UNIVERSITI PUTRA MALAYSIA

INFLUENCE OF TRANSFORMATIONAL LEADERSHIP, SPIRITUAL LEADERSHIP AND TECHNOLOGY INNOVATION ON ORGANIZATIONAL EFFECTIVENESS OF UNIVERSITIES IN PAKISTAN

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INFLUENCE OF TRANSFORMATIONAL LEADERSHIP, SPIRITUAL LEADERSHIP AND TECHNOLOGY INNOVATION ON ORGANIZATIONAL EFFECTIVENESS OF UNIVERSITIES IN PAKISTAN

By

SAJJAD AHMAD

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

February 2020

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DEDICATION

بِسْمِ اللهِ الرَّحْمٰنِ الرَّحِيْمِ

This thesis is dedicated to the great

Muslim scholar and reformer

Shaykh-ul-Islam Dr. Muhammad Tahir ul Qadri

and then

to my honorable parents, my beloved wife and my sons

Haidar Mustafa and Ali Mustafa,

to my respectable brothers and my worthy sisters especially

Dr. Saeeda Aziz

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

INFLUENCE OF TRANSFORMATIONAL LEADERSHIP, SPIRITUAL LEADERSHIP AND TECHNOLOGY INNOVATION ON ORGANIZATIONAL EFFECTIVENESS OF UNIVERSITIES IN PAKISTAN

By

SAJJAD AHMAD

February 2020

Chairman : Professor Noor Azman bin Ali, PhD
Faculty : School of Business and Economics

The aim of this study is to examine how the effectiveness of Pakistani universities can be enhanced through transformational and spiritual leadership and to what extent technology innovation intervenes in this relationship. The Upper Echelons Theory (UET) underpins the research framework. A cross-sectional survey was employed through a self-administered questionnaire for data collection from a sample of 389 academic and managerial employees of 21 Pakistani universities. PLS-SEM with path modeling and bootstrapping was utilized to examine the effect of the two leadership styles on organizational effectiveness, mediated by technology innovation. Seven out of eight hypotheses were accepted while only one was rejected. The study results significantly contributed to the literature; First, by testing two theories, UET and STS, with data from the new sector, and new geographical context. Second, it examined the impact of leadership style on organizational effectiveness with a moderated mediated model. Third, it provided practical implications for strategists and decision-makers in higher education. Practical suggestions were provided at the end of the study, and importance-performance map analysis (IPMA) was conducted to support the managerial implications of the study results empirically.

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Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

PENGARUH KEPEMIMPINAN TRANSFORMASI, KEPEMIMPINAN SPIRITUAL DAN INOVASI TEKNOLOGI KE ATAS KEBERKESANAN ORGANISASI UNIVERSITI DI PAKISTAN

Oleh

SAJJAD AHMAD

Februari 2020

Pengerusi : Profesor Noor Azman bin Ali, PhD
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Matlamat kajian ini adalah untuk meneliti bagaimana keberkesanan universiti di Pakistan boleh ditingkatkan melalui kepimpinan transformasi dan spiritual dan setakat mana inovasi teknologi mempengaruhi hubungan ini. Upper Echelons Theory (UET) telah digunakan sebagai teori asas dalam kerangka penyelidikan ini. Satu tinjauan keratan lintang menggunakan soal selidik swaguna untuk pengumpulan data daripada 389 pegawai akademik dan pengurusan dari 21 universiti di Pakistan. PLS-SEM dengan model laluan dan bootstrapping telah digunakan untuk meneliti kesan kedua-dua gaya kepimpinan terhadap keberkesanan organisasi, dengan mediasi inovasi teknologi. Tujuh daripada lapan hipotesis diterima sementara hanya satu yang ditolak. Dapatan kajian memberikan sumbangan yang besar kepada pustaka; Pertama, dengan menguji dua teori, UET dan STS, dengan data dari sektor baharu, dan konteks geografi baharu. Kedua, ia meneliti kesan gaya kepemimpinan terhadap keberkesanan organisasi dengan model mediasi dimoderasi. Ketiga, ia menyediakan implikasi praktikal untuk ahli strategi dan pembuat keputusan dalam pengajian tinggi. Cadangan praktikal dkemukakan di akhir kajian, dan analisis peta kepentingan-prestasi (IPMA) dilakukan untuk menyokong implikasi pengurusan hasil kajian secara empirikal.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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LIST OF ABBREVIATIONS

CFA	Conformity Factor Analysis
CMB	Common Method Bias
CMV	Common Method Variance
CTA-PLS	Confirmatory Tetrad Analysis
GST	General System Theory
HCM	Hierarchical Component Model: a higher-order structure that contains several layers of lower order constructs and involves a higher level of abstraction
HEC	Higher Education Commission
HEI	Higher Education Institutions
HOC	Higher Order Construct: a general construct that represents all underlying LOCs in an HCM.
IPMA	Importance-Performance Map Analysis
LOC	Lower Order Construct: A subdimension of HOC in am HCM
OE	Organizational Effectiveness
PLS-SEM	Partial Least Squares Structural Equation Modeling
QS Ranking	World University Rankings by Quacquarelli Symonds
SL	Spiritual Leadership
STS	Sociotechnical System
TL	Transformational Leadership
UET	Upper Echelons Theory

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CHAPTER 1

INTRODUCTION

This chapter provides the background of the study and problem statement, followed by research objectives, research questions, significance of the study, operational definitions and scope of the study. The background section covers various aspects of organizational effectiveness and describes the theoretical and practical contexts which necessitated the study of organizational effectiveness. The problem statement, objectives and research questions explain the key issues or problems, for which this study aims to provide empirical solutions. The scope delimitates the space and boundaries of the study.

1.1 Background of the Study

The fourth industrial revolution (IR 4.0) has altered almost all the spheres of life and specifically the nature and function of higher education (Antony et al., 2017; López, 2017; Reyes, 2018). Technology innovation has emerged as a backbone of the function and flow of day-to-day working in all the spheres of life including higher education institutions. New developments in information technology have radically changed the teaching, learning and research processes, which significantly contributed to the performance and effectiveness of the higher education institutions (Domingo & Gargante, 2016) the traditional system of education cannot survive and excel in this highly competitive scenario of higher education. Knowing this importance, A number of authors have evidenced that technology innovation (TI) is a powerful tool which cannot be over sighted by any organization in today's fast-paced, networked and competitive society (Ali et al., 2019; Amankwaa et al., 2019; Garms & Engelen, 2018; Nguyen et al., 2015). Thus it is imperative for the universities to adopt utilize and exploit technology innovation to be competitive and effective in terms of management, academics, and research.

In today's high competition of globalized economies and high-speed technological advancements, maintaining effectiveness is the prime endeavor of every organization (Croucher et al., 2018). All the organizational activities and functions like leadership, strategy, HRM, management, marketing, operations, etc. are ultimately judged by their contribution to organizational effectiveness (Delery & Gupta, 2016). The body of knowledge on OE is filled with various antecedents like leadership, culture, organizational structure, learning capability, knowledge management, technology adoption, and innovation, etc. (Akhtar et al., 2018; Glisson, 2015; Liao & Huang, 2016; Pattnaik & Sahoo, 2018). Various scholars have indicated that effective leadership was the most critical and indispensable phenomenon for attaining effectiveness (Jaleha & Machuki, 2018; Storey et al., 2016). The firms with effective leadership produced high results, while poor leadership performance resulted in serious effectiveness problems (Campbell et al., 2017).

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Education is the backbone of any country's economy, and its role in sustainable social and economic development is ever increasing day by day. Higher education is seen as a national hub for the creation, dissemination, and application of knowledge and innovation (Altbach et al., 2019). The fourth industrial revolution (IR 4.0) has entirely changed the landscape of higher education. Usage of artificial intelligence, robotics, and highly advanced research laboratories has converged the conventional higher education into its new version of education 4.0, making it technology-intensive, dynamic, futuristic and innovative. Today higher education (HE) not only creates a link between intellectuals and the industry but also develops the national skill level, Intellectual property, living standards and society at large (UNESCO, 2015b). Another important role of higher education is to foster creativity and innovation by conducting, facilitating and promoting research. This research culture and creativity not only earn good ranking for the universities but also contributes to the national patenting and intellectual property (Faria et al., 2018). This expanded role has given the higher education more importance and significance as a research topic in the current era of a knowledge society and knowledge economy (Altbach et al., 2019).

In Pakistan, higher education is considered as one of the main pillars of national development. Accentuating the importance of higher education (HE) for national development, the government has been launching various programs to improve the performance of the sector. High-speed internet connectivity, free software, online research resources, and free laptops for the students are some of the examples of such interventions (Chandio et al., 2019). But, today, when developed nations are reaping the fruit of education and research in the form of innovations, inventions, and economic development (Faria et al., 2018), unfortunately, Pakistan is facing serious challenges in this regard. Despite various developmental interventions by the government, Pakistani higher education has failed to get a good position among the nations of the world. As described in Appendix-03, Pakistan is ranked among the lowest of SAARC countries, in education, technology, innovation research and intellectual property (WEF_GCR, 2018). It is the leader who is responsible for providing vision, facilitating the attainment of that vision and leading the organization towards higher goals (Adriani, 2019; Alamir et al., 2019; Daft, 2018; Meyer et al., 1990) so it is assumed that effective leadership will be able to enhance innovation and effectiveness in the organization (Howell & Avolio, 1993).

In the context of high-tech demands of the market, changing scenario, severe competition, and declining global rankings, higher education needs a leadership style that is progressive, visionary and more responsive to the transformational needs of the sector. They should be able to foster organizational vision and motivate the followers to perform at the self-actualization level, so that the organization may attain and maintain its innovation, effectiveness and competitiveness (Bass & Avolio, 1994; Dong et al., 2017; García-Morales et al., 2012). In the literature, two of the leadership styles were found to have such visionary and transformational characteristics. First, transformational leadership (TL) which is mainly focused on the individual and organizational transformation, and can help the universities to achieve higher performance and creativity (Alamir et al., 2019; Boukamcha, 2019; Zhang & Inness, 2019). Second spiritual leadership (SL), which has a strategic orientation and

emphasizes organizational development by intrinsically motivating the employees for best performance, and innovation (Bhawuk, 2019; Fry et al., 2016).In short, higher education of Pakistan is facing serious issues in terms of effectiveness and performance and lacks in producing required output in terms of academics, research and innovation for the country, for which a solution is required.

1.2 Problem Statement

Organizational Effectiveness (OE) is one of the most crucial issues of organization studies (Shao et al., 2016; Tollman et al., 2016). No organization can survive in cutting-edge rivalry without attaining and maintaining effectiveness. The literature suggests that various organizations fail to maintain the required level of effectiveness and they have to face decline, consequently (Trahms et al., 2013). Various predictors and antecedents of effectiveness have been identified by the scholars, including leadership, innovation, structure, culture, and resources, etc. (Daft, 2018; Daneshmandnia, 2019; Lucianetti et al., 2019; Richardsen, 2019; Shet et al., 2019). But, two crucial determinants of effectiveness are identified as leadership and innovation (Bjornali et al., 2016; Carraway, 2015; Sein-Echaluce et al., 2017; Tang, 2017).

Contemporary higher education has certain specific features. Due to the fourth industrial revolution (IR4.0), higher education has become technology-intensive and is transforming into education 4.0. Which requires high performance, updated technology awareness, clarity of vision, innovativeness, and people-centric qualities in the leadership (Giones et al., 2017; Hussin, 2018; Penprase, 2018). Two of the leadership styles transformational leadership (TL) and spiritual leadership (SL) were found to cover the above-mentioned characteristics, needed for contemporary HEIs (Chen et al., 2016; Fry et al., 2016; Harris et al., 2019). TL fosters innovation, high performance and organizational change (Bass & Riggio, 2014), while SL promotes high commitment, creativity, intrinsic motivation and self-actualization (Fry et al., 2016). It was observed that past researchers mostly ignored this combination while checking the leadership impact on organizational effectiveness. On the other hand, spiritual leadership (SL) has been mostly explored and discussed in western and American contexts, while developing countries like Pakistan were almost ignored (Mubasher et al., 2017). So, it was considered vital to empirically assess whether the leadership style of TL and SL can help organizations to improve organizational effectiveness in higher education?

In the Pakistani context, higher education has been facing severe turmoil since the last two decades (Ali, 2017). According to national education management information system (NEMIS), despite government's support by increasing its budget from 2 trillion in 2014 to 2.6 trillion PKR in 2016 (NEMIS, 2017), Pakistani higher education has shown a declining trend in effectiveness with a number of indicators (Raza, 2017). First Pakistan's higher education is among the lowest in international rankings. For example, in 2014, six of more than 150 Pakistani universities were ranked among top1000 universities by Symonds (2016), but till 2016 two of them failed to maintain

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their position and were ultimately dropped from the list, and now only four universities appear in worlds top 1000 list (Dawn, 2017; TIMES, 2017). Similarly, Pakistani higher education was ranked as low as 50th, in Asia, where India and Malaysia were ranked 24th and 27th respectively (Dawn, 2017; Symonds, 2017). The research output in the form of patents was also unsatisfactory with 22 between 2006 to 2016 (Khattak, 2018) and the country was ranked 109th position of 126 countries in terms of innovativeness (Dutta et al., 2018).

The problem can be comprehended with the lens of Upper echelons theory (UET) by Hambrick and Mason (1984), which is an important organizational theory in strategic leadership literature (Hu et al., 2018; Lin & Lin, 2019; Schmid & Wurster, 2017; Xu et al., 2018). The theory explains the strategic nature of the organization and claims that the organizational performance of organizations depends upon the strategic choice of their leaders. And, this strategic choice is affected by the organization's environment and organizational characteristics, while effecting organizational outcomes. A thorough literature review presented in Table 2.7 revealed two significant gaps. First, most of the UET studies were conductd in American and Western world context, and second, none of these studies discussed role higher education leadership. Thus it seems imperative to test the theory with a new data from higher education sector, and in a new geographic context of a developing country like Pakistan. More specifically, the mediation effect of strategic choice of the leaders, needs to be explained and specified in higher education context. Furthermore, it is also imperative to know how the relationship between strategic choice of the leaders and organizational effectiveness is moderated by organizational characteristics.

With a sociotechnical system lense, a significant gap is the specification of social and technical subsystems in the context of higher education. The socio-technical system (STS) theory by Trist (1981) necessitates a fit between the social sub-system and technical sub-system, for any organization to be effective. According to STS perspective, organizations can attain organizational effectiveness if they are able to create a synergy in their social subsystem and technical subsystem (Bijker, 1997; Pava, 1986; Soliman & Saurin, 2017; Walker et al., 2008). A detailed review of literature, summarized in Table 2.8 evidenced almost all of the studies on STS were conducted in manufacturing sector, leaving behind the higher education sector. Filling this gap required to test the theory in higher education perspective, with new ata and new geographic context of developing country like Pakistan.

In the Pakistani Higher education context, two critical areas are highlighted for grave concern. Global Human Capital Report by World Economic Forum indicated that Pakistan was lacking in technology among its neighboring countries (WEF_GHCR, 2017), while a recent report by UNESCO (2015a) indicated that Pakistan's higher education was facing leadership crises. Similarly, studies conducted by Zeb and Ali (2015) and Gilani (2015) supplemented it by their observation that the leadership crisis was one of the main reasons behind deteriorating higher education in Pakistan. Despite such eye-opening and clear reports, it was observed that there were very few empirical

studies to check the role of technology innovation and leadership on the effectiveness of higher education institutions of Pakistan.

To address the issue of organizational effectiveness in Pakistani higher education context, and to address the various literature gaps, this study presents a mediated moderation model. In this model organizational effectiveness will be examined against leadership style, the mediation role of technology innovation will be assessed, while moderation effect of university size will be tested on the relationship between technology innovation and organizational effectiveness

1.3 Research Questions

The main research question that guided this study was: "Do transformational leadership (TL), and spiritual leadership (SL), with mediating role of technology innovation have a significant and positive effect on organizational effectiveness (OE) of in Pakistani universities?

To answer this main question, the following specific questions have been adopted by the study

(i) Does transformational leadership (TL) and spiritual leadership (SL) significantly and positively affect organizational effectiveness (OE) in higher education?
(ii) Does transformational leadership (TL) and spiritual leadership (SL) significantly and positively affect technology innovation (TI) in higher education?
(iii) Does technology innovation (TI) significantly and positively affect organizational effectiveness (OE)?
(iv) Does technology innovation mediate in the relationship between transformational leadership (TL) and spiritual leadership (SL) and organizational effectiveness (OE)?
(v) Does university size have a moderating effect on the positive relationship between technology innovation and organizational effectiveness?

1.4 Research Objectives

The main objective of the study was to investigate the effect of transformational leadership and spiritual leadership on organizational effectiveness mediated by technology innovation in Pakistani universities

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The specific objectives of the current study were as follow:

(i) To examine the effect of transformational leadership and spiritual leadership on organizational effectiveness.
(ii) To examine the effect of transformational leadership and spiritual leadership on technology innovation.
(iii) To test the effect of technology innovation on organizational effectiveness.
(iv) To test if technology innovation mediates in the relationship between transformational leadership and spiritual leadership and organizational effectiveness.
(v) To validate if university size has a moderating effect on the positive relationship between technology innovation and organizational effectiveness?

1.5 Scope of the Study

This study covers various important factors of organizational effectiveness, that can help the educational strategists and decision-makers in this situation. First, it discusses how transformational leadership can foster technology innovation and can contribute to the organizational effectiveness of a university. Second, how spiritual leadership may help in enhancing technology innovation and can add value to the organization's performance. Third, it investigates that to what extent technology innovation can improve the output of higher education institutions and how it may help the leaders in their effort to improve their organizational effectiveness.

This study is multidisciplinary in the sense that it integrates strategic management, leadership, and management information system (MIS), in the pursuit of effectiveness in higher education. It starts with the role of strategic leadership for overall organizational effectiveness and empirically tests TL's effect on TI and OE, followed by an assessment of SL for its relationship with TI and OE. Second, it highlights the importance of technology innovation in the higher education sector, which gives a brief overview of the role of information and computer technology (ICT) in enhancing the academic, innovativeness and research performance of the universities. It also aims at developing a holistic conceptual framework through integrating strategic theories of management. This was accomplished by integrating the upper echelons theory (UET) of Hambrick and Mason (1984) and the sociotechnical system theory of (Trist, 1981). The data will be collected from public and private universities of all the four provinces of Pakistan. However, various colleges and degree awarding institutes that were not listed by HEC were excluded from this study. Similarly, the contractual, visiting, and on-leave university staff was also excluded from the study scope. In nonacademic, staff only managerial level personnel will be surveyed, and lower staff will not be considered as they will be unable to comprehend the issue. Methodologically, it deploys PLS-SEM to test the hypothesized relationships and predict future interaction among these variables. Confirmatory tetrad analysis (CTA-PLS) is proposed to avoid model misspecification and importance-performance map

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analysis (IPMA) will be conducted to know the practical implications of the study result.

1.6 Significance of the Study

This study gets its significance by contributing an empirical and academic value to existing theoretical and practical perspectives of management science in the context of organizational effectiveness, leadership, and technology innovation. The underpinning theory upper echelon theory (UET) is to be tested with new data. The study also aims to apply a few new techniques to enhance empirical rigor.

First, this study aims at testing the upper echelon theoretical framework, in Pakistani higher education context by taking leadership style as top management team (TMT) characteristics, which is one of the most important but least explored areas in UET studies, organizational effectiveness as an ultimate outcome, technology innovation as mediating variable, being an important strategic choice of the top management teams or organizational leadership. It also intends to assess the effect of organizational characteristics like firm-size on the relationship between TMT characteristics and organizational outcome in Pakistani higher education context. Second, It also seeks to test sociotechnical system theory with new data and new context, by taking leadership style as a social subsystem and technology innovation as a technical subsystem and organizational effectiveness as the final outcome. This is important in the sense that there were almost no studies to test these two with this context.

The third significance of this study comes from its practical and empirical nature by taking a very important issue in the Pakistani context. The deteriorating and exacerbating situation of Pakistani higher education system and ineffectiveness of universities in attaining their set objectives and required outputs necessitate a probe into the question that how the performance of HEIs can be improved. This study takes two of the critical areas highlighted by world economic forum the leadership and technology innovation as predictors of organizational effectiveness and tests the hypothesized relationships with data from higher education institutions in Pakistan. It aims to examine if university performance (organizational effectiveness) can be enhanced through emphasizing on leadership style and technology innovation in the organizations. It further probes into the matter that if firm characteristics like university size, moderates the relation between leadership style and organizational effectiveness. The test of hypothesized relationships and intervening role of strategic choices of the top university management and the moderating effect of university size is expected to provide significant practical insights on how organizational performance can be enhanced in the higher education sector context.

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1.7 Operational Definition of Key Terms

Although a detailed description of each variable and its constructs is discussed in the literature review section, this section gives a brief definition of the terms used in the study.

1.7.1 Organizational Effectiveness

Organizational effectiveness (OE) consists of activities like the improved capability to innovate, better coordination of effort, and swift commercialization of innovative products and services. In this research context, it is perceived organizational effectiveness, which describes the university's current status of effectiveness in terms of efficiency, adaptability, and innovativeness (Gold et al., 2001).

1.7.2 Spiritual Leadership

Spiritual leadership (SL) is a causal perspective of leadership intended to create a transformed and effective organization by creating an intrinsically motivated, learning organization. A spiritual leadership relies on three major aspects vision, faith, and altruistic love, and intrinsically motivates his followers to create a strategically developed organization (Fry et al., 2016). In this study context SL is the exogenous variable for organizational effectiveness (OE) and technology innovation (TI) and its effect on both is to be tested.

1.7.3 Transformational Leadership

A transformational leader motivates followers beyond expectations developing consciousness about the value of idealized goals, elevates them through idealized influence (charisma), inspiration, intellectual stimulation, and individualized consideration. It increases the maturity level of the followers and their aspirations, as well as their concerns for accomplishment, self-actualization in the performance, and betterment of the people around them, the organization as a whole (Bass & Riggio, 2006). In this study context, it is to be tested for its positive relationship with TI and OE.

1.7.4 Higher Education Institutions

Higher Education Institution (HEI) means the institutions or universities which are involved in teaching and offer bachelor, master, and doctoral degrees. This includes the universities and their affiliated colleges. This study is specifically concerned only with universities that are chartered by their relevant provincial governments, recognized by higher education commission (HEC) of Pakistan and category-wise listed on official website of HEC Pakistan.

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1.7.5 Higher Education Commission (HEC)

Higher education commission (HEC) of Pakistan is the central top-level body to control and manage the higher education at the federal government level. HEC aims at two major purposes, first funds allocation to higher education institutions (HEIs) and second accreditation services for the degree programs of these HEIs. HEC also develops national education policy, maintains educational quality and oversees the promotion of research and development (HEC, 2016). Only HEC recognized universities are authorized to issue the degrees. On the other hand, it also acts as national regulatory authority and

1.7.6 Technology Innovation (TI)

In the higher education context, technology innovation is explicitly concerned with all forms of utilization and diffusion of technology and generation of such knowledge, which initiates innovativeness and creativity to support teaching, research, innovation and service. (Nicholls, 2018; Pinho & Franco, 2017; Tarman, 2016). Based on UE theory and STS perspective this study tests the mediating role of TI in the relationship between leadership style and organizational effectiveness (OE).

1.8 Organization of Thesis

The thesis is organized into five chapters as per study requirements. The first chapter covers the introduction to the dissertation and consists of the background of the study, the problem statement, the research objectives and the significance of the study. The second chapter presents a critical review of the available literature on the study variable and their relationship in the research model. The chapter also explained the underpinning theory "upper echelons theory (UET)" and a supporting theory called "sociotechnical system Perspective". The chapter closes with a study framework and development of hypotheses.

The third chapter is related to research methodology and provides discussions regarding the research design, sampling design, research instrument, and scale measurement of variables. A brief overview of data collection and analysis techniques is also given at the chapter closing. This is followed by the fourth chapter, which presents the results of the study and a detailed discussion in the context of the study. It starts with demographic and descriptive information and then an assessment of the measurement (or outer) model and the structural (or inner) model is provided. The fifth chapter presents the implications of the research findings and recommendations. It gives a discussion on theoretical contributions, methodological inputs for the literature and practical contributions of the study and explains how the research gap is filled by this research. The chapter closes with overall concluding remarks. Figure 1.1 provides a quick view of the complete structure of the dissertation.

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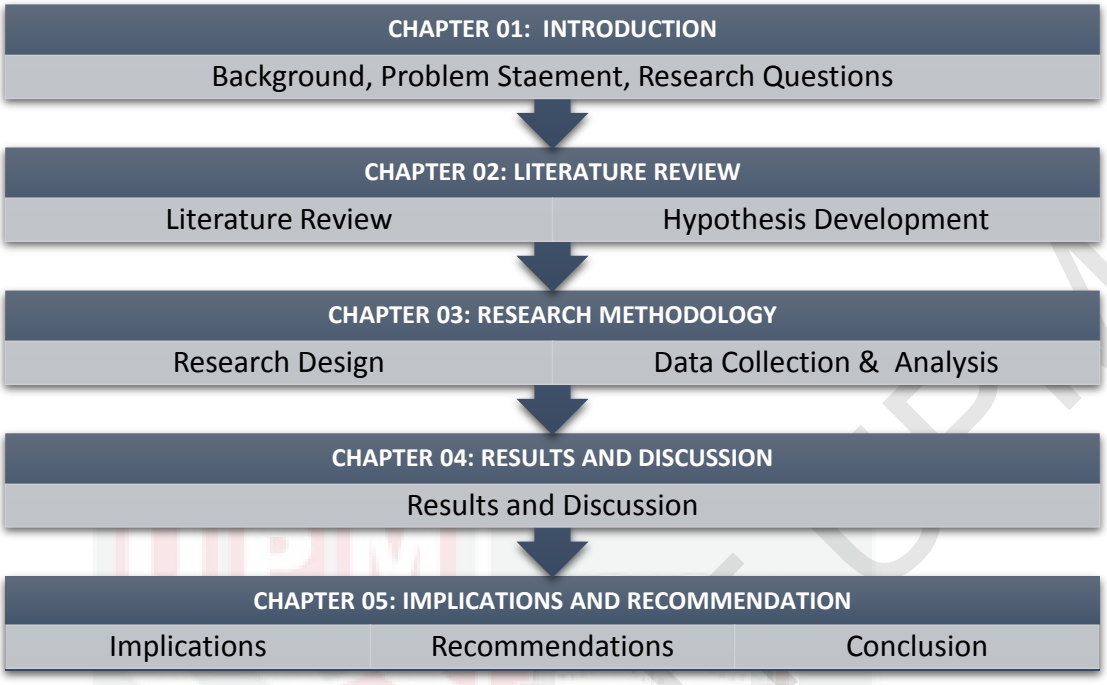

Figure 1.1 : Structure of the Dissertation

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LIST OF PUBLICATIONS

Ahmad, S., Ali, N. A. b., Jantan, A. H., Bowyer, D., & Reaz, M. (2020). Organizational Effectiveness Through Transformational Leadership and Technology Innovation: A Systematic Literature Review and Future Research Agenda. *Journal of International Business and Management (JIBM), 3*(4), 1-17. doi:https://doi.org/10.37227/JIBM-2020-04-44
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