

**THE IMPACT OF TRANSFORMATIONAL LEADERSHIP AND
HUMAN RESOURCE PRACTICES ON OPERATIONAL
EXCELLENCE THROUGH KNOWLEDGE SHARING**

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DEDICATION

I humbly dedicate this thesis to Almighty Allah, whose boundless grace granted me the strength, knowledge, and patience necessary to navigate and triumph on this transformative journey. I also want to dedicate this thesis to my parents for their love, prayers, and motivation in my life, especially for completing this thesis. The realization of this journey owes itself to the unwavering support and selfless sacrifices of my cherished wife, Afshan Basharat, as well as my beloved sons, Muhammad Tauha Bilal and Muhammad Ammar Bilal. I would like to extend my heartfelt dedication to my steadfast friends, Mr. Aamer Hafeez, Late Mr. Safdar Nazeer, and Mr. Ayyaz Mahmood, who unwaveringly stood by my side at every juncture of this remarkable PhD journey.



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ABSTRACT

Considering the business challenges faced by fixed line telecommunication operators due to competition with cellular mobile operators, it has become a potential threat for these operators to survive in the telecommunication industry. Due to a decrease in the number of fixed line customers, these operators in Pakistan strive to implement best practices and principles of Operational Excellence (OE) to compete in the telecommunication industry. To handle such challenges, these operators need to implement specific business strategies with influential leadership roles, effective human resource practices, and knowledge sharing. Previous studies emphasize OE as the execution of business strategies for sustainable competitive advantage in both production and service industries to achieve world-class performance levels. This study aims to investigate the linkage of Transformational Leadership (TL) and Human Resource Practices (HRP) with OE in fixed line telecommunication sector of Pakistan through Knowledge Sharing (KS) under the theoretical lens of resource-based theory. A new OE instrument was developed by performing exploratory factor analysis (EFA) using SPSS version 23 after collecting the data from both cellular and fixed line telecommunication sectors of Pakistan. Confirmatory Factor Analysis (CFA) was conducted to test the reliability and validity of the OE instrument and hypotheses testing using PLS-SEM. The results of OE scale development after EFA revealed that OE is a multidimensional construct having three dimensions and 21 items. The results of hypotheses testing in the fixed line telecommunication sector of Pakistan indicate that the direct and indirect relationships between the constructs TL, HRP, and KS with OE are significant. Hence, the developed instrument is a generalized scale, and the proposed research model is applicable in different production and service industries in other countries in a cross-cultural environment for researchers and practitioners.

ABSTRAK

Memandangkan cabaran perniagaan yang dihadapi oleh pengendali telekomunikasi talian tetap akibat persaingan dengan pengendali mudah alih selular, ia telah menjadi potensi ancaman bagi pengendali ini untuk terus hidup dalam industri telekomunikasi. Disebabkan oleh penurunan dalam bilangan pelanggan talian tetap, pengendali di Pakistan ini berusaha untuk melaksanakan amalan terbaik dan prinsip Kecemerlangan Operasi (OE) untuk bersaing dalam industri telekomunikasi. Untuk menangani cabaran sedemikian, pengendali ini perlu melaksanakan strategi perniagaan khusus dengan peranan kepimpinan yang berpengaruh, amalan sumber manusia yang berkesan dan perkongsian pengetahuan. Kajian terdahulu menekankan OE sebagai pelaksanaan strategi perniagaan untuk kelebihan daya saing yang mampan dalam kedua-dua industri pengeluaran dan perkhidmatan untuk mencapai tahap prestasi bertaraf dunia. Kajian ini bertujuan untuk menyiasat kaitan Kepimpinan Transformasi (TL) dan Amalan Sumber Manusia (HRP) dengan OE dalam sektor telekomunikasi talian tetap Pakistan melalui Perkongsian Pengetahuan (KS) di bawah lensa teori teori berasaskan sumber. Instrumen OE baharu telah dibangunkan dengan melaksanakan analisis faktor penerokaan (EFA) menggunakan SPSS versi 23 selepas mengumpul data daripada kedua-dua sektor telekomunikasi selular dan talian tetap Pakistan. Analisis Faktor Pengesahan (CFA) telah dijalankan untuk menguji kebolehpercayaan dan kesahan instrumen OE dan pengujian hipotesis menggunakan PLS-SEM. Hasil pembangunan skala OE selepas EFA mendedahkan bahawa OE ialah konstruk multidimensi yang mempunyai tiga dimensi dan 21 barang. Keputusan ujian hipotesis dalam sektor telekomunikasi talian tetap Pakistan menunjukkan bahawa hubungan langsung dan tidak langsung antara konstruk TL, HRP, dan KS dengan OE adalah signifikan. Oleh itu, instrumen yang dibangunkan adalah skala umum, dan model penyelidikan yang dicadangkan boleh digunakan dalam industri pengeluaran dan perkhidmatan yang berbeza di negara lain dalam persekitaran silang budaya untuk penyelidik dan pengamal.

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LIST OF ABBREVIATIONS

OE	-	Operational Excellence
TL	-	Transformational Leadership
HRP		Human Resource Practices
KS	-	Knowledge Sharing
RBT	-	Resource-Based Theory
PTA	-	Pakistan Telecommunication Authority
PLS	-	Partial Least Square
SEM	-	Structural Equation Modeling
IV	-	Independent Variable
DV	-	Dependent Variable
M	-	Mediation
EFA	-	Exploratory Factor Analysis
CFA	-	Confirmatory Factor Analysis
CMO	-	Cellular Mobile Operators
LLO	-	Local Loop Operators
SOEM	-	Shingo Operational Excellence Model

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The current business environment in the whole world is very complex due to changes in the business dynamics in different industries. Globalization has created formidable pressure on firms to survive and compete, especially in developing countries. Firms must redesign themselves towards excellence in such conditions, using the required creativity and innovation tools (Shehadeh, Zubi, *et al.*, 2016).

Many claims in the literature refer to operational excellence as a strategic approach managers follow to achieve world-class performance levels by integrating their firm's people, processes, and tools. Most of the previous studies on operational excellence are conducted in the production industries but less in the service sectors (Muazu & Tasmin, 2017). This research focuses on implementing operational excellence principles and the factors affecting operational excellence in the fixed local line telecommunication sector of Pakistan.

In the last century, Japanese industries have made successive contributions towards excellence using different methodologies like lean management and Six Sigma. These excellence methodologies are the road map toward operational excellence (Antony *et al.*, 2022; Basu, 2004). Organizations achieve operational excellence by developing technological innovation for their product and services to improve their business (Ojha, 2015). Operational routines are activities/processes an organization performs at the operational level, leading to superior organizational performance and sustainability. It is the proficiency of organizations to implement operational strategies for solving business problems (Benitez *et al.*, 2017). Muazu &

Tasmin (2017) identified a few constructs that converge toward operational excellence: continuous improvement, cost reduction, quality, time utilization, operational efficiency, staff involvement, and output optimization. Similarly, the Shingo Institute of Operational Excellence has contributed exceptionally to developing standards for organizations to adopt best practices and procedures to qualify for the Shingo award. These contributions by Shingo Institute are by defining three dimensions namely continuous improvement, cultural enablers, and enterprise alignment (Shingo Institute, 2020).

The previous studies on operational excellence were conducted mostly in production industries, but there is a need for operational excellence in the service sector (Shehadeh, Zubi, *et al.*, 2016). In the service industries, the study of Sari *et al.* (2015) indicated three critical factors leadership style, human resource, and organizational culture that influence operational excellence in telecommunication-supportive companies. Similarly, the literature indicated that transformational leadership and human resource practices are two important factors that significantly influence operational excellence (H. Ahmad *et al.*, 2018; O. Fok-yew & Ahmad, 2014). The current study aimed to highlight the challenges for telecommunication companies globally and narrow them down to Asia & Pacific region, and then at the national level in Pakistan.

1.2 Background of study

Globally in the telecommunication service industry, the subscription of cellular mobile customers has been reached up to 5.6 billion, and its projection is going to touch 6 billion by 2025 throughout Asia Pacific, CIS (Commonwealth of Independent States), Europe, Latin America, MENA (Middle East/North Africa), North America and Sub-Saharan Africa (Statistica, 2022b). Similarly, at the Asia Pacific regional level, cellular mobile service subscriptions are increasing yearly. The statistics of global annual subscriptions of cellular mobile customers are shown in Figure 1.1.

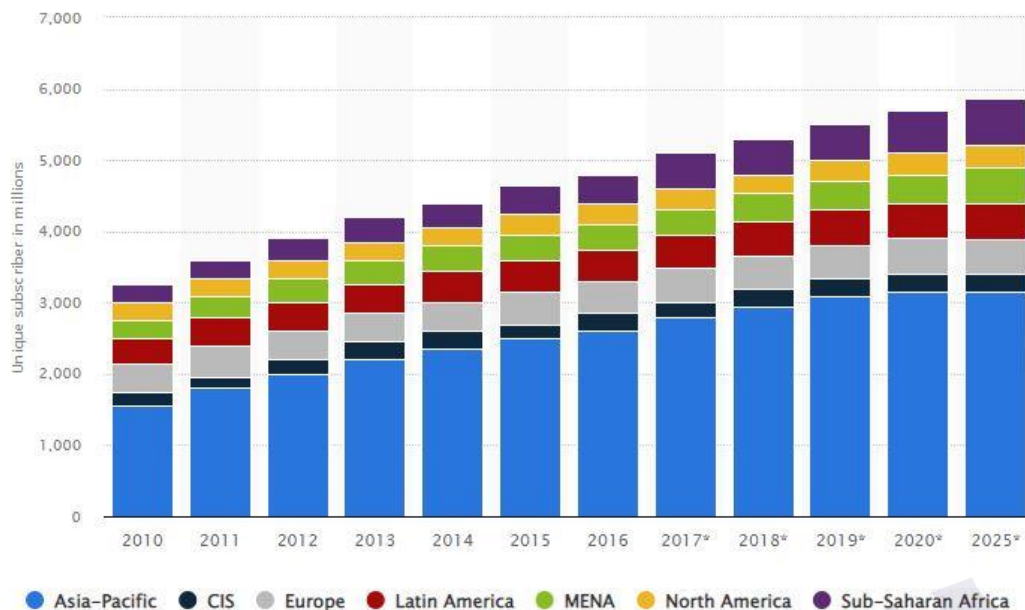


Figure 1.1: Annual subscription of cellular mobile customers in the world (Statistica, 2022b)

The subscription of fixed line services worldwide has decreased from 1.25 billion to 866 million globally (Africa, The Americas, Arab States, Asia & Pacific, CIS, and Europe). At the regional Asia & Pacific level, the fixed line customer subscription has also decreased to 362 million. The customer statistics of annual fixed line service subscription in the world is shown in Figure 1.2 (Statistica, 2022a).

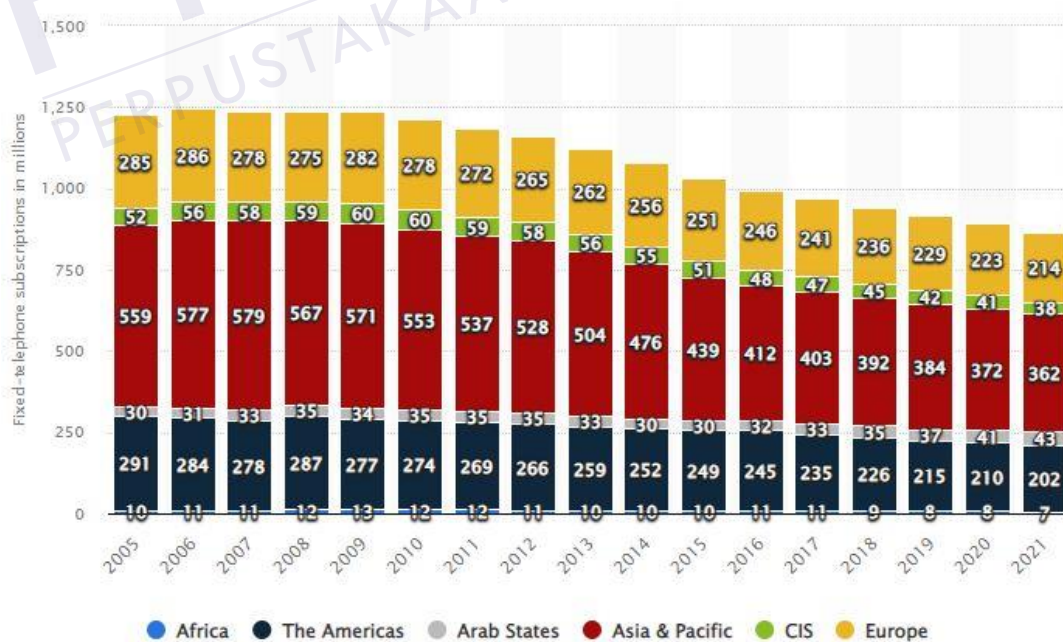


Figure 1.2: Annual subscription of fixed line customers in the world (Statistica, 2022a)

The telecommunication sector of Pakistan is a significant contributor to the economic development of the country. The contribution of this sector is 12.18% in the GDP of Pakistan (PBS, 2021). This sector always contributes more than 50% in foreign and direct investment (Tariq & Mat, 2017). According to the latest report of PTA (2022c), the telecommunication sector of Pakistan prominently arose and contributed Rs: 278 billion to Pakistan's economy in 2020, and Rs: 228 billion in 2021 with a significant increase from the last many years as shown in Figure 1.3.

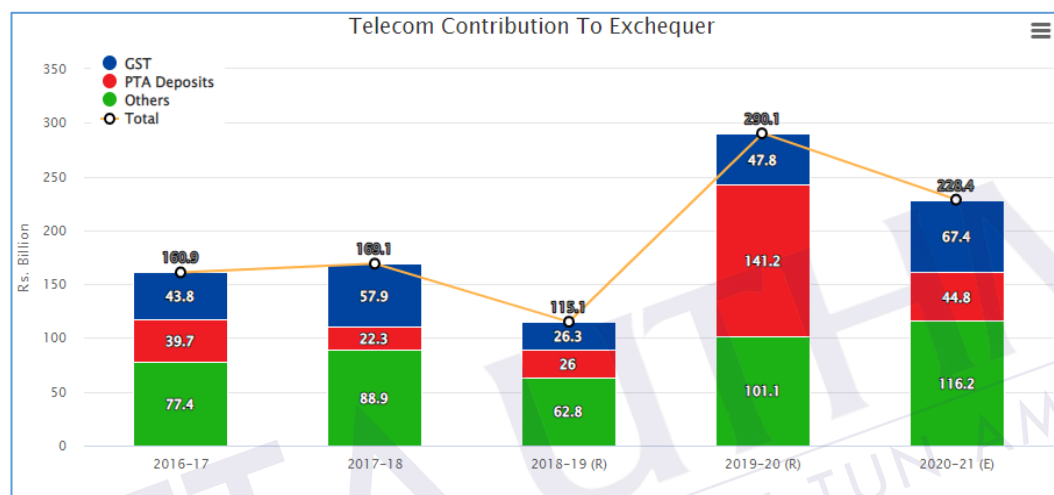


Figure 1.3: Telecommunication sector of Pakistan's contribution to the exchequer

At national level, Pakistan's telecommunication sector has also seen significant growth in cellular mobile users in the last fifteen years (PTA, 2018, 2022b). This increasing growth in cellular mobile users is due to the government deregulation policies and the auction of cellular mobile-based licenses by PTA in the private sector to promote telecommunication services (PTA, 2018). The government of Pakistan has auctioned the licenses of 3G and 4G and provided an intellectual business opportunity to all telecom operators. The annual report of Pakistan Telecommunication Authority (PTA) indicated that there are six cellular mobile operators in Pakistan providing voice video and data services to cellular mobile customers (PTA, 2022b). The list of six cellular mobile operators in Pakistan is given below.

1. PMCL (Pakistan Mobile Communication Limited) with trade name (Jazz)
2. PTML (Pak Telecom Mobile Limited) Ufone
3. CMPAK (China Mobile Pakistan) Zong
4. Telenor
5. Warid

6. SCO (Special Communication Organization)

The report of PTA (2022b) also highlighted that the subscription of cellular mobile customers in Pakistan increased continuously and reached 184.25 million. The subscription statistics of cellular mobile customers in Pakistan on a yearly basis are shown in Figure 1.4, and on monthly basis are shown in Figure 1.5.

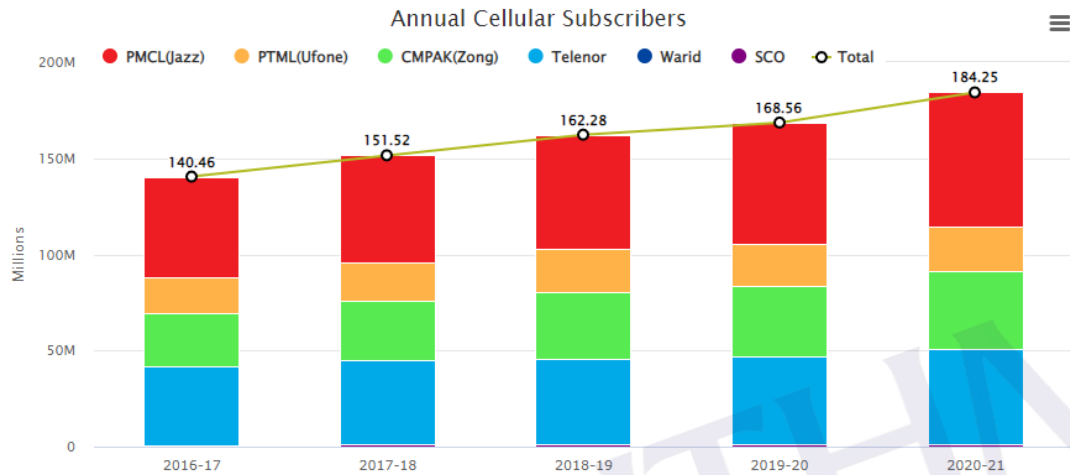


Figure 1.4: Annual subscription of cellular mobile customers in Pakistan (PTA, 2022b)

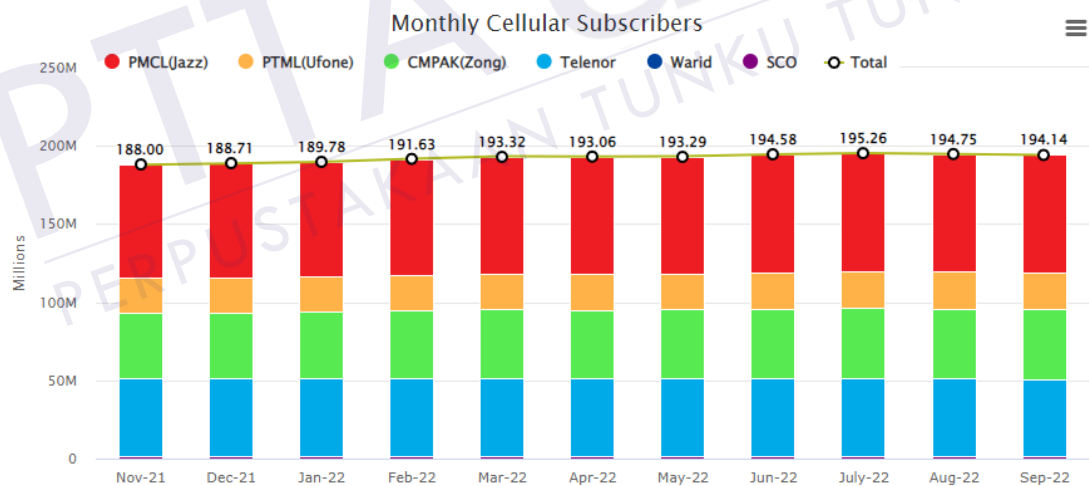


Figure 1.5: Subscription of cellular mobile customers in Pakistan on monthly basis (PTA, 2022b)

In the fixed line telecommunication sector of Pakistan, there are nine fixed line operators providing voice, video and data services over the fixed copper and optical fiber cable networks (PTA, 2022d). The list of nine fixed line operators in Pakistan is given below.

1. PTCL (Pakistan Telecommunication Company Limited)
2. NTC (National Telecommunication Corporation)

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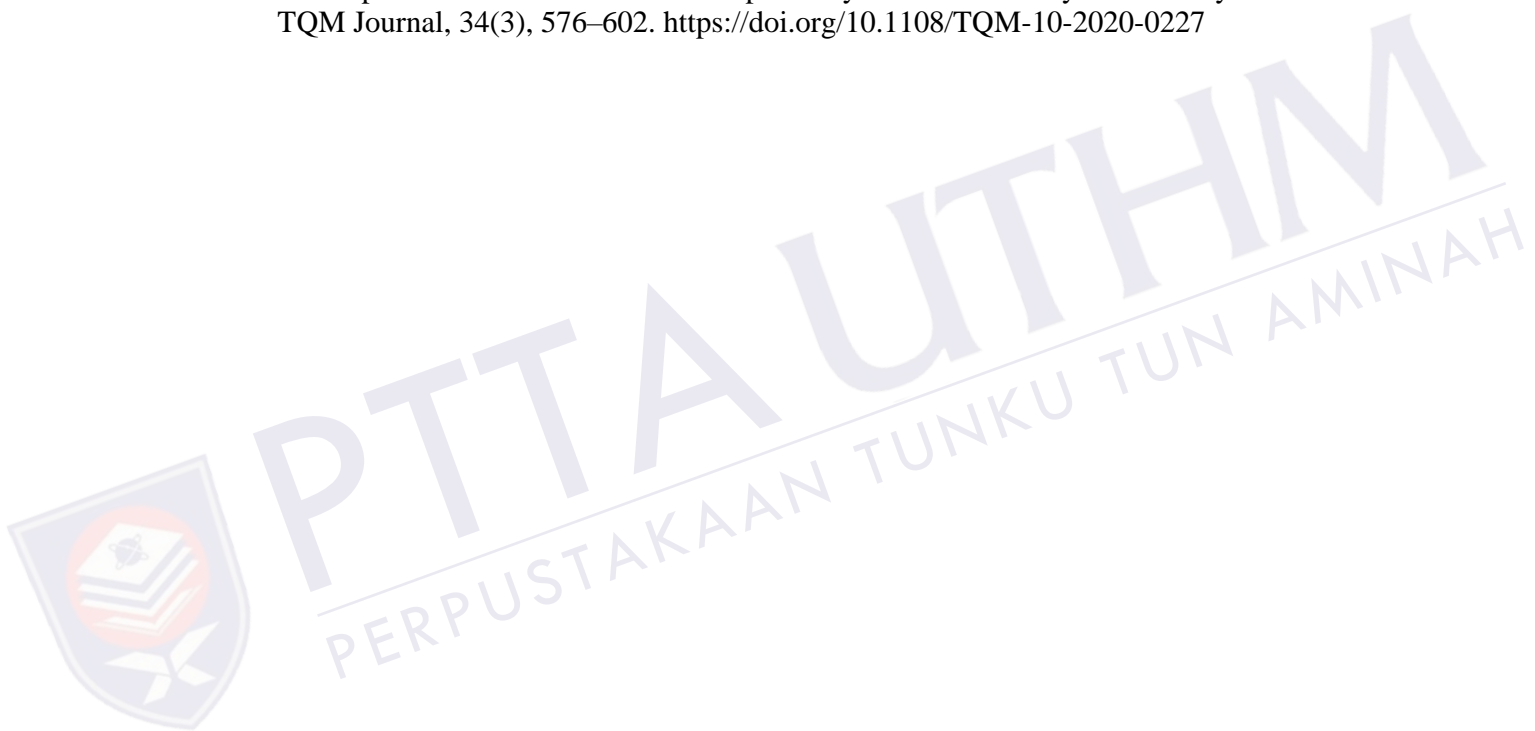
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APPENDIX H

List of Publications

Saeed, B., Tasmin, R., Mehmood, A., & Hafeez, A. (2020). Exploring the impact of transformational leadership and human resource practices on operational excellence mediated by knowledge sharing: A conceptual framework. *International Journal of Scientific and Technology Research*, 9(2), 4458–4468.

Saeed, Bilal, Tasmin, R., Mahmood, A., & Hafeez, A. (2022). Development of a multi-item Operational Excellence scale: Exploratory and confirmatory factor analysis. *The TQM Journal*, 34(3), 576–602. <https://doi.org/10.1108/TQM-10-2020-0227>



VITA

The author, born on February 20, 1985, in Pakistan, embarked on an academic journey that has led to significant accomplishments. He completed his higher secondary education at Telecom Boys Public School & College Haripur in 2003. His passion for engineering led him to The Islamia University of Bahawalpur, where he earned his Bachelor of Science degree in Electronic Engineering in 2007. Upon graduating, the author commenced his professional career at Pakistan Telecommunication Company Limited (PTCL), starting as an Assistant Manager in 2008 and steadily advancing to his current role as Senior Manager of Switching Operations in Islamabad Telecom Region (ITR). Concurrently, he pursued further education and completed Master's degree in Telecommunication Engineering in 2014 from the Institute of Communication Technology Islamabad, affiliated with the University of Engineering and Technology Peshawar. In 2017, Mr. Bilal Saeed's academic pursuits took him to the Universiti Tun Hussein Onn Malaysia, where he was accepted into the Ph.D. program in Technology Management. During his doctoral studies, he demonstrated his expertise by co-authoring five papers in the fields of knowledge management, operational excellence, and technology transfer. Notably, his contributions were not confined to the academic realm; in 2022, the author was honored with the Operational Excellence Award for his exceptional contributions to the PTCL. This recognition underscored his dedication and outstanding achievements within the organization, further solidifying his reputation as a leader in the field. These experiences reflect his dedication to advancing the realms of knowledge and technology within the telecommunications industry.