1160.

Faul, F, Erdfelder, E, Lang, A-G & Buchner, A 2007, 'G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences', *Behavior research methods*, vol. 39, no. 2, pp. 175-191.

Feng, C, Huang, X & Zhang, L 2016, 'A multilevel study of transformational leadership, dual organizational change and innovative behavior in groups', *Journal of Organizational Change Management*, vol. 29, no. 6, pp. 855-877.

Fernandez, S & Moldogaziev, T 2013, 'Using employee empowerment to encourage innovative behavior in the public sector', *Journal of public administration research and theory*, vol. 23, no. 1, pp. 155-187.

Fiedler, FE 1967, *A THEORY OF LEADERSHIP EFFECTIVENESS*, MCGRAW-HILL, New York.

Fischer, T, Dietz, J & Antonakis, J 2017, 'Leadership Process Models: A Review and Synthesis', *Journal of management*, vol. 43, no. 6, pp. 1726-1753.

Fischer, T & Sitkin, SB 2023, 'Leadership styles: A comprehensive assessment and way forward', *Academy of Management Annals*, vol. 17, no. 1, pp. 331-372.

Fladerer, MP & Braun, S 2020, 'Managers' Resources for Authentic Leadership—a Multi-study Exploration of Positive Psychological Capacities and Ethical Organizational Climates', *British Journal of Management*, vol. 31, no. 2, pp. 325-343.

Fong, KH & Snape, E 2015, 'Empowering Leadership, Psychological Empowerment and Employee Outcomes: Testing a Multi-level Mediating Model', *British Journal of Management*, vol. 26, no. 1, pp. 126-138.

Forés, B & Camisón, C 2016, 'Does incremental and radical innovation performance depend on different types of knowledge accumulation capabilities and organizational size?', *Journal of Business Research*, vol. 69, no. 2, pp. 831-848.

Fornell, C & Larcker, DF 1981, 'Evaluating structural equation models with unobservable variables and measurement error', *Journal of marketing research*, vol. 18, no. 1, pp. 39-50.

Forza, C 2010, 'Surveys', in *Researching operations management*, Routledge, pp. 98-175.

Frederiksen, MH & Knudsen, MP 2017, 'From creative ideas to innovation performance: The role of assessment criteria', *Creativity and Innovation Management*, vol. 26, no. 1, pp. 60-74.

Fullwood, R, Rowley, J & Delbridge, R 2013, 'Knowledge sharing amongst academics in UK universities', *Journal of knowledge management*.

Gardner, WL, Avolio, BJ, Luthans, F, May, DR & Walumbwa, F 2005, "'Can you see the real me?" A self-based model of authentic leader and follower development', *The leadership quarterly*, vol. 16, no. 3, pp. 343-372.

Garg, S & Dhar, R 2017, 'Employee service innovative behavior: The roles of leader-member exchange (LMX), work engagement, and job autonomy', *International Journal of Manpower*, vol. 38, no. 2, pp. 242-258.

Gelfand, MJ, Aycan, Z, Erez, M & Leung, K 2017, 'Cross-cultural industrial organizational psychology and organizational behavior: A hundred-year journey', *Journal of applied psychology*, vol. 102, no. 3, pp. 514-529.

George, JM & Zhou, J 2001, 'When openness to experience and conscientiousness are related to creative behavior: An interactional approach', *Journal of applied psychology*, vol. 86, no. 3, pp. 513-524.

Getz, I & Robinson, AG 2003, 'Innovate or die: Is that a fact?', *Creativity and Innovation Management*, vol. 12, no. 3, pp. 130-136.

Ghabban, F, Selamat, A & Ibrahim, R 2018, 'New model for encouraging academic staff in Saudi universities to use IT for knowledge sharing to improve scholarly publication performance', *Technology in Society*, vol. 55, no. 1, pp. 92-99.

Ghauri, P, Grønhaug, K & Strange, R 2020, *Research methods in business studies*, Cambridge University Press.

Ghulam, Y & Mousa, WI 2019, 'Estimation of productivity growth in the Saudi higher education sector', *Technological Forecasting and Social Change*, vol. 149, no. 1, pp. 1-15.

Gkorezis, P 2016, 'Principal empowering leadership and teacher innovative behavior: A moderated mediation model', *International Journal of Educational Management*, vol. 30, no. 6, pp. 1030-1044.

Goddard, B 2012, 'Future perspectives: horizon 2025', *Making a difference: Australian international education*, pp. 398-414.

Gonaim, FA 2019, 'Leadership in Higher Education in Saudi Arabia: Benefits, Constraints and Challenges of Adopting Servant Leadership Model by Department Chairs', *International Journal of Education and Practice*, vol. 7, no. 2, pp. 101-111.

Goncalo, JA & Staw, BM 2006, 'Individualism–collectivism and group creativity', *Organizational behavior and human decision processes*, vol. 100, no. 1, pp. 96-109.

Gopalakrishnan, S & Damanpour, F 1994, 'Patterns of generation and adoption of innovation in organizations: Contingency models of innovation attributes', *Journal of engineering and technology management*, vol. 11, no. 2, pp. 95-116.

Gottfredson, RK, Wright, SL & Heaphy, ED 2020, 'A critique of the leader-member exchange construct: back to square one', *The leadership quarterly*, vol. 31, no. 6, pp. 1-17.

Gough, HG 1979, 'A creative personality scale for the Adjective Check List', *Journal of personality and social psychology*, vol. 37, no. 8, pp. 1398-1405.

Gouldner, AW 1960, 'The norm of reciprocity: A preliminary statement', *American sociological review*, vol. 25, no. 2, pp. 161-178.

Graen, GB & Uhl-Bien, M 1995, 'Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective', *The leadership quarterly*, vol. 6, no. 2, pp. 219-247.

Greenleaf, RK 1977, *Servant leadership: A journey into the nature of legitimate power and greatness*, Paulist Press, New York.

Gregory Stone, A, Russell, RF & Patterson, K 2004, 'Transformational versus servant leadership: a difference in leader focus', *Leadership & Organization Development Journal*, vol. 25, no. 4, pp. 349-361.

Grimm, P 2010, 'Pretesting a questionnaire', *Wiley International Encyclopedia of Marketing*.

Grix, J 2002, 'Introducing students to the generic terminology of social research', *Politics*, vol. 22, no. 3, pp. 175-186.

Grošelj, M, Černe, M, Penger, S & Grah, B 2020, 'Authentic and transformational leadership and innovative work behaviour: the moderating role of psychological empowerment', *European Journal of Innovation Management*, vol. 24, no. 3, pp. 677-706.

Gu, H, Duverger, P & Yu, L 2017, 'Can innovative behavior be led by management? A study from the lodging business', *Tourism Management*, vol. 63, no. 3, pp. 144-157.

Günzel-Jensen, F, Hansen, JR, Jakobsen, MLF & Wulff, J 2018, 'A two-pronged approach? Combined leadership styles and innovative behavior', *International Journal of Public Administration*, vol. 41, no. 12, pp. 957-970.

Gunzler, D, Chen, T, Wu, P & Zhang, H 2013, 'Introduction to mediation analysis with structural equation modeling', *Shanghai archives of psychiatry*, vol. 25, no. 6, p. 390.

Guo, Y, Peng, Y & Zhu, Y 2023, 'How does empowering leadership motivate employee innovative behavior: A job characteristics perspective', *Current Psychology*, vol. 42, no. 21, pp. 18280-18290.

Haddad, MA, Freguglia, R & Gomes, C 2017, 'Public spending and quality of education in Brazil', *The Journal of Development Studies*, vol. 53, no. 10, pp. 1679-1696.

Haider, A, Khan, MA & Taj, T 2020, 'Impact of servant leadership on teaching effectiveness: A study of public sector universities, KP, Pakistan', *Global Regional Review*, vol. 5, no. 1, pp. 509-518.

Hair, J, Black, W, Babin, B & Anderson, R 2014, *Multivariate Data Analysis (S. Edition Ed.)*, United State of America: Pearson Education Limited.

Hair, JF, Anderson, RE, Babin, BJ & Black, WC 2010, *Multivariate data analysis*, 7th edn, NJ: Pearson Prentice Hall, Upper Saddle River.

- Hair, JF, Hult, GTM, Ringle, C & Sarstedt, M 2016, *A primer on partial least squares structural equation modeling (PLS-SEM)*, Sage publications.
- Hair, JF, Hult, GTM, Ringle, CM, Thiele, KO & Sarstedt, M 2017, 'Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods', *Journal of the academy of marketing science*, vol. 45, no. 5, pp. 616-632.
- Hair, JF, Ringle, CM & Sarstedt, M 2011, 'PLS-SEM: Indeed a silver bullet', *Journal of Marketing theory and Practice*, vol. 19, no. 2, pp. 139-152.
- Hair, JF, Risher, JJ, Sarstedt, M & Ringle, CM 2019, 'When to use and how to report the results of PLS-SEM', *European Business Review*, vol. 31, no. 1, pp. 2-24.
- Hair, JF, Sarstedt, M, Ringle, CM & Mena, JA 2012, 'An assessment of the use of partial least squares structural equation modeling in marketing research', *Journal of the academy of marketing science*, vol. 40, no. 3, pp. 414-433.
- Hair Jr, JF, Hult, GTM, Ringle, CM & Sarstedt, M 2021, *A primer on partial least squares structural equation modeling (PLS-SEM)*, Sage publications.
- Hair Jr, JF, Sarstedt, M, Hopkins, L & Kuppelwieser, VG 2014, 'Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research', *European Business Review*, vol. 26, no. 2, pp. 106-121.
- Hale, JR & Fields, DL 2007, 'Exploring servant leadership across cultures: A study of followers in Ghana and the USA', *Leadership*, vol. 3, no. 4, pp. 397-417.
- Hammond, MM, Neff, NL, Farr, JL, Schwall, AR & Zhao, X 2011, 'Predictors of individual-level innovation at work: A meta-analysis', *Psychology of Aesthetics, Creativity, and the Arts*, vol. 5, no. 1, pp. 90-105.
- Hanges, PJ, Aiken, JR, Park, J & Su, J 2016, 'Cross-cultural leadership: leading around the world', *Current Opinion in Psychology*, vol. 8, no. 1, pp. 64-69.
- Hannah, ST, Avolio, BJ & Walumbwa, FO 2011, 'Relationships between authentic leadership, moral courage, and ethical and pro-social behaviors', *Business Ethics Quarterly*, vol. 21, no. 4, pp. 555-578.
- Harris, TB, Li, N, Boswell, WR, Zhang, Xa & Xie, Z 2014, 'Getting what's new from newcomers: Empowering leadership, creativity, and adjustment in the socialization context', *Personnel Psychology*, vol. 67, no. 3, pp. 567-604.
- Harter, S 2002, 'Authenticity', in *Handbook of positive psychology.*, Oxford University Press, New York, NY, US, pp. 382-394.

Hassan, S, Mahsud, R, Yukl, G & Prussia, GE 2013, 'Ethical and empowering leadership and leader effectiveness', *Journal of Managerial Psychology*, vol. 28, no. 2, pp. 133-146.

Hassi, A, Rohlfer, S & Jebsen, S 2021, 'Empowering leadership and innovative work behavior: the mediating effects of climate for initiative and job autonomy in Moroccan SMEs', *EuroMed Journal of Business*, vol. 16, no. 2, pp. 1-16.

Hassi, A, Rohlfer, S & Jebsen, S 2022, 'Empowering leadership and innovative work behavior: the mediating effects of climate for initiative and job autonomy in Moroccan SMEs', *EuroMed Journal of Business*, vol. 17, no. 4, pp. 503-518.

Hayes, AF 2013, *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*, Guilford, New York.

Henderson, DJ, Liden, RC, Glibkowski, BC & Chaudhry, A 2009, 'LMX differentiation: A multilevel review and examination of its antecedents and outcomes', *The leadership quarterly*, vol. 20, no. 4, pp. 517-534.

Henseler, J, Dijkstra, TK, Sarstedt, M, Ringle, CM, Diamantopoulos, A, Straub, DW, Ketchen Jr, DJ, Hair, JF, Hult, GTM & Calantone, RJ 2014, 'Common beliefs and reality about PLS: Comments on Rönkkö and Evermann (2013)', *Organizational Research Methods*, vol. 17, no. 2, pp. 182-209.

Henseler, J & Fassott, G 2010, 'Testing Moderating Effects in PLS Path Models: An Illustration of Available Procedures', in V Esposito Vinzi, WW Chin, J Henseler & H Wang (eds), *Handbook of partial least squares: Concepts, methods and applications*, Springer Berlin Heidelberg, Berlin, Heidelberg, pp. 713-735, DOI 10.1007/978-3-540-32827-8_31, <https://doi.org/10.1007/978-3-540-32827-8_31>.

Henseler, J, Ringle, CM & Sarstedt, M 2015, 'A new criterion for assessing discriminant validity in variance-based structural equation modeling', *Journal of the academy of marketing science*, vol. 43, no. 1, pp. 115-135.

Henseler, J, Ringle, CM & Sinkovics, RR 2009, 'The use of partial least squares path modeling in international marketing', in *New Challenges to International Marketing*, Emerald Group Publishing Limited, vol. 20, pp. 277-319.

Henseler, J & Sarstedt, M 2013, 'Goodness-of-fit indices for partial least squares path modeling', *Computational statistics*, vol. 28, no. 2, pp. 565-580.

Hersey, P, Blanchard, KH & Johnson, D 1988, 'Management of Organizational Behavior: Utilizing', *Human resources*, vol. 5.

Hoang, G, Wilson-Evered, E & Lockstone-Binney, L 2019, 'Leading innovation among tourism small and medium enterprises', *Leadership & Organization Development Journal*, vol. 40, no. 5, pp. 647-666.

Hoch, JE, Bommer, WH, Dulebohn, JH & Wu, D 2018, 'Do ethical, authentic, and servant leadership explain variance above and beyond transformational leadership? A meta-analysis', *Journal of management*, vol. 44, no. 2, pp. 501-529.

Hofstede, G 1980a, *Culture's consequences: International differences in work-related values*, Sage, Beverly Hills, CA.

Hofstede, G 1980b, 'Motivation, leadership, and organization: do American theories apply abroad?', *Organizational dynamics*, vol. 9, no. 1, pp. 42-63.

Hofstede, G 2001, *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*, 2nd edn, Sage, Thousand Oaks, CA.

Hofstede, G 2010, 'Geert hofstede', *National cultural dimensions*, pp. 2-7.

Hofstede, G 2011, 'Dimensionalizing cultures: The Hofstede model in context', *Online readings in psychology and culture*, vol. 2, no. 1, pp. 2307-0919.1014.

Hofstede, G & Hofstede, GH 1984, *Culture's consequences: International differences in work-related values*, vol. 5, sage.

Höllerer, MA, Walgenbach, P & Drori, GS 2017, *The consequences of globalization for institutions and organizations*, The SAGE handbook of organizational institutionalism.

House, RJ 1971, 'A path goal theory of leader effectiveness', *Administrative science quarterly*, vol. 16, no. 3, pp. 321-339.

House, RJ 1996, 'Path-goal theory of leadership: Lessons, legacy, and a reformulated theory', *The leadership quarterly*, vol. 7, no. 3, pp. 323-352.

House, RJ, Hanges, PJ, Javidan, M, Dorfman, PW & Gupta, V 2004, *Culture, leadership, and organizations: The GLOBE study of 62 societies*, Sage publications, London, England.

House, RJ & Mitchell, TR 1975, *Path-goal theory of leadership*, washington univ seattle dept of psychology.

House, RJ & Shamir, B 1993, 'Toward the integration of transformational, charismatic, and visionary theories', in *Leadership theory and research: Perspectives and directions.*, Academic Press, San Diego, CA, US, pp. 81-107.

Hsieh, C-C & Wang, D-S 2015, 'Does supervisor-perceived authentic leadership influence employee work engagement through employee-perceived authentic leadership and employee trust?', *The International Journal of Human Resource Management*, vol. 26, no. 18, pp. 2329-2348.

Hsiung, H-H 2012, 'Authentic Leadership and Employee Voice Behavior: A Multi-Level Psychological Process', *Journal of Business Ethics*, vol. 107, no. 3, pp. 349-361.

Hu, J, Erdogan, B, Jiang, K, Bauer, TN & Liu, S 2018, 'Leader humility and team creativity: the role of team information sharing, psychological safety, and power distance', *Journal of applied psychology*, vol. 103, no. 3, p. 313.

Huang, W, Yuan, C & Li, M 2019a, 'Person–job fit and innovation behavior: Roles of job involvement and career commitment', *Frontiers in psychology*, vol. 10, no. 1, pp. 1-10.

Huang, W, Yuan, C & Li, M 2019b, 'Person–job fit and innovation behavior: Roles of job involvement and career commitment', *Frontiers in psychology*, vol. 10, p. 1134.

Hughes, DJ, Lee, A, Tian, AW, Newman, A & Legood, A 2018, 'Leadership, creativity, and innovation: A critical review and practical recommendations', *The leadership quarterly*, vol. 29, no. 5, pp. 549-569.

Hulland, J 1999, 'Use of partial least squares (PLS) in strategic management research: A review of four recent studies', *Strategic management journal*, vol. 20, no. 2, pp. 195-204.

Hullova, D, Trott, P & Simms, CD 2016, 'Uncovering the reciprocal complementarity between product and process innovation', *Research Policy*, vol. 45, no. 5, pp. 929-940.

Hult, GTM, Hurley, RF & Knight, GA 2004, 'Innovativeness: Its antecedents and impact on business performance', *Industrial marketing management*, vol. 33, no. 5, pp. 429-438.

Humborstad, SIW, Nerstad, CG & Dysvik, A 2014, 'Empowering leadership, employee goal orientations and work performance: A competing hypothesis approach', *Personnel Review*, vol. 43, no. 2, pp. 246-271.

Hurley, RF & Hult, GTM 1998, 'Innovation, market orientation, and organizational learning: an integration and empirical examination', *Journal of marketing*, vol. 62, no. 3, pp. 42-54.

Hussain, T, Iren, P & Rice, J 2020, 'Determinants of innovative behaviors among self-initiated expatriates', *Personnel Review*, vol. 49, no. 2, pp. 349-369.

Ilies, R, Morgeson, FP & Nahrgang, JD 2005, 'Authentic leadership and eudaemonic well-being: Understanding leader–follower outcomes', *The leadership quarterly*, vol. 16, no. 3, pp. 373-394.

IMF 2023, *Saudi Arabia: Staff concluding statement of the 2023*, Available at: <https://www.imf.org/en/News/Articles/2023/06/06/saudi-arabia-staff-concluding-statement-of-the-2023-article-iv-mission>

Iqbal, A 2011, 'Creativity and innovation in Saudi Arabia: An overview', *Innovation*, vol. 13, no. 3, pp. 376-390.

Iqbal, A, Ahmad, MS & Nazir, T 2023, 'Does servant leadership predict innovative behaviour above and beyond transformational leadership? Examining the role of affective commitment and creative self-efficacy', *Leadership & Organization Development Journal*, vol. 44, no. 1, pp. 34-51.

Iqbal, A, Latif, KF & Ahmad, MS 2020, 'Servant leadership and employee innovative behaviour: exploring psychological pathways', *Leadership & Organization Development Journal*, vol. 41, no. 6, pp. 813-827.

Ireland, RD & Hitt, MA 1999, 'Achieving and maintaining strategic competitiveness in the 21st century: The role of strategic leadership', *Academy of Management Perspectives*, vol. 13, no. 1, pp. 43-57.

Jada, UR & Mukhopadhyay, S 2018, 'Empowering leadership and constructive voice behavior: a moderated mediated model', *International Journal of Organizational Analysis*, vol. 26, no. 2, pp. 226-241.

Jada, UR & Mukhopadhyay, S 2019a, 'Empowering leadership and LMX as the mediators between leader's personality traits and constructive voice behavior', *International Journal of Organizational Analysis*, vol. 27, no. 1, pp. 74-93.

Jada, UR & Mukhopadhyay, S 2019b, 'Understanding the effects of empowering, transformational and ethical leadership on promotive and prohibitive voice', *Personnel Review*, vol. 48, no. 3, pp. 707-730.

Jada, UR, Mukhopadhyay, S & Titiyal, R 2019, 'Empowering leadership and innovative work behavior: a moderated mediation examination', *Journal of knowledge management*, vol. 23, no. 5, pp. 915-930.

Jaiswal, NK & Dhar, RL 2015, 'Transformational leadership, innovation climate, creative self-efficacy and employee creativity: A multilevel study', *International Journal of Hospitality Management*, vol. 51, pp. 30-41.

Jaiswal, NK & Dhar, RL 2017, 'The influence of servant leadership, trust in leader and thriving on employee creativity', *Leadership & Organization Development Journal*, vol. 38, no. 1, pp. 2-21.

Janssen, O 2000, 'Job demands, perceptions of effort-reward fairness and innovative work behaviour', *Journal of Occupational and organizational psychology*, vol. 73, no. 3, pp. 287-302.

Janssen, O 2004, 'How fairness perceptions make innovative behavior more or less stressful', *Journal of Organizational Behavior*, vol. 25, no. 2, pp. 201-215.

Janssen, O 2005, 'The joint impact of perceived influence and supervisor supportiveness on employee innovative behaviour', *Journal of Occupational and organizational psychology*, vol. 78, no. 4, pp. 573-579.

Janssen, O, Van de Vliert, E & West, M 2004, 'The bright and dark sides of individual and group innovation: A special issue introduction', *Journal of Organizational Behavior*, vol. 25, no. 2, pp. 129-145.

Jaskyte, K 2004, 'Transformational leadership, organizational culture, and innovativeness in nonprofit organizations', *Nonprofit Management and Leadership*, vol. 15, no. 2, pp. 153-168.

Javed, B, Abdullah, I, Zaffar, MA, ul Haque, A & Rubab, U 2019, 'Inclusive leadership and innovative work behavior: The role of psychological empowerment', *Journal of Management & Organization*, vol. 25, no. 4, pp. 554-571.

Jiang, W, Gu, Q & Wang, GG 2015, 'To Guide or to Divide: The Dual-Side Effects of Transformational Leadership on Team Innovation', *Journal of Business and Psychology*, vol. 30, no. 4, pp. 677-691.

Jiménez-Jiménez, D & Sanz-Valle, R 2011, 'Innovation, organizational learning, and performance', *Journal of Business Research*, vol. 64, no. 4, pp. 408-417.

Jones, ML 2007, 'Hofstede-culturally questionable?', paper presented to Oxford Business & Economics Conference Oxford, UK, 24-26 June, 2007.

Judge, TA & Piccolo, RF 2004, 'Transformational and transactional leadership: a meta-analytic test of their relative validity', *Journal of applied psychology*, vol. 89, no. 5, pp. 755-768.

Jung, D, Yammarino, FJ & Lee, JK 2009, 'Moderating role of subordinates' attitudes on transformational leadership and effectiveness: A multi-cultural and multi-level perspective', *The leadership quarterly*, vol. 20, no. 4, pp. 586-603.

Jung, DI & Avolio, BJ 2000, 'Opening the black box: An experimental investigation of the mediating effects of trust and value congruence on transformational and transactional leadership', *Journal of Organizational Behavior*, vol. 21, no. 8, pp. 949-964.

Jung, DI, Bass, BM & Sosik, JJ 1995, 'Bridging leadership and culture: A theoretical consideration of transformational leadership and collectivistic cultures', *Journal of leadership studies*, vol. 2, no. 4, pp. 3-18.

Jung, DI, Chow, C & Wu, A 2003, 'The role of transformational leadership in enhancing organizational innovation: Hypotheses and some preliminary findings', *The leadership quarterly*, vol. 14, no. 4-5, pp. 525-544.

Kang, JH, Solomon, GT & Choi, DY 2015, 'CEOs' leadership styles and managers' innovative behaviour: Investigation of intervening effects in an entrepreneurial context', *Journal of Management Studies*, vol. 52, no. 4, pp. 531-554.

Kanter, RM 1988, 'When a thousand flowers bloom: Structural, collective, and social conditions for innovation in organizations', *Knowledge Management and Organisational Design*, vol. 10, no. 1, pp. 93-131.

Karatepe, OM, Aboramadan, M & Dahleez, KA 2020, 'Does climate for creativity mediate the impact of servant leadership on management innovation and innovative behavior in the hotel industry?', *International Journal of Contemporary Hospitality Management*, vol. 32, no. 8, pp. 2497-2517.

Kark, R, Shamir, B & Chen, G 2003, 'The two faces of transformational leadership: Empowerment and dependency', *Journal of applied psychology*, vol. 88, no. 2, pp. 246-255.

Kaya, B & Karatepe, OM 2020, 'Does servant leadership better explain work engagement, career satisfaction and adaptive performance than authentic leadership?', *International Journal of Contemporary Hospitality Management*, vol. 32, no. 6, pp. 2075-2095.

Kessel, M, Hannemann-Weber, H & Kratzer, J 2012, 'Innovative work behavior in healthcare: The benefit of operational guidelines in the treatment of rare diseases', *Health Policy*, vol. 105, no. 2, pp. 146-153.

Khalili, A 2016, 'Linking transformational leadership, creativity, innovation, and innovation-supportive climate', *Management Decision*, vol. 54, no. 9, pp. 2277-2293.

Khan, MK & Khan, MB 2020, *Research, Innovation and Entrepreneurship in Saudi Arabia: Vision 2030*, Routledge, London.

Khan, MM, Ahmed, SS & Khan, E 2021, 'The emerging paradigm of leadership for future: The use of authentic leadership to Lead innovation in VUCA environment', *Frontiers in psychology*, vol. 12, no. 1, p. 759241.

Khan, MM, Mubarik, MS & Islam, T 2020, 'Leading the innovation: role of trust and job crafting as sequential mediators relating servant leadership and innovative work behavior', *European Journal of Innovation Management*, vol. ahead-of-print, no. ahead-of-print.

Khan, MM, Mubarik, MS, Islam, T, Rehman, A, Ahmed, SS, Khan, E & Sohail, F 2022, 'How servant leadership triggers innovative work behavior: exploring the sequential mediating role of psychological empowerment and job crafting', *European Journal of Innovation Management*, vol. 25, no. 4, pp. 1037-1055.

Khayati, A & Selim, M 2019, 'The status of innovation in Saudi Universities', *Cogent Education*, vol. 6, no. 1, pp. 1–12.

Khorsheed, MS 2015, 'Saudi Arabia: from oil kingdom to knowledge-based economy', *Middle East Policy*, vol. 22, no. 3, pp. 147-157.

Kim, M-S & Koo, D-W 2017, 'Linking LMX, engagement, innovative behavior, and job performance in hotel employees', *International Journal of Contemporary Hospitality Management*, vol. 29, no. 12, pp. 3044-3062.

Kim, M & Beehr, TA 2020, 'Empowering leadership: leading people to be present through affective organizational commitment?', *The International Journal of Human Resource Management*, vol. 31, no. 16, pp. 2017-2044.

Kim, M & Beehr, TA 2021, 'The power of empowering leadership: allowing and encouraging followers to take charge of their own jobs', *The International Journal of Human Resource Management*, vol. 32, no. 9, pp. 1865-1898.

Kim, M & Beehr, TA 2023, 'Empowering leadership improves employees' positive psychological states to result in more favorable behaviors', *The International Journal of Human Resource Management*, vol. 34, no. 10, pp. 2002-2038.

Kim, M, Beehr, TA & Prewett, MS 2018, 'Employee responses to empowering leadership: A meta-analysis', *Journal of Leadership & Organizational Studies*, vol. 25, no. 3, pp. 257-276.

Kim, TY, Liu, Z & Diefendorff, JM 2015, 'Leader–member exchange and job performance: The effects of taking charge and organizational tenure', *Journal of Organizational Behavior*, vol. 36, no. 2, pp. 216-231.

Kirkman, BL, Chen, G, Farh, J-L, Chen, ZX & Lowe, KB 2009, 'Individual power distance orientation and follower reactions to transformational leaders: A cross-level, cross-cultural examination', *Academy of management journal*, vol. 52, no. 4, pp. 744-764.

Kirkman, BL, Lowe, KB & Gibson, CB 2006, 'A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework', *Journal of International Business Studies*, vol. 37, no. 3, pp. 285-320.

Kirkman, BL & Rosen, B 1999, 'Beyond self-management: Antecedents and consequences of team empowerment', *Academy of management journal*, vol. 42, no. 1, pp. 58-74.

Kleysen, RF & Street, CT 2001, 'Toward a multi-dimensional measure of individual innovative behavior', *Journal of Intellectual Capital*, vol. 2, no. 3, pp. 284-296.

- Kline, RB 2023, *Principles and practice of structural equation modeling*, 5th edn, Guilford publications, New York.
- Kothari, CR 2004, *Research methodology: Methods and techniques*, Second edn, New Age International, New Delhi.
- Kotter, JP 2008, *Force for change: How leadership differs from management*, Simon and Schuster.
- Kpmg 2021, *Kingdom of Saudi Arabia Budget Report*, [online] Available at: <https://assets.kpmg/content/dam/kpmg/sa/pdf/2019/KingdomofSaudi%20Arabia2020BudgetReport.pdf>
- Krejcie, RV & Morgan, DW 1970, 'Determining sample size for research activities', *Educational and psychological measurement*, vol. 30, no. 3, pp. 607-610.
- Kwak, WJ & Jackson, CL 2015, 'Relationship building in empowering leadership processes: A test of mediation and moderation', *Journal of Management & Organization*, vol. 21, no. 4, pp. 369-387.
- Kwan, HK, Chen, H & Chiu, RK 2020, 'Effects of empowering leadership on followers' work–family interface', *The International Journal of Human Resource Management*, vol. 31, pp. 1-34.
- Larson, M 2011, 'Innovation and creativity in festival organizations', *Journal of Hospitality Marketing & Management*, vol. 20, no. 3-4, pp. 287-310.
- Latif, KF, Machuca, MM, Marimon, F & Sahibzada, UF 2021, 'Servant Leadership, Career, and Life Satisfaction in Higher Education: a Cross-Country Study of Spain, China, and Pakistan', *Applied Research in Quality of Life*, vol. 16, no. 3, pp. 1221-1247.
- Lee, A, Legood, A, Hughes, D, Tian, AW, Newman, A & Knight, C 2020, 'Leadership, creativity and innovation: A meta-analytic review', *European Journal of Work and Organizational Psychology*, vol. 29, no. 1, pp. 1-35.
- Lee, A, Lyubovnikova, J, Tian, AW & Knight, C 2020, 'Servant leadership: A meta-analytic examination of incremental contribution, moderation, and mediation', *Journal of Occupational and organizational psychology*, vol. 93, no. 1, pp. 1-44.
- Lee, A, Willis, S & Tian, AW 2018, 'Empowering leadership: A meta-analytic examination of incremental contribution, mediation, and moderation', *Journal of Organizational Behavior*, vol. 39, no. 3, pp. 306-325.
- Lee, S, Cheong, M, Kim, M & Yun, S 2017, 'Never Too Much? The Curvilinear Relationship Between Empowering Leadership and Task Performance', *Group & Organization Management*, vol. 42, no. 1, pp. 11-38.

Legood, A, van der Werff, L, Lee, A & Den Hartog, D 2021, 'A meta-analysis of the role of trust in the leadership-performance relationship', *European Journal of Work and Organizational Psychology*, vol. 30, no. 1, pp. 1-22.

Leibold, M & Voelpel, S 2013, 'The Innovative University: Changing the DNA of Higher Education From the Inside Out', *Academy of Management Learning & Education*, vol. 12, no. 4, pp. 676-679.

Lemoine, GJ, Hartnell, CA & Leroy, H 2019, 'Taking stock of moral approaches to leadership: An integrative review of ethical, authentic, and servant leadership', *Academy of Management Annals*, vol. 13, no. 1, pp. 148-187.

Li, F, Liu, B, Lin, W, Wei, X & Xu, Z 2021, 'How and when servant leadership promotes service innovation: A moderated mediation model', *Tourism Management*, vol. 86, pp. 1-12.

Li, M, Liu, W, Han, Y & Zhang, P 2016, 'Linking empowering leadership and change-oriented organizational citizenship behavior', *Journal of Organizational Change Management*, vol. 29, no. 5, pp. 732-750.

Li, N, Chiaburu, DS & Kirkman, BL 2017, 'Cross-level influences of empowering leadership on citizenship behavior: Organizational support climate as a double-edged sword', *Journal of management*, vol. 43, no. 4, pp. 1076-1102.

Li, S-L, He, W, Yam, KC & Long, L-R 2015, 'When and why empowering leadership increases followers' taking charge: A multilevel examination in China', *Asia Pacific Journal of Management*, vol. 32, no. 3, pp. 645-670.

Lian, H, Ferris, DL & Brown, DJ 2012, 'Does power distance exacerbate or mitigate the effects of abusive supervision? It depends on the outcome', *Journal of applied psychology*, vol. 97, no. 1, pp. 107-123.

Liang, S-G 2017, 'Linking leader authentic personality to employee voice behaviour: a multilevel mediation model of authentic leadership development', *European Journal of Work and Organizational Psychology*, vol. 26, no. 3, pp. 434-443.

Liao, C, Liden, RC, Liu, Y & Wu, J 2021, 'Blessing or curse: The moderating role of political skill in the relationship between servant leadership, voice, and voice endorsement', *Journal of Organizational Behavior*, vol. 42, no. 5, pp. 1-18.

Liden, RC, Erdogan, B, Wayne, SJ & Sparrowe, RT 2006, 'Leader-member exchange, differentiation, and task interdependence: implications for individual and group performance', *Journal of Organizational Behavior*, vol. 27, no. 6, pp. 723-746.

Liden, RC, Panaccio, A, Meuser, JD, Hu, J & Wayne, SJ 2014, 'Servant leadership: Antecedents, processes, and outcomes', in *The Oxford handbook of leadership and organizations.*, Oxford University Press, New York, NY, US, pp. 357-379, DOI 10.1093/oxfordhb/9780199755615.013.018.

Liden, RC, Sparrowe, RT & Wayne, SJ 1997, 'Leader-member exchange theory: The past and potential for the future', *Research in personnel and human resources management*, vol. 15, pp. 47-120.

Liden, RC, Wayne, SJ, Liao, C & Meuser, JD 2014, 'Servant leadership and serving culture: Influence on individual and unit performance', *Academy of management journal*, vol. 57, no. 5, pp. 1434-1452.

Liden, RC, Wayne, SJ, Meuser, JD, Hu, J, Wu, J & Liao, C 2015, 'Servant leadership: Validation of a short form of the SL-28', *The leadership quarterly*, vol. 26, no. 2, pp. 254-269.

Liden, RC, Wayne, SJ, Zhao, H & Henderson, D 2008, 'Servant leadership: Development of a multidimensional measure and multi-level assessment', *The leadership quarterly*, vol. 19, no. 2, pp. 161-177.

Lim, S & Ok, CM 2021, 'Fostering absorptive capacity and facilitating innovation in hospitality organizations through empowering leadership', *International Journal of Hospitality Management*, vol. 94, no. 1, pp. 1-9.

Lin, W, Ma, J, Zhang, Q, Li, JC & Jiang, F 2018, 'How is benevolent leadership linked to employee creativity? The mediating role of leader-member exchange and the moderating role of power distance orientation', *Journal of Business Ethics*, vol. 152, no. 4, pp. 1099-1115.

Lin, W, Wang, L & Chen, S 2013, 'Abusive supervision and employee well-being: The moderating effect of power distance orientation', *Applied psychology*, vol. 62, no. 2, pp. 308-329.

Lin, X, Chen, ZX, Herman, H, Wei, W & Ma, C 2019, 'Why and when employees like to speak up more under humble leaders? The roles of personal sense of power and power distance', *Journal of Business Ethics*, vol. 158, no. 4, pp. 937-950.

Lincoln, YS, Lynham, SA & Guba, EG 2011, 'Paradigmatic controversies, contradictions, and emerging confluences, revisited', *The Sage handbook of qualitative research*, vol. 4, pp. 97-128.

Lipscombe, K, Tindall-Ford, S & Kirk, M 2019, 'Leading a top down directive from the bottom up: A school and university partnership', *Leading and Managing*, vol. 25, no. 1, p. 29.

Little, TD, Bovaird, JA & Widaman, KF 2006, 'On the merits of orthogonalizing powered and product terms: Implications for modeling interactions among latent variables', *Structural equation modeling*, vol. 13, no. 4, pp. 497-519.

Liu, W, Zhu, R & Yang, Y 2010, 'I warn you because I like you: Voice behavior, employee identifications, and transformational leadership', *The leadership quarterly*, vol. 21, no. 1, pp. 189-202.

- Lo, MF & Tian, F 2020, 'Enhancing competitive advantage in Hong Kong higher education: Linking knowledge sharing, absorptive capacity and innovation capability', *Higher Education Quarterly*, vol. 74, no. 4, pp. 426-441.
- Loi, R, Chan, KW & Lam, LW 2014, 'Leader–member exchange, organizational identification, and job satisfaction: A social identity perspective', *Journal of Occupational and organizational psychology*, vol. 87, no. 1, pp. 42-61.
- Lord, RG, Day, DV, Zaccaro, SJ, Avolio, BJ & Eagly, AH 2017, 'Leadership in applied psychology: Three waves of theory and research', *Journal of applied psychology*, vol. 102, no. 3, p. 434.
- Lorsch, J 2010, *A contingency theory of leadership. Handbook of leadership theory and practice*, Boston: Harvard Business Press.
- Luksyte, A, Unsworth, KL & Avery, DR 2018, 'Innovative work behavior and sex-based stereotypes: Examining sex differences in perceptions and evaluations of innovative work behavior', *Journal of Organizational Behavior*, vol. 39, no. 3, pp. 292-305.
- Lune, H & Berg, BL 2017, *Qualitative research methods for the social sciences*, 9th edn, Pearson, England.
- Luthans, F & Avolio, B 2003, 'Authentic Leadership development.', in *Positive organizational scholarship: Foundations of a new discipline*, Berrett-Koehler, San Francisco, pp. 241-258.
- Lyu, Y, Wang, M, Le, J & Kwan, HK 2019, 'Effects of authentic leadership on work–family balance in China', *Journal of Managerial Psychology*, vol. 34, no. 2, pp. 110-123.
- MacCallum, RC, Browne, MW & Sugawara, HM 1996, 'Power analysis and determination of sample size for covariance structure modeling', *Psychological methods*, vol. 1, no. 2, p. 130.
- MacKinnon, DP, Lockwood, CM & Williams, J 2004, 'Confidence limits for the indirect effect: Distribution of the product and resampling methods', *Multivariate behavioral research*, vol. 39, no. 1, pp. 99-128.
- Madrid, HP, Patterson, MG, Birdi, KS, Leiva, PI & Kausel, EE 2014, 'The role of weekly high-activated positive mood, context, and personality in innovative work behavior: A multilevel and interactional model', *Journal of Organizational Behavior*, vol. 35, no. 2, pp. 234-256.
- Makri, M & Scandura, TA 2010, 'Exploring the effects of creative CEO leadership on innovation in high-technology firms', *The leadership quarterly*, vol. 21, no. 1, pp. 75-88.
- Martin, R, Guillaume, Y, Thomas, G, Lee, A & Epitropaki, O 2016, 'Leader–member exchange (LMX) and performance: A meta-analytic review', *Personnel Psychology*, vol. 69, no. 1, pp. 67-121.

Martin, R, Thomas, G, Legood, A & Dello Russo, S 2018, 'Leader–member exchange (LMX) differentiation and work outcomes: Conceptual clarification and critical review', *Journal of Organizational Behavior*, vol. 39, no. 2, pp. 151-168.

Martin, SL, Liao, H & Campbell, EM 2013, 'Directive versus empowering leadership: A field experiment comparing impacts on task proficiency and proactivity', *Academy of management journal*, vol. 56, no. 5, pp. 1372-1395.

Mascareño, J, Rietzschel, E & Wisse, B 2020, 'Leader-Member Exchange (LMX) and innovation: A test of competing hypotheses', *Creativity and Innovation Management*, vol. 29, no. 3, pp. 495-511.

Maslyn, JM & Uhl-Bien, M 2001, 'Leader–member exchange and its dimensions: Effects of self-effort and other's effort on relationship quality', *Journal of applied psychology*, vol. 86, no. 4, pp. 697-708.

Masood, M & Afsar, B 2017, 'Transformational leadership and innovative work behavior among nursing staff', *Nursing Inquiry*, vol. 24, no. 4, pp. 1-14.

Matthews, SH, Kelemen, TK & Bolino, MC 2021, 'How follower traits and cultural values influence the effects of leadership', *The leadership quarterly*, vol. 32, no. 1, p. 101497.

May, DR, Chan, AYL, Hodges, TD & Avolio, BJ 2003, 'Developing the Moral Component of Authentic Leadership', *Organizational dynamics*, vol. 32, no. 3, pp. 247-260.

Mayer, DM, Bardes, M & Piccolo, RF 2008, 'Do servant-leaders help satisfy follower needs? An organizational justice perspective', *European Journal of Work and Organizational Psychology*, vol. 17, no. 2, pp. 180-197.

McSweeney, B 2002a, 'The essentials of scholarship: A reply to Geert Hofstede', *Human relations*, vol. 55, no. 11, pp. 1363-1372.

McSweeney, B 2002b, 'Hofstede's model of national cultural differences and their consequences: A triumph of faith-a failure of analysis', *Human relations*, vol. 55, no. 1, pp. 89-118.

Mertens, DM 2007, 'Transformative paradigm: Mixed methods and social justice', *Journal of mixed methods research*, vol. 1, no. 3, pp. 212-225.

Miao, Q, Newman, A & Lamb, P 2012, 'Transformational leadership and the work outcomes of Chinese migrant workers: The mediating effects of identification with leader', *Leadership*, vol. 8, no. 4, pp. 377-395.

Michaelis, B, Stegmaier, R & Sonntag, K 2010, 'Shedding light on followers' innovation implementation behavior', *Journal of Managerial Psychology*, vol. 25, no. 4, pp. 408-429.

Miotto, G, Del-Castillo-Feito, C & Blanco-González, A 2020, 'Reputation and legitimacy: Key factors for Higher Education Institutions' sustained competitive advantage', *Journal of Business Research*, vol. 112, pp. 342-353.

MOE 2019, *Ministry of education*, www.moe.gov.sa.

Montani, F, Odoardi, C & Battistelli, A 2014, 'Individual and contextual determinants of innovative work behaviour: Proactive goal generation matters', *Journal of Occupational and organizational psychology*, vol. 87, no. 4, pp. 645-670.

Mostafa, AMS & El-Motalib, EAA 2018, 'Servant Leadership, Leader–Member Exchange and Proactive Behavior in the Public Health Sector', *Public Personnel Management*, vol. 48, no. 3, pp. 309-324.

Müceldili, B, Turan, H & Erdil, O 2013, 'The influence of authentic leadership on creativity and innovativeness', *Procedia-Social and Behavioral Sciences*, vol. 99, pp. 673-681.

Mumford, MD & Licuanan, B 2004, 'Leading for innovation: Conclusions, issues, and directions', *The leadership quarterly*, vol. 15, no. 1, pp. 163-171.

Mumford, MD, Scott, GM, Gaddis, B & Strange, JM 2002, 'Leading creative people: Orchestrating expertise and relationships', *The leadership quarterly*, vol. 13, no. 6, pp. 705-750.

Mutonyi, BR, Slåtten, T & Lien, G 2020, 'Empowering leadership, work group cohesiveness, individual learning orientation and individual innovative behaviour in the public sector: empirical evidence from Norway', *International Journal of Public Leadership*, vol. 16, no. 2, pp. 175-197.

Myers, MD 2019, *Qualitative research in business and management*, 3rd edn, Sage.

Nasif, EG, Al-Daeaj, H, Ebrahimi, B & Thibodeaux, MS 1991, 'Methodological Problems in Cross-Cultural Research: An Updated Review', *Management International Review*, vol. 31, no. 1, pp. 79-91.

Neubert, MJ, Kacmar, KM, Carlson, DS, Chonko, LB & Roberts, JA 2008, 'Regulatory focus as a mediator of the influence of initiating structure and servant leadership on employee behavior', *Journal of applied psychology*, vol. 93, no. 6, pp. 1220–1233.

Newman, A & Butler, C 2014, 'The influence of follower cultural orientation on attitudinal responses towards transformational leadership: evidence from the Chinese hospitality industry', *The International Journal of Human Resource Management*, vol. 25, no. 7, pp. 1024-1045.

Newman, A, Herman, H, Schwarz, G & Nielsen, I 2018, 'The effects of employees' creative self-efficacy on innovative behavior: The role of entrepreneurial leadership', *Journal of Business Research*, vol. 89, no. 1, pp. 1-9.

- Newman, A, Neesham, C, Manville, G & Tse, HH 2018, 'Examining the influence of servant and entrepreneurial leadership on the work outcomes of employees in social enterprises', *The International Journal of Human Resource Management*, vol. 29, no. 20, pp. 2905-2926.
- Newman, A, Schwarz, G, Cooper, B & Sendjaya, S 2017, 'How Servant Leadership Influences Organizational Citizenship Behavior: The Roles of LMX, Empowerment, and Proactive Personality', *Journal of Business Ethics*, vol. 145, no. 1, pp. 49-62.
- Ng, TW 2017, 'Transformational leadership and performance outcomes: Analyses of multiple mediation pathways', *The leadership quarterly*, vol. 28, no. 3, pp. 385-417.
- Nitzl, C, Roldan, JL & Cepeda, G 2016, 'Mediation analysis in partial least squares path modeling: Helping researchers discuss more sophisticated models', *Industrial Management & Data Systems*, vol. 116, no. 9, pp. 1849-1864.
- Niu, W, Yuan, Q, Qian, S & Liu, Z 2018, 'Authentic leadership and employee job behaviors: The mediating role of relational and organizational identification and the moderating role of LMX', *Current Psychology*, vol. 37, no. 4, pp. 982-994.
- Northouse, PG 2014, *Introduction to leadership: Concepts and practice*, Sage.
- Northouse, PG 2019, *Leadership: Theory and practice*, eighth edition edn, Sage Publications.
- Northouse, PG 2021, *Leadership: Theory and practice*, Sage Publications.
- Nunn, SG & Avella, JT 2015, 'Does moral leadership conflict with organizational innovation?', *Journal of leadership studies*, vol. 9, no. 3, pp. 85-87.
- Nurunnabi, M 2017, 'Transformation from an oil-based economy to a knowledge-based economy in Saudi Arabia: the Direction of Saudi Vision 2030', *Journal of the Knowledge Economy*, vol. 8, no. 2, pp. 536-564.
- Oke, A, Munshi, N & Walumbwa, FO 2009, 'The influence of leadership on innovation processes and activities', *Organizational dynamics*, vol. 38, no. 1, pp. 64-72.
- Oldham, GR & Cummings, A 1996, 'Employee creativity: Personal and contextual factors at work', *Academy of management journal*, vol. 39, no. 3, pp. 607-634.
- Oplatka, I & Arar, K 2017, 'The research on educational leadership and management in the Arab world since the 1990s: A systematic review', *Review of Education*, vol. 5, no. 3, pp. 267-307.
- Orlikowski, WJ & Baroudi, JJ 1991, 'Studying information technology in organizations: Research approaches and assumptions', *Information systems research*, vol. 2, no. 1, pp. 1-28.

Pallant, J 2016, *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*, 6th edn, Open University Press, Maidenhead.

Panaccio, A, Henderson, DJ, Liden, RC, Wayne, SJ & Cao, X 2015, 'Toward an understanding of when and why servant leadership accounts for employee extra-role behaviors', *Journal of Business and Psychology*, vol. 30, no. 4, pp. 657-675.

Park, S & Jo, SJ 2018, 'The impact of proactivity, leader-member exchange, and climate for innovation on innovative behavior in the Korean government sector', *Leadership & Organization Development Journal*, vol. 39, no. 1, pp. 130-149.

Perry-Smith, JE & Mannucci, PV 2017, 'From Creativity to Innovation: The Social Network Drivers of the Four Phases of the Idea Journey', *Academy of management review*, vol. 42, no. 1, pp. 53-79.

Peterson, MF 2004, 'Culture, leadership, and organizations: The GLOBE study of 62 societies.', *Administrative science quarterly*, vol. 49, no. 4, pp. 641-647.

Peus, C, Wesche, JS, Streicher, B, Braun, S & Frey, D 2012, 'Authentic leadership: An empirical test of its antecedents, consequences, and mediating mechanisms', *Journal of Business Ethics*, vol. 107, no. 3, pp. 331-348.

Piccolo, RF & Colquitt, JA 2006, 'Transformational Leadership and Job Behaviors: The Mediating Role of Core Job Characteristics', *Academy of management journal*, vol. 49, no. 2, pp. 327-340.

Pieterse, AN, Van Knippenberg, D, Schippers, M & Stam, D 2010, 'Transformational and transactional leadership and innovative behavior: The moderating role of psychological empowerment', *Journal of Organizational Behavior*, vol. 31, no. 4, pp. 609-623.

Podsakoff, PM, MacKenzie, SB, Lee, J-Y & Podsakoff, NP 2003, 'Common method biases in behavioral research: a critical review of the literature and recommended remedies', *Journal of applied psychology*, vol. 88, no. 5, p. 879.

Podsakoff, PM 1994, 'LEADERSHIP EFFECTIVENESS: PAST PERSPECTIVES AND FUTURE DIRECTIONS FOR RESEARCH', *Organizational behavior: The state of the science*, p. 45.

Pratoom, K 2018, 'Differential relationship of person-and task-focused leadership to team effectiveness: A meta-analysis of moderators', *Human Resource Development Review*, vol. 17, no. 4, pp. 393-439.

Preacher, KJ & Hayes, AF 2004, 'SPSS and SAS procedures for estimating indirect effects in simple mediation models', *Behavior research methods, instruments, & computers*, vol. 36, no. 4, pp. 717-731.

- Prieto, IM & Pérez-Santana, MP 2014, 'Managing innovative work behavior: the role of human resource practices', *Personnel Review*, vol. 43, pp. 184-208.
- Qahl, M, Hawryszkiewicz, I, Binsawad, M & Rehman, J 2019, 'Factors Affecting the Saudi Arabian Higher Education Creative Environment', in *30th Australasian Conference on Information Systems*.
- Qing, M & JinHua, Z 2023, 'The Influence of Participative Leadership on the Voice Behavior of Public Servants', *Public Personnel Management*, vol. 52, no. 3, pp. 291-316.
- Qu, R, Janssen, O & Shi, K 2015, 'Transformational leadership and follower creativity: The mediating role of follower relational identification and the moderating role of leader creativity expectations', *The leadership quarterly*, vol. 26, no. 2, pp. 286-299.
- Qu, R, Janssen, O & Shi, K 2017, 'Leader–member exchange and follower creativity: the moderating roles of leader and follower expectations for creativity', *The International Journal of Human Resource Management*, vol. 28, no. 4, pp. 603-626.
- Rai, A & Kim, M 2021, 'Empowering leadership and followers' good and bad behaviors: A dual mediation model', *Human Resource Development Quarterly*, vol. 32, no. 1, pp. 1-22.
- Ramamoorthy, N, Flood, PC, Slattery, T & Sardesai, R 2005, 'Determinants of Innovative Work Behaviour: Development and Test of an Integrated Model', *Creativity and Innovation Management*, vol. 14, no. 2, pp. 142-150.
- Rank, J, Nelson, NE, Allen, TD & Xu, X 2009, 'Leadership predictors of innovation and task performance: Subordinates' self-esteem and self-presentation as moderators', *Journal of Occupational and organizational psychology*, vol. 82, no. 3, pp. 465-489.
- Raub, S & Robert, C 2010, 'Differential effects of empowering leadership on in-role and extra-role employee behaviors: Exploring the role of psychological empowerment and power values', *Human relations*, vol. 63, no. 11, pp. 1743-1770.
- Rego, A, Sousa, F, Marques, C & Cunha, MPe 2012, 'Authentic leadership promoting employees' psychological capital and creativity', *Journal of Business Research*, vol. 65, no. 3, pp. 429-437.
- Rego, A, Sousa, F, Marques, C & Pina e Cunha, M 2014, 'Hope and positive affect mediating the authentic leadership and creativity relationship', *Journal of Business Research*, vol. 67, no. 2, pp. 200-210.
- Reis, HT & Judd, CM 2000, *Handbook of research methods in social and personality psychology*, Cambridge University Press.

Reuvers, M, Van Engen, ML, Vinkenbunrg, CJ & Wilson-Evered, E 2008, 'Transformational leadership and innovative work behaviour: Exploring the relevance of gender differences', *Creativity and Innovation Management*, vol. 17, no. 3, pp. 227-244.

Ribeiro, N, Duarte, AP & Filipe, R 2018, 'How authentic leadership promotes individual performance: Mediating role of organizational citizenship behavior and creativity', *International Journal of Productivity and Performance Management*, vol. 67, no. 9, pp. 1585-1607.

Richter, NF, Schubring, S, Hauff, S, Ringle, CM & Sarstedt, M 2020, 'When predictors of outcomes are necessary: guidelines for the combined use of PLS-SEM and NCA', *Industrial Management & Data Systems*, vol. 120, no. 12, pp. 2243-2267.

Rosing, K, Frese, M & Bausch, A 2011, 'Explaining the heterogeneity of the leadership-innovation relationship: Ambidextrous leadership', *The Leadership quarterly*, vol. 22, no. 5, pp. 956-974.

Ruiz-Palomino, P & Zoghbi-Manrique-de-Lara, P 2020, 'How and when servant leaders fuel creativity: The role of servant attitude and intrinsic motivation', *International Journal of Hospitality Management*, vol. 89, no. 3, pp. 1-12.

Saad, M, Guermat, C & Brodie, L 2015, 'National innovation and knowledge performance: the role of higher education teaching and training', *Studies in Higher Education*, vol. 40, no. 7, pp. 1194-1209.

Saeed, BB, Afsar, B, Cheema, S & Javed, F 2019, 'Leader-member exchange and innovative work behavior', *European Journal of Innovation Management*, vol. 22, no. 1, pp. 105-124.

Sanz-Valle, R & Jiménez-Jiménez, D 2018, 'HRM and product innovation: does innovative work behaviour mediate that relationship?', *Management Decision*.

Sarstedt, M, Ringle, CM, Henseler, J & Hair, JF 2014, 'On the emancipation of PLS-SEM: A commentary on Rigdon (2012)', *Long Range Planning*, vol. 47, no. 3, pp. 154-160.

Saunders, M, Lewis, P & Thornhill, A 2016, *Research methods for business students*, 7th edn, Pearson Education Limited, England.

Schaubroeck, J, Lam, SSK & Peng, AC 2011, 'Cognition-based and affect-based trust as mediators of leader behavior influences on team performance', *Journal of applied psychology*, vol. 96, no. 4, pp. 863-871.

Schermuly, CC, Meyer, B & Dämmer, L 2013, 'Leader-member exchange and innovative behavior: The mediating role of psychological empowerment', *Journal of Personnel Psychology*, vol. 12, no. 3, p. 132.

Schuckert, M, Kim, TT, Paek, S & Lee, G 2018, 'Motivate to innovate: How authentic and transformational leaders influence employees' psychological capital and service innovation

behavior', *International Journal of Contemporary Hospitality Management*, vol. 30, no. 2, pp. 776-796.

Schuh, SC, Zhang, X-a, Morgeson, FP, Tian, P & van Dick, R 2018, 'Are you really doing good things in your boss's eyes? Interactive effects of employee innovative work behavior and leader–member exchange on supervisory performance ratings', *Human Resource Management*, vol. 57, no. 1, pp. 397-409.

Schwartz, SH 1994, 'Beyond individualism/collectivism: New cultural dimensions of values', in *Individualism and collectivism: Theory, method, and applications.*, Sage Publications, Inc, Thousand Oaks, CA, US, pp. 85-119.

Schwartz, SH 1999, 'A theory of cultural values and some implications for work', *Applied psychology*, vol. 48, no. 1, pp. 23-47.

Schwartz, SH 2003, 'A proposal for measuring value orientations across nations', *Questionnaire package of the european social survey*, vol. 259, no. 290, p. 261.

Scott, SG & Bruce, RA 1994, 'Determinants of innovative behavior: A path model of individual innovation in the workplace', *Academy of management journal*, vol. 37, no. 3, pp. 580-607.

Sekaran, U & Bougie, R 2016, *Research methods for business: A skill building approach*, 7th edn, John Wiley & Sons, United Kingdom.

Sendjaya, S, Eva, N, Butar, IB, Robin, M & Castles, S 2019, 'SLBS-6: Validation of a short form of the servant leadership behavior scale', *Journal of Business Ethics*, vol. 156, no. 4, pp. 941-956.

Sengupta, S, Bajaj, B, Singh, A, Sharma, S, Patel, P & Prikshat, V 2023, 'Innovative work behavior driving Indian startups go global – the role of authentic leadership and readiness for change', *Journal of Organizational Change Management*, vol. 36, no. 1, pp. 162-179.

Shailja, S, Kumari, P & Singla, H 2023, 'Impact of servant leadership on innovative work behaviour: a moderation mediation analysis', *Leadership & Organization Development Journal*, vol. 44, no. 3, pp. 330-349.

Shalley, CE, Zhou, J & Oldham, GR 2004, 'The effects of personal and contextual characteristics on creativity: Where should we go from here?', *Journal of management*, vol. 30, no. 6, pp. 933-958.

Shanker, R, Bhanugopan, R, Van der Heijden, BI & Farrell, M 2017, 'Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior', *Journal of vocational behavior*, vol. 100, pp. 67-77.

Sharma, PN & Kirkman, BL 2015, 'Leveraging leaders: A literature review and future lines of inquiry for empowering leadership research', *Group & Organization Management*, vol. 40, no. 2, pp. 193-237.

Shin, SJ, Yuan, F & Zhou, J 2017, 'When perceived innovation job requirement increases employee innovative behavior: A sensemaking perspective', *Journal of Organizational Behavior*, vol. 38, no. 1, pp. 68-86.

Shmueli, G, Ray, S, Estrada, JMV & Chatla, SB 2016, 'The elephant in the room: Predictive performance of PLS models', *Journal of Business Research*, vol. 69, no. 10, pp. 4552-4564.

Shunlong, X & Weiming, Z 2012, 'The relationships between transformational leadership, LMX, and employee innovative behavior', *Journal of Applied Business and Economics*, vol. 13, no. 5, pp. 87-96.

Sidani, YM & Rowe, WG 2018, 'A reconceptualization of authentic leadership: Leader legitimation via follower-centered assessment of the moral dimension', *The leadership quarterly*, vol. 29, no. 6, pp. 623-636.

Slater, SF, Mohr, JJ & Sengupta, S 2014, 'Radical product innovation capability: Literature review, synthesis, and illustrative research propositions', *Journal of Product Innovation Management*, vol. 31, no. 3, pp. 552-566.

Slåtten, T, Svensson, G & Sværi, S 2011, 'Empowering leadership and the influence of a humorous work climate on service employees' creativity and innovative behaviour in frontline service jobs', *International Journal of Quality and Service Sciences*, vol. 3, no. 3, pp. 267-284.

Smith, PB, Dugan, S & Trompenaars, F 1996, 'National culture and the values of organizational employees: A dimensional analysis across 43 nations', *Journal of cross-cultural psychology*, vol. 27, no. 2, pp. 231-264.

Sobel, ME 1982, 'Asymptotic confidence intervals for indirect effects in structural equation models', *Sociological methodology*, vol. 13, pp. 290-312.

Srivastava, A, Bartol, KM & Locke, EA 2006, 'Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance', *Academy of management journal*, vol. 49, no. 6, pp. 1239-1251.

Steenkamp, JBE 2001, 'The role of national culture in international marketing research', *International Marketing Review*.

Stogdill, R 1974, *Handbook of leadership: A survey of theory and research*, Macmillan, New York.

Stogdill, RM 1948, 'Personal factors associated with leadership: A survey of the literature', *The Journal of psychology*, vol. 25, no. 1, pp. 35-71.

Su, W, Lyu, B, Chen, H & Zhang, Y 2020, 'How does servant leadership influence employees' service innovative behavior? The roles of intrinsic motivation and identification with the leader', *Baltic Journal of Management*, vol. 15, no. 4, pp. 571-586.

Sun, J, Liden, RC & Ouyang, L 2019, 'Are servant leaders appreciated? An investigation of how relational attributions influence employee feelings of gratitude and prosocial behaviors', *Journal of Organizational Behavior*, vol. 40, no. 5, pp. 528-540.

Tabachnick, BG & Fidell, LS 2007, *Using Multivariate Statistics*, 5th edn, Allyn & Bacon/Pearson Education, Boston.

Tabachnick, BG, Fidell, LS & Ullman, JB 2007, *Using multivariate statistics*, vol. 2007, Boston, MA: Pearson.

Taras, V, Kirkman, BL & Steel, P 2010, 'Examining the impact of Culture's consequences: A three-decade, multilevel, meta-analytic review of Hofstede's cultural value dimensions', *Journal of applied psychology*, vol. 95, no. 3, pp. 405-439.

Taras, V, Roney, J & Steel, P 2009, 'Half a century of measuring culture: Review of approaches, challenges, and limitations based on the analysis of 121 instruments for quantifying culture', *Journal of International Management*, vol. 15, no. 4, pp. 357-373.

Tarkang, ME, Nange, RY & Ozturen, A 2020, 'Inspiring employee voice through leader–member exchange', *Journal of Public Affairs*, vol. n/a, no. n/a, pp. 1-13.

Tenenhaus, M, Vinzi, VE, Chatelin, Y-M & Lauro, C 2005, 'PLS path modeling', *Computational statistics & data analysis*, vol. 48, no. 1, pp. 159-205.

Thomas, KW & Velthouse, BA 1990, 'Cognitive elements of empowerment: An "interpretive" model of intrinsic task motivation', *Academy of management review*, vol. 15, no. 4, pp. 666-681.

Thompson, G & Glasø, L 2018, 'Situational leadership theory: a test from a leader-follower congruence approach', *Leadership & Organization Development Journal*, vol. 39, no. 5, pp. 574-591.

Topal, A 2019, 'Economic reforms and women's empowerment in Saudi Arabia', *Women's Studies International Forum*, vol. 76, p. 102253.

Trompenaars, F 1993, *Riding the waves of change: Understanding cultural diversity in business*, Nicholas Brealey, London.

Tuckey, MR, Bakker, AB & Dollard, MF 2012, 'Empowering leaders optimize working conditions for engagement: a multilevel study', *Journal of occupational health psychology*, vol. 17, no. 1, p. 15.

Turner, K 2022, 'Servant leadership to support wellbeing in higher education teaching', *Journal of Further and Higher Education*, vol. 46, no. 7, pp. 947-958.

Uhl-Bien, M 2006, 'Relational leadership theory: Exploring the social processes of leadership and organizing', *The leadership quarterly*, vol. 17, no. 6, pp. 654-676.

Van de Ven, AH 1986, 'Central problems in the management of innovation', *Management science*, vol. 32, no. 5, pp. 590-607.

Van Dierendonck, D 2011, 'Servant leadership: A review and synthesis', *Journal of management*, vol. 37, no. 4, pp. 1228-1261.

van Dierendonck, D, Stam, D, Boersma, P, de Windt, N & Alkema, J 2014, 'Same difference? Exploring the differential mechanisms linking servant leadership and transformational leadership to follower outcomes', *The leadership quarterly*, vol. 25, no. 3, pp. 544-562.

Van Teijlingen, E & Hundley, V 2002, 'The importance of pilot studies', *Nursing Standard (through 2013)*, vol. 16, no. 40, p. 33.

Van Wart, M 2013, 'Lessons from leadership theory and the contemporary challenges of leaders', *Public Administration Review*, vol. 73, no. 4, pp. 553-565.

Vecchio, RP, Justin, JE & Pearce, CL 2010, 'Empowering leadership: An examination of mediating mechanisms within a hierarchical structure', *The leadership quarterly*, vol. 21, no. 3, pp. 530-542.

Volery, T & Tarabashkina, L 2021, 'The impact of organisational support, employee creativity and work centrality on innovative work behaviour', *Journal of Business Research*, vol. 129, pp. 295-303.

Vuong, BN & Hieu, VT 2023, 'The effect of empowering leadership on job performance among frontline employees: does power distance orientation matter?', *Journal of Organizational Effectiveness: People and Performance*, vol. 10, no. 3, pp. 394-412.

Walumbwa, FO, Avolio, BJ, Gardner, WL, Wernsing, TS & Peterson, SJ 2008, 'Authentic leadership: Development and validation of a theory-based measure', *Journal of management*, vol. 34, no. 1, pp. 89-126.

Walumbwa, FO & Hartnell, CA 2011, 'Understanding transformational leadership–employee performance links: The role of relational identification and self-efficacy', *Journal of Occupational and Organizational Psychology*, vol. 84, no. 1, pp. 153-172.

Walumbwa, FO, Hartnell, CA & Oke, A 2010, 'Servant leadership, procedural justice climate, service climate, employee attitudes, and organizational citizenship behavior: A cross-level investigation', *Journal of applied psychology*, vol. 95, no. 3, pp. 517-529.

Walumbwa, FO & Lawler, JJ 2003, 'Building effective organizations: Transformational leadership, collectivist orientation, work-related attitudes and withdrawal behaviours in three emerging economies', *The International Journal of Human Resource Management*, vol. 14, no. 7, pp. 1083-1101.

Walumbwa, FO, Luthans, F, Avey, JB & Oke, A 2011, 'Authentically leading groups: The mediating role of collective psychological capital and trust', *Journal of Organizational Behavior*, vol. 32, no. 1, pp. 4-24.

Walumbwa, FO, Peterson, SJ, Avolio, BJ & Hartnell, CA 2010, 'An investigation of the relationships among leader and follower psychological capital, service climate, and job performance', *Personnel Psychology*, vol. 63, no. 4, pp. 937-963.

Walumbwa, FO, Wang, P, Wang, H, Schaubroeck, J & Avolio, BJ 2010, 'Psychological processes linking authentic leadership to follower behaviors', *The leadership quarterly*, vol. 21, no. 5, pp. 901-914.

Wang, H, Law, KS, Hackett, RD, Wang, D & Chen, ZX 2005, 'Leader-Member Exchange as a Mediator of the Relationship Between Transformational Leadership and Followers' Performance and Organizational Citizenship Behavior', *Academy of management journal*, vol. 48, no. 3, pp. 420-432.

Wang, H, Sui, Y, Luthans, F, Wang, D & Wu, Y 2014, 'Impact of authentic leadership on performance: Role of followers' positive psychological capital and relational processes', *Journal of Organizational Behavior*, vol. 35, no. 1, pp. 5-21.

Wang, H, Zhang, Y, Li, P & Henry, SE 2023, 'You raise me up and I reciprocate: Linking empowering leadership to organizational citizenship behavior and unethical pro-organizational behavior', *Applied psychology*, vol. 72, no. 2, pp. 718-742.

Wang, S, De Pater, IE, Yi, M, Zhang, Y & Yang, T-P 2020, 'Empowering leadership: employee-related antecedents and consequences', *Asia Pacific Journal of Management*, vol. 37, no. 3, pp. 1-25.

Wang, XH, Fang, Y, Qureshi, I & Janssen, O 2015, 'Understanding employee innovative behavior: Integrating the social network and leader–member exchange perspectives', *Journal of Organizational Behavior*, vol. 36, no. 3, pp. 403-420.

Wang, Y-S & Huang, T-C 2009, 'The relationship of transformational leadership with group cohesiveness and emotional intelligence', *Social Behavior and Personality: an international journal*, vol. 37, no. 3, pp. 379-392.

Wang, Z, Meng, L & Cai, S 2019, 'Servant leadership and innovative behavior: a moderated mediation', *Journal of Managerial Psychology*, vol. 34, no. 8, pp. 505-518.

Watts, LL, Steele, LM & Den Hartog, DN 2020, 'Uncertainty avoidance moderates the relationship between transformational leadership and innovation: A meta-analysis', *Journal of International Business Studies*, vol. 51, no. 1, pp. 138-145.

West, MA 2002, 'Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups', *Applied psychology*, vol. 51, no. 3, pp. 355-387.

West, MA & Altink, WM 1996, 'Innovation at work: Individual, group, organizational, and socio-historical perspectives', *European Journal of Work and Organizational Psychology*, vol. 5, no. 1, pp. 3-11.

West, MA & Farr, JL 1989, 'Innovation at work: Psychological perspectives', *Social Behaviour*, vol. 4, no. 1, pp. 15-30.

West, MA & Farr, JL 1990, *Innovation and creativity at work: Psychological and organizational strategies*, Innovation and creativity at work: Psychological and organizational strategies., John Wiley & Sons, Oxford, England.

West, MA, Hirst, G, Richter, A & Shipton, H 2004, 'Twelve steps to heaven: Successfully managing change through developing innovative teams', *European Journal of Work and Organizational Psychology*, vol. 13, no. 2, pp. 269-299.

Western, S 2019, *Leadership: A critical text*, Sage.

Wetzels, M, Odekerken-Schröder, G & Van Oppen, C 2009, 'Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration', *MIS quarterly*, vol. 33, no. 1, pp. 177-195.

Winkler, I 2010, *Contemporary leadership theories: Enhancing the understanding of the complexity, subjectivity and dynamic of leadership*, Springer Science & Business Media.

Wolf, EJ, Harrington, KM, Clark, SL & Miller, MW 2013, 'Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety', *Educational and psychological measurement*, vol. 73, no. 6, pp. 913-934.

Wolfe, RA 1994, 'Organizational innovation: Review, critique and suggested research directions', *Journal of Management Studies*, vol. 31, no. 3, pp. 405-431.

Wong, KK-K 2013, 'Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS', *Marketing bulletin*, vol. 24, no. 1, pp. 1-32.

World & Population 2023, *World Population by Country 2023*, 6 July, <https://worldpopulationreview.com/>.

Wu, J, Liden, RC, Liao, C & Wayne, SJ 2021, 'Does manager servant leadership lead to follower serving behaviors? It depends on follower self-interest', *Journal of applied psychology*, vol. 106, no. 1, pp. 152-167.

Xu, B-D, Zhao, S-K, Li, C-R & Lin, C-J 2017, 'Authentic leadership and employee creativity: testing the multilevel mediation model', *Leadership & Organization Development Journal*, vol. 38, no. 3, pp. 482-498.

Yamak, OU & Eyupoglu, SZ 2021, 'Authentic Leadership and Service Innovative Behavior: Mediating Role of Proactive Personality', *SAGE Open*, vol. 11, no. 1, pp. 1-15.

Yang, J, Liu, H & Gu, J 2017, 'A multi-level study of servant leadership on creativity: The roles of self-efficacy and power distance', *Leadership & Organization Development Journal*, vol. 38, no. 5, pp. 610-629.

Yidong, T & Xinxin, L 2013, 'How Ethical Leadership Influence Employees' Innovative Work Behavior: A Perspective of Intrinsic Motivation', *Journal of Business Ethics*, vol. 116, no. 2, pp. 441-455.

Yıkılmaz, İ & Sürücü, L 2021, 'Leader–member exchange as a mediator of the relationship between authentic leadership and employee creativity', *Journal of Management & Organization*, pp. 1-14.

Yıkılmaz, İ & Sürücü, L 2023, 'Leader–member exchange as a mediator of the relationship between authentic leadership and employee creativity', *Journal of Management & Organization*, vol. 29, no. 1, pp. 159-172.

Yoshida, DT, Sendjaya, S, Hirst, G & Cooper, B 2014, 'Does servant leadership foster creativity and innovation? A multi-level mediation study of identification and prototypicality', *Journal of Business Research*, vol. 67, no. 7, pp. 1395-1404.

Yuan, F & Woodman, RW 2010, 'Innovative behavior in the workplace: The role of performance and image outcome expectations', *Academy of management journal*, vol. 53, no. 2, pp. 323-342.

Yukl, G 1981, *Leadership in Organizations*, Pearson Education India.

Yukl, G 1999, 'An evaluation of conceptual weaknesses in transformational and charismatic leadership theories', *The leadership quarterly*, vol. 10, no. 2, pp. 285-305.

Yukl, G 2008, 'How leaders influence organizational effectiveness', *The leadership quarterly*, vol. 19, no. 6, pp. 708-722.

Yukl, G 2010, *Leadership in Organizations*, Pearson Prentice Hall.

Yukl, G 2013, *Leadership in organizations*, Essex: Pearson.

Yukl, G, O'Donnell, M & Taber, T 2009, 'Influence of leader behaviors on the leader-member exchange relationship', *Journal of Managerial Psychology*, vol. 24, no. 4, pp. 289-299.

Zaltman, G, Duncan, R & Holbek, J 1973, *Innovations and organizations*, John Wiley & Sons, New York.

Zare, M & Flinchbaugh, C 2019, 'Voice, creativity, and big five personality traits: A meta-analysis', *Human Performance*, vol. 32, no. 1, pp. 30-51.

Zhang, S, Ke, X, Frank Wang, X-H & Liu, J 2018, 'Empowering leadership and employee creativity: A dual-mechanism perspective', *Journal of Occupational and organizational psychology*, vol. 91, no. 4, pp. 896-917.

Zhang, X & Bartol, KM 2010, 'Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement', *Academy of management journal*, vol. 53, no. 1, pp. 107-128.

Zhang, X & Zhou, J 2014, 'Empowering leadership, uncertainty avoidance, trust, and employee creativity: Interaction effects and a mediating mechanism', *Organizational behavior and human decision processes*, vol. 124, no. 2, pp. 150-164.

Zhang, Y & Begley, TM 2011, 'Power distance and its moderating impact on empowerment and team participation', *The International Journal of Human Resource Management*, vol. 22, no. 17, pp. 3601-3617.

Zhang, Y, Guo, Y, Zhang, M, Xu, S, Liu, X & Newman, A 2021, 'Antecedents and outcomes of authentic leadership across culture: A meta-analytic review', *Asia Pacific Journal of Management*, vol. 38, no. 1, pp. 1-37.

Zhang, Y & Yang, F 2020, 'How and when spiritual leadership enhances employee innovative behavior', *Personnel Review*.

Zhang, Y, Zheng, Y, Zhang, L, Xu, S, Liu, X & Chen, W 2021, 'A meta-analytic review of the consequences of servant leadership: The moderating roles of cultural factors', *Asia Pacific Journal of Management*, vol. 38, no. 1, pp. 371-400.

Zhou, J, Ma, Y, Cheng, W & Xia, B 2014, 'Mediating role of employee emotions in the relationship between authentic leadership and employee innovation', *Social Behavior and Personality: an international journal*, vol. 42, no. 8, pp. 1267-1278.

Zhu, C & Zhang, F 2020, 'How does servant leadership fuel employee innovative behavior? A moderated mediation framework', *Asia Pacific Journal of Human Resources*, vol. 58, no. 3, pp. 356-377.

Zhu, J, Yao, J & Zhang, L 2019, 'Linking empowering leadership to innovative behavior in professional learning communities: the role of psychological empowerment and team psychological safety', *Asia Pacific Education Review*, vol. 20, no. 4, pp. 657-671.

Zou, W-C, Tian, Q & Liu, J 2015, 'Servant leadership, social exchange relationships, and follower's helping behavior: Positive reciprocity belief matters', *International Journal of Hospitality Management*, vol. 51, pp. 147-156.

Appendices

Appendix A: Ethics Approval

 **quest.noreply@vu.edu.au** 25 August 2021 at 11:37 am
Quest Ethics Notification - Application Process Finalised - Application Approved Hide
To: Shahnaz.Naughton@vu.edu.au,
Cc: mohammed.ahamami@live.vu.edu.au, Wesley.Mcclendon@vu.edu.au



Dear DR SHAHNAZ NAUGHTON,

Your ethics application has been formally reviewed and finalised.

- » Application ID: HRE21-077
- » Chief Investigator: DR SHAHNAZ NAUGHTON
- » Other Investigators:
- » Application Title: The Relationship Between Leadership Styles and Employees Innovative Work Behaviour in Saudi Arabian Higher Education Institutions.
- » Form Version: 13-07

The application has been accepted and deemed to meet the requirements of the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007)' by the Victoria University Human Research Ethics Committee. Approval has been granted for two (2) years from the approval date; 25/08/2021.

Continued approval of this research project by the Victoria University Human Research Ethics Committee (VUHREC) is conditional upon the provision of a report within 12 months of the above approval date or upon the completion of the project (if earlier). A report proforma may be downloaded from the Office for Research website at: <http://research.vu.edu.au/hrec.php>.

Please note that the Human Research Ethics Committee must be informed of the following: any changes to the approved research protocol, project timelines, any serious events or adverse and/or unforeseen events that may affect continued ethical acceptability of the project. In these unlikely events, researchers must immediately cease all data collection until the Committee has approved the changes. Researchers are also reminded of the need to notify the approving HREC of changes to personnel in research projects via a request for a minor amendment. It should also be noted that it is the Chief Investigators' responsibility to ensure the research project is conducted in line with the recommendations outlined in the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007).'

On behalf of the Committee, I wish you all the best for the conduct of the project.

Secretary, Human Research Ethics Committee
Phone: 9919 4781 or 9919 4461
Email: researchethics@vu.edu.au

This is an automated email from an unattended email address. Do not reply to this address.



INVITATION TO PARTICIPATE IN A RESEARCH PROJECT INFORMATION STATEMENT

Plain Language Statement of Questionnaire

Research Title: Leading for Innovation: How Different Leadership Styles Shape Employee Innovation in Saudi Higher Education

Dear Participants,

You are invited to participate in a PhD research project survey being conducted through Victoria University, Melbourne, Australia. The time to complete the survey will take approximately 10 minutes. This information sheet describes the research in straightforward language, or 'plain English'. Please read this sheet carefully and be confident that you understand its contents before deciding whether to participate. If you have any questions about the project, please ask one of the investigators.

PhD Candidate

Mohammed Alhamami

mohammed.alhamami@live.vu.edu.au

Professor Shahnaz Naughton

shahnaz.naughton@vu.edu.au

Who is involved in this research? Why is it being conducted?

The investigators identified above are researchers at Victoria University, Melbourne Australia. This research is designed to examine leadership styles, Leader member exchange (LMX) and power distance orientation on employees' innovative behaviour. This study will be targeted academic staff in Saudi Arabia universities. The research is being conducted as a requirement for the degree of Doctor of Philosophy in Management at Victoria University.

The main contributions of this research are to compare and identify the leadership style that required to develop individual innovation via LMX, and power distance orientation on. The research results might enhance the skills of leaders regarding how to direct, motivate, and improve the capacity of their employees' innovation whereby to maximise their efforts in the organisation. Our understanding of these relationships could offer insights into a number of aspects of leadership styles in general and in Saudi Arabia employees in the higher education. Also, it could enhance the selective behaviour of the leaders in many organisations to understand and adopt leadership behaviours that are appropriate to perform their roles as leaders which in turn may impact on employee innovation.

Why have you been approached?

As an academic staff who is working in a in Saudi Arabia universities, you are invited to take part in this research. Please read this invitation in full before deciding whether or not to participate. You have been selected randomly and you have been invited to participate in this research because you hold an academic job in Saudi Arabia universities. This matches the research definition of academic staff which includes professor, associate professor, assistant professor, lecturer, and teaching assistant who work at a Saudi Arabia university.

What is the research about? What are the questions being addressed?

The aim of this research project is to uncover the relationships between leadership, psychological empowerment, and innovative behaviour higher education sector in Saudi Arabia. To achieve this aim, the research intends to answer the following research questions:

RQ1: What is the effect of leadership styles namely (transformational, authentic, Servant and empowering) on innovative behaviour among employees?

RQ2: Which (if any) of leadership styles namely (transformational, authentic, Servant and empowering) are more effective in developing innovative behaviour among employees?

RQ3: Which (if any) of leadership styles namely (transformational, authentic, Servant and empowering) are associated with LMX?

RQ4: Does LMX mediate the relationship between leadership styles and employee innovative behaviour?

RQ5: Does power distance orientation) moderate the effect of leadership styles and employee innovative behaviour?

If I agree to participate, what will I be required to do?

You will be asked to complete an online survey that will take approximately 10 minutes of your time. In the survey, you will be asked to answer questions relating to your workplace such as your leadership and innovation practice.

The survey will be distributed via university human resource department, the email will be sent to the human resource department to request that they randomly sample their employees with a condition that participants should be at an academic level in the university. Human resource department has the contact details of the all-academic staff in each university. Thus, has access to contact all the potential participants relevant to this project. The researchers will then follow up by email to the potential respondents as a way of reminding them to a reminder to complete the survey.

What are the risks or disadvantages associated with participation?

There are no perceived risks associated with participation outside your normal day-to-day activities. If you are unduly concerned about your responses or if you find participation in the research distressing, you should contact one of the investigators as soon as convenient. The investigator will discuss your concerns with you confidentially and suggest appropriate follow-up, if necessary. Participation in this research is entirely voluntary and anonymous. The consent will be assumed when respondents click the link and fill in the online survey. The researcher will not collect any personal data from the respondents and the survey participants will remain anonymous at all times and at all stages in the research. Also, it is essential to mention that the results will be reported in statistical form only. In the case of an incomplete survey, the data will not be included for the final analysis.

No personal information will be collected so none will be stored as data. Once we have completed our data collection and analysis, we will import the data we collect to the Victoria server where it will be stored securely. Because of the nature of data collection, we are not obtaining written informed consent from you. Instead, we assume that you have given consent by your completion of the questionnaire via the web-based survey.

What are the benefits associated with participation?

There may be no direct benefit to you as a respondent to this research. However, if you decide to participate, the findings will contribute to the body of knowledge in the field of leadership and innovation. It will advance our understanding of the most suitable leadership styles in fostering

innovation. In addition, the findings will add new knowledge to the body of the discipline of leadership and individual innovation. This might help higher education policymakers and leaders to adopt suitable leadership practice that can increase employee innovation. As well to better understand the employees needs and role of empowerment which may leads to foster innovation.

What will happen to the information I provide?

To ensure that data collected is protected, the data will be retained for five years upon completion of the project after which time paper records will be shredded and placed in a security recycle bin and electronic data will be deleted/destroyed in a secure manner. All data will be kept in a locked. Filling cabinet and soft data in a password protected computer at Victoria University. Data will be saved on the University network system where practical (as the system provides a high level of manageable security and data integrity, can provide secure remote access, and is backed up on a regular basis). Only the researchers will have access to the data. Data will be kept securely at Victoria University for a period of five years before being destroyed. Data will be stored for five years after completion of the project at which time it will be destroyed in a secure manner.

Whom should I contact if I have any questions?

If you need to contact anyone regarding the project, please directly contact the researchers mentioned above.

Yours Sincerely,

Mohammed Alhamami

PhD Candidate

mohammed.alhamami@live.vu.edu.au

Business School | Victoria University

If you have any concerns about your participation in this project, which you do not wish to discuss with the researchers, then you can contact the Ethics Officer, Research Integrity, through

Phone: +61399194781|+61399194461 or **Email:** researchethics@vu.edu.au

Appendix C : Sample of approval from universities

المملكة العربية السعودية
وزارة التعليم
جامعة الملك خالد
٢٨
مكتب وكيل الجامعة
للدراسات العليا والبحث العلمي

جامعة الملك خالد (٣٨)
الإدارة العامة - مكتب وكيل الجامعة للدراسات العليا والبحث العلمي

رقم الصادر: 4/1/38/2113
التاريخ: ١٤٤٢/٠٥/١٤
المرفقات: ١

IA

KING KHALID UNIVERSITY
VISION 2030

سعادة الأستاذ / محمد بن علي مبارك الهمامي
جامعة نجران

حفظه الله

السلام عليكم ورحمة الله وبركاته، وبعد:

تهديكم جامعة الملك خالد أطيب تحية وتقدير، ونشير إلى طلبك الوارد للجامعة عن طريق البريد الإلكتروني بشأن الموافقة على أن تكون الجامعة ضمن عينة الدراسة التي تقوم بإعدادها بعنوان (أساليب القيادة والسلوك المتكرر للموظفين: دراسة دور تقنية المحايدة والتنوع الثقافي).

عليه نفيديك بأنه لا مانع مبدئياً على ذلك، على أن يتم مخاطبة الجامعة بشكل رسمي بشأن ذلك من قبل الملحقة الثقافية باستراليا، وإرفاق نسخة من أداة البحث.

أمل التكرم بالاطلاع والإحاطة.

وتقبلوا أطيب تحياتي وتقديري ،،،

وكيل الجامعة
للدراسات العليا والبحث العلمي المكلف

أ.د. سعد بن محمد بن دعجم

الرقم : التاريخ : / / ١٤ هـ المرفقات :

أبها - ٩٦٠ الرمز البريدي ٩٦٦١٧٢٤١٩٢٢١ +٩٦٦١٧٢٤١٩٢٢٣ @vp-gssr@kku.edu.sa @vpgssrkkku vpgssrkkku

Appendix D : Survey Questionnaire

Dear Sir/Madam,

You are invited to participate in the research project being conducted by Mohammed Ali Alhamami as part of the PhD study at Victoria Graduate School of Business in Australia. This research aims to investigate the relationship between leadership styles and employee innovative work behaviour in Saudi Arabian higher education. The main contributions of this research are to develop a better understanding of the relationships between leadership styles and employee innovation as well as identifying the influential leader style in developing innovation among employee in general and in the specific context of Saudi Arabian higher education.

If you are an academic staff in Saudi Arabian universities, I humbly request your participation and honest views by filling out the questionnaire which will take few minutes of your precious time. All information provided will be strictly confidential and will only be used for scientific research. The data will be summarised with no identifying features and will not be exposed to anyone. Thus, your anonymity is guaranteed.

Kindly, if you have any questions, do not hesitate to reach me on the information below

Mohammed Ali Alhamami

Victoria Graduate Business School

E-mail: Mohammed.alhamami@live.vu.edu.au

Section 1: Demographic Information

1 – Gender:

- a) Male
- b) Female

2- Marital Status:

- a) Single
- b) Married
- c) Divorced
- d) Widowed

3 – Age:

- a) 20- 29
- b) 30-39
- c) 40-49
- d) 50-59
- e) Above 60 years

4 –Tenure:

- a) 1 – 5
- b) 6 – 10
- c) 11-15
- d) 16-20
- e) 21-25
- f) Over 25 years

5 - Academic Qualifications:

- a) High diploma
- b) Bachelor's
- c) Master's
- d) PhD

6 -Academic position:

- a) Assistant Lecturer
- b) Lecturer
- c) Assistant Professor
- d) Associate Professor
- e) Professor

7 – University/Institute- -----

Section 2: Leadership Styles

(Which of the following statements do you disagree/agree that can reflect Leadership style in your department or institute/ University?).

Please answer the following question ranking each statement in the table below from strongly disagree to strongly agree.

Transformational Leadership							
Statement	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree	
Copyright © 1995 by Bernard M. Bass & Bruce J. Avolio. All rights reserved in all media for Mind Garden, Inc, www.mindgarden.com							
Leader-Member Exchange							
1	I always know how satisfied my manager is with what I do						
2	My manager understands my problems and needs well enough						
3	My manager recognises my potentials						
4	My manager would personally use his/her power to solve my work problems						
5	I can count on my manager to 'bail me out' at his/her expense when I really need it						
6	I have enough confidence in my manager to defend and justify my decisions when I am not present to do so						
7	My working relationship with my manager is extremely effective						
Servant Leadership							
1	My manager can tell if something work-related is going wrong						
2	My career development is my manager's priority						
3	I would seek help from my manager if I had a personal problem						
4	My manager emphasises the importance of giving back to the community						
5	My manager puts my best interests ahead of his/her own.						
6	My manager gives me the freedom to handle difficult situations in the way that I feel is best.						
7	My manager would NOT compromise ethical principles in order to achieve success.						
Empowering Leadership							
1	My manager helps me understand how my objectives and goals relate to that of the university.						
2	My manager helps me understand the importance of my work to the overall effectiveness of the university.						
3	My manager helps me understand how my job fits into the bigger picture.						
4	My manager makes many decisions together with me.						
5	My manager often consults me on strategic decisions.						
6	My manager solicits my opinion on decisions that may affect me.						
7	My manager believes that I can handle demanding tasks.						
8	My manager believes in my ability to improve even when I make mistakes.						
9	My manager expresses confidence in my ability to perform at a high level.						
10	My manager allows me to do my job my way						
11	My manager makes it more efficient for me to do my job by keeping the rules and regulations simple.						

12	My manager allows me to make important decisions quickly to satisfy student needs.						
Authentic Leadership							
Copyright © 1995 by Bernard M. Bass & Bruce J. Avolio. All rights reserved in all media for Mind Garden, Inc, www.mindgarden.com							

Section 3: Power Distance Orientation

(To what extent do you agree on the following statements that can reflect your perception of authority distribution in your department or institute/ University?).

Power Distance Orientation						
Statement	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	Managers should make most decisions without consulting subordinates					
2	It is frequently necessary for a manager to use authority when dealing with subordinates					
3	Managers should seldom ask for the opinions of employees					
4	Managers should avoid off-the-job social contacts with employees					
5	Employees should not disagree with management decisions					
6	Managers should not delegate important tasks to employees					

Section 4: Innovative Work Behaviour

(To what extent do you agree with the following statements that can assess your practice in developing and implementing innovative ideas in your department or institute/ University?).

Innovative Work Behaviour						
Statement	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	I create new ideas for difficult issues					
2	I search out new working methods, techniques, or instruments					
3	I generate original solutions for problems					
4	I mobilise support for innovative ideas					
5	I acquire approval for innovative ideas					
6	I make important organisational members enthusiastic for innovative ideas					
7	I transform innovative ideas into useful applications					
8	I introduce innovative ideas into the work environment systematically					
9	I evaluate the utility of innovative ideas					

Many Thanks for your Cooperation, and completing this form

Appendix E : Permission to use ALQ.

For use by mohammed Alhamami only. Received from Mind Garden, Inc.



www.mindgarden.com

To Whom It May Concern,

The above-named person has made a license purchase from Mind Garden, Inc. and has permission to administer the following copyrighted instrument up to that quantity purchased:

Authentic Leadership Questionnaire

The four sample items only from this instrument as specified below may be included in your thesis or dissertation. Any other use must receive prior written permission from Mind Garden. The entire instrument may not be included or reproduced at any time in any other published material. Please understand that disclosing more than we have authorized will compromise the integrity and value of the test.

**Citation of the instrument must include the applicable copyright statement listed below.
Sample Items:**

As a leader I....

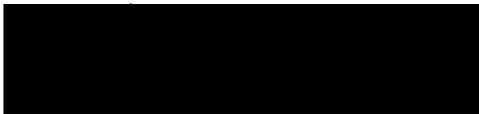
- say exactly what I mean
- demonstrate beliefs that are consistent with actions
- solicit views that challenge my deeply held positions
- seek feedback to improve interactions with others

My leader....

- says exactly what he or she means
- demonstrates beliefs that are consistent actions
- solicits views that challenge his or her deeply held positions
- seeks feedback to improve interactions with others

Copyright © 2007 by Bruce J. Avolio, William L. Gardner, & Fred O. Walumbwa. All rights reserved in all media. Published by Mind Garden, Inc. www.mindgarden.com

Sincerely,



Robert Most
Mind Garden, Inc.
www.mindgarden.com

© 2007 by Bruce J. Avolio, William L. Gardner, & Fred O. Walumbwa. All rights reserved in all media.
Published by Mind Garden, Inc. www.mindgarden.com

Appendix F: Review of Leadership-IWB Studies

Transformational leadership							
	Author & title	IV	Mediator	Moderator	DV	Sample & Sector	Key findings
1	(Amankwaa, Gyensare & Susomrith 2019) Transformational leadership with innovative behaviour Examining multiple mediating paths with PLS-SEM	TL	Autonomy, affective commitment, and supportive management	N/A	IWB	358 employees working in Ghana banking sector	TL was positively related to job autonomy, affective commitment, supportive management and IWB.
2	(Choi et al. 2016) How transformational leadership facilitates innovative behaviour of Korean workers	TL	Knowledge sharing	Perceived organisation support	IWB	356 employees working in South Korea manufacturing firms	TL was significantly related to both employee innovative behaviour and knowledge sharing.
3	(Afsar & Umrani 2020) Transformational leadership and innovative work behaviour. The role of motivation to learn, task complexity and innovation climate	TL	motivation to learn	Task complexity and innovation climate	IWB	38 employee-supervisor in Pakistan manufacturing sectors	TL had a positive effect on employees' innovative work behaviour. and motivation to learn mediated TL-innovative work behaviour link.
4	(Afsar, F. Badir & Bin Saeed 2014) Transformational leadership and innovative work behaviour	TL	Psychological Empowerment	Self-Construal Interdependent	IWB	639 followers and 87 leaders from China multiple industries	TL positively influences IWB, and psychological empowerment mediated the relationship between.
5	(Feng, Huang & Zhang 2016) A multilevel study of transformational leadership, dual organizational change and innovative behaviour in groups	TL	N/A	Incremental Change and Radical Change	Group IWB	Employees working in 43 groups in business companies, located in five cities in China	TL was positively related to group innovative behaviour, and this relationship was moderated by radical change.
6	(Reuvers et al. 2008) Transformational Leadership and Innovative Work Behaviour: Exploring	TL	N/A	Gender	IWB	335 respondents from four Australian hospitals Health sector	Positive and significant relationship between TL and IWB and gender of the manager moderated the

	the Relevance of Gender Differences						relationship
7	(Rank et al. 2009) Leadership predictors of innovation and task performance: Subordinates' self-esteem and self-presentation as moderators	TL and active corrective transactional leadership	N/A	Organisation based self-esteem and propensity to modify self-presentation	IWB and task performance	161 employees and supervisors working in German business and services companies	TL positively predicted both criteria, whereas active corrective transactional leadership negatively predicted innovation. TL related more strongly and positively to innovation for subordinate low in organisation based self esteem
8	Transformational and transactional leadership and innovative behaviour: The moderating role of psychological empowerment (Pieterse et al. 2010).	TL and Transactional leadership	N/A	Psychological Empowerment	IWB	230 employees working in Netherlands government agencies	TL positively related to IWB only when psychological empowerment is high and whereas transactional leadership negatively related to IWB only under these conditions
9	(Hansen & Pihl-Thingvad 2019) Managing employee innovative behaviour through transformational and transactional leadership styles	TL and Transactional leadership	N/A	N/A	IWB	113 employees working in Denmark municipality	TL and transactional leadership verbal rewards positively associated with IWB. The interaction between two showed IWB is likely when the leader combines TL with verbal rewards.
10	(Kang, Solomon & Choi 2015) CEOs' Leadership Styles and Managers' Innovative Behaviour: Investigation of Intervening Effects in an Entrepreneurial Context	COE TL and transactional leadership	Innovative climate	N/A	Manager IWB	39 participating CEOs and 105 managers in USA SEMs	Both TL and transactional leadership on positively managers' IWB and firm's innovative climate mediated TL and IWB relationship
11	Transformational leadership, innovative behaviour, and task performance: Test of mediation and moderation processes (Aryee et al. 2012)	TL	Work engagement	LMX	Task Performance and IWB	200 employees working in Telecommunication company in China	TL indirectly influenced IWB through work engagement
12	Effect of CEO	CEO TL	Organizational learning	N/A	IWB	Service Industry	CEO TL is positively to

	Transformational Leadership on Innovative Behaviour in the Service Industry (Chang & Chu 2020)						related employee IWB and organizational learning mediated the relationship
13	(Khalili 2016) Linking transformational leadership, creativity, innovation, and innovation-supportive climate.	TL	N/A	Perceptions of a supportive climate for innovation	IWB AND creativity	1,172 employees working in various types of industries in Iran	The results revealed positive and significant relationships between TL and employees' creativity and innovation. supportive climate for innovation moderated these relationships
14	(Lee 2008) Effects of leadership and leader-member exchange on innovativeness	TL and transactional leadership	LMX	N/A	IWB	201 R&D professionals in Singapore	TL has positive association with the dimensions of LMX as well as innovativeness. Whereas transactional leadership has negative effect on innovativeness
15	(Ng 2017) Transformational leadership and performance outcomes: Analyses of multiple mediation pathways	TL	Affective, motivational, identification, social exchange, and justice enhancement	N/A	Task performance, citizenship behaviour, and IWB	Meta-analysis involving 600 samples	The findings showed that TFL was related to variables that represented these mechanisms, which in turn were associated with employees' task performance, citizenship behaviour, and innovative behaviour
16	(Basu & Green 1997) Leader-member exchange and transformational leadership: an empirical examination of innovative behaviours in leader-member dyads	TL and LMX	Autonom, commitment, and leader support	TL	IWB	225 supervisor-subordinate in a manufacturing plant of a Fortune 500 printing company	TL was negatively related to innovative behaviour
17	(Gu, Duverger & Yu 2017) Can innovative behaviour be led by management? A study from the lodging business	TL	organizational commitment	Tenure	IWB	164 hotel supervisors and 603 employees at 23 hotels in 11 Chinese cities	TL had a nonsignificant relationship with the innovative behaviour
Servant leadership							

	Author & title	IV	Mediator	Moderator	DV	Sample & Sector	Key findings
1	How does servant leadership influence employees' service innovative behaviour? The roles of intrinsic motivation and identification with the leader (Su et al. 2020)	SL	Intrinsic Motivation	Identification with the Leader	Service IWB	381 employees from a large high-tech company in Mainland China	SL promoted employees' service innovative behaviour and intrinsic motivation. Meanwhile, employees' intrinsic motivation partly mediates the influence and, this mediating is conditional on individual identification with the leader.
2	How does servant leadership fuel employee innovative behaviour? A moderated mediation framework (Zhu, C & Zhang 2020)	SL	Knowledge sharing	Organizational identification	IWB	215 supervisor employee dyads from three private high-tech firms in China	SL Indirectly influenced IWB through knowledge sharing
3	(Karatepe, Aboramadan & Dahleez 2020) Does climate for creativity mediate the impact of servant leadership on management innovation and innovative behaviour in the hotel industry?	SL	Climate for creativity	N/A	IWB and Management innovation	228 Hotel employees in Palestine	SL was positively related to both management innovation and IWB. Climate for creativity mediated such link
4	(Iqbal, Latif & Ahmad 2020) Servant leadership and employee innovative behaviour: exploring psychological pathways	SL	Psychological safety and thriving.	N/A	IWB	347 employees working in Pakistan IT companies	SL has direct and positive relationship with employees' IWB. Psychological safety and thriving partially mediate this relationship
5	(Khan, MM, Mubarik & Islam 2020) Leading the innovation: role of trust and job crafting as sequential mediators relating servant leadership and innovative work behaviour	SL	Trust and Job Crafting	N/A	IWB	258 knowledge workers working in software company in Pakistan	SL is related positively with trust, job crafting and innovative work behaviour.

6	Examining the influence of servant and entrepreneurial leadership on the work outcomes of employees in social enterprises (Newman et al. 2018)	SL and Entrepreneurial leadership	N/A	N/A	IWB and commitment	69 employees and 42 social entrepreneurs from Australia, Canada, and the U.K.	Relationship between SL and employees' IWB was insignificant
Empowering leadership							
	Author & title	IV	Mediator	Moderator	DV	Sample & Sector	Key findings
1	(Jada, Mukhopadhyay & Titiyal 2019) Empowering leadership and innovative work behaviour: a moderated mediation examination	EL	Knowledge sharing	Role Clarity	IWB	235 supervisor subordinates working in Indian pharmaceuticals organisations	EL positively influenced IWB and encouraging knowledge sharing to clear of employee roles.
2	A Two-Pronged Approach? Combined Leadership Styles and Innovative Behaviour (Günzel-Jensen et al. 2018)	EL, TL, and Transactional,	N/A	N/A	IWB (Janssen, 2001)	2,217 employees working in Denmark's public hospitals	The finding revealed that EL is the strongest predictor of IWB among TL, transactional.
3	(Zhu, J, Yao & Zhang 2019) Linking empowering leadership to innovative behaviour in professional learning communities: the role of psychological empowerment and team psychological safety	EL	Psychological empowerment	Team psychological safety	Teacher IWB	507 teachers in China	EL improves teachers' IWB through increasing psychological empowerment.
4	(Rai & Kim 2021) Empowering leadership and followers' good and bad behaviours: A dual mediation model	EL	Trust in leader And emotional exhaustion	N/A	IWB and organisational deviant	343 full-time Indian managerial employees	EL elicited greater trust in the leader and lowered emotional exhaustion, both of which made followers engaged in more IWB and less organisational deviance.
5	(Jönsson, Bahat & Barattucci 2021) How are empowering leadership, self-efficacy and innovative behaviour related to nurses' agency in distributed leadership in	EL	Distributed leadership agency	Work self- efficacy	IWB	Nurses from Israel (239), Italy (226) and Denmark (709).	results from all three countries showed that EL and work self-efficacy were positively related to DLA, which, in turn, was also related to more innovation.

	Denmark, Italy, and Israel?						
6	(Hassi, Rohlfer & Jepsen 2021) Empowering leadership and innovative work behaviour: the mediating effects of climate for initiative and job autonomy in Moroccan SMEs	CEO EL	Climate for Initiative And Job Autonomy	N/A	Manager IWB	CEOs, middle managers and nonmanagerial employees of 444 SEMs in Morocco.	EL is a prerequisite of IWB as subordinates, who are empowered by their leaders, demonstrate IWB. Further, organizational climate for initiative and job autonomy mediates the link
7	(Mutonyi, Slåtten & Lien 2020) Empowering leadership, work group cohesiveness, individual learning orientation and individual innovative behaviour in the public sector: empirical evidence from Norway	EL	learning orientation and Work group cohesiveness	N/A	IWB	256 Norway's public transportation employees	EL and individual learning orientation had significant direct effects on individual IWB.
8	(Kim, M, Beehr & Prewett 2018) Employee Responses to Empowering Leadership: A Meta-Analysis	EL	N/A	Rating sources, nationality of sample, gender, and industry	Evaluations of the leader, Motivation, resources, attitudes, and performance	Meta-analysis of 55 samples	Positive links of EL with evaluations of the leader as well as with employee motivation and resources, attitudes, and performance (creativity and IWB). Moderators had no effect in these results
9	(Gkorezis 2016) Principal empowering leadership and teacher innovative behaviour: A moderated mediation model	EL	Teacher exploration	Role conflict	Teacher IWB	201 Greek public teachers in elementary and secondary education.	EL had direct positive effect on teacher IWB, and teacher exploration mediates the relationship. This indirect effect is contingent on role conflict.
10	(Slåtten, Svensson & Sværi 2011) Empowering leadership and the influence of a humorous work climate on service employees'	EL and Humorous work climate	Creativity	N/A	IWB	Frontline service employees in hospitality organizations	EL and a humorous work climate positively influenced creativity and in turn trigger employees'

creativity and innovative behaviour in frontline service jobs

11	(Chen et al. 2011) Motivating and demotivating forces in teams: cross-level influences of empowering leadership and relationship conflict.	EL and Relationship Conflict	Psychological Empowerment and Affective Commitment	N/A	IWB, Teamwork behaviour and turnover intention	laboratory and field studies with samples of leaders, employees, and students from the United States and China	EL and relationship conflict influence motivational states that these motivational states mediate the relationships between team members' innovative and teamwork behaviours and turnover intention.
----	--	------------------------------	--	-----	--	--	--

Authentic Leadership

	Author & title	IV	Mediator	Moderator	DV	Sample & Sector	Key findings
1	(Grošelj et al. 2020) Authentic and transformational leadership and innovative work behaviour: the moderating role of psychological empowerment	AL And TL	N/A	Psychological empowerment	IWB	126 employees in a multinational technological company	Both AL and TL positively related to IWB. Also, psychological empowerment moderated the relationships
3	(Schuckert et al. 2018) Motivate to innovate: How authentic and transformational leaders influence employees' psychological capital and service innovation behaviour	AL And TL	Psychological capital	N/A	Service IWB	336 employees across 15 five-star hotels South Korea	The results revealed that AL has a greater effect on employees' psychological capital and Service IWB than TL.
4	(Laguna et al. 2019) Authentic leadership and employees' innovative behaviour: a multilevel investigation in three countries	AL	Personal initiative and work engagement	N/A	IWB	711 employees working in 85 small firms the Netherlands, Poland, and Spain	When business owners are perceived as more authentic leaders, employees show higher personal initiative and engaged more at work and, in turn, identify more innovative solutions to be implemented in the company
5	(Yamak & Eyupoglu 2021) Authentic Leadership and Service	AL	Proactive Personality	N/A	Service IWB	428 employees working at banks located in North Cyprus	The results showed that both AL and Proactive Personality positively

Innovative Behaviour: Mediating Role of Proactive Personality							effects Service IWB
6	(Niu et al. 2018) Authentic leadership and employee job behaviours: The mediating role of relational and organizational identification and the moderating role of LMX	AL	Relational Identification and organizational identification	LMX	Voice and IWB	201 Chinese employees working in electronics, education, financial industries, and telecommunication,	Relational and organizational identification played a significant mediating role only in the between AL and employee IWB.
7	(Müceldili, Turan & Erdil 2013) The influence of authentic leadership on creativity and innovativeness	AL	Creativity	N/A	IWB	142 employees working in manufacturing and service firms in Turkey	AL has a positive relationship with both employees' creativity and innovativeness.
8	(Černe, Jaklič & Škerlavaj 2013) Authentic leadership, creativity, and innovation: A multilevel perspective	AL	Support for innovation	N/A	Creativity and team IWB	23 team leaders and 289 members in Slovenian manufacturing	Perceived team leaders' authentic leadership directly influences team members' individual creativity and team innovation
Leader-member exchange (LMX)							
	Author & title	IV	Mediator	Moderator	DV	Sample & sector	Key findings
1	Linking LMX, engagement, innovative behaviour, and job performance in hotel employees (Kim, M-S & Koo 2017)	LMX	Job engagement And organization engagement	N/A	IWB and job performance	290 Employees and managers of 18 five-star hotels in South Korea	LMX has significant positive effect on both job engagement and IWB but did not affect organisation engagement
2	(Saeed et al. 2019) Leader-member exchange and innovative work behaviour the role of creative process engagement, core self-evaluation, and domain knowledge	LMX	Creative Process Engagement	Core Self-evaluation and Domain Knowledge	IWB	323 employees and their immediate supervisors (121) from automotive industry in Thailand.	LMX had the strong positive relationship with IWB when Core Self-evaluation and Domain Knowledge were both high, and creative process engagement mediated such relationship.

3	(Carnevale et al. 2017) Leading to Stimulate Employees Ideas: A Quantitative Review of Leader-Member Exchange, Employee Voice, Creativity, and Innovative Behaviour	LMX	N/A	N/A	Voice, creativity, and IWB	Meta-analytical reviews of LMX research on voice (37 samples), creativity (53 samples), and IWB (29 samples).	Results show that LMX positively predicts voice, creativity, and IWB
4	Leader-member exchange, learning orientation, and innovative work behaviour (Atitumpong & Badir 2018)	LMX	Employee creative self-efficacy	Employee learning orientation	IWB	337 employees and 137 direct managers from manufacturing sector in Thailand	LMX and employee learning orientation positively related to employees' IWB, and these relationships are mediated by creative self-efficacy.
5	(Agarwal et al. 2012) Linking LMX, innovative work behaviour and turnover intentions	LMX	Work engagement	N/A	IWB and turnover intention	979 managerial employees working in six service organisations in India	LMX indirectly influenced IWB through work engagement
6	(Yuan & Woodman 2010) Innovative behaviour in the workplace: The role of performance and image outcome expectations	Perceived organization support, LMX, Innovativeness as a job requirement, Reputation as innovative and dissatisfaction with status quo	Expected image risks, expected image gains, and expected positive performance outcomes	N/A	IWB	425 employees and their 96 direct supervisors from four U.S. companies in several different industries	Significant effects of outcome expectations on IWB and these outcome expectations mediate all the contextual and individual difference factors.
7	(Wang et al. 2015) Understanding employee innovative behaviour: Integrating the social network and leader-member exchange perspectives	Out- group weak ties	LMX	Within group strong ties	IWB	135 employees' high-tech firm in China.	LMX fully mediated the positive relationship between out-group weak ties and IWB. LMX was positively and significantly related to IWB only when the number of within-group strong ties was low
8	(Garg & Dhar 2017) Employee service innovative behaviour: The roles of leader-member exchange (LMX), work engagement, and job autonomy	LMX	Work Engagement	Job Autonomy	Service IWB	294 Professionals in Indian banks sector	LMX positively influences employee IWB, and work engagement mediated such relationship. Job Autonomy strength the indirect effect of LMX on IWB

9	(Khan, MN & Malik 2017) "My leader's group is my group". Leader-member exchange and employees' behaviours	LMX	Work Engagement	N/A	Organizational Citizenship behaviour, knowledge sharing and IWB	511 employees in R&D and IT sector of Pakistan	LMX positively related to both employee Organizational Citizenship behaviour, knowledge sharing and IWB, work engagement
10	(Khalili 2018) Creativity and innovation through LMX and personal initiative	LMX	N/A	Personal initiative	Employee creativity and innovation	1,221 employees working in organisations across various industries in Australia.	LMX had positive and significant relationships employees' creativity and innovation. Personal initiative moderates such relationship
11	(Bani-Melhem, Al-Hawari & Quratulain 2020) Leader-member exchange and frontline employees' innovative behaviours: the roles of employee happiness and service climate	LMX	Employee Happiness	Service climate	IWB	303 employees working in various service organisations in the United Arab Emirates	LMX has a positive and significant effect on IWB, and employee happiness mediate the link. Service climate moderates the indirect effect of LMX on IWB
12	(Hussain, Iren & Rice 2020) Determinants of innovative behaviours among self-initiated expatriates	LMX and perceived innovation-reward	N/A	Job knowledge	IWB	229 SIEs based in the United Arab Emirates	Results indicate for LMX and perceived innovation-reward directly and significantly effects IWB. The relationship between LMX and SIEs' IWB is stronger when job knowledge and reward for innovation high.
13	(Tarkang, Nange & Ozturen 2020) Inspiring employee voice through leader-member exchange	LMX	Employees work engagement	N/A	Employee's voice and IWB	272 employees working in hotels in the South-west region of Cameroon.	Finding revealed positive effect of LMX on voice behaviour and IWB.
14	(Volery & Tarabashkina 2021) The impact of organisational support, employee creativity and work centrality on innovative work behaviour	LMX, organisational climate, reward, and creativity	Work centrality	N/A	IWB	Employees from Australia (203) and from mainland China (198).	The findings show that LMX is insignificantly related to IWB
15	(Mascareño, Rietzschel & Wisse 2020) Leader-Member	LMX	Creativity	N/A	IWB	118 leader-subordinate dyads from Dutch organisations	LMX had no direct effect on employee IWB

Exchange (LMX) and innovation: A test of competing hypotheses							
16	(Park & Jo 2018) The impact of proactivity, leader-member exchange, and climate for innovation on innovative behaviour in the Korean government sector	LMX and Climate for Innovation	Proactivity	N/A	IWB	1,011 employees working in Ministry of Education in Korea	Although proactivity and climate for innovation had positive relationships with IWB, LMX was found to have no significant direct impact on IWB
17	(Schermuly, Meyer & Dämmer 2013) Leader-member exchange and innovative behaviour: The mediating role of psychological empowerment	LMX	Psychological empowerment	N/A	IWB	225 German employees	LMX did not significantly affect IWB