

CHALLENGES TOWARDS DIGITALIZATION FOR LEADERSHIP IN PAKISTAN
(FINANCIAL INDUSTRY)

by

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Dedication

Dedicated to my supervisor, my beloved Parents, mentors, instructors whose tremendous support and cooperation led me to this accomplishment.

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I am thankful to God Almighty who guided me throughout this work at every step and for every new thought which He incorporated in my mind to improve this piece of work. Indeed, I could have done nothing without His guidance and countless blessings. Whosoever helped me throughout the course of my thesis, whether my parents or any other individual, was His will, so indeed no one be worthy of praise but Him.

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ABSTRACT

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The Pakistani financial industry has been observing a major lash due to current economic instability. The economic instability scandal has affected nations globally and has had an extremely negative impact on the country due to its debt and taking additional debts from the IMF, World Bank, and other countries. The specific problem within financial industry in Pakistan concerns the lack of innovative leadership interventions to achieve efficiency, accessibility, and competitiveness. There are also certain limitations of infrastructure which challenge the intention to digitalized the financial sector in Pakistan. The purpose of this single qualitative study was to achieve a deeper understanding on how innovative leadership interventions are planned, aligned and implemented in the financial industry in Pakistan and how these interventions may contribute to efficiency, accessibility, and competitiveness. The study used the Theory of transformational leadership as the theoretical framework and was based on semi-structured interviews with eight (N=8) participants from five financial institutions in Pakistan. The financial institutions and participants were purposively selected. The study

findings clearly indicated that the strategic leadership plays a very important role in successfully aligning, planning and implementing the innovative interventions in the financial sector of Pakistan, as well as the organizational goals with technological advancements and adoption of digitalized solutions. In addition, it indicated that the inclusion of smart technology from Industry 4.0 strengthens the relationship between inventive performance and organizational sustainability. Finally, the findings indicated that innovative interventions of leadership improve efficiency, accessibility, and competitiveness in the financial sector of Pakistan. The implication of this study highlights the positive societal impact of sustainable leadership practices, including increased profits, job creation in Pakistan's financial sector, and a reduction in the country's unemployment rate. This study contributed to the field of business and management by filling the research gap in terms of trying to understand how innovative leadership interventions can be used to achieve efficiency, accessibility, and competitiveness. Recommendations for future research include exploring similar themes in other industries, geographic regions, or cultural contexts to deepen understanding of how leadership can drive digital transformation in varying environments.

Keywords: Innovative transformational Leadership, Digital Transformation, Financial Sector in Pakistan, Organizational Efficiency

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CHAPTER I: INTRODUCTION

1.1 Introduction

Transforming the financial industry of Pakistan digitally is a very crucial frontier for the leadership and those who want to bring innovation in this field (Malik *et al.*, 2024). The digital technologies have been adopted rapidly by the whole world, therefore the financial sector is evolving on a higher pace and the importance of digitalization has been recognized because of its several characteristics such as efficiency, accessibility, and competitiveness. The financial landscape of Pakistan is ripe for modernization and by digitalizing the financial sector the traditional banking practices have been transformed into digitalized practices, the financial inclusion has increased, and economic growth is promoted. However, there are also many challenges which come in the way of digitally transforming the financial industry, therefore, it is required to apply strategic interventions to deal with those challenges.

The major core of digitalization lies behind the laws and regulatory frameworks, which apply according to the situation, it sometimes enables the aspects of digital transformation and sometimes restricts innovations because of certain associated threats and laws (Mahmood, Khan and Khan, 2019). There are many studies conducted which have emphasized the necessity of applying regulatory frameworks to maintain an equilibrium between doing innovations through technology and safeguarding the interests of consumers. The outdated policies and certain regulatory

frameworks which create hurdles in digital transformation are always considered as impediments for the digitalization of the financial sector. Furthermore, there are also some challenges which are related to lack of infrastructure which also create a lot of challenges while digitalizing financial sectors. Due to infrastructure issues many rural and urban areas of Pakistan are still facing internet issues and availability of technological solutions which is always considered as the biggest concern in applying digitalization in the financial sector.

Digital leadership always strategizes the use of technology by including internet usage, mobile applications, social media platform usage, and much more (Araújo, Alves and Romero, 2023). With the rapid increase and development of society, the adoption and growth rate of technology are also increasing. Leadership that is welcoming to the latest technology always emphasizes the importance of technological innovations such as wireless networks, usage of mobile phones, installing open-source software, data personalization, etc. (Hè, 2024). The traditional methods of doing tasks that were used in educational sectors in the last century have been transformed into automated procedures (D. S. Ahmad *et al.*, 2024).

The Social Change Model offers a comprehensive framework for cultivating leaders who actively advocate for positive social change. Leaders possess the necessary tools to have a significant impact in the digital age when they are armed with this model and use research about digital skills and digital citizenship. Digital leadership in education encompasses the amalgamation of several technological components such as the Internet of Things I.O.T), e-platforms online courses, social media, artificial

intelligence, big data, and machine learning (Cuel *et al.*, 2024). The digital transformation of conventional work environments into digital settings has significantly contributed to the advancement of educational institutions (Asikpo, 2024). Digital/transformational leadership always takes a firm stance to positively spread technology and influence employees to adopt new technology. Leadership forces employees to utilize data to improve decision-making skills for better performance in academia. The schools are reshaping their cultures through technology usage and adoption. To implement technology in the financial section effective leadership skills are very important and integrate all manual processes with automated processes by utilizing accurate competencies (Mohsen, Hamdan and Shoaib, 2024).

The use of leadership in the digital era has significant promise within educational environments. The promotion of critical quality is crucial among educational leaders in higher education, particularly among the deans of academic divisions. Efforts are being undertaken in Pakistan to enhance the quality of education. Pakistan used online learning initiatives in response to the Covid-19 pandemic. Before the outbreak, the use of online education in Pakistan was not widespread (Rafique *et al.*, 2024)

Cyber security threats also affect the trust and confidence of people on digital transformation and therefore the digitalization of financial sector in Pakistan is slowed down (Nizam and Rashidi, 2024). There are many incidents reported recently in Pakistan in which cyber-attacks were conducted on financial institutions, which called the need of implementation of robust cybersecurity measures and data protection protocols for

securing sensitive financial data and securing online transactions. If proper initiatives for trainings and digital literacy programs are not conducted properly then people will not realize the efficacy of digital transformation in the financial sector of Pakistan. Thus, the innovation and growth factors will be limited.

1.2 Background

Effective leadership is paramount to bringing digital transformation. Financial leaders should set visions based on their strategies, foster innovation and open to adapting new technologies. But leadership faces a lot of challenges as well while bringing digital transformation such as hurdles created due to laws and regulations, threats related to cyber security, and limitations due to infrastructure. Leadership promotes a culture of literacy and a culture of continuous improvement process.

The topic under study is on the leadership in digitalization in the Pakistan financial industry (J. Ahmed *et al.*, 2024). This area of research has diverted the attention of many researchers because it will contribute to evolving and reshaping the economy of the country and increasing financial inclusion. Like many other third world countries Pakistan is also experiencing a digital revolution because their penetration of internet is increasing, and adoption of usage of smart phone technologies is also increasing, which is making people to use digital financial services. The digital transformation in the financial sector is nourished with growing number of youth population, trends of urban civilization, and initiatives taken by government to boost digitalization in the financial sector.

There are many studies conducted which have highlighted the rapid increase in the digital financial services of Pakistan (F. Ahmed *et al.*, 2024). People have started to be attracted to digital financial services because of the invention of mobile wallets, digital / online banking, and other online payment platforms. This same trend is observed in Pakistan's largest unbanked and underbanked population. Thus, the gaps that exist in financial inclusion are bridged through different technology-based solutions. Due to COVID – 19 the adoption in digital financial services have been accelerated to maintain the precautionary measures and social distancing to avoid the spread of virus through physical contact, thus the contactless payment methods and digital banking are the babies of COVID – 19.

Digitalization has increased the innovation and competitiveness in the financial sector of Pakistan (Bashir *et al.*, 2023). Financial companies are heavily investing in the enhancement of digital infrastructure and solutions based on latest technology for streamlining financial operations, increasing the experience of customers, and increasing customer reach. Despite the increase in the wave of digital transformation there are still many challenges such as restrictions imposed by regulatory frameworks, cyber security threats, lack of infrastructure and inexperienced workforce. The full efficacy of digital transformation cannot be realized, unless or until these challenges are not addressed. Society should realize the efficacy of usage of digital financial services.

This topic has both social and practical importance, because it coincides with many economic goals such as development of economy, poverty alleviation, and financial empowerment (Jejenywa, Mhlomo and Jejenywa, 2024a). By keeping in mind,

the current state of digitalization in the financial industry of Pakistan and analyzing the key challenges in this journey this research will provide valuable deep insights which will contribute to policy making, regulatory intervention, and industrial strategies. This study will open more avenues for research on how to improve the research and development to enhance the power of digital technologies. It will increase the growth inclusively and promote the sustainable development of Pakistan.

1.3 Research Problem

A significant problem within financial industry in Pakistan concerns the lack of innovative leadership interventions to achieve efficiency, accessibility, and competitiveness (Eden, Ayeni and Onyebuchi, 2024). The digitalization of Pakistan financial industry is having both opportunities and challenges for leadership (Nawaz et al., 2024a). Therefore, it is important to have clear understanding on the underline issues and thus to identify the solutions to those issues by using the skills of strategic decision making for facilitating innovative interventions. First, it is important to identify the challenges which are creating regulatory hurdles which restrict the seamless adoption of digital financial services. Old policies, inconsistencies on regulations, and certain compliance requirements impose barriers to innovating and suppressing the ability of industry to increase digital technologies for sustainable growth.

There are also certain limitations of infrastructure which increase the frequency of ongoing challenges related to digitalization (Ma et al., 2024). Due to lack of infrastructure both rural and urban areas are deprived of internet access as they face a lot

of internet connectivity issues and limited resources of technology. This digital divide not only affects financial inclusion but also increases the status gap between urban and rural populations due to socioeconomic inequalities.

Cyber security risks are also a threat to digitalization of financial services because people are highly relying on digital banking services and online transactions (Nawaz et al., 2024b). The current landscape is evolving rapidly by adopting digitalization, but it is also facing many challenges related to cybercrime. Cyber criminals are attacking digital financial systems to perform fraudulent activities, breaching data, and other malicious activities. These challenges are affecting the trust of people in adopting digital financial services which leads to issues in adoption and growth of digital financial services.

All these challenges arise due to lack of digital literacy and skill gaps which prevail in the stakeholders of finance sector in Pakistan (Amin, Ali and Zafar, 2024).

1.4 Purpose of Research

The purpose of this qualitative study is to achieve a deeper understanding on how innovative leadership interventions are planned, aligned and implemented in the financial industry in Pakistan and how these interventions may contribute to efficiency, accessibility, and competitiveness (Razzaq et al., 2024a). The financial industry was chosen because it plays a very important role in the economic development and stability of Pakistan. This sector has a lot of dependance on trust, efficiency, and innovation. The financial sector of Pakistan will get a lot of benefits due to this digital transformation.

The operational efficiency, customer experience, and expansion in financial services was attained through digitalization and put the same reflection on other sectors as well, which will be a source of promotion for the economic progress of the country.

For developing an organization and increasing its competitive advantage, digitization plays a very important role. Digital technologies improve user experience, innovations, and operations of the financial sector. Leadership should be aware of the challenges while implementing technology because it is very important to align organizational strategy with digital transformation. Furthermore, leadership should also have a clear understanding of digital financial resources (Gilli, Lettner and Guettel, 2023).

To deal with complicated digital transformations in the financial sector there is a need for leadership who is flexible to bring change, break the status quo, and have innovative ideas (Mogaji and Dimingu, 2024). The financial industry is very important for the economy of Pakistan. Digital technology is very important for economic growth. Better accessibility of services, and financial inclusions. There are a lot of technological solutions that can be created by stakeholders for the optimization of digital technologies, attaining economic benefits for the country, and boosting the financial sector.

There are very strict protocols followed in the financial sector for maintaining security, transparency, confidentiality, and stability. Leadership challenges and strict rules are the two main issues that create resistance to implementing digital technology to automate financial processes in the financial sector (Jameaba, 2024). It is very difficult to address the legal and ethical issues raised due to incapable digital leadership.

Digitalization not only does technological adjustments but also transforms the culture of an organization and restructures the entire organization. To bring transition concerning digitization in leadership an understanding of the underlined challenges is mandatory plus leadership should be aware of cultural advancements, the skills of the workforce, and change management.

Cyber security is a major threat to the financial sector, this has raised many concerns about the implementation of security protocols, transparency, and reliability of the financial sector. To deal with these threats' leadership needs to have a clear understanding of the problems associated with cyber security and data privacy to protect sensitive data (AL-Hawamleh, 2024). For digital transformation, it is very important to invest in infrastructure, human resources, and technology (hardware + software). It is the responsibility of leadership to decide intelligently for the allocation of resources, and investments in strategies for technology implementation; leadership should know the challenges that the financial sector has for the implementation of technology. Forming good strategies and making wise decisions and initiatives for the promotion of digitalization in the financial industry of Pakistan, leaders may have awareness of the challenges they can face during technological implementation.

1.5 Significance of the Study

This research is beneficial for multiple stakeholders which are related to financial industry of Pakistan (Ullah, Naveed and Jadoon, 2024). This research will also contribute to digital transformation and financial inclusion. First, this research will

highlight the challenges that bring hurdles in digital transformation of financial sector. The study will be helpful for policy makers, regulating bodies and many industrial leaders. It is very important to have a strong understanding of rules and regulations, laws, infrastructure, cyber security, and certain obstacles related to the skillset of individuals. These obstacles call for devising targeted interventions and valuable reforms in policy. This will be promoting an enablement of environment which will bring digital innovation and leadership.

The results of this study will also have an impact on financial institutions, startups, fintech and other people who are considered as key players of market want to capitalize the opportunities they get through digital transformation of financial sector (Gul *et al.*, 2024a). Clear identification of these hurdles and their solution will be provided to all the industrial stakeholders so that they can exercise all those strategies which are important to identify challenges viz a viz their solutions to bring digital transformation effectively. This digital transformation in the financial sector will facilitate the competitiveness, resilience, and ability of employees to fulfill the varied needs of customers by focusing on the digital landscape.

From a societies' point of view this study will focus on the promotion of financial inclusion and bring digital divide which is of great importance (F. Ahmed *et al.*, 2024b). By resolving all the challenges that come in a way of accessing digital financial services especially in middle class and below middle-class populations, this research will be helpful in increasing the efforts which are helpful in poverty eradication, promotion of economic participation, and promoting inclusive growth. All

the targeted interventions gathered through empirical proofs, policy makers, and development agencies can be helpful in establishing a more diversified, inclusive, and equitable financial ecosystem which will benefit the entire society.

Adding on to these practical implications this study will provide an advance level of understanding in the field of digital transformation and financial services (Abdurrahman, Gustomo and Prasetyo, 2024). By investigating the complexities of challenges of digital transformation, this study will enhance the knowledge base for implementing strategies for digital transformation, regulatory frameworks, best practices for cyber security and skill development initiatives. This study will also contribute to current academic studies which will form a basis for future research endeavors which will unhide the intricating digital innovation in the financial sector of Pakistan.

This research has a major impact on the economy because the finance sector is the backbone of the economy. It is especially important to understand the challenges that occur while digitalizing leadership because it impacts the financial and economic sectors of the country (Romanian Court of Accounts, Timișoara, Romania and Glont, 2024). Thus, overcoming these challenges can maximize the economic benefits and seamless integration of systems. Pakistan is losing its competitive edge globally because of a lack of leadership in the financial sector of Pakistan. The readiness to adopt change and digital transformation is the only gateway that can help this country regain its competitiveness globally (Ullah *et al.*, 2024). Doing research in this area will help the country to identify its position on the global landscape in terms of financial background.

Digitalization can speed up the process of financial inclusion even in marginal populations (Montero Guerra and Danvila-Del Valle, 2024). The barriers present in financial inclusion can be identified through this study and thus several policies can be implemented which are helpful to remove these barriers and make digital transformations in leadership (Jejenywa, Mhlongo and Jejenywa, 2024b). This study is also relevant to the regulatory departments because digital transformations are also counting in this domain. The identification of regulatory changes that occur because of digital transformations in the financial sector can be highlighted through this research so that policymakers can introduce guidelines to take preemptive measures to avoid challenges (Bueno *et al.*, 2024).

Technology infrastructure has a major contribution to bringing digital transformation (Lafioune, Poirier and St-Jacques, 2023). Through this research, the technology infrastructure in Pakistan can be analyzed in detail and shed light on the areas where improvement is required for a smooth transition of leadership. Cyber security is also an overly critical point without which digital transformation cannot be implemented completely (Onesi-Ozigagun *et al.*, 2024). This research will address the cyber security challenges that lie with transforming leadership into a digital perspective. This will help cyber security specialists to devise those mechanisms which can reduce cyber security threats. There must be proper strategies made to ensure the protection of confidential financial information to maintain the trust of leaders in digitalization. Till the time all the concerns related to digital transformation will not be addressed in Pakistan, it will not be possible to completely digitalize leadership in the financial

sector.

A need for a skilled workforce is also generated with the initiation of this research. Leaders face challenges related to a skilled and developed workforce, and the lack of this skilled workforce makes leaders avoid adopting change. There must be an arrangement of special training and educational programs to fill these gaps (Qiao *et al.*, 2024). Digital transformation raises the hopes and expectations of all relevant stakeholders therefore leadership must fulfill those needs and expectations to ensure a transparent customer relationship (Jia, Xie and Wang, 2024). There is a need to make collaborations with different tech and fintech firms to make effective leadership in this era.

1.6 Research Questions

Digital transformation of the financial sector of Pakistan plays a very important role for growth, innovation and perform inclusive development. As the country is realizing the efficacy of digital technologies the finance industry of Pakistan is the foremost industry which is adopting digital practices and promote digitalization for the growth of economy of the country, providing easy and secure access to the system and improved customer experience. However, there are many challenges that come in the way of digital transformation, which needs deep understanding of policies and procedures to overcome these challenges. The aim of this study is to identify the challenges that are creating hurdles in the digital transformation in the financial industry of Pakistan and promoting viable solutions to resolve these issues.

RQ1: How rules and regulations impact the efforts bringing digitalization in the financial sector of Pakistan?

RQ2: What are the key challenges and opportunities that affect digital transformation in the financial industry in Pakistan?

RQ3: How leaders in the financial industry in Pakistan plan, align and implement innovative leadership interventions within the financial institution's strategic framework and practice?

RQ4: How innovative leadership interventions in the financial industry in Pakistan contribute to efficiency, accessibility, and competitiveness?

1.7 Objectives of Research

The following are the objectives of this research:

- To understand the challenges, constraints and needs which occur while digitalizing leaders working in the financial industry of Pakistan.
- To highlight the challenges, constraints and needs which occur while digitalization of leaders in Pakistan.
- To highlight the technical challenges which occur while bringing digitalization for the leadership in the financial sector of Pakistan.
- To identify the regulatory and legal challenges that are discouraging leaders to adopt digitalization in finance industry of Pakistan.
- The issues related to culture of an organization that discourage leaders to adopt digitalization in the finance industry of Pakistan.
- To identify the readiness of workforce towards adoption of technology and

digitalization of leadership in the finance industry of Pakistan.

- To identify the data privacy and cyber security issues that are linked with the digitalization of leadership in the finance industry of Pakistan.
- To identify time and cost issues that are associated with digitalization of leadership in the financial sector of Pakistan.
- To provide recommendations and solutions that can overcome the challenges occur in leadership in the financial sector of Pakistan.
- To train and guide policy makers, digital leaders, and other stakeholders the ways to digitalize themselves and overcome the challenges occurring in financial sector of Pakistan while digitalizing leaders.

1.8 Definition of Key Terms

Digital Inclusion. Digital inclusion is the ability for people to access, use, and design digital technologies, services, and opportunities in a safe, equitable, and meaningful way (Ehimuan et al., 2024).

Digital Leadership. Digital leadership is the strategic use of a company's digital assets and emerging technologies to achieve business goals (Yao et al., 2023).

Digital Literacy. Digital literacy is the ability to use technology to find, evaluate, and communicate information online or in a digital format (Dašić et al., 2024).

Stakeholders. People / anyone who associated with the project or organization directly or indirectly (Morrow, 2024).

Digital Transformation. Digital transformation (DT) is when an organization adopts and uses digital technology to change or create new products, services, and operations (Mishra and Varshney, 2024).

Digital Divide. The digital divide is the gap between people who have access to modern information and communication technology (ICT) and those who do not (Kuteesa, Akpuokwe and Udeh, 2024).

Digital Financial Services. Digital financial services (DFS) are a wide range of financial services that are accessed and delivered through digital channels. These services include payments, credit, savings, remittances, insurance, and mobile financial services (Ngware, 2024).

Fintech. Fintech is a combination of the words "financial" and "technology". It refers to software, apps, or other technologies that allow people and businesses to access, manage, and gain insights into their finances digitally. Fintech aims to make financial services and processes faster, easier, and more secure (Adeoye et al., 2024).

1.9 Summary

The purpose of this qualitative study is to achieve a deeper understanding on how innovative leadership interventions are planned, aligned and implemented in the financial industry in Pakistan and how these interventions may contribute to efficiency, accessibility, and competitiveness (Iqbal, Kalim and Arshed, 2023).

The challenges arise due to lack of infrastructure, risks associated with cyber security, and limitations of infrastructure. The study will find actionable solutions for the

enhancement of digital transformation and facilitating digital leadership. The research plan includes identification of all the challenges through the major four research questions which are based on regulatory impacts, challenges of infrastructure, threats of cyber security, and digital literacy. The objective of this research is to provide strategies and insights for policymakers, industrial leaders, and researchers to resolve these challenges and perform digital innovation in the financial sector of Pakistan.

CHAPTER II: REVIEW OF LITERATURE

2.1 Introduction

Digitalizing the financial sector of Pakistan is a very critical area of study because this industry has a great potential to make a significant rise in economy, increasing the financial inclusion, and increase in innovation. The aim of this research is to explore and highlight the challenges which are creating hurdles in the digitalization of financial industry of Pakistan. Furthermore, the research will also identify the solutions which will facilitate digitalization of leadership and help leadership to support the digitalization of the financial industry of Pakistan. The research will also explain the hurdles in digitalization created by laws and regulations, limitations of the infrastructure, risks relevant to cyber security, digital literacy and gaps in skills.

The literature review will be divided into different subheadings to address each aspect of the research problem. The literature review will address the current situation of the digitalization of global financial industry and the context against the specific challenges faced in the financial industry of Pakistan. This literature review will also cover the challenges that arise due to regulatory frameworks and their impact on digital financial services, challenges due to lack of infrastructure like adoption of new technology and connectivity issues and risks occurring due to cyber security. This study will also include the benefits of digital literacy and development of skills for promoting digital transformation in the financial sector.

There were many keywords used to conduct this comprehensive literature review such as “digitalization in financial industry,” “regulatory challenges in fintech,” “cybersecurity in banking,” “financial inclusion through digital services,” and “digital literacy in financial sector.” The databases utilized and consulted for getting related work are google scholar, JSTOR, PUBMED, Elsevier, Springer, IEEE, Science Direct etc. the approach used for conducting research is a structured approach which will lay a basis of clear understanding regarding the challenges and opportunities associated with the digitalization of financial industry of Pakistan.

2.2 Documentation

The literature review of this research was conducted using a systematic approach. It ensured that all the mentioned studies and sources are covered comprehensively in this document. The relevant identified studies were first selected and then reviewed their secondary data from reputed databases, academic journals, and reports were also taken from the recognized institutions. There were multiple platforms from where research was conducted and related studies were taken for this research. These databases were JSTOR, Google Scholar, PubMed, World Bank and IMF. The key terms used to conduct this literature study are digitalized financial inclusion in Pakistan, internet / mobile / online banking, fintech in Pakistan, and financial literacy and the challenges in regulations and finances in digital financial services. The research material from last fifteen years was included in this research so that the developments and research in the financial sector of Pakistan can be understood in a better way and all the developments in different years

can be analyzed in a chronological way. The research also included gray literature such as data and material from government reports, policy briefs, and stakeholder interviews. The gray literature also provided a holistic view of the challenges currently faced by financial industry of Pakistan in terms of digitalization. This research contains a diverse range of material from different studies so that the perspectives and views of different researchers can also be included accordingly and the developments and contributions they made in this field.

Table 2.1 Summary of Nature and Sources of References

Author(s)	Nature of references	Sources
Ahmed, et al. (2024)	Transformational Leadership	IBA SBS International Conference
Amelda, Alamsjah and Djap, (2021)	Digital technology, leadership, and marketing affecting firm success	CommIT (Communication and Information Technology) Journal
Afshan et al., (2018)	Status of digital banking in Pakistan	International Journal of Business Information Systems
Azar, (2016)	Forced digitalization and its impact on bank employees	Journal of Business Research
Blumentritt, Mathews and Marchisio, (2012)	Leadership changes in organizations	Family Business Review
Bharadwaj et al., (2013)	Components of digital transformation framework	https://papers.ssrn.com/abstract=2742300
Bucy, (2000)	High failure rates in transformation initiatives	Harvard International Journal of Press-politics - HARV INT J PRESS-POLIT
Drnevich and Croson, (2013)	Components of digital transformation framework	MIS Quarterly
Ekasari and Md Zaini, (2020)	Case study	Indonesian Journal of Sustainability Accounting and Management
Fazal and Shaiq, (2023)	Green human resource practices	International Journal of

	in Pakistan's banking sector	Social Science & Entrepreneurship
Feigin et al, (2021)	Technology adoption in Islamic banking in Pakistan	The Lancet Neurology
Hansen et al., (2023)	Leadership in Industry 4.0	Journal of Clinical Oncology: Official Journal of the American Society of Clinical Oncology
Higgs and Rowland, (2005)	Challenges in organizational transformation	Journal of Change Management
Hussain, Li and Sahibzada, (2022)	Government support for women entrepreneurs during COVID-19 in Pakistan	Public Administration and Policy
I and Solomon, (2016)	Benefits of digital banking in supply chain resilience	Journal of Global Economic
Kan and Sun, (2022)	Digital behaviors in organizations developing digital projects	American Journal of Industrial and Business Management
Kohli and Johnson, (2011)	Organizational implications of digital transformation	MIS Quarterly Executive
Kundi et al, (2020)	Empirical research	International Journal of Organizational Analysis
Khalil, Khawaja and Sarfraz, (2022)	Blockchain adoption and digital business strategy in Pakistani banks	Quality & Quantity
Lee and Hussain, (2023)	Government assistance to women business	Resources Policy
Levine, (1997)	Limited access to financial services and unbanked population in Pakistan	Journal of Economic Literature
Lee and Shin, (2018)	Impact of fintech on financial services and inclusivity	Business Horizons
Malodia et al., (2023)	SME digital transformation and performance	Journal of Business Research
Manzoor, Wei and Asif, (2021)	Access to financial services	Frontiers in Psychology

	through digitalization	
MacCarthy, Ahmed and Demirel, (2022)	Empirical research	International Journal of Production Economics
Mahmood, Kouser and Masud Ph.D., (2019)	Challenges and consequences of digital transformation in organizations	Views on the Current State of Affairs in Pakistan
Mishra, Gur and Chakraborty, (2013)	Digital financial services in urban and rural areas	Smart Materials and Structures
McCaffrey and Schiff, (2017)	Internet-based solutions in finance	Rochester, NY
Ozili, (2018)	Digital finance and its societal impact	Borsa Istanbul Review
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Rahman et al., (2023)	People side of digital transformation	AIMS Energy
Rizvi, Naqui and Tanveer, (2018)	Novel business models in digital financial services	THE LAHORE JOURNAL OF ECONOMICS
Shahid et al., (2023)	Employee turnover in private banks in Punjab, Pakistan	Cureus, 15(9), p. e44950
Stocker et al., (2022)	Digitalization benefits and challenges in developed vs developing economies	Innovation & Management Review
Shahid et al., (2023)	Workplace incivility, digitalization, and HRM practices in private banks	Cureus, 15(9), p. e44950
Stocker et al., (2022)	Digitalization benefits and challenges in developed vs developing economies	Innovation & Management Review
Sharma and Andrade, (2023)	Literature review	Information Technology for Development
Salampasis and Mention, (2017)	Financial inclusion and its impact on global economic empowerment	Handbook of Blockchain, Digital Finance, and Inclusion
Ullah, et al. (2024)		Technology in Society

	Digitalization, technological and financial innovation	
Vassileva and Rafailov, (2021)	Case study	International Journal, 49(1), pp. 65–70
Vijayalakshmi and Jayalakshmi, (2019)	Digital banking transactions and their impact on public and private banking sector performance	The Journal of Internet Banking and Commerce
Wójcik and Ioannou, (2020)	Transformation of financial services through fintech	Tijdschrift voor Economische en Sociale Geografie

2.3 Theoretical Framework

The theoretical framework provides an insight that helps interpret the results of this study. The appropriate framework for this study is the technology organization environment framework (Baker, 2011). This framework provides deep insights into technological factors, characteristics of an organization, and the external environment. In technological factors, researchers can identify various technical challenges faced by financial leaders in their companies. Many different technologies have created complications for financial leaders to adopt new solutions for existing manual processes. There should be an understanding of the importance of factors that bring digital transformation to leaders.

There is always a need to examine the current organizational structure and leadership styles along with the availability of resources and willingness to adopt change in an organization by employees. Certain external environmental factors influence either adoption or resistance to change digital transformation in an organization (Morakanyane,

Grace and O'Reilly, 2017). There are many economic conditions, legal frameworks, and competitive advantages that can have a positive or negative influence on leadership to adopt digitization. Interviewing leaders, industrial experts, and legal advisors can help identify the external environmental factors involved in bringing digitization of leadership.

2.4 Theory of Reasoned Action

This theory also fits in this research because the theory of reasoned action identifies the influence created by attitudes, rules, and perceived behavior controls (Dillard and Pfau, 2002). Attitude means the positive and negative behavior of leaders towards the adoption of digital technologies (Wyeth, 2022). Moreover, it also tells the readiness of leadership for getting transformed digitally. Rules and norms depict the impact and influence of society on the digitalization of leadership (Vallerand *et al.*, 1992). It includes organizational culture role, influence by colleagues, and the expectations made by external factors on the leadership of the financial sector which made them adopt or resist getting digitalized (Al-Suqri and Al-Kharusi, 2015). Society is the biggest contributor who participates in reshaping leadership. This theory has different subjective norms which include pressure from society and other influencing factors which create influence adopting any specific behavior. These subjective norms will provide a deep understanding of the societal effects that shape the decisions of leaders.

Perceived behavior is related to the perception of leadership and their behavior while making any decisions (Larsson *et al.*, 2022). These factors can be analyzed qualitatively and the perceived hindered and openness to digitalization are also observed.

Leaders show their concerns about technical difficulties, limitations of resources, and their skill sets. Identifying these perceptions will help in unveiling the factors that participate in or resist the perceived control over digitalization.

Applying the theory of reasoned actions in qualitative research can analyze the attitudes, subjective norms, and control on perceived and control on perceived is of leadership of the financial industry in Pakistan regarding digitalization (Zoellner *et al.*, 2012). Detailed analysis using focus group discussions, semi-structured interviews, and content can record leaders' responses, voices, and experiences (O.Nyumba *et al.*, 2018). This can shed light on the factors that influence the decisions and actions of leaders for bringing digitalization to the financial sector of Pakistan.

2.5 Financial industry in Pakistan

Availability of Financial Services

Pakistan is classified as a lower middle-income nation, characterized by a considerable proportion of its population having limited literacy skills and limited access to financial services (Akhtar, Andleeb and Akhtar, 2024). A sizable portion of the population inside the nation has limited access to financial services and remains unbanked (Razzaq *et al.*, 2024b). The exorbitant fees associated with banking goods and services impede the equitable dissemination of financial services to marginalized communities. The current prevalent concern in Pakistan is the limited availability of fundamental financial services (Danishfar, Meena and Gahlawat, 2024).

Pakistan is classified as one of the nations with the lowest economic status globally. Additionally, it has the distinction of being the fifth most populated country in the world, with a population of around 230 million individuals. In terms of the Global Hunger Index (GHI), Pakistan ranks ninety-two out of 116 nations, indicating its inability to adequately meet the nutritional needs of 40% of its population (Junaidi, 2023). Furthermore, the country is now experiencing a food inflation rate of 40%. Pakistan needs technological advancements to provide enhanced access to money and healthcare, given the remarkable human toll in the country.

Pakistan is mostly a culture that relies on cash transactions from a cultural standpoint. Approximately 32% of the total money supply is held outside of the banking system, namely in the form of cash in circulation (*Money Supply Definition: Types and How It Affects the Economy*, 2023). There is a total of thirty million debit cards in circulation, with around 83% of transactions being conducted via automated teller machines ATMs for cash withdrawals (Carbó-Valverde and Rodriguez-Fernandez, 2014). Annually, the bank branches facilitate about four hundred million transactions, which mostly rely on paper-based instruments like checks, pay orders, and demand draughts. According to the statistics released by the Federal Bureau of Revenue F.B.R, around 3.4 million individuals submitted their income tax forms, representing a fraction of the adult population estimated to be over 120 million (*FBR Creates History by Exceeding the Upward Revised Revenue target of Rs.6.1 Trillion - Federal Board Of Revenue Government Of Pakistan*, 2022). The considerable magnitude of the problem and the dearth of proficient resources impede the progress of individuals. Consequently, these

factors may pose significant obstacles. The impediments that are now impeding the execution of digital consumer interaction initiatives may be categorized into three principal areas: security, data management, and cultural/behavioral transformation.

Moreover, the mediation was validated in hypotheses that exhibited statistical significance. The findings of this research were crucial for the textile sector as they enable the development of strategies to address sustainability issues while integrating the organization with sector 4.0 to achieve operational innovativeness. The findings of this study served as a valuable reference for the Textile Industry in Pakistan, guiding how to enhance operational efficiency and production in a meaningful manner. The framework of this study represented a significant advancement in the exploration of future empirical research. Additionally, it offered valuable insights for the manufacturing sector, enabling them to combine conventional techniques with high-technology efforts to promote organizational sustainability.

Pakistan prioritized financial inclusion before many others. Microfinance banks were allowed by the government in 2001 after 1990s support (Ullah, Khan and Naveed, 2024). Pakistan was among the first to embrace branchless banking legislation in 2008, enabling digital financial services. The 2015 National Financial Inclusion Plan increased this help. Due to these legislation and restrictions, Pakistan had a significant and expanding microfinance industry and more than ten digital financial institutions, the biggest of which is owned by mobile phone carriers. Private sector investment in microfinance institutions and digital financial services providers had boosted financial sector development due to this supportive legislative environment. Pakistan was early to

digitize government payments and create an enabling policy framework. Many government programs have gone digital since 2010, including the Benazir Income Assistance Program, which digitized safety net assistance for six million disadvantaged women. Pakistan joined the UN's Better Than Cash Alliance in 2014 to promote digital payments among international countries. Pakistan's market infrastructure supports financial inclusion better than many others. Most people were covered by NADRA's biometric ID database, while 1Link, a privately held switching and clearing provider, covers all banks.

Pakistan had seen a surge in both political and economic turmoil in recent months. The inflation rate has consistently remained at about 30 percent, accompanied by a significant decline in economic development (Temin, 2024). Moreover, the country's economic stability heavily relied on external assistance from entities like the International Monetary Fund and bilateral partners such as China and Saudi Arabia to sustain its economy. Imran Khan, a prominent political figure in the nation, was incarcerated, but his political adversary, Nawaz Sharif, has just repatriated to Pakistan after an extended period of residing abroad. The issues had been further exacerbated by significant geopolitical occurrences, such as the United States' withdrawal of military personnel from Afghanistan in August 2021, Russia's incursion into Ukraine in February 2022, and the continuous war between Israel and Hamas.

The second annual Pakistan conference, organized by the Atlantic Council and the Johns Hopkins University School of Advanced International Studies, was held on November 1-2, 2023. The conference aimed to address many challenges confronting

Pakistan, among other topics. The central focus of this year's event revolved around the concepts of resilience and reforms. Distinguished speakers delved into various subjects, such as the future implications of artificial intelligence, the significance of middle powers amidst the current volatile geopolitical landscape, and strategies to reform Pakistan's economy to foster inclusive opportunities for a broader segment of the population. One of the key principles emphasized in both panel talks, and sidebar chats was the need for Pakistani officials to implement changes in a manner that fosters resilience among a considerable number of families. To achieve this objective, policymakers should shift their attention from simplistic conceptions of economic growth to a more comprehensive commitment to enhancing the total human development inside the nation.

Green Financial Practices

Ebekozien *et al.* (2022) examined the phenomena of green human resource practices and their implementation status within Pakistan's banking sector. Specifically, it focused on the extent to which these practices were being used to reduce paper consumption, save energy, and adopt green buildings, among other related initiatives. Within this setting, the field of human resource management (HRM) assumed a crucial function in bolstering the overall efficiency of an organization, while minimizing any ecological risks. In the Ebekozien *et al.*, (2022) study, interviews were conducted with senior human resources (HR) experts in the banking sector to provide useful insights into their level of knowledge and the degree to which they have implemented environmentally sustainable HR practices in different banks. The adherence of public banks to green banking principles, as mandated by the State Bank of Pakistan, was apparent. These

banks were actively working towards the implementation of green human resource practices within their operational procedures.

Nevertheless, private banks also strived to include environmentally friendly human resource (HR) practices in their everyday operations, to embrace cost-effective sustainable practices. The analysis revealed the significant contribution of HR professionals to promoting green HR practices and adopting cost-driven technological advancements, such as solar energy, to support an environmentally friendly agenda. However, it was observed that the genuine environmental concern was absent, and the adoption of green measures primarily stems from the motivation of cost efficiency. Hence, it was recommended that the cultivation of ecological awareness among workers be prioritized, enabling them to grasp environmental issues and extend their efforts beyond their prescribed roles or responsibilities, thereby making a constructive impact on the environment. Moreover, this present study made a substantial contribution to the field of Green Human Resource Management (GHRM) by introducing a novel conceptual framework that explores the potential future developments of GHRM.

2.6 Digitalization in the Financial Industry

Problems Confronting Financial Industry Digitalization

Petrillo, Rehman and Baffo (2024) examined the impact of organizational sustainability within the framework of Industry 4.0 on the textile industry of Pakistan. This research incorporated the transformational leadership framework by integrating it with the concept of Industry 4.0, to address the issue of inequitable sustainability. The sustainability of enterprises faced significant challenges because of digitalization, smart

manufacturing, and technical advancements. Consequently, the importance of innovation has increased in enhancing overall performance. This research aimed to examine the impact of transformational leadership and creative performance on organizational sustainability, with a specific focus on the context of Industry 4.0. The research employed a quantitative analysis approach, using data obtained from ISO-certified textile companies in Pakistan via the administration of questionnaires. The findings were intriguing since the impact of Industry 4.0 on the overall connection was substantial. Within the framework of the fourth industrial revolution, the use of the transformational leadership method had shown a distinct capacity to enhance both innovative performance and organizational sustainability simultaneously. The findings indicated that the inclusion of smart technology from Industry 4.0 strengthens the relationship between inventive performance and organizational sustainability.

Manzoor, Wei and Asif (2021) investigated how Pakistani consumers may access and receive financial services through digitalization. The report provided an overview of digital financial inclusion and examined prospects and major problems confronting digital financial services in Pakistan using secondary data and stakeholder interviews. Pakistan has worked hard over the years to create and integrate platforms for digital financial services. Inadequate infrastructure, a developing technological environment, low income and financial literacy rates, a lack of banking facilities, and a sparse presence of formal institutions are just the problems it highlighted. The study concluded that improving corporate governance, fostering investor confidence and long-term interests, encouraging more competition and trade in I.T and I.C.T products, and learning more

about how digital financial services fit into economies could all help to advance these services. It underlined that boosting financial inclusion could not be done with just digital technologies. Instead, to support the development of digital financial services, a well-developed payment system, protections for consumer protection, a solid physical infrastructure, and proper laws were required.

The gig economy was the most recent development of the Fourth Industrial Revolution, which was synonymous with digitalization. The digitization process advanced quickly, retaining its forward pace, and expanding to every corner of the globe. The benefits of digitalization were reaped by developed countries. In contrast, despite having enormous potential, developing economies were discovered to be falling behind in this international competition, demanding their incorporation of digitalization to successfully meet the rising demands of the Fourth Industrial Revolution (Trang, 2023). Furthermore, a contribution to understanding and interpreting perceptions surrounding digital transformation, tracing the cognitive evolution of digital transformation, examining the positive aspects of the process, evaluating the successes realized, recognizing the urgency of digital transformation before the impact of the Covid-19 pandemic, and closely examining the difficulties and limitations inherent in the efforts of civil servants and leaders engaging in digital transformation. The fundamental sources for analysis and assessment used in the study technique were publicly available materials from journals, books, research projects, and authors' viewpoints posted on websites. The research's conclusions will help create a theoretical framework and a plan for making recommendations to leaders. Practically speaking, the study has shown that while digital

transformation can present difficulties, it is crucial for nations, particularly developing ones, to recognize and get ready for innovative leadership thinking that propels effective digital transformation.

This study covered several digital financial issues that had not been well studied. Financial services consumers, providers, governments, and the economy all benefit from digital finance and financial inclusion, but issues must be resolved before they can benefit people, businesses, and governments (Moschieri, Ravasi and Huy, 2024). This digital finance article was relevant to the current conversation and national attempts to increase financial inclusion in developing and emerging economies.

Impact of Digital Transformation on Organizations

Organizations have gradually adopted digitization to speed up workflow procedures and simplify information interchange. A thorough assessment of the nature and ramifications of digital transformation (D.T) was needed, even though previous literature had improved our understanding of its various aspects. Recent studies have advanced our knowledge of D.T. phenomenon facets and how they influence organizational work structures.

According to (Wardhana and Harsono, 2024), technology alone formed just a piece of the complex jigsaw that needed to be solved for firms to remain competitive in the digital sphere, which is in line with earlier findings about I.T-enabled transformation. Pakistan's public sector organizations had been working hard to change from their conventional structures into digitally advanced organizations. These firms encountered difficulties when pursuing transformation, including internal opposition to change, inertia, and a lack of staff training. To investigate how well public sector companies performed both before

and after the transition, this study proposal considered the mediating roles of employee training and self-efficacy in this process.

Firm-level business strategies have improved because of technological developments and the automation of business processes. The goal of this study was to investigate the crucial elements for successfully implementing a digital strategy within commercial organizations. The public and private sectors, as well as industries including IT, manufacturing, insurance, telecommunication, packaging, services, and education, were presented on the expert panel, which was made up of ten people. The group discussions were professionally managed, with each member responding fairly and carefully to the conversation that focused on the chosen topic(s). Many key themes, including Organization, Technology, Culture, Insight, and Customer Experience, emerged as prominent using a variety of analytical methods, including Thematic analysis, Negative case analysis, Analysis of Similarities and Contrasts, Word frequency analysis, Cluster Analysis, and tree map analysis using N.V.I.V.O 10. In addition, several sub-themes were identified as potential drivers of firm performance through the successful adoption of digitization, including security, digital tools, digital technology, budget, vendor partnership, research and development, leadership, profitability, customer experience, customer feedback, education, employee trust level, firm nature, social communities, competitiveness, and employee trust level (Huang *et al.*, 2024).

Dhavaleshwar (2024) focused on Banking with an emphasis on S.B.I and I.C.I.C.I, this article discussed digital transactions and how they affect the financial performance of both the public and private Banking sectors. Digital transactions, which

include acts like using an A.T.M, N.E.F.T, R.T.G.S, and mobile transactions, marked important turning points in the banking industry's continuous digital transformation. To compare operational profitability between the two banking sectors, the study used a variety of criteria during the years 2016–17 and 2017–18. In this study, we investigated the rapidly changing technical environment of transaction banking, examining the effects of these digital transactions on the financial health of the banking industry.

Hussain, Li and Sahibzada (2022) investigated how the Government of Pakistan G.O.P provided financial and non-financial assistance to women business owners in the nation in the context of the COVID-19 conditions. The study improved understanding of the resources and funds provided by the G.O.P to women entrepreneurs to enable the sustainability of their businesses by utilizing the resource-based theory of entrepreneurship R.B.T.E. The study sought to answer two critical issues using a qualitative research methodology: how did the Pakistani government respond to the difficulties faced by women business owners during the COVID-19 epidemic, and what policies and actions were implemented by the G.O.P. The study found that during the pandemic, the G.O.P. actively engaged with representatives of women entrepreneurs to gain insight into their operational challenges. This was accomplished by conducting semi-structured interviews with twenty government officials actively engaged in Pakistan's entrepreneurial sector. In addition, the government provided incentives and exemptions to support their entrepreneurial operations.

The G.O.P. also invited female business owners to share their knowledge and suggestions with the policy-making process. The precise tactics, laws, and support

measures used by governments to address these obstacles have frequently received insufficient attention, even though substantial research has been done to highlight the difficulties experienced by women entrepreneurs during the epidemic. This study filled the gap by concentrating on the steps made by Pakistani authorities and policymakers to encourage female entrepreneurs during the COVID-19 crisis.

Yıldırım and Erdil (2023) examined how the COVID-19 crisis and the subsequent forced digitalization affected the financial industry, with an emphasis on how different methods and procedures affected bank workers who work in this industry. To accomplish the study goals, a qualitative technique was used to conduct eight semi-structured interviews with bank personnel from several Swedish banks. In terms of crisis management, digital transformations, remote work arrangements, and contacts with digital consumers, the main empirical results centered on the ways that the crisis and the ensuing mandated digitization had affected employees. The established conceptual model was built on the concepts that emerged from the investigation. This model intended to show how the pre-pandemic circumstances, the crisis management tactics, and the adjustments made necessary by the crisis all contributed to the results experienced by employees because of the forced digitalization. This study broadened our knowledge from a theoretical perspective by identifying the additional effects of forced digitization and its influence on bank personnel. The study also made a theoretical contribution by outlining the difficulties associated with the mandated digitization of the banking industry as well as potential solutions. The study discovered certain forced digitalization-

related problems that have an impact on people both inside enterprises and on society at large.

Sukrat and Leeraphong (2024) emphasized the significance of the unique traits of S.M.E entrepreneurs and businesses in the process of their digital transformation. The research used a mixed-method approach and included eighteen qualitative interviews with 369 Indian S.M.E owners who provided empirical data. The results showed the considerable influence of S.M.E entrepreneurs' digital self-efficacy on their companies' digital transformation journeys. Additionally, SMEs under the direction of qualified CEOs performed better in their efforts to undergo digital transformation. The findings of this study offer vital information to technology providers, enabling them to create solutions for SMEs that are specifically matched to their needs. The findings also provide insightful advice for policymakers hoping to promote digitization in the SME sector.

At the end of the day, digital transformation is a living organism; it is not a 3 to 4-month project, it requires care and feeding as adjustments are made based on consistent feedback. While the project team is focused on the day-to-day demands of implementation, one must not forget one of the key components, i.e., ensuring that all stakeholders are on the same page and journey. Taking extra care of the people side of the transformation will come in handy. There will always be employees who are skeptical or point out problems or deficiencies. Negativity sometimes can spread fast and can affect the morale of the project team when things are not going well. Therefore, it is important to take extra care on people's side of things which can help turn skeptics and faultfinders into allies (Ryan, 2024).

The term "digitization" alludes to the "fourth industrial revolution," and the "gig economy" was the most recent development associated with it. The process of digitalization was swift, never-ending, and all-pervasive throughout the globe at this point (Torrent-Sellens, 2024). The industrialized countries had welcomed digitalization, and they were now reaping the rewards of doing so. However, despite having a great deal of untapped potential, developing countries were now far behind in that race. They would need to fully embrace digitization to keep up with the ever-increasing requirements of the fourth industrial revolution. It was argued that one of the most important prerequisites for such a shift was leadership that supports and promotes digitization.

Every modern company should make it a priority to modernize their operations to remain competitive in today's increasingly digital market settings and to make the most of the opportunities presented by digital technology to do so (Javaid *et al.*, 2024). However, only a small percentage of organizations were making the basic adjustments that their executives consider essential to attaining these objectives. The third annual study of digital business conducted by MIT Sloan Management Review and Deloitte¹ reveals five key practices of companies that were developing into more mature digital organizations. These practices were based on a global survey of more than 3,500 managers and executives, as well as fifteen interviews with executives and thought leaders. Their strategies, which might provide instructive examples for businesses interested in enhancing their digital endeavors, were described.

Digital adoption had become a global priority for banks as end-clients, consumers, businesses, and governments adopted technology-driven trends in there,

operations and business models (Janjua *et al.*, 2024). SBI and ICICI investigated digital banking transactions and their impact on public and private banking sector financial performance. ATMs, NEFTs, RTGS, and mobile transactions were amazing milestones in the banking sector's digital transformation. Thus, 2016–17 and 2017–2018 banking sector characteristics. This research examined the digital phenomena in transaction banking, including technological developments, changes, and their influence on financial performance. Different methods were used to compare operational profitability.

This research explored how digital technologies and DI affect Pakistani ICT firms' firm performance (FP). This section detailed the study's design and methods (Khan and Fatima, 2024). The researchers collected cross-sectional data from Pakistani ICT workers using a quantitative approach. This study helped industries to capitalize on emerging digital technologies and digitalization by committing to adopting new digital technologies and improving current data centers (DCs) to become innovators and improve their functional performance (FP). The data may also help policymakers allocate financing to improve SME employees' digital skills. The current study added to the corpus of research on organizations' digital technology use, making it more complete. Originality and value are vital in academic research. This study showed that DC, DO, and DT improve DI and FP in impoverished nations like Pakistan.

Reason for being within the specific parameters of COVID-19, the purpose of this study was to investigate how the Government of Pakistan (GOP) assists women business owners in Pakistan, both monetarily and in other ways (Hussain, Li and Sahibzada, 2022). The research, which made use of the resource-based theory of entrepreneurship

(RBTE), contributes to a better understanding of the resources and funds made available by the GOP to female company owners to assist them in maintaining their companies. Conception / Methodology / Strategy The qualitative research approach was used in this study to answer the following questions: how does the Pakistani government react to challenges experienced by female entrepreneurs during the COVID-19 pandemic? What kind of help and efforts have made by the Government of Pakistan? Interviews using a semi-structured format conducted with twenty working government officials in Pakistan who connected to the private sector of the economy.

The findings of the research demonstrated that throughout the pandemic, GOP actively connected with women entrepreneurial representatives to grasp the difficulties they faced in their businesses. In addition, tax exemptions and other forms of financial assistance were made available to them to boost their commercial endeavors. The GOP went one step further and extended an invitation to female business owners to share their expertise and provide feedback throughout the policymaking process. Uniqueness and importance A significant amount of study has been conducted to uncover the challenges that women business owners confront during the pandemic. On the other hand, the precise tactics, policies, and assistance offered by the governments to solve these concerns have often been disregarded. This research addressed such a vacuum by focusing on the attitudes of the governing authorities and policymakers in Pakistan regarding the business ventures undertaken by women during the COVID-19 crisis.

E-government Practices

The structure of laws and norms that make up governance is there to ensure that public affairs run efficiently. Accomplishing good governance is a prerequisite for accomplishing development and prosperity goals, which is why governments use a variety of instruments, including e-government, to deliver public services effectively and on time. Information and communication technologies. I.C.T utilized in e-government practices and plans. Accountability and openness are crucial components of a successful government. During the 2018 elections by placing the digitalization of governing procedures at the top of their agenda, the party's platform theorized strategies for using innovative technology to revolutionize governance.

To support e-government and forward its goals, the administration chose a citizen-centric strategy. (Nisar *et al.*, 2024) aimed to determine whether the government's desire to digitize Pakistan was successfully attained. The research also tried to define the aims and purposes of switching from traditional administrative techniques to digital processes. In this study, a mix of qualitative and quantitative methods was used.

Latest Technologies in Digital Financial Services

Nevertheless, financial services that rely on technology function to address the challenges posed by geographically distant and expensive services. Under the prevailing conditions, the Pakistani government has undertaken measures to introduce laws and strategies aimed at facilitating the adoption of Fintech services, to foster inclusivity within the financial system. Hence, the advent of Financial Technology Fintech encompasses not only the utilization of digital technologies but also holds significant promise in enhancing financial inclusivity. Too far, there has been a lack of research

examining the tactics and policies used by the State Bank of Pakistan S.B.P. to promote financial inclusion via the utilization of Fintech. Hence, one of the primary goals of this research conducted by (N. Ahmad *et al.*, 2024) was to critically examine the impact of government policies and initiatives on the adoption of fintech and the promotion of financial inclusion in Pakistan. As to the World Bank, the provision and use of financial services play a crucial role in the reduction of poverty and inequality among marginalized communities. It was found that financial inclusion enabled people to engage in various financial activities such as saving for future needs, accessing credit for entrepreneurial endeavors, and establishing a financial safety net.

The use of digital technology and innovation by financial institutions, driven by customer demand, has shifted its perception from a mere buzzword or fad to a recognized and established phenomenon. The matter at hand pertains to the survival of hundreds of millions of individuals. Pakistan has a literacy rate of over 60%, although its financial and digital literacy rates remain below 20% (Abbasi, 2017). The gross domestic product per capita is below \$1500 (*Countries with the lowest GDP per capita 2023, 2024*). To provide contextual information, the average annual income in the United States is around \$65,000 (Punjwani, 2024).

Khan and Khan (2024) concentrated on Islamic banks and Islamic storefronts of conventional banks with customers in Pakistan through quantitative analysis. The study showed that technologies, including blockchain, mobile banking, customer relationship management, cyber security, cloud banking, and fintech start-ups, were being used by various banks to improve customer service. The study emphasized how the Islamic

finance industry in Pakistan responded to the rising importance of financial technology and its impact on the banking industry.

Blockchain technology has gained widespread acceptance as a key component of the financial industry with the ability to stimulate economic expansion, financial innovation, and internet development. The banking sector sought ways that would make the effective integration of Blockchain technology easier to accomplish the necessary digital transformation. The study in question thus sought to explore the function of Blockchain adoption as an intermediate between digital business strategy and variables like process innovation and financial success. The study also investigated how information technology alignment may function as a moderator. Three hundred workers from Pakistani banks in Islamabad and Rawalpindi provided the study's data. Statistical techniques such as Pearson's correlation analysis, confirmatory factor analysis, Hayes process methodology for mediation, and moderation analysis were used for data analysis. The results showed a strong relationship between innovative business processes, company financial success and digital business strategy. It was also discovered that the adoption of Blockchain worked as a mediating element in the connections between digital business strategy, business process innovation, and financial performance. A further mediator in the relationship between Blockchain adoption and process innovation is information technology alignment. (Khalil, Khawaja and Sarfraz, 2022) enhanced the body of knowledge on crucial factors including digital strategy, Blockchain technology, and bank performance, were what made it significant. Top management and executives in

the banking industry benefited from the study's practical applications, which provided insights into better strategic decision-making and overall business performance.

The impact of financial technology fintech on the service sector is poised to shape its future trajectory. According to (Harsono and Suprapti, 2024), the reliance on conventional financial institutions eradicated due to technological advancements in the field of finance, often referred to as fintech. The global influence of mobile money, branchless banking, and several other financial applications has been significant. According to (Omar *et al.*, 2024), fintech introduced significant transformations by altering the operational dynamics of banks, facilitating capital acquisition, and reshaping the nature of currency.

The process of digital transformation is not contingent upon one plan. The components of this framework consist of I.T. strategy, I.S. strategy, change management strategy, and business strategies (Alazzam *et al.*, 2024). Digital transformation places significant emphasis on an organization's need to possess digital capabilities to facilitate changes in organizational structure and identity. As a result, this extensive transformation has implications for functional areas within organizations, including marketing, human resources, information technology, and supply chain management (Alsharari, 2023). Managing these changes may be a challenging endeavor on occasion.

During an interview with a digital transformation specialist, a question was posed about the nature of the changes occurring in Pakistan, specifically inquiring if these changes may be classified as a digital upgrade or a digital transformation. According to the individual, a digital update should not be mistaken for a digital transformation but

rather should be seen as a significant milestone in the entire process. The concept of digital transformation encompasses various strategies and practices aimed at dismantling organizational barriers, altering cultural norms, replacing outdated systems, transitioning to cloud-native technology, leveraging BaaS, PaaS, or SaaS solutions, optimizing workflows, establishing collaborations with fintech companies, fostering organizational agility and responsiveness to customer demands. Additionally, it involves the process of unbundling products, developing more focused and tailored use cases, and enhancing internal operational efficiencies.

Technological disruption referred to the phenomenon in which a novel technology emerges and supplants an old technology, leaving it obsolete (Lappalainen, 2024). The emergence of novel technologies gave rise to socio-technical concerns and obstacles (Kassem *et al.*, 2024).

The process of digital transformation is not contingent upon one plan. The components of this framework consist of I.T. strategy, I.S. strategy, change management strategy, and business strategies (Müller *et al.*, 2024). Digital transformation places significant emphasis on an organization's need to possess digital capabilities to facilitate changes in organizational structure and identity. As a result, this extensive transformation had an impact on the departments within an organization, including marketing, human resources, information technology, and supply chain. Managing such changes may be challenging and infrequent (Sabaruddin *et al.*, 2024). This factor contributed to an increased level of complexity and difficulty in the process of organizational change. A significant aspect of my research study included the formulation of strategies about

individuals, their respective roles, and associated duties in the context of organizational change, both during and after the process.

The digital revolution extends beyond online and mobile banking. Banking and finance must be innovative by merging digital technologies and client relationships. Modern technologies should make banking simpler and more comfortable for consumers (Vittala *et al.*, 2024). However, empirical research on the link between resources (capabilities) and performance was scarce to explain why organizations employed their capabilities well and others do not. The study examined whether digital technology, leadership, and marketing affected firm success. The survey-based quantitative study surveyed bank workers and executives. The study revealed that digital technology skills improved firm performance slightly. Two, digital leadership competence improved digital technology and marketing capability. Third, digital marketing improved firm performance significantly. In conclusion, digital leadership competence only improved firm performance when mediated by digital marketing capability.

The aspect of financial inclusion about the broader societal impact of financial services had historically less consideration from financial, regulatory, and policy perspectives, despite its significant significance in promoting global economic empowerment (Mishra *et al.*, 2024). A sizable portion of the worldwide population, namely those who were in loss and have low income, have either a lack of access to fundamental financial services (referred to as financial exclusion) or restricted access to such services (referred to as financial underservice). This situation created a significant inequality gap in regions around the globe. Within this context, the issue of financial

exclusion continued to persist as a profoundly significant challenge that impedes the progress of developing areas around the globe in their efforts to alleviate poverty, thereby resulting in widespread famine and social upheaval. Furthermore, the issue of financial exclusion was closely intertwined with social reliance, resulting in financially excluded or underserved communities relying heavily on their social networks. The rise of FinTech, a fusion of financial innovation and technology, has posed a significant challenge to established financial institutions. This emerging field offers a promising solution for addressing the disparity between unbanked and underbanked populations and more developed societies. By facilitating access to the global digital economy, FinTech has the potential to bring about transformative societal changes for those who have been excluded or underserved by traditional financial systems.

The concept of digital transformation presented businesses with complex and unconventional administrative tasks that might be challenging and perplexing (Mahmood, Imran and Adil, 2023). The probability of a successful digital transition was significantly diminished because of the rapid progression of technology. The use of these technologies was vital in attaining digital transformation since it necessitates substantial changes in organizational procedures, technology methodologies, and human behaviors. The ubiquity of this transformation engenders a plethora of socio-technical challenges and complexities. The primary objective of this study was to assess the various results of researchers about the challenges, complexities, and consequences, as well as the possible benefits associated with digital transformation. A curated assortment of papers, spanning the years 2008 to 2018, were selected and subjected to thorough analysis. The findings of

this research underscored the significance of corporations and other organizations in formulating and executing effective strategies for digital transformation. The significance of an initiative-taking strategy including people, processes, and technology, particularly their alignment within the business, has been shown as essential for the successful implementation of a transformation project inside the organization. Furthermore, the implementation and sustainability of these organizational transformation initiatives were significantly influenced by the planned actions related to knowledge management. Furthermore, the emergence of value creation, operational efficiency, competitive advantage, customer engagement, and the establishment of a novel business model have been identified as crucial driving forces and results of digital transformation.

Due to significant technological and e-commerce advancements, digital marketing evolved naturally from conventional marketing (Tyagi and Kaur, 2023). This digital progress was forever transforming life and business, enabling more efficient methods to satisfy consumer and bank objectives. Banks need the procedure to survive in global marketplaces. Modern technologies automated procedures, reduced mistakes, boosted efficiency, and enhanced customer experience. The digitization of Bulgaria's banks is a strategic goal due to their structural importance in the economy and public interest as capital distributors. This paper had two goals. First, determine Bulgarian banks' customer satisfaction and awareness rankings. The second goal is to assess Bulgarian bank customers' digital performance opinions and experiences. The major study topics are on how digital transformation is changing retail banking services to meet client behavioral patterns, expectations, and preferences. Results showed that banks should prioritize

consumer demands throughout the customer experience to boost satisfaction and loyalty. Desk and field research are used in this study. Based on desk research, bank NPS customer satisfaction performance is shown. Field research collected client opinions and attitudes about banks and their services, focusing on digital performance. Online surveys gathered data. As a conclusion, banks must implement modern technologies, develop digital applications and services, develop a consistent model of digital communication with customers focusing on instant interaction through a variety of digital channels, use integrated customization of large data sets for personalized banking, and implement loyalty.

Digital transformation projects are helping industrial companies address new risks and possibilities from rapidly increasing and disruptive digital technology (El Khatib, 2024). The major facilitators of digital transformation efforts that improve operational performance in industrial organizations need additional study. This research used sociotechnical system theory (STS) to examine digital transformation facilitators and performance outcomes. Four renowned industrial organizations that underwent digital transformation provided research data. The findings showed that leadership, structures, and culture allow digital transformation assisted in industrial organizations in achieving performance objectives including cooperation, customer-centricity, and agility. This study added to digital transformation and sociotechnical system theory literature by presenting an empirically based integrated framework with future research proposals.

Industrial firms have gained a competitive advantage by implementing digital transformation initiatives to manage the new threats and opportunities posed by quickly

advancing and disruptive digital technologies (Henry Ejiga Adama and Chukwuekem David Okeke, 2024). There is a need for greater research on the primary factors that make digital transformation projects successful in improving operational performance in industrial companies. The sociotechnical system theory (STS) was used to investigate the facilitators of digital transformation as well as the performance results. Data for the study came from four well-known companies in the industrial sector that have undergone digital transformation. The results of our research indicated that leadership, organizational structures, and company culture were necessary for digital transformation. These factors also helped industrial organizations to accomplish performance goals such as collaboration, a focus on the customer, and agility. By proposing an empirically grounded integrated framework with future research ideas, this study contributed to the existing body of literature on digital transformation and sociotechnical system theory.

The financial industry is experiencing a transformation due to technological advancements, resulting in significant enhancements in the accessibility of financial services (Oyewole *et al.*, 2024). The alterations have been in progress over several years, exerting an impact on all nations around the globe. Amidst the social distance and containment measures implemented during the COVID-19 epidemic, technology has emerged as a catalyst for the advancement and augmentation of digital financial services, hence facilitating the acceleration of financial inclusion. Simultaneously, the hazards that were evident before the onset of the COVID-19 pandemic, in conjunction with the advancement of digital financial services, are assuming more significance.

Hosia and Claesson (2024) proposed a change in basic assumptions in customer communication by addressing concerns related to inadequate information on staff roles and distinctive employee training initiatives. In addition to increasing the amount of actual labor, it is necessary to develop a comprehensive understanding of workers' initiative and job responsibilities, including both practical and intellectual dimensions. Another objective was to provide novel strategies for engaging consumers, such as elucidating the functioning of their security system and emphasizing the significance of the Cyber security system to individuals, thus facilitating their understanding of it. In addition, employees need to possess a certain level of education to effectively interpret and articulate information to clients. This article aimed to elucidate the operational aspects of human resource management within the banking industry, including the anticipated modifications. Additionally, it delved into the intricacies of cyber security within the banking sector, highlighting its significance. Furthermore, it underscored the criticality of both HRM and cyber security in the banking industry. Lastly, it presented public sentiment through the administration of a survey.

The advent of technology has had a profound impact on global company operations, particularly in industrialized nations, resulting in dramatic transformations across all facets of commercial activity. Consequently, governmental officials implemented an unprecedented program wherein technology was integrated across all sectors, enabling most global operations to continue despite being inadequately prepared (Lee *et al.*, 2024). Similarly, via the integration of technology into the educational sphere, which was then experiencing a growing digital transformation, the field of education

might maintain its sustainability, enhance affordability, and attain optimal objectives. This research aimed to examine the use of technology in the administration of Islamic education. Hence, our endeavors to look for data were facilitated by using technological help, such as Google Scholar and other relevant programs. The subsequent phase of this research entailed the process of coding the system, conducting a comprehensive evaluation, and then analyzing the collected data to provide conclusions that were both valid and dependable. The research used a qualitative data review approach to examine articles spanning from 2010 to 2021, to obtain the most up-to-date information available. Based on the analysis of the findings, it can be inferred that the study had addressed various inquiries, such as the extent to which Islamic educational institutions' administration values and acknowledges the incorporation of digital technology or websites in graduate preparation programs that strived to strike a harmonious equilibrium between worldly pursuits and spiritual readiness for the afterlife.

The primary objective of this research was to elucidate the aspects that might have an impact on instructors' psychological resistance towards the adoption and integration of digital technologies within the context of entrepreneurship and business schools (Sitaridis and Kitsios, 2023). This study explored the psychological resistance of teachers towards digital innovation, as well as the influence of school culture and environment on this resistance. The research was based on the diffusion of innovations theory and the theory of planned behavior. Additionally, the study examined how teachers' attitudes toward educational technology may be moderated. A cross-sectional field study was done in Jordan, including a sample of six hundred instructors from

business and entrepreneurship schools. Based on the findings, both school culture and school innovation atmosphere had a significant favorable influence on teachers' inclination to oppose digital innovation. Furthermore, the influence of educational technology on the link between study components in the framework was shown to be modified by instructors' opinions. This research was a noteworthy contribution to the existing body of literature about the domains of entrepreneurship, business education, and digital innovation. This study proposed several significant policy findings and suggestions for further research, with the identification of theoretical and practical consequences.

ICT has transformed global social and organizational life. It has a lot of untapped potential due to its youth. It may revolutionize economic progress, but mismanagement in adoption can lead to business-end difficulties or technical failure (Reis *et al.*, 2024). This research examined Pakistani IT adoption potential and barriers. The research identified the country's computerization impediments to inform policymakers for seamless computerization. According to primary and secondary data analysis, all independent bureaucratic, political, education, and social and cultural variables were mutually correlated and had a significant impact on shaping and reshaping IT in Pakistan, despite the inconsistent IT policy, negative and non-cooperative administrative machinery attitude, cumbersome procedures, weak and ineffective implementation, and lack of IT knowledge. The unstable political climate and poor law and order discourage investment. Good IT experts and physical and legal infrastructure were inadequate in the nation. IT

organization alignment was another major challenge in Pakistan. However, government incentives and private sector engagement suggest a bright outlook for computerization.

FinTech competition, shifting business models, rising regulatory and compliance challenges, and innovative technology are transforming the banking sector (Olawale *et al.*, 2024). FinTech/non-bank businesses are revolutionizing the financial services industry, requiring established institutions to adapt. As data breaches and privacy concerns rise, regulations and compliance requirements tighten. If that was not enough, customers now want 24/7 personalized service. Technology that is disrupted in the banking sector may fix these and other issues but switching from antiquated systems to innovative solutions has not been straightforward. Banks and credit unions must embrace digital transformation to survive and grow in the present environment.

Nations in both developing and developed regions are now investigating various strategies to enhance their development efforts by integrating and using information and communication technologies (ICTs) inside their economies, to achieve optimal outcomes (Mishra *et al.*, 2024). Banks are increasingly providing a range of services to enhance the comfort and simplicity of electronic banking for their customers. Digital business transformation plays a crucial role in enhancing the operations of financial services organizations by allowing them to achieve higher levels of security, compliance, and digitalization. It alters the whole experience of those who are associated with the organization, including workers, partners, consumers, and stakeholders. However, the situation in Pakistan differs from what has been previously said. In Pakistan, many challenges contribute to the reluctance of individuals to adopt information and

communication technologies (ICTs) and engage in electronic banking (e-banking). Despite the small body of research on the relationship between remittances and criminal offenses. Remittances originating from abroad relatives are a crucial source of domestic revenue within the South Asian region. Regrettably, the impact of this phenomenon on criminal activity has mostly remained uninvestigated.

Proper policies and frameworks may help fulfill IT goals by building digital trust and enhancing ICT and technology infrastructure resilience. A permanent organization must oversee policy management and review to increase efficiency and address the policy implementation gap (Jiang *et al.*, 2023) The suggestions were developed during an IPS conference on ‘IT Policy Landscape in Pakistan: Challenges and the Way Forward’ on August 31, 2023. At the session conducted by Naufil Shahrukh, GM Operations, IPS, Humayun Zafar, ICT specialist, Khalid Rahman, chair, and other professionals spoke. Humayun Zafar said the main problem with Pakistan's IT regulations is that they limit the industry rather than help it. Lack of vision, strategy, and objective aim underlying policy formation is usually the cause. He underlined that policies should foster order, creativity, and dispute resolution rather than create obstacles. He praised Pakistan's IT leadership for their ambition to accomplish the \$10 billion yearly IT export objective. He cited digital distrust owing to failure risks as a barrier to IT policy implementation to accomplish the aim. People oppose digital change. He added regulatory frameworks and strategies to boost ICT and technology infrastructure trust are needed to solve this challenge. Now is the moment to embrace and learn about modern technology and increase capacity. He noted that current rules do not manage AI and IoT. These sectors need aggressive and

forward-thinking solutions. Digital fraud and information security must also be addressed in IT policy. He suggested creating a permanent committee to analyze policy outcomes and reassess policies at least biannually since IT is such a lively, ever-changing, and dynamic business.

Benefits of Digital Transformation

The research has extensively examined many advantages associated with digital banking in the context of a resilient supply chain. These benefits include cost-effectiveness, competitive advantage, and decreased communication gap (Uddin and Fariha, 2024). Moreover, the advent of digital banking has facilitated consumers in expanding their enterprises on a worldwide scale. The use of online transactions has shown to be beneficial for organizations in managing their relationships with suppliers and partners, effectively overcoming geographical limitations. According to (Yan *et al.*, 2024), the use of this strategy facilitated the effective management of unforeseen circumstances by ensuring a seamless recovery process.

Scholars, professionals, and individuals in the field have acknowledged that the process of transformation is multifaceted, including aspects such as people, processes, and beyond. Moreover, it acknowledged that doing such a job is inherently difficult (Smith, 2024). Previous studies have shown a notable prevalence of unsuccessful outcomes in digital transformation initiatives. According to (Rossman and McCaffrey, 2024), McKinsey drawn attention to the fact that 70% of transformation initiatives fail. This finding by McKinsey suggested that a considerable number of organizations lack the necessary capability for successful transformations (Kumar *et al.*, 2023). The concept of

Digital Transformation pertained to the process by which an organization undergone a fundamental reconfiguration of its basic business processes, using digital technology to enhance its operations across all facets of the company.

This transformative endeavor aimed to optimize organizational efficiency and enhance the delivery of value to consumers (McCluskey, 2024). Furthermore, previous studies indicated that usually, management lacks awareness of an efficacious plan, and sometimes organizations lack a comprehensive strategy that encompasses the whole of the change (Cooper, 2024). The existing body of literature indicated that management departments often lack knowledge and skills about modern technologies and transformation processes in the context of digital transformation (Raelahti, 2024).

The advent of digitalization led to heightened rivalry among conventional corporations, while simultaneously presenting novel prospects for enterprises with unique business models such as crowd-financing platforms, peer-to-peer lending, and digital-only banks. (Mishra and Varshney, 2024) emphasized the present popularity of digital financial services in urban regions while acknowledging the existing need for these services in rural areas, among non-earning individuals, tech-savvy young, and migrants. The authors suggested that financial service providers should prioritize these people in their efforts. The e-commerce and social media sectors were seeing a notable surge, along with the extending development cycle of digital platforms.

The feasibility of this development was attributable to recent advancements in payment and financing methods, mostly spearheaded by internet-based enterprises rather than conventional banking institutions (Esperance, 2024). According to (Kehinde-Peters,

2024), research indicated that internet-based solutions using mobile devices were seen as more suitable in comparison to physical cash transfers or online bank transfers.

2.7 Challenges and opportunities of the digitalization for leadership in Pakistan

Nguyen Hai, Van and Tuyet (2021) interpreted and discovered perceptions about digital transformation, cognitive evolution in the context of digital transformation, positive aspects of the journey, successes, and the necessity of accelerating digital transformation before the COVID-19 pandemic, as well as the difficulties and limitations faced by the cohort of civil servants and leaders. The core components for conducting analyses and assessments were pre-existing materials from journals, books, research literature, and perspectives expressed by writers on websites. The research's conclusions have made it easier to create a theoretical framework and a path for creating suggestions for leaders. Practically speaking, the research's conclusions have underlined that, despite the difficulties associated with digital transformation, the ability to recognize and actively foster an innovative mindset is essential to the success of such initiatives across nations, particularly in emerging economies.

Khan *et al.* (2011) identified the problems, difficulties, and effects or advantages related to digital transformation as investigated by various scholars. To accomplish this goal, the problems posed by digital transformation were identified using a Systematic Literature Review S.L.R technique in line with the paradigm provided by (Levy and Ellis, 2006). Analysis was performed on articles that were specially chosen and published between 2008 and 2018. The study's conclusions showed how important it is for firms to

have a successful digital transformation plan. An essential element in the effective implementation of such transformative initiatives emerged as the initiative-taking approach to harmonizing people, processes, technology, and organizational elements. Knowledge management-focused deliberate efforts have also become apparent as a crucial component in conducting and maintaining these transformational undertakings. The study also showed that key driving forces and outcomes of the digital transformation process included value creation, improved operational efficiency, achieving competitive advantage, nurturing customer relationships, and the establishment of new business models.

Pakistan has a significant deficiency in terms of financial inclusion, characterized by a substantial portion of the population experiencing limited accessibility to both official and informal financial services. According to the Global Findex 2017 study, Pakistan has the distinction of being the third-largest nation in terms of its unbanked population, which amounts to over one hundred million individuals. The available data on investment in Fintech indicates significant and quick growth in recent years. As a result, there has been a notable surge in academic writing on this topic, particularly starting in 2015 (Zavolokina, Dolata and Schwabe, 2016).

The provision of governmental assistance, via the implementation of regulatory measures and the facilitation of business operations, the establishment of licensing criteria, and the provision of financial aid for the establishment of fintech hubs, the formation of seed funds, grants, or subsidies, presents avenues for the advancement of fintech initiatives (Lee and Shin, 2018).

The problem of frequent leadership changes within organizations is well-recognized as a significant concern in the field of organizational research (Blumentritt, Mathews and Marchisio, 2012). Financial institutions may facilitate employee concentration on job areas that can be optimized by seeing digital transformation as a cultural shift. The presence of effective leadership is important to successfully persuade personnel of the benefits associated with implementing changes. When executed effectively, it motivates staff to go beyond their comfort zone and discern the deficiencies in existing procedures. These concerns may be addressed at the organizational level, so enabling workers to concentrate on enhancing the value inside their systems of operation.

Pakistan's supply chain procedures and systems have weaknesses that require assistance from both companies and the government. Scholars have undertaken investigations in industrialized nations to explore the significance and extent of digitalized banking. Nevertheless, the notion of digital banking remains nascent in developing countries such as Pakistan (Afshan *et al.*, 2018). The scope of digital banking is currently confined to the operational necessities of financial institutions. The banks in Pakistan are susceptible to hazards and security concerns because of inadequate internet efficiency and speed. The challenges have impeded the progress of emerging economies such as Pakistan. Nevertheless, throughout time, the state of digital banking in Pakistan has been seeing notable advancements. According to (Onesi-Ozigagun *et al.*, 2024), there is a noticeable movement in customer behavior away from traditional methods, as consumer confidence in mobile apps and digital banking sectors continues to grow.

Trushkina *et al.* (2020) employed the concept of "organizational culture" to assess the case of Ukrainian businesses. It presented the findings of an expert survey conducted as an empirical research method to identify existing issues, obstacles, characteristics, trends, and pathways of organizational culture transformation. Furthermore, this study employed the theoretical framework of "organizational culture" to analyze the case study of Ukrainian enterprises. The authors commenced by introducing their methodological approach, which employed the analytic hierarchy process, to assess the most suitable scenario for cultivating the organizational culture of enterprises. This assessment was based on a compilation of twelve crucial criteria, which are further categorized into four groups: adaptability, mission, consistency, and involvement. The assessment presented here was based on the authors' research results about the most advantageous selection of scenarios for cultivating the organizational culture of firms. Furthermore, the researchers examined a hypothesis that posits the correlation between the optimal trajectory of modifying organizational culture and the process of digital transformation. This process encompassed the implementation of digital technologies, the establishment of information-driven corporate ecosystems, the development of innovative business models, and the enhancement of efficiency in business-to-business (B2B) and peer-to-peer (P2P) communications. The hypothesis posits that the most effective approach to altering organizational culture was contingent upon the implementation of digital transformation.

Thirdly, it was argued that the main barriers impeding the effective development of organizational culture may be provisionally classified into seven distinct categories: people, information, structure, promotion, learning, technology, and financial

investment. In the final stage of analysis, the authors evaluated the potential benefits of implementing an integrated methodology. They defined this methodology as a harmonious combination and ongoing interaction between different influential variables, constituent elements, digital competencies and skills, and information technologies. In conclusion, the authors present a concise overview of the research findings and delve into the analytical frameworks employed to assess the impact of digital transformation on the organizational culture of information economy enterprises. The objective was to facilitate the transition of these enterprises in Ukraine towards a more human-centric, innovative, customer-focused, and adaptable approach.

The rationale for one's existence, Contemporary leaders in the modern workplace have recurrent challenges stemming from the growing use of digital technologies (Khaw *et al.*, 2023). The effective handling of these matters necessitated the practice of digital leadership, a concept that has gained prominence in current discussions around the competencies that managers must develop to succeed in the digital age. This study investigated the essential elements of leadership and evaluates the impact of digital leadership on sustainable performance. The objective of this systematic literature review (SLR) was to examine the relationship between digital leadership concepts and leadership development, specifically focusing on the provision of digital leadership for management development to ensure long-term organizational success. The primary objective of the study was to ascertain the potential correlation between the two variables.

The study focused on the conception, methodology, and strategy used in the research. The present study conducted a systematic literature review, using several

research approaches, and followed the ROSES (Reporting Standards for Systematics Evidence Syntheses) format to fulfill the publication criteria. The selection of publications for this study was conducted using Scopus, a well-recognized and highly regarded scientific database. This study only included papers that were published between the time of 2001 to 2021. The significance of digital leadership and performance was underscored throughout the article. The results of the study examined yielded five main themes: leadership styles, leadership metrics, factors contributing to effective leadership, outcomes of effective leadership, and areas of research that need more exploration in the present field of study. The study yielded a total of eleven additional sub-themes, which emerged from the five fundamental concerns. The concepts of uniqueness and significance are of significant scholarly interest. These concepts are often explored and analyzed in several academic disciplines, including sociology, psychology, and philosophy. This article presented a comprehensive examination of the scholarly literature released in the last twenty years about the impact of digital leadership on sustainable performance. The findings provided leaders with an enhanced comprehension of the prevailing leadership patterns, enabling them to develop appropriate leadership strategies to effectively navigate forthcoming challenges and preserve optimal performance.

The objective of this study was to examine the many elements that contribute to the digitization of the Agricultural Development Bank of the Pakistan (ADBP) and then evaluate its effect on the agricultural development of the nation (Noorani and Lashari, 2023). The study employed a rigorous methodology to investigate the research question

at hand. This study employed qualitative methodology. Primary data was collected via interviews held with officials from ADBP and ZTBP to get information and address the study topics.

This study provided evidence of congruence between theoretical and empirical investigations via the presentation of a comparative analysis in the last part. Moreover, this study elucidated that factors such as adaptability, observability, compatibility, and relative benefit have contributed to the widespread acceptance of digital banking and the subsequent digitization of the banking industry, hence enhancing the overall customer experience. In conclusion, it can be inferred that the information provided supports the notion that a definitive conclusion The digitalization of business in the banking sector facilitated by key factors such as adaptability, observability, compatibility, and relative advantage. However, companies operating in Pakistan encounter significant barriers to digitalization, including static management, illiteracy, and limited financial resources. To surmount these obstacles, the banking industry must use the change model and technology adoption model to effectively compete and attain a competitive edge within the market. Moreover, the use of digitization in agricultural banking in Pakistan has a favorable influence on the overall development of the agricultural sector in the nation.

Staying home and social distance have increased the time individuals spend on social media to share and learn about healthy routines (Naeem and Ozuem, 2021). COVID-19 has interrupted in-person banking processes and elevated retail banker and client physical risk. Thus, the globe has turned to online banking to continue paying bills, buying food, and shopping for brands. This research examined how the COVID-19

pandemic fears enhanced online banking social practices and what problems consumers encounter while using it. System developers and marketers may tailor Internet banking programs to various users by studying these experiences. To explore how clients perceive online banking in a scared atmosphere, the research used relativist ontological and social constructionist epistemological perspectives. Gibbs's reflection cycle, semi-structured interviews with online banking customers, and focus group interviews with public and private bank executives were employed in the study. Social media actors helped explain uncertainties during the COVID-19 epidemic, which transformed consumers' banking habits online. Social media warned against ATMs, debit and credit card exchanges with cashiers, and cash exchanges, which are unsafe for bankers and clients. This research merged social practice theory with the affordance of technology theory to investigate online banking uptake. This research had practical consequences for retail bank marketing and system developers.

The recent progress in financial technology presented unparalleled difficulties for established institutions (Liu and Wang, 2021). This article examined the ramifications of these difficulties on the competitiveness of banks and investigated the aspects that may facilitate digital progress in the banking sector. The analysis indicates that the historical dominance of banks in driving financial technology has declined in recent times. It posits that ongoing endeavors to bridge the gap with the digital forefront may result in a more consolidated banking sector, as smaller and less technologically proficient banks encounter challenges in their survival. The available empirical data from many countries indicated that banks operating in high-income nations had emerged as frontrunners in the

digital realm. This can be attributed to several factors, including a robust digital infrastructure, a favorable regulatory and commercial climate, and a competitive market landscape. However, some individuals in digital leadership positions may have challenges in keeping pace with the adoption of emerging technologies in the future. This might be attributed to the persistent customer preference for older technologies, the limited involvement of fintech and biotech corporations, as well as the financial instability of banks.

The pervasive presence of intense competition across several industries had presented significant obstacles for firms on a global scale (Shah, 2021). Hence, it was becoming more evident to all sectors of the business industry that innovation played a crucial role in sustaining viability within a highly competitive landscape. Nevertheless, the banking industry had not been given enough attention in this respect. To address this disparity, this research was conducted to investigate the correlation between workers' opinion of their bank's corporate social responsibility (CSR) and employee creativity, with the inclusion of inclusive leadership (IL) as a mediating factor. The data used in this research were obtained from the banking industry of Pakistan. A self-administered questionnaire was employed to gather the data, with a total sample size of 533 participants. The statistical results of the present study provided empirical support for the positive correlation between CSR and employee creativity. The data also indicated the mediation impact of IL in this connection. The results obtained from the present study provided valuable insights for policymakers within the banking sector, enabling them to

enhance their comprehension of CSR. Moreover, these results assisted policymakers in adopting employee creativity as a prevailing practice within this industry.

The provision of less expensive financial services has a crucial role in the eradication of poverty and the promotion of economic progress (Sharma and Andrade, 2023). Nations that possess more robust and advanced financial systems tend to have elevated levels of economic development, as well as substantial decreases in poverty and income inequality. The provision of financial services not only enhances the prospects and adaptability of impoverished individuals but also presents greater advantages for marginalized groups, notably women. However, it is worth noting that a considerable proportion of individuals in the world's most impoverished nations, namely 65 percent, do not have access to a rudimentary transaction account. This lack of access prevents them from engaging in safer and more efficient financial transactions. These accounts also provide access to a wider range of financial services, including savings, insurance, and credit options. Merely 20 percent of people residing in emerging nations engage in savings activities via a formal financial institution. The remaining individuals who save money depend on informal and more expensive approaches.

2.8 Leadership in Financial Industry

Modern organizations have goals in mind as they work to adapt to increasingly digitalized market situations and use digital technology to improve operations. However, only a small percentage of businesses are making the fundamental changes that their leadership believes are required to achieve these goals. In their third annual investigation of digital business, M.I.T Sloan Management Review and Deloitte identified five critical

behaviors displayed by organizations developing into more sophisticated digital entities. They did this by using data from a comprehensive global survey of over 3,500 managers and executives, as well as fifteen interviews with executives and thought leaders. Companies working to improve their digital projects displayed these tactics, which might provide insightful data (Kan and Sun, 2022).

Shahid *et al.* (2023) examined the interactions between customer rudeness, workplace rudeness, employee view of religion, digitalization, H.R.M. practices, and desire to leave the company. Practical commitment served as a mediator while servant leadership served as a moderator. The study also looked at the relationship between practical commitment and the intention to leave one's job. A self-administered survey given to front-line staff members of private banks in Punjab, Pakistan, was used to collect data. S.P.S.S and P.L.S software were used to analyze the data that had been obtained. The results of the study showed a strong correlation between employee job attitudes like Effective Commitment E.C and Turnover Intention T.I, Customer Incivility C.I, Employee Religious Perception E.R.P, Digitalization D.E.G, and H.R.M practices. Effective commitment was also found to be a helpful mediator in these partnerships. The study also discovered that servant leadership successfully controlled the association between Effective Commitment E.C and Turnover Intention T.I. The study's recommendations were based on the findings, and they emphasized the significance of addressing workplace incivility, customer incivility, employee perceptions of religion, digitalization, and H.R.M. practices as critical elements for the future expansion of the service sector in developing countries like Pakistan. The investigation of turnover intention within the context of resource conservation theory, which offers a unique viewpoint on the impact of change, the IT revolution, and digitalization, is the study's contribution to the body of current research.

Most of the digital leadership was based in Western settings, and Western cultures had a significant impact on the theoretical development of digital technology. In theory, it was of equal importance to research digitalization utilizing the setting of developing countries like Pakistan. One example of such a country was Pakistan. The ability to manage digital changes in a way that is better, more technologically sophisticated, and more efficient requires digital leadership that encourages the development of digital talents.

Leadership skills acquired during the COVID-19 epidemic may be used in other shifting contexts. The writers discuss virtual leadership in an era of working from home, case studies that taught agile leaders, and the importance of human resources in agile leadership. The collection contains novel theoretical, conceptual, and empirical research on industry four. Zero problems and prospects.

2.9 Research Gap

For a long time, it has been observed that there is a very meager contribution of literature to this topic. There is still recognizable research that highlight the issues caused if digitalization of leadership is initiated in organizations but still, there is a requirement for deep analysis because the financial sector of Pakistan is very prominent based on the socio-economic conditions, regulations, and cultural environment.

There is still a lack of deep research that investigates the challenges in more detail related to technical restrictions, legal restrictions, cultural changes, human resource readiness to welcome change, cyber security risks, financial ramifications, and change management. Some studies are addressing these issues but still, these are not

addressing all the challenges in one study. Many studies focused on the digitalization of organizations and operations but very few have targeted leadership for their digitalization. Furthermore, there is a need to pay attention to conduct research that promotes innovation and deals with teams and competitors.

There are many studies conducted that are theoretical therefore they don't have a proper base to prove their work, there is a need to conduct research that is more numerical and based on actual data gathered from respondents. It is required to get first-hand information on the said topic which can be gathered through interviews, surveys, focused-group discussions, and walk-through sessions. There is also a requirement to generate results that give viable solutions and insights to policymakers, businessmen, leaders, managers, and all relevant stakeholders so that they can also make contributions to the topic to increase the area of research. The research should be conducted in a way that not only identifies the challenges but also gives viable solutions to solve the problems. The current research identifies the challenges that occur during the digitalization of leadership in the financial industry of Pakistan.

2.10 Summary

In this section, a thorough literature review is given in which the challenges occur. This section highlights a thorough literature review to identify that what other authors have contributed to identifying the challenges occur towards the digitalization of leadership in the financial industry of Pakistan. The literature review is based on the work conducted by different researchers which has been published in renowned journals. All the research work mentioned in this study is authentic. These publications are impact

factor publications. Moreover, a lot of work is either quantitative or focused on any specific challenge. Therefore, this study covers all the challenges that leadership faces during digitalization in the financial industry.

The related work is also supported by different theories such as the theory of reasoned action and the theory of human society. The content mentioned in this literature review is highlighting the challenges faced by leadership while bringing digital transformation in the financial sector of Pakistan. Studies from many authors were addressed in this chapter and many valuable insights were gathered through this literature review. Financial services has a very critical role in poverty eradication and economic growth, although there are many gaps in implementation of financial inclusion in many countries (Sabaruddin *et al.*, 2024).

The effect of transformation through Fintech in the banks of Pakistan is also examined and the initiatives taken in this regard have a very positive impact in implementing financial inclusion proactively (Ehimuan *et al.*, 2024). The integration of information communication and technology is very critical with the financial sector for the development of economy, robust IT policies must be developed for trust building (Manasseh *et al.*, 2023). Meezan Bank of Pakistan in fulfilling the economic and e-commerce needs by making huge investments in the infrastructure of digital payments (Elvnäs, Carter and Forsman, 2024). Proper reforms should be implemented to bring Pakistan out of economic and political turmoil (Cooper, 2024). Furthermore the transformational leadership is also contributing a lot in the financial sector of Pakistan (Sukrat and Leeraphong, 2024).

CHAPTER III: METHODOLOGY

3.1 Introduction

A significant problem within financial industry in Pakistan concerns the lack of innovative leadership interventions to achieve efficiency, accessibility, and competitiveness (Abdurakhmanova, 2024). Based on the stated problem, this study emphasized the comprehensive description and understanding of study variables, in particular how innovative leadership uses a company's digital assets and technologies to lead its teams effectively in a digital world. The purpose of this qualitative study is to achieve a deeper understanding on how innovative leadership interventions are planned, aligned and implemented in the financial industry in Pakistan and how these interventions may contribute to efficiency, accessibility, and competitiveness. The study was guided by the following research questions:

RQ1: How rules and regulations impact the efforts bringing digitalization in the financial sector of Pakistan?

RQ2: What are the key challenges and opportunities that affect digital transformation in the financial industry in Pakistan?

RQ3: How leaders in the financial industry in Pakistan plan, align and implement innovative leadership interventions within the financial institution's strategic framework and practice?

RQ4: How innovative leadership interventions in the financial industry in Pakistan contribute to efficiency, accessibility, and competitiveness?

The purpose of this chapter is to provide a methodology following which this research is carried out. The methodology is explained in a sequential manner starting from research design, discussion on the targeted population, selection of sample size, sampling method, preparation of structured and semi structured interviews for data collection, collection of data and data analysis using an appropriate data analysis tool, and other ethical considerations which were taken care of while carrying out this research. The interview questions are prepared based on the research questions identified and mentioned in the first chapter. This chapter will be defining the major sequence of steps taken from the inception till completion of this research.

3.2 Research Methods and Design

In this study qualitative approach is the most suitable design for this research because issues being addressed exist in the bounded system which makes case study an appropriate style for conducting this research. The case study research design is applicable when the research questions are based on how and what, especially when all the behavioral events aren't in the control of the researcher and are contemporary instead of examining the historical phenomena. By applying a case study research design, the aim of this study is to explore issues that exist in the bounded system by completely realizing the research objectives.

The proposed research design facilitates in detail the phenomena of real life which is considered as the essence of qualitative research. The researchers can investigate specific cases and instances which help to investigate the critical issues (Hunziker and Blankenagel, 2024). Case studies always laid a strong baseline Using case studies in this

research can provide a baseline to gather data from interviews and interpret the responses to answer the research questions (Covvey, McClendon and Gionfriddo, 2024). Different events can be explored over time using single case studies and then the chain of events can be connected for further examination (Lerink et al., 2024). Demirei (2024) stated that the involvement of case studies in exploring preexisting phenomena is vague which complicates the exploration in some contexts.

In this research the case study research design is proved to be the suitable and effective method to explore the challenges faced by financial sector of Pakistan while digitalizing the leadership. The research is conducted in inquiry mode and comprehensively explore financial challenges that occur in financial companies while transforming leadership digitally in Pakistan. The research is structured in chronological order so that a thematic view of the findings can be extracted (Lindberg, Palmér and Hörberg, 2024). The aim of this study is to identify the challenges that are creating hurdles in the digital transformation in the financial industry of Pakistan and promoting viable solutions to resolve these issues. The qualitative analysis for this study will be relied on interviews to get deep insights.

3.3 Population and Sample

Population

Populations may reflect a group of people, a set of organizations, a set of documents, archived data, etc. The targeted population of this study consists of CEOs and Managers of different financial companies as well as the employees working in these companies. The companies from which the respondents belong are banks, revenue

boards, and different customs collectorates of Pakistan. There is total 53 banks and digital financial institutions in Pakistan and there were 5 institutions from where the participants were chosen. The institutions from where interviews were taken were Habib bank limited, Jazz Cash / microfinance bank, Pakistan Customs, Punjab Revenue Authority, and Karandaaz.

Sample

The sample size plays a very important role in qualitative research especially when there is a need to decide on participants for the interview (Naseri, Yahya and Abdullah, 2024). This study used purposive sampling. The reason for using this sampling technique is to match the sample with the objectives of this research. This sampling method also improves the quality and accuracy of data. It is a non-probabilistic technique, and the participants are selected based on their specific characteristics. It is best when the focus is on a specific population to get a deep understanding of the research area. Suma and Bhujang (2018) stated that in qualitative research the smaller the sample size the deeper the analysis and the solution to the problem will be identified more easily. Therefore, eight participants (N=8) were chosen from 5 financial institutions who shared their experiences and rich information. The 5 institutions were contacted through a reference, so the respondents showed willingness to give interviews.

The participants of this study are comprised of two CEOs, three Managers, and three mid-career level employees of revenue companies in banks in Pakistan. All these people have been working in their respective companies for at least five years. Sampling is very important in qualitative research; it helps in achieving the objective of the study

(Amini Farsani and Barzegar, 2024). The participants also contributed to earning profits for their companies although there is an economic rift spread throughout the whole country all those employees who didn't fall into these criteria were not selected in this study.

3.4 Data Collection Processing and Analysis

This section aims to discuss the tools and techniques for data collection. These tools and techniques will be used to gather data. Goddard and Melville (2004) recommended that the use of different data collection techniques increase the authenticity of the study. The data collection instruments for this study are semi structured interviews and content analysis of secondary data. Wherever a qualitative study is conducted it is important to select an appropriate sample size for proper data saturation (Kothari, 2004). Therefore, the number of participants selected for this study is eight and their interviews were conducted face-to-face. This section will also provide a discussion of the data organization techniques used for this study.

Connecting with Participants for Data Collection

To connect with participants, invitation letters (attached in Appendix A) were sent to all the participants to get their consent, and they didn't have any issues with giving interviews about the said topic via an email containing complete details of the research, some participants were also contacted through couriers, and telephones. Techo (2016) suggested getting consent from participants by contacting them through emails. The contact list of all participants was prepared through purposeful sampling techniques and after that invitation letters were shared with participants. This research presents all the

researchers and ideas to become aware of the phenomena behind conducting a relationship and rapport with participants. Techo (2016) also suggested inviting participants through face-to-face meetings for trust building in making them knowledgeable about the complete research procedure. Providing relevant information about the research to the participants of this study before conducting interviews is a very important way to build rapport and trust with the interviewees. According to McMurray (2004) when all the participants provided agreements to participate in this research, a working relationship was established with them by telephonic communication and emails. It was also ensured that all the participants had complete information about the research objectives, and they knew their roles in the entire research process. Building a rapport with participants before conducting interviews makes participants feel comfortable and creates motivation in them to share their experiences on the said topic honestly.

Instruments for Data Collection

The primary and important instrument used for this study is interviews which were taken from the participants (Saunders, Lewis and Thornhill, 2009). According to (Checkoway, Pearce and Kriebel, 2004) data collected from different sources increase the authenticity and credibility of data. The interview protocol used for data collection is comprised of 12 questions to identify the challenges faced by leadership during digitalization in the financial industry of Pakistan and to get the point of view of different participants on this topic. (Techo, 2016) suggested that open-ended interview questions are very beneficial because they do not involve any influence from interviewee responses

and generate responses that capture the experiences perspectives and thoughts of participants (Sekaran and Bougie, 2016). Open-ended questions are always helpful in exploring what researchers want to explore and they also involve the participants in volunteer information sharing (McMurray, 2004).

Checkoway, Pearce and Kriebel, (2004) also referred to using interview questions in the same sequence they mentioned in an interview protocol to maintain the consistency of work and capture different views. Techo, (2016) also stated that if all the rules for conducting interviews are followed properly then the authenticity and credibility of data will be improved. Similarly, in this research same sequence of questions is followed while taking interviews with all the participants has been mentioned in an interview protocol to increase consistency. All the answers in each interview were analyzed and the complete transcript was reviewed to validate data consistency. Every participant had full access to their final interview transcript for review and validation.

It is very important to ensure confidentiality, meaning that participants reply honestly to the questions asked in the interviews (Bryman and Bell, 2011). To achieve confidentiality and honesty in interviews, all participants were informed about the protocols of confidentiality and honesty in the interviews before conducting them. Creswell, (2014) focused on the need for confidentiality in qualitative research for data gathering. All the participants were informed that they have a complete right not to respond to any question they feel is inappropriate, or they can skip the whole interview process without giving any reason. This awareness created a sense of honesty among participants to respond with truthfulness.

Techniques of Data Collection

The interviews conducted in this research were based on qualitative research, data gathered through interviews is always considered the most suitable method for gathering data (Techo, 2016). All the interviews were taken in the places suggested by the participants themselves. The interview was started to give an overview of the study and provide the reason for conducting research in this area. A consent form was prepared and reviewed with the participants in which it was written that the participants could withdraw from this research without any penalty.

McMurray, (2004) also suggested following the proper sequencing of interview questions in a similar sequence in interviews to maintain consistency. The same protocol is followed in this study for every participant.

All the interviews were not only recorded with the help of pen and paper but also their digital recordings were done. McMurray, (2004) mentioned in their study that recording interviews is a source of getting rich data. The same interview protocol was used in this study in which the date, time, place, and contact number of the interviewee were taken (Muriana and Vizzini, 2017). The participants were also guided by reading the consent form for the study interview document process and all the questions available in the interview questionnaire guide.

Collecting data through interviews has many advantages. Initially, interview questions were structured in a way that helped participants work through different aspects

of phenomena in the study. It is also beneficial for the free exchange of information (Morse, 1991). In this way, a second thing is that the interviewee can focus on the topic under study (Creswell, 2014). The third thing is interview is always considered a source of evidence because it provides deep insight and explanations such as personal views, attitudes, perceptions, and meanings (Kumar, 1999). The researchers and the reader who will study these research findings have a comprehensive perspective because the research topic consistent data collection methodology (Goddard and Melville, 2004).

The data collection method through interviews have also many disadvantages. Firstly data quality is completely dependent on the capability of the interviewer (Kothari, 2004). Secondly, there are chances of biased responses if questions are not explained properly (Saunders, Lewis and Thornhill, 2009). The third point is reflexivity in which respondents give those responses which are required by the interviewer. The fourth point is analysis contains biases because researchers don't articulate the importance and frequency of interview responses. It was informed that in qualitative research data validity, robustness, and accuracy are very important. All the participants were allowed to review their responses to provide information about if anything was missing. NVIVO software was applied to the data gathered through interviews to extract meaningful claims regarding the topic.

Data Analysis

The process of qualitative analysis involves huge amounts of data therefore the analysis process is very complex (Bryman and Bell, 2011). In this study, a thematic analysis of coded data was done for the identification of challenges that leaders faced

during digitalization in the financial sector of Pakistan (Gul *et al.*, 2024b). For this analysis, the data was first coded and then thematic analysis was applied to the codes (Liu *et al.*, 2024). Azevedo (2024) gave a five- step approach for thematic analyses which included compiling data, data disassembly, data reassembling, data interpretation, and concluding data. In this study, the first step was to compile data and make it into codes and groups. In the second step data was disassembled to remove various themes. In the third step data was rejoined in its core theme. In the next step, data patterns were checked concerning interviews to make interpretations of data, in the last step the data was summarized into a description.

For analysis, NVIVO is used for data management and analysis. NVIVO is used for qualitative analysis it provides coding from different thematic categories and extracted themes from qualitative data (Siregar and Siregar, 2024). This software provides a lot of flexibility in the whole analysis process starting from node identification, matrix creation, and reflection of knowledge on the topic (NVivo, 2016). In this study, a proper procedure was followed through which all the data based on common themes and trades was eliminated. In the first step, the compiled interview data was uploaded into NVIVO. Then data was organized and coded, and a little manipulation of textual data was also made to display codes properly. The coding of data involves applying self-explanatory names and words for data labeling and arrangements (Narang *et al.*, 2024). This step is very important for arranging data into smaller, meaningful, and manageable groups: different categories of data reviewed linked and reconvening with the themes. The attributes of nodes were also applied in NVIVO for the identification of

the same data and common themes. In the end, data was arranged on nodes and divided into categories from the generation of themes.

Instead of using predefined themes the recurring themes were grouped and rearranged in different categories in nodes. The pattern for creating themes in codes of data was based on the analysis done on interview data. Data arrangements in different categories identify different trends and links within the nodes which ensure different categories originated from the analysis done. Primary themes extracted from data analysis were the effect of digitalization on leadership, the effect of digitalization on employee performance, leadership practices for enhancing digitalization, challenges faced by leadership during the adoption of digitalization, overcoming leadership challenges, and effective leadership practices. Transformational leadership was a conceptual framework for this study (Chandranathan, 2024).

Techniques for Data Organization

In qualitative research, data organization is very important it includes data checking, maintenance of logs using software, field evaluation, etc. (Bryman and Bell, 2011). The same pattern for data organization is followed in the study (Brawner *et al.*, 2018) mentioned in this research that arrangements of data in important themes and codes are dependent upon a very important part of the qualitative research process. Morse, (1991) used different coded themes in a qualitative study to ensure the privacy of participants. Instead of mentioning the original names of participants in the research, the respondent numbers are assigned to participants to ensure their privacy. The contact details of participants are stored separately and kept hidden in the secrecy of participants’

information. Confidentiality is always considered the basic essential of qualitative research (Muriana and Vizzini, 2017).

All interviews were recorded and proper notes were taken. Creswell, (2014) emphasized that it is important to maintain consistency in qualitative research data collection. Sekaran and Bougie (2016) suggested that taking notes for interviews is very important to maintain that consistency. In this study interview recordings were also done for proper extraction of themes. NVivo, (2016) used NVIVO in qualitative research for managing and organizing data to extract themes, words, and phrases. NVIVO can increase the consistency of data. All the signed consent forms and information taken from interviews are kept in a safe place and on the computer the record is stored in a password-protected drive. The data will be kept stored for five years and then it will be destroyed.

Reliability and Validity

Qualitative research is considered authentic when the results of the study are considered valid and reliable (Sigmundsson and Haga, 2024).

Reliability means that the results gathered from different studies and data analysis are consistent and repetitive. Validity means to ensure that the results and findings are accurate (Rauber *et al.*, 2024). The review of interviews and transcripts participants checking, and triangulation of data are important factors for ensuring reliability and validity. The same are applied in this study to ensure reliability and validity. To ensure reliability and validity in qualitative research the results are credible, transferable, confirmable, dependable, and trustworthy (McWhirter *et al.*, 2024).

Dependability. - In qualitative research dependability means that the data has a lot of strength that the whole research can rely on that data (Bouwer *et al.*, 2024). The interview questions in this study were relevant to the purpose of the study. The questions were approved by my supervisor, and these were sent to companies before the date of interviews. The internal consistency of interviews was maintained by using the same sequence of questions mentioned in the interviews (Bryman and Bell, 2011). The sequence of interview questions in this study followed the same protocol. The questions were mentioned in an interview guide open-ended and all the participants responded to these questions primarily. The review of transcripts involves conducting interviews with the participants and then providing them for review and validation in the form of printed copies. Liu et al. (2024) highlighted the dependability factor as an important point for achieving quality and dependability in this research.

Credibility. Kankam-Kwarteng *et al.*, (2024) highlighted the requirements to improve the credibility of the research by confirming that all the difficulties that occur during qualitative research are due to internal issues that happened due to unexpected patterns. In this study, credibility was followed by using suitable procedures to get a high level in my degree. The research guidelines given by the university helped remove the biases. Keintjem, Saerang and Pandowo, (2024) provide suggestions on increasing the credibility of qualitative research. In this research, credibility was achieved by applying proper research methodology, research design, and research instrument.

The use of NVIVO software increases the credibility of data through its data processing and analysis techniques (Mosbah, 2024). In this study, NVIVO is used for

data analysis theme creation, and data coding which will aid findings and strengthen the reliability and credibility of the research. Themes extracted from collected data will also add credibility to this research.

Transferability. It means to make relevant statements in qualitative research which can also be applied to other populations (AL-Dosari, Fetais and Kucukvar, 2024). In case transferability is enhanced in the study it means that the research is consistent and its findings can be transferred to other populations (Mannan, 2024). In this study, transferability increased by doing proper documentation and explanation of the complete research process. The complete research process has been prepared and prevented with the help of proper frequency so that readers can relate this process to their setting. The research process is carried out frequently such as data collection, data organization, performing data analysis, and gathering data. The open-ended questions used in the interview protocol which is very helpful for the participants to provide complete information (Sampat, Mogaji and Nguyen, 2024). In this study, the interview protocol will also comprise open-ended questions. (Mansour and Tahraoui, 2024) suggested that the description of the research should be enough so that readers can identify and map the research findings to their situation. The same is followed in the study.

Confirmability. Confirmability and dependability are related to each other because they ensure the neutrality and accuracy of data (Ahmed, 2024). Confirmability means convincing the readers that the study has mapped the responses of participants accurately without any biases. All the participants in this study received their interviews for data validation. To properly implement confirmability in qualitative research the

processes and evidence must be given in research properly to support the study (Iqbal and Abbas, 2024). In this study, proper evidence is given which supports this study.

Data Saturation. It means to collect data in sufficient quantity so that no new information is extracted and data supports the study (*Perceptions of Financial-Business Leaders on Credit Mark Inaccuracies Through Fiscal Edification for Business Performance* - ProQuest, 2024). Data saturation occurs when no new information is extracted from interviews. If the sample size is larger it doesn't mean that the data is saturated (Kandpal, 2024). In this study, the sample size chosen is considered the best size which has ensured data saturation. Interviewing eight people increased the data saturation of the study so the sample size provided the number of participants to ensure data saturation. Data saturation is a threshold that shows no more increase in the information gathered for conducting this study. Initially, the interview responses were reviewed and then it was circulated to the participants for their verification. Choudhary and Thenmozhi (2024) stated that data replicates in the responses during qualitative research chose that data saturation exists. The same protocol is followed in this study. All the recorded messages and written notes were attentively checked multiple times to get an understanding of every participant regarding the research. Similarity regarding the response of each participant was attained and it was found that no new information was extracted at the 5th iteration.

3.5 Limitations

Every research design has some limitations which are very important to address these limitations effectively. Through qualitative research, deep insights were achieved

about the study topic, but the findings cannot be mapped on the entire population in a generalized way. As this study is focused on the leaders of the finance sector, this study cannot be implemented in any other sector.

There is a lot of dynamicity in the technology and financial sector therefore, the research should be executed in a way that should not affect the basic practices of the technology and finance sector. The research design can be affected by self-selection biases because in one way there are very few leaders who are responding to this research but there are also some other leaders whom the researchers have not selected for participation. The whole crux of qualitative research is dependent upon the interpretation of data. Different researchers interpret data differently which affects the credibility of research. It is very important to maintain confidentiality and privacy of people participating in this research therefore, ethical standards must be followed.

3.6 Ethical Assurances

Every researcher must follow ethical research in data collection (Tóth and Blut, 2024). So, for this research approval was taken on the topic from the supervisor in the research committee before collecting data. So once approval was given then data collection was started. The data gathered protocol is strictly comply with the policy and guidelines given by the research and development department of our university. Everything such as invitation of participants, consent from researchers, research withdrawal participation in research, and data confidentiality are followed according to the guidelines given by the university. The ethical rules followed in the qualitative study are honesty, confidentiality, privacy rights, and obtaining stakeholders' consent at every

step of research where required (Tuqan, Abdeljawad and Saleem, 2024). In ethical issues not only, consents are covered but also the protection of participants is also included in which participants are informed in case of any consequences that can happen in results (Omisope and Adegbe, 2024). Many authors have emphasized or followed ethical practices while doing research. The ethical codes that are followed in this research are honesty, equality, transparency, being respectful to participants, protecting participants from any negative consequences, and avoiding misleading all the relevant stakeholders. The participants should sign a consent form before taking part in this research (Jejenywa, Mhlongo and Jejenywa, 2024). For this research, a consent form was signed by all relevant participants before starting this research. The consent form is attached to Appendix B, taking signatures on consent forms is especially important because this is proof that participants have given assurance and willingness that they are ready to take part in research. This will also give surety participants that they can use their rights (Alaya and Kreishan, 2024).

In this research, all the participants were guided and used the consent form and the issues such as confidentiality, protection of personal data, storing information properly, and the right to withdraw from the research at any time. The withdrawal can be done through telephone calls, emails, and letters (Orazalin et al., 2024). Ethical concerns are the baseline of any research, and they cover all the issues that a researcher can face during data collection, interview process, confidentiality, and personal data protection. There are many other ethical issues such as data reporting, presenting a result, and providing a guarantee that the collected information is accurate (Maurya et al., 2024). In

this research, all the participants were informed that their participation in this research is voluntary, and their information will not be provided to anyone.

Privacy, confidentiality, and storing data in the right places is especially important in the research (Wang et al., 2024). Sometimes codes are assigned to names to protect participants' data. In this research, pseudonyms were used as codes to secure the names of participants. The code assigned P1 to P8. Our university also encourages us to store data for up to five years to ensure the data secrecy of participants. All the data gathered from interviews along with their consent from other participants' details is kept in a password-protected drive and after five years it will be destroyed. The published research will also exclude participants' names and other personal information. No monetary rewards or compensation will be provided to participants for their participation and the names of companies are kept confidential to secure employee and company data. However, upon completion of the research, the participant will get a public copy of the study.

3.7 Summary

This chapter identified the steps following which the research was conducted. The research was cross-sectional and qualitative. To conduct this research an interview questionnaire guide was developed to get responses on the challenges faced by leadership in the finance industry of Pakistan during digitalization. There were 8 respondents in this research which was selected through data saturation. Face-to-face interviews were conducted, and the responses were noted and recorded as well. The data gathered from interviews was then analyzed in NVIVO along with interviews. Other data collection techniques were also followed like focus group discussions and document analysis

(already conducted studies, papers, reports, journals, etc.). The next section will identify the results of this research.

CHAPTER IV: RESULTS

4.1 Introduction

The purpose of this qualitative study was to identify the challenges that leadership face while digitalizing the financial sector of Pakistan along with viable recommendations to reduce these challenges. Four research questions were used to guide this study and collect data from primary and secondary sources as well as for data analysis and reporting results. They are:

RQ1: How rules and regulations impact the efforts bringing digitalization in the financial sector of Pakistan?

RQ2: What are the key challenges and opportunities that affect digital transformation in the financial industry in Pakistan?

RQ3: How leaders in the financial industry in Pakistan plan, align and implement innovative leadership interventions within the financial institution's strategic framework and practice?

RQ4: How innovative leadership interventions in the financial industry in Pakistan contribute to efficiency, accessibility, and competitiveness?

This chapter presents study results and an evaluation of findings that were conducted through interviews based on an interview guide. The mode of study was qualitative in nature and interviews from various stakeholders from the financial sector

institutions of Pakistan were taken. The analysis was conducted in NVIVO software which is a specialized tool to analyses the qualitative research. The interpretations of results extracted from coding and thematic analysis identified the challenges which leaders face while digitalizing the financial sector of Pakistan and improvements and recommendations that can be done to remove those challenges.

4.2 Results

Findings: Profiles of the study participants

Two CEOs, three Managers, and three mid-career level employees of revenue companies in banks in Pakistan. Interviews were done with 8 face-to-face interviews with the finance managers, CEOs, CFOs, financial controllers, fintech experts and mid senior level employees working on financial operations in Pakistan were conducted over a period of five weeks. Table 4.1. shows the main criteria for the study participants mentioning the similar parameters associated with their job similarities, demographics and designations.

Table 4.1 Categories of Criteria for the study participants

Job Similarity	Demographic Similarity	Job Positions
<ul style="list-style-type: none"> • They participate in the development of the digitalization of the financial institution • To establish goals and objectives for leadership to bring digital transformation into the financial sector • At least three years' working experience as an executive manager in the financial industry 	<ul style="list-style-type: none"> • Males/Females • Ages 35 to 50 • Similar education level (master's in accounting and finance, MBA in accounting and finance) 	<ul style="list-style-type: none"> • CEO • CFO • Financial Controller • Manager Fintech • Finance executives / associates

-
- Held their current position for at least three years
 - Working in the same company for the last five years.
-

Table 4.1 shows the demographic similarity dimension highlights shared personal and educational traits among candidates. Both males and females aged 35 to 50 are considered, ensuring diversity within a specific professional age range. Educational requirements include a master's degree or an MBA in accounting and finance, ensuring that all candidates have comparable academic qualifications. The target positions include leadership roles such as CEO, CFO, Financial Controller, Manager Fintech, and Finance Executives, each contributing to digital transformation and operational finance in unique ways within the sector.

Table 4.2. shows the interview schedule against which the interviews of participants were taken.

Table 4.2 The Personal Interview Schedule

Participant ID	Interview Date	Interview Duration (minutes)	Complete Participant Profile	Signed Informed Consent	Interview Performed
601	07/25/24	45	YES	YES	Face-to-face
632	07/26/24	50	YES	YES	Face-to-face
803	08/01/24	30	YES	YES	Face-to-face
824	08/07/24	35	YES	YES	Face-to-face
835	08/13/24	50	YES	YES	Face-to-face
855	08/17/24	45	YES	YES	Face-to-face
899	08/25/24	25	YES	YES	Face-to-face

903	08/28/24	55	YES	YES	Face-to-face
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The first column is the ID assigned to each participant for their identification because the names were decided to keep confidential. The second column shows the interview date on which the interviews were taken. The third column shows confirmation whether the complete profile of each participant is available or not. In the interview duration it is shown that an average of 40 minutes was spent on interviews with each participant. The table also confirms that the signed consent of each participant is also available and face-to-face interviews were performed.

Demographic findings: The demographic findings for eight respondents reflected four key elements: gender, educational level, age, and years in the present positions.

Table 4.3 Demographic Statistics

Participant				Years in the present
ID	Gender	Education level	Age	position
601	Female	Graduate	35	7
632	Female	Undergraduate	31	5
803	Male	Graduate	35	8
824	Male	Graduate	40	10
835	Male	Graduate	37	8
855	Male	Masters	39	9
899	Male	Undergraduate	32	6
903	Female	Graduate	35	7

Table 4.3 shows the demographic statistics of the respondents. The first column of the table depicts the IDs assigned to respondents. The second column is showing that out of eight respondents three females and five males. Out of three females two were holding a graduate degree and one was undergraduate. Out of five males one got a master's degree, three were holding a graduate degree and one was undergraduate. The analytical process for the qualitative data contained the following activities: coding materials, identifying and refining patterns or themes, and reporting the findings

Coding materials. The purpose of the qualitative coding activities was to reduce collected data (Yin, 2009). The coding activities, as well as data analysis theme creation, were done using NVIVO software. Each sub-question (SQ) was represented by one code and was used to categorize each of the themes.

RQ1: How rules and regulations impact the efforts bringing digitalization in the financial sector of Pakistan?

SQ 1. How corporate leaders in the financial sectors in Pakistan navigate modern technologies and leadership styles under the new rules and regulations?

Code: Leadership Adaption

What? To align with digital technologies leadership use innovation and latest technologies for making alignment with regulatory frameworks

How? Bringing agility, continuous improvement, utilization of digital technologies.

Why? Ensuring organizational agility, regulatory compliance, competitive advantage in this evolving landscape.

SQ 2. What are the main regulatory challenges you have encountered in adopting digital solutions?

Code: Emerging technologies

What? Emerging technologies

How? By removing the overall legacy systems, adopting new security protocols, investing in secure infrastructures.

Why? To ensure consumer protection, implement digital solutions, and align national regulations with emerging technologies.

SQ 3. What kind of regulations and policies help foster digital innovation in the financial sector in Pakistan?

Code: Innovation-Driven Regulations

What? Innovation-Driven Regulations.

How? By encouraging open banking, collaborations with fintech, smooth licensing for DFS.

Why? To increase financial inclusion, promote competition, and increase the adoption of digital technologies.

RQ2: What are the key challenges and opportunities that affect digital transformation in the financial industry in Pakistan?

SQ 4. What do you perceive as the biggest technological or infrastructure challenges in implementing digital solutions in Pakistan's financial sector?

Code : Digital Public Infrastructure

What ? Digital Public Infrastructure

Outdated systems, limited access to broadband, insufficient measures of cyber security.

How? Through modernization of core banking systems, expansion of digital infrastructure, and investments in advanced cyber security networks.

Why? To enable seamless, secure, and scalable digital financial services across the country.

SQ 5. How is digital technology influencing consumer behavior?

Code: Consumer connections

What? Consumer connections

How? By customizing user experiences, educating customers, and addressing security concerns for building confidence in digital solutions.

Why? To driving adoption rates, enhancing customer satisfaction, and ensuring long term success of digital transformation efforts.

SQ 6. What is the major opportunity for a digital transformation within the financial sector of Pakistan?

Code: Increased efficiency

What? Increased efficiency

How? Leverage digital payment systems, open banking, serving underserved populations through mobile platforms and streamlining of operations.

Why? To increase accessibility, improve operational efficiency, and driving economic growth through innovation.

RQ3: How do leaders in the financial industry in Pakistan plan, align, and implement innovative leadership interventions within the financial institution's strategic framework and practice?

SQ 7. How do you integrate digital transformation into your organizations' strategic goals?

Code: Business Strategy Transformation

What? Business Strategy Transformation

How? By aligning technology investments with business objectives, fostering a digital-first mindset, and setting measurable KPIs for transformation.

Why? To ensure long-term growth, enhance competitiveness, and meet evolving market demands in the digital era.

SQ 8. How does effective leadership promote digital innovation within an organization?

Code: Leadership Interventions

What? Implementation of digital labs, hackathons, or innovation hubs to foster creative problem-solving and experimentation.

How? By encouraging employee participation, providing mentorship from industry experts, and allocating resources for prototyping and scaling ideas.

Why? To create a culture of innovation, accelerate digital transformation, and empower teams to develop customer-focused solutions.

SQ 9. What strategy do you employ to manage resistance to change when implementing digital technologies?

Code: Change Management

What? Adopting transparent communication, stakeholder engagement, and continuous training programs.

How? By addressing employee concerns, demonstrating the benefits of digital technologies, and involving teams in the transformation process.

Why? To build trust, reduce resistance, and ensure successful adoption of digital initiatives across the organization.

RQ4: How innovative leadership interventions in the financial industry in Pakistan contribute to efficiency, accessibility, and competitiveness?

SQ 10. How does leadership drive innovation improve operational efficiency in your organization?

Code: Process Innovation

What? Process innovation

How? Through adoption of cutting-edge technologies, promoting a culture of continuous improvement, and encouraging problem solving collaboratively, and enhanced decision making.

Why? To reduce costs and errors and increase the speed and quality of service delivery.

SQ 11. How did leadership interventions enhance the accessibility of financial services, especially for the unserved population?

Code: Digital Financial Inclusion

What? Digital Financial Inclusion

How? By removing geographical barriers, simple processes for opening accounts, and promotion of financial literacy programs.

Why? To bridge the gap in the financial inclusion, empower the underserved populations, with affordable and accessible financial solutions.

SQ 12. What impact has leadership driven innovation had on your institutions' competitiveness within the financial sector?

Code: *Competitive Advantage*

What? Competitive Advantage

How? By adopting advanced technologies, fostering a culture of agility, and prioritizing customer-centric solutions.

Why? To attract and retain customers, expand market share, and stay ahead in a rapidly evolving financial landscape.

The tests applied to interpret data were word cloud analysis, query matrix, text search query, and sentiments analysis.

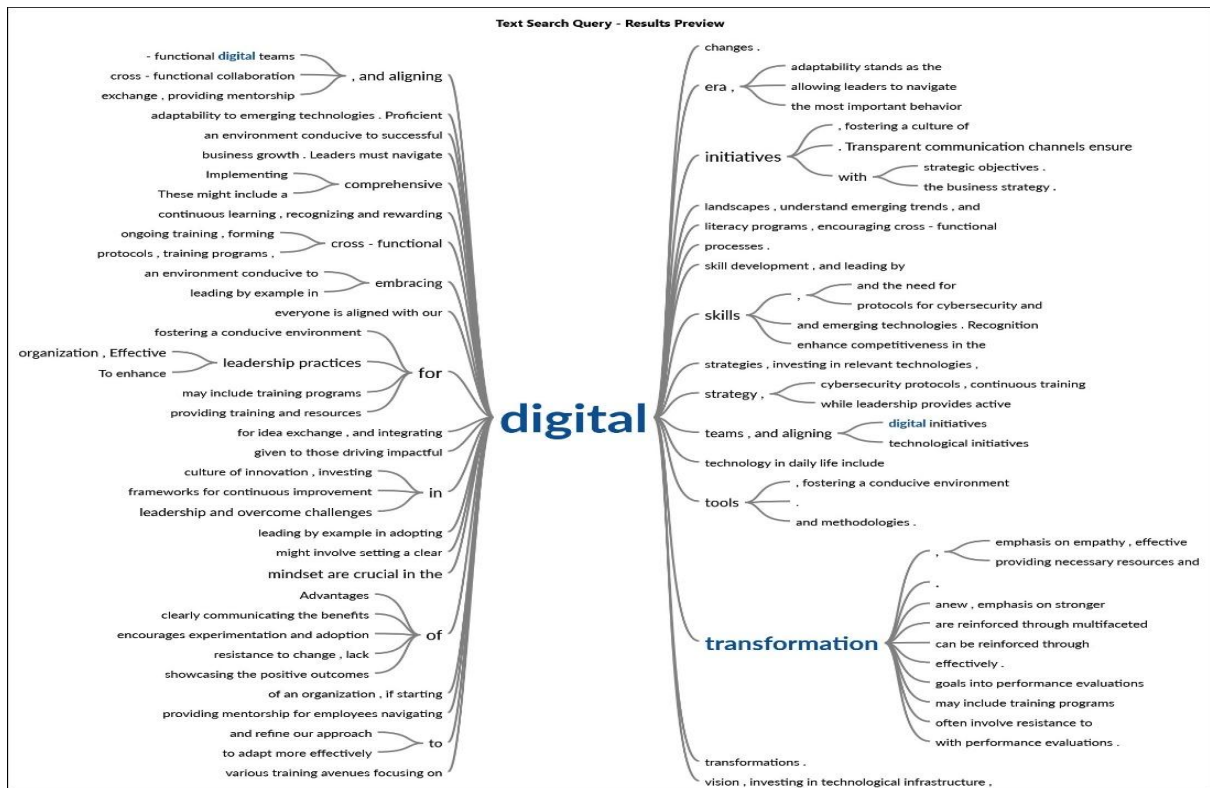


Figure 4.1 Digitalization Challenges – Leaders’ Responses

Figure 4.1 reflects the responses given by leaders. Many leaders consider that the biggest challenge in digitalization is the digital era which includes adaptability of technology, allowing leaders to navigate modern technologies, and leadership behavior. Leadership usually does not take initiatives that forecast the environment and culture of the company, or streamline communication channels, which ensure strategic objectives and business strategy. Leaders in the financial sector must be tech-savvy to understand the cross-functional processes during digitalization. They must have skills to enhance technology, ~~they~~ they should have knowledge of security protocols, must know which technology is fruitful for the implementation of which strategy. In addition, leaders must have strong leadership skills that help them to implement digital practices. Finally,

leaders must have an awareness of those tools that can help maintain a conducive environment.

The summarize Figure 4.1., it indicates that leaders should put strong emphasis on digital transformation and capacity building in HR. Those employees who resist technological changes must be involved in the digitalization process as a priority. Proper performance evaluation must be carried out, and investments must be made in the technological infrastructure. Leaders should have a strong focus on their vision and mission.

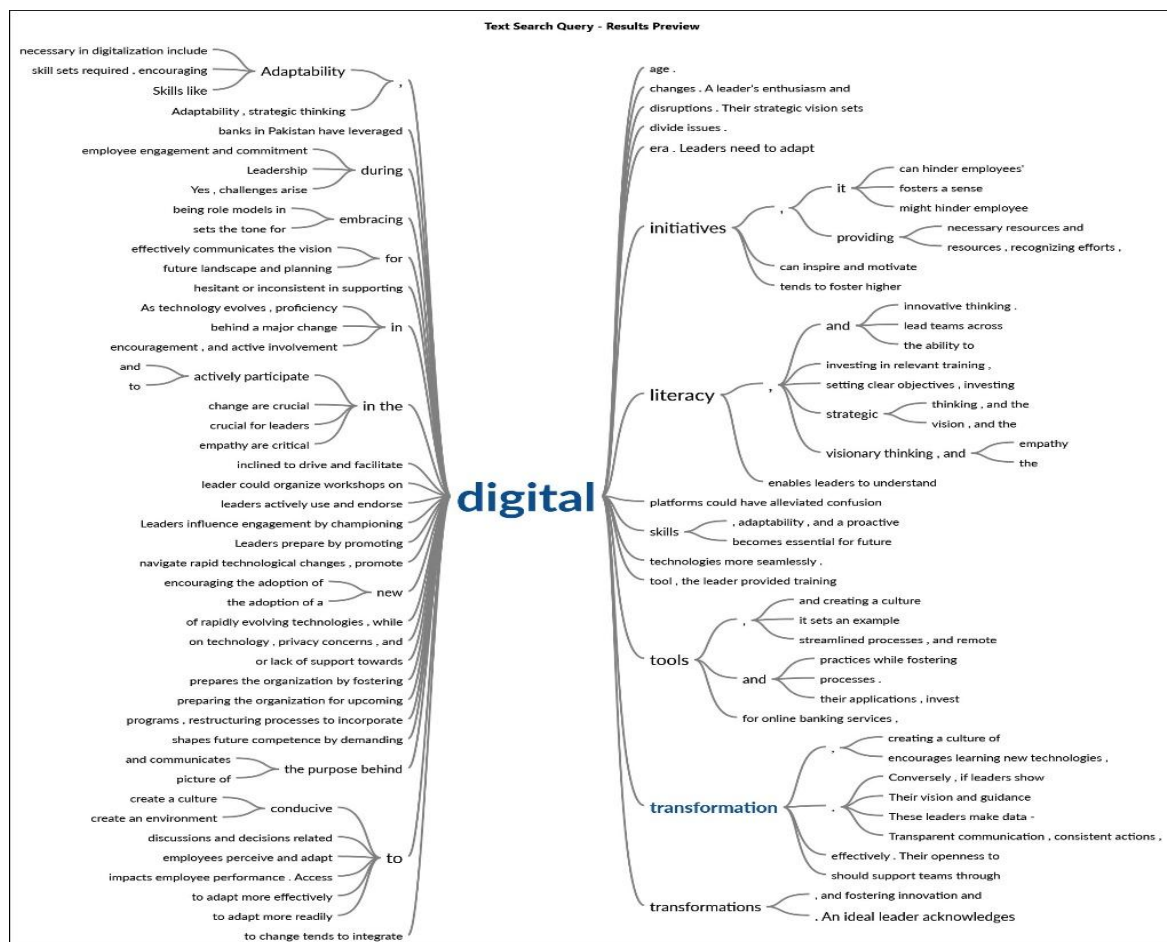


Figure 4.2 Digitalization Challenges – Employees’ Responses

Figure 4.2. shows the responses of employees, according to employee leaders should be enthusiastic about digital transformation. The adaptability of technology at the leadership end must be fast. The issues must be divided into small issues.

The problems that come in the way of employees during digitalization must be solved by leaders. Relevant resources must be hired or assigned for the implementation of digitalization. Leaders should recognize the efforts of their employees and motivate them. Employees want leaders to work on their training regarding digitalization. Leaders should have innovative thinking which should be circulated among the employees. The teams created for digital transformation must be strong enough to implement digital practices. Leadership should form clear objectives for digitalization. Leaders must have an initiative-taking approach that can deal with challenges. Leaders also have training on the tools used for digitalization. A tech-savvy culture should be inculcated throughout the company. Leaders should guide their employees and communicate transparently.

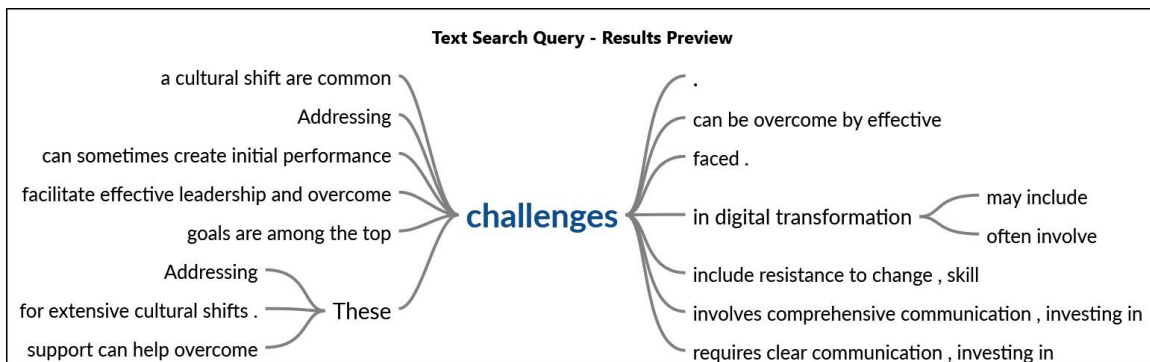


Figure 4.3 Cultural and organizational challenges

The biggest challenge that arises in an organization during digitalization is the cultural shift (Figure 4.3). It is the responsibility of leaders to overcome these challenges.

The biggest challenge is resistance to change which makes people believe that if digital transformation occurs people will lose their jobs.

Due to challenges identified in Figure 4.3., people become less tech-savvy, and hence digital divide occurs, and employees stop working in organizations. To resolve this issue amazingly effective communication occurs which can support this culture and overcome the challenges.

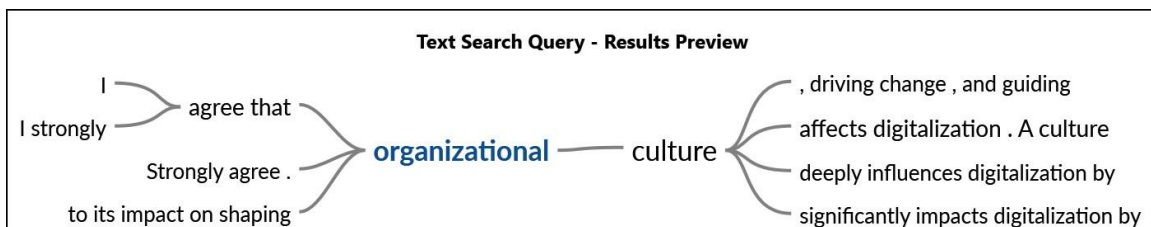


Figure 4.4 Organizational Culture

Figure 4.4 shows that in an organization, digitalization affects leadership. Leadership should overcome these digital challenges. Leadership needs to have three qualities for the implementation of digitalization adaptability, agility, and forward thinking. Leadership must guide every individual team member. Leaders must become the inspiration of a team to accept digital transformation and enhance digitalization. Leaders should make data-driven decisions and for this purpose employees must have capabilities to play with data. A continuous learning environment must be created which will establish data and digitalization.



Figure 4.5 Human Resource challenges

Privacy is the protocol of data that implements cyber security. It relies on technology, there are frameworks for data privacy that begin continuous improvement in digitization. The biggest concern in privacy is the issue of the digital divide, functional disconnect, disruption in technology, and job displacement. Overreliance is the biggest disadvantage. For data protection leaders need to become tech-savvy, proper implementation of tools.

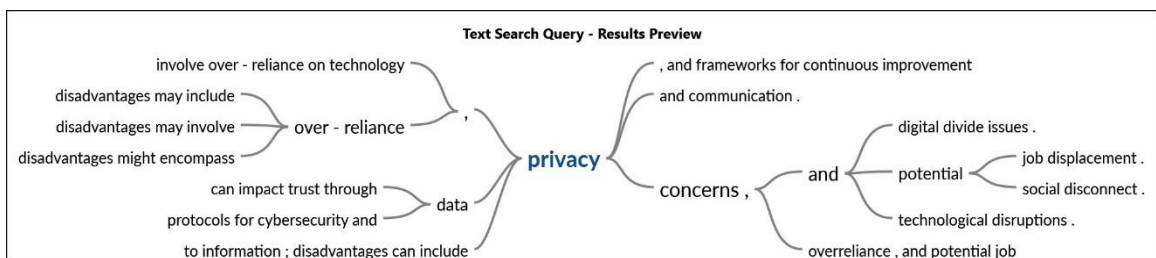


Figure 4.6 Privacy and Cyber Security Challenges

The respondents said that investments are driven by data analytics and decisions are made to serve customers. If financial organizations is not investing in digitalization

then data-driven decisions are not made properly and it will impact customer privacy and eventually organization will suffer.

Text Search Query - Results Preview

AI - driven analytics might streamline — investment — decisions and customer service .

Figure 4.7 Cost and investment Challenges

The utmost solution to bring digitalization to the financial sector of Pakistan is to support the team and overcome obstacles such as the digital divide. It can be solved by doing capacity building of human resources such as training on relevant tools e.g., ERP and CRM solutions. Encourage and admire the team for their efforts. Resolve the issues that occur at the individual level and make clear communication among the team. The implementation of digitalization must be observed by proper evaluation of the team and effective use of technology and tools must be ensured.

Text Search Query - Results Preview

and supports the team in — overcoming — obstacles .

Figure 4.8 Solution – Overcoming

Text Search Query - Results Preview

clear communication and support can — help — overcome these challenges .

Figure 4.9 Solution - Help

Whenever digitalization is done in the organization, the first challenge is resistance to adopting change. People are very less agreed on digitalization and the culture of an organization is too much affected due to the technical issues and difficulties due to digitalization implementation which made them resistant to change. To overcome this resistance. It is especially important to have team support which is given through

training and create support for the team to do digitalization. Another issue with digitalization is cyber security. Employees are used to working on legacy systems running in silos whenever integration and security protocols are applied to employees get unconfirmable with it. These issues can be overcome by increasing the skill set of employees. Leadership must make a strong change management strategy which addresses all these issues in the organization.

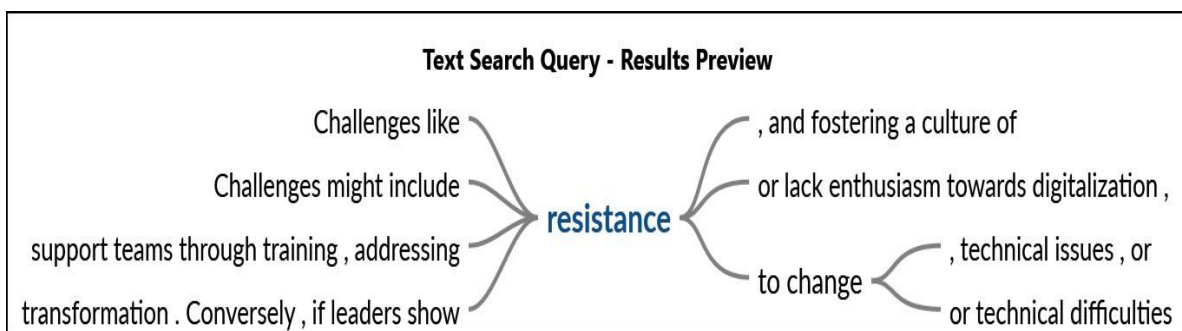


Figure 4.10 Recommendations

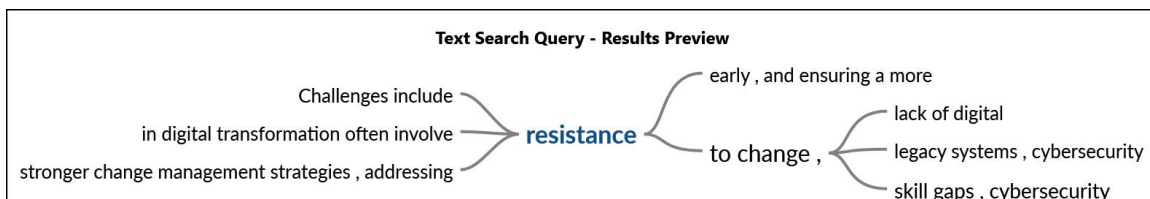


Figure 4.11 Recommendations

Identifying and refining themes. Once all the text has been coded and data classified into the 12 code families, the data was analyzed for any patterns or themes that emerged (Yin, 2009). As a result, themes were abstracted from the coded text segments. When a theme emerged from reading the data in each cluster, the quotations within each code family were coded under theme names. Consequently, there were 12 abstracted themes. These themes were used to develop a case description that answered the research

questions. Table 4.4. shows the process from codes to themes for the RQ1: How rules and regulations impact the efforts bringing digitalization in the financial sector of Pakistan?

Table 4.4. From Codes to Themes for RQ1

Codes	Issues Discussed	Themes Identified
SQ1. Leadership Adaption	Digital transformation	1. Strategic leadership supports digitalization
SQ2. Emerging Technologies	Challenges occur while digitalizing the financial industry	2. Adopting Digital Solutions
SQ3. Innovation-Driven Regulations	Increase financial inclusion, promote competition, and increase the adoption of digital technologies	3. Digitalization in the financial sector

Table 4.5. From Codes to Themes for RQ2

Codes	Issues Discussed	Themes Identified
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SQ 4. Digital Public Infrastructure	Outdated systems, limited access to broadband, insufficient measures of cyber security.	4. Technological and Infrastructural Challenges
SQ5. Consumer Connections	Trust of consumers, digital literacy, and preferences of users for the adoption of digital initiatives.	5. Initiatives in your organization
SQ6. Increased Efficiency	financial inclusion, fintech partnerships, and adopting emerging technologies like blockchain and AI	6. Digital Transformation in the financial sector of Pakistan

Table 4.6. From Codes to Themes for RQ3

Codes	Issues Discussed	Themes Identified
SQ7. Business Strategy Transformation	Strategic goals to drive innovation, efficiency, and customer-centric services.	7. Digital Initiatives within your organization
SQ8. Leadership Interventions	Implementation of digital labs, hackathons, or innovation hubs to	8. Organization's Overall Strategic Goals

SQ9. Change Management	foster creative problem-solving and experimentation	9. Implementing Digital Technologies
	Adopting transparent communication, stakeholder engagement, and continuous training programs	

Table 4.7. From Codes to Themes for RQ4

Codes	Issues Discussed	Themes Identified
SQ10. Process Innovation	Leadership promoting innovation streamlines workflows, automated processes, and enhanced decision making	10. Leadership driven Operational Efficiency
SQ11. Digital Financial Inclusion	Removing geographical barriers, simple processes for opening accounts, and promotion of	11. Accessibility of financial services in underserved populations

	financial literacy programs	
SQ12. Competitive Advantage	Adopting advanced technologies, fostering a culture of agility, and prioritizing customer-centric solutions	12. Impact of leadership innovation in the financial sector

Table 4.8. Themes and Sub-Themes in Evaluation of Findings

Major Themes in Evaluation of Findings
<p>Theme 1: Social, Economic, and Governance Data are Centralized</p> <ul style="list-style-type: none"> • Strategic leadership supports digitalization • Adopting Digital Solutions • Digitalization in the financial sector <p>Theme 2: High cost of banking digital infrastructure vs. digital financial services</p> <ul style="list-style-type: none"> • Technological and Infrastructural Challenges • Initiatives in your organization • Digital Transformation in the financial sector of Pakistan <p>Theme 3: Leadership interventions in financial institutions</p> <ul style="list-style-type: none"> • Digital Initiatives within your organization • Organization's Overall Strategic Goals • Implementing Digital Technologies <p>Theme 4. Process, product, and digital financial innovations</p> <ul style="list-style-type: none"> • Leadership driven Operational Efficiency • Accessibility of financial services in underserved populations

-
- Impact of leadership innovation in the financial sector
-

Findings for RQ1. How rules and regulations impact the efforts bringing digitalization in the financial sector of Pakistan? Research question 1 (RQ1) sought to identify the pattern how rules and regulations impact digitalization in the financial sector in Pakistan. It contains three sub-questions that all respondents answered. Answering the RQ1, using three sub-questions, provided empirical evidence on how rules and regulations impact digitalization in the financial sector of Pakistan?

Findings for sub-question 1 (SQ1). How corporate leaders in the financial sectors in Pakistan navigate modern technologies and leadership styles under the new rules and regulations? The combined data for sub-question 1 yielded one theme: Strategic leadership supports digitalization. Responses pertaining to navigation of modern technologies and leadership style under the new rules and regulations are shown in Table 4.9.

Table 4.9. Findings for sub-question 1 (SQ1)

Theme	Supporting Evidence /Quote	Meaning / Explanation
1. Strategic leadership supports digitalization	According to their testimonies, all eight study participants (100%) responded that strategic leadership supports digitalization. The participant 632 generated a couple of initiatives and said: “building sustainable business in the financial sector requires digital	These initiatives are centered around fostering a culture of innovation, investing in advanced technologies, and enhancing employee capabilities through continuous training and development.

transformation, supportiveness, regulations.”	system and
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Findings for sub-question 2 (SQ2). What are the main regulatory challenges you have encountered in adopting digital solutions? The combined data for sub-question 2 yielded one theme: Adopting Digital Solutions. Responses pertaining to the main regulatory challenges in adopting digital solutions are shown in Table 4.10.

Table 4.10 Findings for sub-question 2 (SQ2)

Theme	Supporting Evidence /Quote	Meaning / Explanation
2. Adopting Digital Solutions	According to their testimonies, five out of eight study participants (62.5%) responded that the main regulatory challenge while adopting digital solutions is the lack of supportiveness toward the adoption of digital transformation initiatives. Participant with ID 632 argued that building sustainable digital infrastructure in the financial sector requires regulatory frameworks that are flexible, adaptable, and aligned with technological advancements. In response to the probing question of	Initiatives such as regulatory sandboxes to test new technologies, as well as periodic reviews of policies, must be taken to ensure relevance in a rapidly changing digital landscape. These efforts are essential for overcoming regulatory challenges and promoting a more innovation-friendly financial ecosystem in Pakistan.

what specific regulatory challenges were encountered, the other study participants highlighted several barriers including insufficient support from regulatory authorities, slow approval processes, and the lack of clear guidelines for implementing innovative technologies. Participants emphasized that the absence of a conducive regulatory environment delays the adoption of digital solutions and hampers scalability. The participant 824 said that “it is very important to support collaboration between regulatory bodies and financial institutions.

Findings for sub-question 3 (SQ3) - What kind of regulations and policies help foster digital innovation in the financial sector in Pakistan? The combined data for sub-question 3 yielded one theme: Regulations and policies promote digital innovation. The number of responses pertaining to regulations and policies fostering digital innovation is shown in Table 4.11.

Table 4.11. Findings for sub-question 3 (SQ3)

Theme	Supporting Evidence /Quote	Meaning / Explanation
3. Regulations and policies promote digital innovation	According to their testimonies, seven out of eight study participants (87.5%) responded that there are specific regulations and policies related to fostering digital innovation in the financial sector of Pakistan. Participants highlighted that	There are certain regulations and policies related to innovation in financial sector of Pakistan which are under development. The government of Pakistan is implementing certain fintech related regulations and forcing state bank of

<p>these regulations are still under development but show promise in encouraging innovation and growth. The participant 601 mentioned that “the government of Pakistan is implementing fintech-related regulations and encouraging the State Bank of Pakistan to push financial institutions toward initiatives that promote digital transformation. Participants emphasized that these efforts are focused on creating a more conducive environment for fintech startups, promoting financial literacy, and improving technological infrastructure”.</p>	<p>Pakistan to push financial institutions to take such initiatives which can bring digital transformation in the financial institutes. The role of government-backed programs and incentives is very important in fostering digital adoption. These initiatives are essential for positioning Pakistan's financial sector as a competitive player in the global digital economy.</p>
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In the regulatory framework of Pakistan for digital transformation in the financial sector is continuously enhancing technology based on market needs. It emphasizes innovation and takes care of security and consumer protection. The key point is to make such digital policies which are helpful in growing the economy.

In this regard Ministry of IT Pakistan is framing its IT policy and including the technological impacts, changes and necessities in the financial sector. On the other end the Ministry of finance is also drafting several policies for financial institutions to transform their leadership digitally and bring innovations into the financial sector.

Findings of Research Question Two - *What are the key challenges and opportunities that affect digital transformation in the financial industry in Pakistan?*

Research question 2 (RQ2) sought to identify the key challenges and opportunities that

affect digital transformation in the financial sector in Pakistan. It contains three sub-questions that all respondents answered. The presentation of the findings for RQ2 contains: the word cloud. Figure 4.12. shows the word cloud for RQ2.



Figure 4.12 Word cloud for RQ1.

The word cloud highlights the key challenges related to digitization of leadership in the financial sector of Pakistan. These challenges are provided by the respondents during the interview process. The biggest challenge that arises in an organization during digitalization is the cultural shift. It is the responsibility of leaders to overcome these challenges. The biggest challenge is resistance to change which makes people believe that if digital transformation occurs people will lose their jobs. Due to these challenges, people become less tech-savvy, and hence digital divide occurs, and employees stop working in organizations. The main themes and their implications are highlighted in this word cloud mainly are related to the digital financial services. The focus of financial services is to integrate with digital technologies. A wide range of initiatives are taken by State Bank of Pakistan to regulate the online banking usage. Blockchain and other bug

data technologies are also used in this regard. The key challenges are security followed by customer trust, infrastructure, and regulatory framework.

It is very challenging to implement such technologies which can secure financial transactions online therefore proper security measures should be implemented which protect consumer trust. Consumer is interlinked with other challenges, the digital services must be designed in a way that people can use these services easily, they can feel secure and transparent environment while using these services. The underdeveloped countries like Pakistan must ensure good quality and secure internet because it is a prerequisite of a digital infrastructure. The State Bank of Pakistan must frame such policies which create innovation and consumer protection can be ensured. The benefits of digital transformation ensure enhanced customer experience and innovation. To resolve this issue amazingly effective communication occurs which can support this culture and overcome the challenges.

Findings for sub-question 4 (SQ4). What do you perceive as the biggest technological or infrastructure challenges in implementing digital solutions in Pakistan’s financial sector? The combined data for sub-question 1 yielded one theme: Technological and infrastructural challenges hinder digital adoption. The number of responses pertaining to technological or infrastructural challenges is shown in Table 4.12.

Table 4.12. Findings for sub-question 4 (SQ4)

Theme	Supporting Evidence /Quote	Meaning / Explanation
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4. Technological and infrastructural challenges hinder digital adoption.	According to their testimonies, six out of eight study participants (75%) responded that certain technological and infrastructural challenges significantly impede the implementation of digital solutions in Pakistan's financial sector. They attributed these challenges to the lack of proactive leadership in addressing regulatory gaps and adopting modern technologies. Participant 855 emphasized that "outdated systems and inadequate infrastructure remain key barriers to achieving seamless digital transformation. Financial institutions must struggle to integrate new technologies due to limited resources.	Financial institutions should prioritize upgrading their technological infrastructure by investing in modern software, cloud computing, and cybersecurity frameworks. They highlighted the need for government support in developing robust infrastructure, including expanding internet coverage to underserved areas and creating regulatory frameworks that incentivize technology adoption.
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Findings for sub-question 5 (SQ5) - *How do consumer behavior or perception influence the success of digital initiatives in your organization?* The combined data for sub-question 2 yielded one theme: Consumer perception drives adoption of digital initiatives. The number of responses pertaining to consumer behavior and perception influencing digital initiatives is shown in Table 4.13.

Table 4.13 Findings for sub-question 5 (SQ5)

Theme	Supporting Evidence /Quote	Meaning / Explanation
5. Consumer perception drives adoption of digital initiatives	According to their testimonies, six out of eight study participants responded that consumer behavior and perception	There is a need for targeted awareness campaigns and financial literacy programs to build consumer confidence. The consumers

	<p>play a pivotal role in determining the success of digital initiatives in financial institutions. Participants emphasized that consumers' trust, awareness, and willingness to embrace digital platforms significantly influence the adoption rate of digital solutions. Participant 835 argued that "fintech startups, coupled with the implementation of proper regulations and initiatives, are the most influential parameters in shaping customer perceptions toward digitalization". He noted that consumers often associate digital platforms with convenience, efficiency, and accessibility;</p>	<p>must be educated about the benefits and security measures of digital platforms that can reduce resistance and foster trust. Early adopters and success stories within the market can positively influence broader consumer attitudes, creating a ripple effect for adoption. Additionally, they emphasized the importance of providing seamless user experiences and responsive customer support to address consumer concerns promptly and build long-term loyalty.</p>
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Findings for sub-question 6 (SQ6) - What do you see as the major opportunities for a digital transformation within the financial sector of Pakistan? The combined data for sub-question 6 yielded one theme: Leadership and fintech adoption drive digital transformation opportunities. The number of responses pertaining to major opportunities for digital transformation is shown in Table 4.14.

Table 4.14. Findings for sub-question 6 (SQ6)

Theme	Supporting Evidence /Quote	Meaning / Explanation
6. Leadership and fintech adoption drive digital transformation opportunities	According to their testimonies, five out of eight study participants (62,5%) identified strong support from top	Adopting the latest financial technologies, such as digital wallets, online payment gateways, and automated financial services,

<p>management as the most significant opportunity for enabling digital transformation within Pakistan's financial sector. They emphasized that leadership commitment to digital innovation can create a conducive environment for the adoption of new technologies and accelerate the transformation process. Participant 804 elaborated that "digital transformation efforts require leaders to champion the integration of advanced technologies and fintech solutions to modernize financial operations", as well as the potential for fintech startups to introduce cutting-edge solutions, such as mobile banking, blockchain technologies, and AI-driven financial tools,</p>	<p>represents a major opportunity for improving customer experience and expanding market reach. These technologies can address the needs of underserved populations by providing affordable and accessible financial solutions. The biggest opportunity for bringing digital transformation into the financial sector is to have support from the top management (leadership). Leveraging leadership support, embracing fintech innovations, and fostering regulatory alignment offer substantial opportunities for driving digital transformation in Pakistan's financial sector.</p>
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Findings of Research Question Three - How leaders in the financial industry in Pakistan plan, align and implement innovative leadership interventions within the financial institution's strategic framework and practice? Research question 3 (RQ3) sought to identify the pattern how leaders plan aligns, and implement, innovative interventions in the financial sector in Pakistan. It contains three sub-questions that all respondents answered. The presentation of the findings for RQ3 contains the word cloud. Figure 4.13. shows the word count for RQ3.



Figure 4.13. Word cloud for RQ3.

In an organization, digitalization affects leadership. Leadership should overcome digital challenges. Leadership needs to have three qualities for the implementation of digitalization which are adaptability, agility, and forward thinking. Leadership must guide every individual team member. Leaders must become the inspiration of a team to accept digital transformation and enhance digitalization. Leaders should make data-driven decisions and for this purpose employees must have capabilities to play with data. A continuous learning environment must be created which will establish data and digitalization. Leaders should focus on the integration of digital financial services in Pakistan. Leaders should take such initiatives for working through online banking and mobile payment. The successful implementation of digital transformation requires challenges to be overcome which are related to infrastructure, cyber security and technology. The leaders of financial sector of Pakistan needs to invest in the capacity building of employees to ensure that employees have skill and knowledge to effectively manage the data technologies. The main emphasis of digital leadership should be on employees and training while highlighting the importance of human capital for the

successful implementation of digital services. Leadership plays a key role in guiding and supporting digital transformation initiatives. By addressing these areas Pakistan can position itself as a leader in digital financial innovation.

Findings for sub-question 7 (SQ7) - *How do you integrate digital transformation into your organization's strategic goals?* The combined data for sub-question 1 yielded one theme: Leadership support and technological innovation drive strategic integration of digital transformation. The number of responses pertaining to integrating digital transformation into strategic goals is shown in Table 4.15.

Table 4.15. Findings for sub-question 7 (SQ7)

Theme	Supporting Evidence /Quote	Meaning / Explanation
7. Leadership support and technological innovation drive strategic integration of digital transformation.	According to their testimonies, five out of eight study participants emphasized that effective integration of digital transformation into strategic goals requires strong leadership support and a focus on technological innovation. Participants argued that leadership must actively endorse digital transformation initiatives and align them with the organization's vision and long-term objectives to ensure seamless implementation. Respondents highlighted that setting clear goals for adopting emerging technologies, such as artificial intelligence, data analytics, and cloud computing, is crucial to	These initiatives are centered around fostering a culture of innovation, investing in advanced technologies, and enhancing employee capabilities through continuous training and development.

	maintaining a competitive edge in the financial sector. They further stressed the importance of embedding digital strategies into core organizational frameworks to drive sustainable growth and innovation. The participant 899 supportiveness, and regulations.”
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Findings for sub-question 8 (SQ 8) - Can you describe a leadership intervention or initiative that was introduced to promote digital innovation within the organization?

The combined data for sub-question 8 yielded one theme: Leadership transformation and digital initiatives promote innovation. The number of responses pertaining to leadership interventions for promoting digital innovation is shown in Table 4.16.

Table 4.16 Findings for sub-question 8 (SQ8)

Theme	Supporting Evidence /Quote	Meaning / Explanation
8. Leadership transformation and digital initiatives promote innovation	According to their testimonies, all eight study participants agreed that leadership interventions and initiatives aimed at promoting digital transformation have been pivotal in fostering innovation within their organizations. Respondents	Several initiatives introduced by leadership to promote digital innovation, including the adoption of agile methodologies, establishment of digital innovation hubs, and investment in research and development programs focused on emerging

	emphasized that leadership must not only champion digital transformation but also set a clear vision and direction for its implementation to drive organizational growth and competitiveness. Six out of eight participants highlighted that leadership transformation—where leaders themselves undergo digital upskilling and training—serves as a critical enabler for digital innovation. They stressed that leaders who model adaptability and technological literacy are better equipped to inspire their teams and manage change effectively.	technologies. These initiatives often prioritize integrating fintech solutions, enhancing cybersecurity measures, and streamlining processes through automation and artificial intelligence.
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Findings for sub-question 9 (SQ 9) - What strategy do you employ to manage resistance to change when implementing digital technologies? The combined data for sub-question 3 yielded one theme: Proactive strategies for managing resistance facilitate digital transformation. The number of responses pertaining to strategies for managing resistance to change is shown in Table 4.17.

Table 4.17. Findings for sub-question 9 (SQ9)

Theme	Supporting Evidence /Quote	Meaning / Explanation
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9. Proactive strategies for managing resistance facilitate digital transformation	According to their testimonies, six out of eight study participants emphasized that implementing proactive strategies is essential to overcome resistance to change and enable the successful adoption of digital technologies in Pakistan's financial sector. Participants agreed that digital transformation serves as a key driver for breaking the status quo and enabling innovation. Participant 903 highlighted the importance of aligning the vision and goals of the organization with digital transformation initiatives to create a shared sense of purpose among employees. He said that "clear and transparent communication from leadership about the rationale, benefits, and long-term objectives of digital initiatives is fundamental to reducing skepticism and resistance".	Employee engagement during the planning and decision-making stages fosters a sense of ownership and empowerment, which can accelerate the adoption of new technologies. Comprehensive training programs are necessary to equip employees with the skills and confidence required to adapt to new processes and systems.
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Findings of Research Question Four - How innovative leadership interventions in the financial industry in Pakistan contribute to efficiency, accessibility, and competitiveness?

Research question 4 (RQ4) sought to identify the innovative interventions taken by leadership to bring efficiency, accessibility and competitiveness in the financial sector of Pakistan. It contains three sub-questions that all respondents answered. The

presentation of the findings for RQ4 contains the word cloud figure 4.14. shows the word count for RQ4.



Figure 4.14 Word cloud for RQ4.

The transformational leadership in the banking industry of Pakistan might enhance efficiency, accessibility and competitiveness. The fundamental components for leadership interventions include technological integration, regulatory modifications, customer focused strategies, collaboration, financial expertise and sustainability. Digital and mobile banking may reduce the transaction time in the past while regulatory improvements enhance competitiveness and streamline compliance processes.

Findings for sub-question 10 (SQ10) - In what ways have leadership-driven innovation improved operational efficiency in your organization? The combined data for sub-question 10 yielded one theme: Leadership-driven innovation enhances operational

efficiency through digital transformation. The number of responses pertaining to leadership-driven innovation improving operational efficiency is shown in Table 4.18.

Table 4.18. Findings for sub-question 10 (SQ10)

Theme	Supporting Evidence /Quote	Meaning / Explanation
10. Leadership-driven innovation enhances operational efficiency through digital transformation	According to their testimonies, six out of eight study participants (75%) agreed that leadership-driven innovation plays a vital role in improving operational efficiency by targeting underserved populations and implementing digital transformation strategies. Respondents emphasized that leadership initiatives focused on expanding digital access for underserved communities have resulted in streamlined processes, faster service delivery, and enhanced customer satisfaction. Two respondents 601 and 803 specifically emphasized the need for regulatory support, fintech startup initiatives, and promoting digital literacy to sustain and expand the innovative culture within financial organizations.	Leadership-driven innovation has fostered a culture of continuous improvement, where employees are encouraged to explore creative solutions to operational challenges. Investments in training and development programs were also cited as essential for equipping staff with the skills necessary to leverage advanced technologies effectively. Leadership's focus on strategic partnerships with technology providers and regulatory bodies has facilitated smoother implementation of innovative solutions. These partnerships have helped overcome technical and regulatory barriers, accelerating the pace of digital transformation.

Findings for sub-question 11 (SQ11) - How have leadership interventions enhanced the accessibility of financial services, especially for underserved populations?

The combined data for sub-question 11 yielded one theme: Leadership interventions

promote the accessibility of financial services through digital inclusion initiatives. The number of responses pertaining to leadership interventions enhancing accessibility is shown in Table 4.19.

Table 4.19 Findings for sub-question 11 (SQ11)

Theme	Supporting Evidence /Quote	Meaning / Explanation
11. Leadership interventions promote accessibility of financial services through digital inclusion initiatives	According to their testimonies, five out of eight study participants stated that leadership interventions have significantly improved accessibility to financial services by targeting underserved populations through digital inclusion initiatives. Participant 632 highlighted that “leadership has played a pivotal role in addressing financial exclusion by supporting the development and implementation of fintech solutions, mobile banking platforms, and digital payment systems. These technologies have enabled individuals in remote and underserved areas to access financial services without the need for physical bank branches”.	Partnerships between financial institutions, government bodies, and fintech startups, driven by leadership initiatives, have facilitated the development of customized solutions to meet the unique needs of underserved populations. For instance, simplified account-opening processes and low-cost mobile wallets were highlighted as impactful interventions. Leadership interventions have focused on designing and implementing policies to promote financial literacy and digital awareness programs. These programs aim to empower underserved populations by educating them about the use of digital financial tools and services, thereby building trust and confidence in adopting modern financial systems.

Findings for sub-question 12 (SQ12) - What impact has leadership-driven innovation had on your institution’s competitiveness within the financial sector? The combined data for sub-question 12 yielded one theme: Leadership-driven innovation

enhances competitiveness through digital transformation and adaptability. The number of responses pertaining to the impact of leadership-driven innovation on competitiveness is shown in Table 4.20.

Table 4.20 Findings for sub-question 12 (SQ12)

Theme	Supporting Evidence /Quote	Meaning / Explanation
12. Leadership-driven innovation enhances competitiveness through digital transformation and adaptability	According to their testimonies, seven out of eight study participants stated that leadership-driven innovation has had a significant impact on improving their institutions' competitiveness within the financial sector. Participants emphasized that leadership's focus on fostering innovation and integrating advanced technologies has allowed financial institutions to respond more effectively to market demands and customer needs. By adopting digital tools, such as fintech solutions, mobile banking platforms, and AI-driven analytics, institutions have enhanced operational efficiency, reduced costs, and improved customer experiences. Participant 903 noted that leadership initiatives promoting a culture of innovation have enabled institutions to remain competitive by adapting to evolving regulatory requirements and market trends. He highlighted that	Leadership has played a vital role in encouraging strategic collaborations with fintech startups, government agencies, and technology providers. These partnerships have supported the implementation of innovative solutions, allowing institutions to penetrate new markets and offer diversified financial products tailored to customer needs. Leadership-driven innovation has had a transformative impact on institutional competitiveness by promoting digital transformation, fostering adaptability, enhancing customer experiences, and supporting strategic partnerships. These efforts have positioned financial institutions in Pakistan to thrive in an increasingly competitive and technology-driven financial sector.

“leadership-driven investments in scalable and secure digital infrastructures have provided financial institutions with a competitive edge in attracting tech-savvy customers and retaining existing ones”.

4.3 Summary

The chapter has provided a detailed description and interpretation of results against the analysis of data performed in NVIVO. Overall, respondents showed very positive sentiments while responding to questions. All the respondents gave responses against all the interview questions. The results identified all the challenges and initiatives taken in the digitalization of the financial sector of Pakistan.

CHAPTER V:

DISCUSSION, IMPLICATIONS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter contains discussion of findings from eight participants, implications of the study results, recommendations, and conclusion. It looks at the main findings of

the study, focusing on the challenges and opportunities in the digital transformation of Pakistan's financial sector.

The research was guided by the Theory of transformational leadership, which helped frame how leadership behaviors and intentions influence organizational transformation. The study addressed four core research questions focused on the impact of regulations, the challenges and opportunities in digital transformation, strategic alignment of leadership with digital initiatives, and the overall contribution of innovative leadership to performance outcomes.

The study offers implications for leaders in the financial sector to address digitalization hurdles by aligning strategic goals with digital transformation, promoting regulatory reform, encouraging innovation, and prioritizing employee engagement and training. It also provides a roadmap for leadership development to support transformational change.

Additionally, recommendations for future research include exploring similar themes in other industries, geographic regions, or cultural contexts to deepen understanding of how leadership can drive digital transformation in varying environments

5.2 Discussion

Discussion of findings.

Discussion of findings for RQ1. How rules and regulations impact the efforts bringing digitalization in the financial sector of Pakistan? The RQ1 was focused on understanding the impact of rules and regulations on the efforts of digitalization of

financial sector of Pakistan. Answers from eight study participants and evaluation of the content analysis of their responses provided detailed insights on the regulatory challenges faced by leadership and innovation policies for shaping the digital transformation journey. The RQ1 was intended to derive empirical evidence on how the regulatory frameworks influence for enabling the digitalization in the financial sector of Pakistan. The combined evidence for RQ1 yielded one major theme - social, economic, and governance data are centralized, with three subthemes: (a) Strategic leadership supports digitalization, (b) Adopting Digital Solutions, and (c) Digitalization in the financial sector.

Major theme 1: Social, economic, and governance data are centralized. The focus of the first major theme is on aligning leadership, regulatory frameworks, and innovation policies towards a single goal of bringing digital transformation in the financial sector of Pakistan. This theme emerged because of three grounded themes corresponding to three sub-questions (i.e., SQ1 to SQ3). The findings indicated that strategic leadership plays a very important role for aligning the organizational goals with technological advancements, and adoption of digitalized solutions despite regulatory barriers and promoting a conducive environment for bringing up innovations through different emerging technologies. The emphasis of participants was on the commitment of leadership towards digital transformation, different regulatory challenges, for example legacy frameworks, and lacking agility to hinder the progress of processes. On the other hand, the innovation driven regulations have a growing recognition for promoting digital inclusion, enhancing competition, achieving competitiveness, and strengthening the

digital financial ecosystem. These insights together highlight the digital transformation in the financial sector of Pakistan which is a multidimensional effort where the data is centralized, adaption of leadership, and evolving different regulations are interconnected to support modernization and support.

Evaluation of findings for RQ2. What are the key challenges and opportunities that affect digital transformation in the financial industry in Pakistan? The RQ2 was focused on the major challenges which impact the financial industry of Pakistan. Answers from eight study participants and evaluation of the content analysis of their responses provided detailed insights on the technology based, infrastructure based, consumer based and based on the dynamics of leadership for shaping the digital transformation. The RQ2 was intended to derive empirical evidence on how the barriers and opportunities impact the progress of digital innovation in the financial sector of Pakistan. The combined evidence for RQ2 yielded one major theme - high banking cost for digital infrastructure vs. digital financial services, with three subthemes: (a) Technological and infrastructural challenges, (b) Initiatives in the organization, and (c) Digital transformation in the financial sector of Pakistan.

Major theme 2: high banking cost for digital infrastructure vs. digital financial services. The focus of this major theme to create a balance between overcoming the technological and infrastructural challenges and leverage the opportunities of digital innovation in the financial sector of Pakistan. This theme emerged because of three grounded themes corresponding to three sub-questions (i.e., SQ4 to SQ6). The findings indicated that the challenges based on technology and infrastructure included outdated

systems, restricted internet coverage, and weak frameworks of cybersecurity, significantly hindering the adoption of digital financial solutions. The participants believed that the modernization of core banking systems, enhancement of digital public infrastructure, and improvements in cyber security frameworks are very important for the enablement of seamless / transparent and secure digital solutions. Furthermore, it was found that consumer behavior and perceptions are very critical for achieving the success of digital initiatives. The participants further explained that trust, digital literacy and user-friendly experiences are very important for driving adoption. The lack of awareness and confidence of consumers-initiated challenges but also open doors for various targeted / digitalized interventions which include financial literacy programs, and awareness campaigns. As a result, commitment of leadership, and fintech adoption become major opportunities in which the support of top management can derive the successful integration of digital technologies at advanced levels which includes mobile banking, blockchain, and AI-based solutions for improving efficiency and expansion of financial access. These insights tell that although there are a lot of barriers if a combined leadership support, collaboration of fintech, and investments in strategic infrastructure can make ways for an inclusive and innovative digital financial system in Pakistan.

Evaluation of findings for RQ3. How leaders in the financial industry in Pakistan plan, align and implement innovative leadership interventions within the financial institution's strategic framework and practice? The RQ3 was focused on investigating that how leaders in the financial industry of Pakistan plan, align and implement such leadership interventions which are innovative within the strategic

framework of their organization and practice. Answers from eight study participants and evaluation of the content analysis of their responses provided detailed insights on the leadership strategies which are mandatory for integrating digital transformative strategies successfully. The RQ3 was intended to derive detailed insights on the role of leadership and their interventions which can implement sustainable digital innovation in the financial sector. The combined evidence for RQ3 yielded one major theme - leadership interventions in financial institutions, with three subthemes: (a) Digital initiatives within your organization, (b) Organization's overall strategic goals, and (c) Implementing digital technologies.

Major theme 3: Leadership interventions in financial institutions. The focus of this major theme is on the capacity of leadership for leading and actively shaping digital transformation with the help of strategic alignment, initiatives taken in the organization, and proactively managing change. This theme emerged because of three grounded themes corresponding to three sub-questions (i.e., SQ7 to SQ9). The findings indicated that leadership played a very important role in implementing digital transformation by aligning it with the strategic vision and goals of the organization. The participants believed that it is very important for leadership to support technological innovation which is important for driving strategic integration of digital transformation. Leaders should make alignments with technological investments of business objectives and promote a digital mindset; leaders must set measurable KPIs for ensuring that digital initiatives are a major contributor in long term growth and competitiveness. The participants further explained that incorporating emerging technologies such as artificial technologies, data

analytics, and cloud computing in the strategic framework of the organization are very important for achieving a competitive advantage.

Evaluation of findings for RQ4. How innovative leadership interventions in the financial industry in Pakistan contribute to efficiency, accessibility, and competitiveness? The RQ4 was focused on the identification of innovative leadership interventions in the financial industry of Pakistan and contribute to improving operational efficiency, accessibility, and competitiveness. Answers from eight study participants and evaluation of the content analysis of their responses provided detailed evidence on how the interventions of leadership shape the process product and digital financial innovations for promoting the financial inclusion in the financial sector of Pakistan. The RQ4 was intended to derive empirical evidence on the interventions of leadership to shape process, product and digital financial services for addressing the major challenges faced by the financial industry of Pakistan. The combined evidence for RQ4 yielded one major theme — Process, product, and digital financial innovations, with three sub-themes: (a) Leadership-driven Operational Efficiency, (b) Accessibility of financial services in underserved populations, and (c) Impact of leadership innovation in the financial sector.

Major theme 4: Leadership interventions in financial institutions. The focus of this major theme is on the leadership has promoted innovation in processes, products and digital financial services for improving efficiency, enhancing accessibility, and strengthening the competitive edge in the financial sector of Pakistan. This theme emerged because of three grounded themes corresponding to three sub-questions (i.e., SQ10 to SQ12).

6.3 Implications

Theoretical implications. This research contributed to the *Theory of Reasoned Action* by providing empirical evidence of how attitudes and rules influence leaders' behavior towards the adoption of digital technologies, as well as how rules and norms impact society on the digitalization of leadership. Another theoretical implication of this study is that it sheds light on the key factors of organizational culture role, influence by colleagues, and the expectations made by external factors on the leadership of the financial sector. Since society greatly contributes to leadership behavior, this study contributed to the *Theory of Reasoned Action* by showing how subjective norms influence adopting specific behavior.

Implications for research question 1. How rules and regulations impact the efforts bringing digitalization in the financial sector of Pakistan? Three key implications related to RQ1 were observed from evaluation of findings. They were related to navigation of modern technologies and leadership styles under the new rules and regulations, main regulatory challenges encountered in adopting digital solutions, and regulations and policies that help foster digital innovation in the financial sector in Pakistan. The findings of this study indicated that the rules and regulations impact digitalization in the financial sector of Pakistan (please explain how rules and regulations impact digitalization in the financial sector of Pakistan).

Implications for research question 2. What are the key challenges and opportunities that affect digital transformation in the financial industry in Pakistan? The

key implications from the research question 2 were identified from the findings. These implications were related to the challenges of technology and infrastructure in implementing digital transformation, consumer behavior influence and the important opportunities for digital transformation in the financial sector of Pakistan.

The findings indicated that digital transformation in the financial sector of Pakistan has impacted by different challenges and opportunities. The challenges included technological and infrastructural challenges such as legacy system, limited access to the latest technologies, and reduced regulatory support. Lack of awareness of leadership in this regard increases the impact of these challenges. Furthermore, consumer skepticism and low levels of literacy among different places increase the need for adoption of digital financial services.

There are many opportunities which were identified from the dataset such as support from the leadership, increase the number of fintech based startups, and a shift towards digital friendly regulations. According to respondents' leadership support, strategies to invest in latest technologies, and a consumer centric approach can open new avenues in the financial sector. With the help of young, tech savvy population and increasing digital penetration the financial sector of Pakistan can be benefitted digitally.

Implications for research question 3. How leaders in the financial industry in Pakistan plan, align and implement innovative leadership interventions within the financial institution's strategic framework and practice? Three key implications of research question three were identified which were relevant to innovation driven by leadership and its impact on the operational efficiency, the interventions from the

leadership increase the accessibility of underserved populations to financial services and how leadership has contributed to the competitiveness of an institution through innovation.

The findings indicated that leadership plays a very important role in successfully aligning, planning and implementing the innovative interventions in the financial sector of Pakistan. The respondents focused on the strategies driven by leadership which were central to digital transformation and modernization of an organization. The integration of innovation and strategic goals leaders can create a culture of change streamlining operations and enhancing service delivery.

Leadership was considered as the key driver for increasing the financial inclusion in the underserved populations. Interventions such as digital onboarding, initiatives of branchless banking, and mobile financial services were spearheaded by forward thinking leaders which aimed to increase the gap in accessibility. The innovative mindset of leadership contributed a lot to enhance the competitiveness of the institutions. When a vision supported by leadership was aligned with technological advancements and customer centric approaches it resulted in increased agility, fast adoption of technologies, and better positioning in the financial ecosystem.

Implications for research question 4. How innovative leadership interventions in the financial industry in Pakistan contribute to efficiency, accessibility, and competitiveness? Three key implications were observed in research question four which were related to leadership driven innovation for improving operational efficiency, leadership interventions for enhancing accessibility to the financial sector for the

underserved populations and impact of leadership innovation on the competitiveness of the organization in the financial sector.

The findings indicated that innovative interventions of leadership contribute to improve efficiency, accessibility, and competitiveness in the financial sector of Pakistan. Leadership plays a very important role in changing the traditional and conventional financial practices by latest digital tools, streamlining internal operations, and promoting the agile working culture. This has resulted in enhancing operational efficiency with faster delivery of service, improved decision making, and resilient infrastructure.

In terms of ease of access, the leaders who prioritize the inclusive strategies have enabled the digital financial services to serve the underserved populations. Different initiatives such as mobile banking, digital wallets, and collaborations with other fintech institutions were considered as major leadership led interventions which have reduced the digital divide and empowered the marginal groups. The competitive advantage within the financial sector has a huge influence of visionary leadership which increases innovation. Institutions which are led by progressive and technological savvy leaders are more likely to adopt digital financial services in a better way. Organizations having digital financial services can adopt marketing dynamics in a better way.

6.4 Recommendations

This research revealed interesting facts about how innovative leadership interventions are planned, aligned and implemented in the financial industry in Pakistan and how these interventions may contribute to efficiency, accessibility, and competitiveness. The following recommendations are proposed:

Recommendations for practical applications. The implications created by societal changes provide a better understanding of leadership practices implemented by leaders in the financial sector. There are also implications for the professional growth of leaders, by developing the organization on social grounds. This research is also giving financial profits and earnings knowledge to businesspeople so that they can expand their businesses accordingly. When business leaders expand their businesses, they increase jobs and thus employment opportunities increase in the markets. Another implication is that leaders should focus less on serving themselves and focus more on the stakeholders who are linked with their companies in any way. Leaders can use this study to effectively implement the characteristics of transformational leaders identified in the study for bringing digitalization and growth to the company. Leaders can also use this study to effectively implement this study according to the needs of society.

The business leaders will use the results of this study to teach the upcoming leaders those leadership practices that help bring digitalization to their companies. The financial sector of Pakistan has faced many challenges, ups and downs, and scandals that originated from corrupt leadership, smuggling, money laundering, and other issues that have destroyed the trust of customers. Leadership must create a reliable environment across the country to make a valuable and independent team of employees. This will help in regaining the trust of customers and promote financial institutions in society. The focus of researchers is on the role of ethical leadership which will increase the trust of customers and inculcate the corporate mode of work across the company. The results of

this study will bring positivity to the business leaders to use proper leadership practices in the business community and society.

For sustainability and growth in the financial sector CEOs and leaders should evaluate the leadership practices which have been identified from the themes of this study. The leaders of the financial sector should implement digitalization effectively by using effective leadership skills to increase the financial performance, growth, and sustainability of companies. The steps that are used for overcoming the challenges faced by leadership in financial companies need to give direction to employees to gain the trust of the workforce in the company. Leaders should motivate and attract employees towards digitalization, leaders should push other leaders to bring digitalization and improve performance in the company and need to develop competencies of leadership.

The leaders of financial institutions should establish a vision or mission of digitalization. The creation of a vision and mission starts and ends with the concepts people have in their brains. Business leaders need to make visions that reflect organizational needs, and these will aspire to the needs of digitalization. Visions die when there is an environment of status quo, dissatisfaction, and fearful perceptions. Employees must be given a chance to share the visions set by leaders. Visions can only become successful when employees get empowered. Leaders must make sure that the vision they have made has credibility, content, and context. Leaders should create a vision in collaboration with their employees. If employees maintain an understanding of their vision and the reason against which they are created only, then they can accomplish their tasks with digital tools. Leaders must be open to digitalization with an open mind

and include it in the process of vision, taking input from those who are working on the implementation of digitalization in the company. The vision should be very clear with a defined timeline. Leaders must create a link between vision, mission, goals, objectives, and strategies for implementing digitalization with conviction and attaining results accordingly. Employees must have faith in their leaders who are working to implement digitalization.

The leaders of companies should take proper steps to motivate employees towards digitalization to improve their performance. Leaders must ensure a clear alignment between employees, decisions, and digitalization to improve their career paths and the prospects of the organization. The leaders of the company must pursue digitalization with a focus which is for the best interests of their companies. Digitalization makes accountability for the personal and professional aspects of the organization. The leaders of the companies must act as role models for their employees and sources of circulating energy, and passion to work and accelerate the organization. CEOs must make very strong technical teams that will be so much more capable technically and have a strong understanding of leadership to implement digitalization. Leaders must use open-door policies, and they must be within reach of all employees; they encourage employee participation in the decision-making process. Leaders may implement a work-life balance among employees, and implement digital tools that help in doing remote work, but this will not impact the deliverables, timelines, etc.

CEOs need to prepare the next generation of Leaders. Leaders guide, coach, mentor, and develop employees who are committed to taking a leadership role to increase

sustainability. Leaders must hire very carefully, employ the right employees, and assign critical tasks to them very responsibly. Structured leadership should be developed in companies. CEOs must have the potential to identify the right employees for the implementation of digitalization across the organization. These employees should not only implement digitalization but also educate other employees as well in this regard. This will include mentorship, leadership classes to implement digitalization in organizations, leadership courses, assignments, and courses. This coaching aims to highlight the vision of digitalization among leaders in the organization. CEOs must switch the roles of employees so that all those who are aware of digital practices can be involved in those practices. This will also do by taking a proper feedback mechanism.

Leaders must be technically sound, trust their employees, and respect their vision. CEOs must innovate regularly, and this only happens when they are technically sound. Leaders should work with those who can accomplish their tasks independently. Leaders should read biographies of those leaders who worked on digitalization. Leaders should increase their networking skills and take courses to increase awareness of digitalization. Leaders should implement digitalization courses to seek proper guidance on the implementation. They should attend proper seminars. Leaders should remain proactive in all kinds of circumstances. Leaders must ask questions minutely.

Recommendations for future research. There were many opportunities that emerged based on the findings and implications of this research. Future researchers may perform cross-industry comparisons to check that how leadership can be digitalized and transformed into other sectors like healthcare, education, or telecommunications to get

comparative insights. This study can also be performed in other geographical locations / across other countries especially those which are emerging / developing economies.

Although the focus of this research is on leadership and organizational perspectives, researchers can also examine customer trust, behavior and readiness to adopt digital transformation in the financial sector especially in underserved populations. This research is cross-sectional but longitudinal research can be conducted to see the interventions of leadership, and regulatory reforms done in a periodic manner. This will also check the impact in digital transformation and its sustainability.

The researchers can also check the effectiveness of specific policies, digital banking frameworks and laws for data protection and their influence on innovation in digital financial institutions. This study was qualitative in nature but a quantitative approach can be applied on the same domain to validate the findings of this research through quantitative or mixed method approach.

Recommendations for future research have been examined and the practices required from leaders for implementation of digitalization by overcoming challenges are underway. The researchers can explore the practices followed by leadership in different areas of Pakistan, not limited to the financial sector. This research will also provide benefits for the international financial practices and applications of digitalization globally. The researchers should also focus on the strategies followed by leadership in different organizations of the country.

An important finding of the study was that leaders must be competent enough to lead the organization. Therefore, in the future, the research must be conducted in a way

that will prioritize the competencies that might be reflected in leadership that are effective in multiple situations in the company. Companies doing remote work were not a part of this study. However, future research might be initiated in a way that can cater to the prospects of remote working companies in the research. The strategies required for leaders heading remote companies are also required to be addressed in future research. Management and leadership practices are intertwined with each other. The interconnection between the practices of leadership and management has created more refinement in the studies by identifying the impact of leadership on the decision-making in organizational processes. Qualitative research is used in this study. In future mixed-method research using qualitative research and quantitative research will be applied. In the future, the perspective of leadership and employees on the increase in employee performance is recommended for study.

6.5 Conclusion

The purpose of this qualitative study is to achieve a deeper understanding on how innovative leadership interventions are planned, aligned and implemented in the financial industry in Pakistan and how these interventions may contribute to efficiency, accessibility, and competitiveness. The data gathered for this study were semi structured interviews and reviewing the archived documents which are published and openly available on the internet. The themes extracted from this study were used to identify challenges along with recommendations to overcome these challenges. The themes provide direction for leaders, creating inspiration and motivation for employees, measuring the competencies of leaders, and grooming leaders to adopt transformational

leadership techniques. Analyzing these themes created an understanding for leaders of the financial industry of Pakistan to overcome the challenges they face during digitalization.

Using the *Theory of Reasoned Action* as the theoretical framework, the specific problem was addressed (i.e., how innovative leadership interventions can be used to achieve efficiency, accessibility, and competitiveness) and the purpose of the study was achieved. The study findings clearly indicated that Pakistani leadership played a very important role for bringing digital innovation and transformation. Leaders whose strategic vision was aligned with digital goals; they invest in the infrastructure and promote compliance with regulations are more likely to promote a digital environment where digital initiatives can be thriving easily. When leadership intervenes in on empowerment of employees, trust of consumers, adapt regulations usually support an environment where organizations become competitive and increase their financial accessibility in their organizations.

The study further highlights the lack of supporting policies, limitations of the infrastructure, and resistance to adopt change will be the biggest challenges for bringing digitalization into the financial sector. It was also found that awareness must be created among leaders regarding the necessity of bringing continuous innovation, and strategic collaborations with different regulatory bodies and technical advisors. All these insights contributed in the current body of knowledge gained through literature review which offered a contextual understanding of different behaviors of leadership in different markets especially the financial sector of Pakistan.

This study provided the importance of strategic innovation, and transformational leadership for achieving operational efficiency, expansion of access to underserved populations, and sustaining competitive advantage in the changing digital economy. The insights provided by this study provided practical guidelines for the industrial leaders and policy makers for accelerating digital transformation in the financial sector. This study contributed to the field of business and management by filling the research gap in terms of trying to understand how innovative leadership interventions can be used to achieve efficiency, accessibility, and competitiveness.

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APPENDIX A
SURVEY COVER LETTER

Dear (Participant, Name)

My name is Mohammad A. Rana. I am pursuing a Doctor of Business Administration (DBA) through Swiss School of Business and Management. My doctoral research topic is “Challenges towards digitalization for leadership in Pakistan (Financial Industry)”. As a leader of the industry, you are best placed to help me with this study because you are working in finance sector of Pakistan. The interview will be limited to 30 minutes and will be scheduled at your convenience. Your participation and information will be protected consistent with School of Business and Management’s confidentiality guidelines. Your participation will be instrumental in providing the required data to best analyse the practices/strategies required to enhance digitalization by reducing leadership challenges in financial sector of Pakistan. If you decide to participate, I will send you a consent form via email that dictates your rights during the process and the purpose of the doctoral study. I will conduct interview through face-to-face or telephone. At the end of this study, I will share results and findings with participants, scholars, and other stakeholders. Participation in the interviews will be voluntary, and the right to decline to take part or stop at any time during the interview will be respected. Please advise if you have any questions or require any additional information. My contact information is XXXX or XXXX. Thank you for your time and consideration.

Mohammad A. Rana (School of Business and Management).

APPENDIX B

INFORMED CONSENT

You are invited to participate in a research study focusing on the challenges faced by leaders in the financial industry in Pakistan regarding digitalization. Before deciding to participate, it is essential to understand the purpose of the study, the procedures involved, and your rights as a participant.

The purpose of this study is to gain insights into the specific challenges, perspectives, and experiences of leaders navigating the process of digitalization within the financial sector in Pakistan. Your participation will involve responding to a series of questions based on a structured interview questionnaire guide. The interview will be conducted at a location and time convenient for you, ensuring confidentiality and privacy throughout the process. The estimated duration of the interview is approximately 30 minutes.

Participation in this study involves minimal risks, including potential discomfort while discussing certain professional experiences related to digitalization. However, all efforts will be made to maintain confidentiality and respect your privacy. The potential benefits of this study include contributing valuable insights to academic research and informing industry practices and policies.

All information collected during the interview will remain confidential and anonymous. Your responses will be coded, securely stored, and only accessible to the research team. Any identifiable information will be removed to ensure anonymity, and findings will be reported in aggregate form.

Your participation in this study is entirely voluntary, and you have the right to decline to answer any questions or withdraw from the study at any time without

consequence. Your decision to participate or decline will not affect your current or future relationship with the researcher or affiliated institutions.

If you have any questions or concerns about this study, please feel free to contact the principal investigator, Mohammad A. Rana, at [mohamad.rana@live.com and +16468648366]. Additionally, if you have any questions about your rights as a participant, you may contact the Institutional Review Board (IRB) or the relevant ethical review committee.

By signing below, you acknowledge that you have read, understood, and voluntarily agree to participate in this study based on the interview questionnaire guide. You have had the opportunity to ask questions, and any concerns have been addressed to your satisfaction.

Signature: _____ Date: _____

Participant's Name (Printed): _____

APPENDIX C
INTERVIEW GUIDE

1. Can you describe how current regulations have influenced the pace of digital transformation in your institution?
2. What are the main regulatory challenges you have encountered when adopting digital solutions?
3. Are there any regulations or policies that have helped foster digital innovation in the financial sector?
4. What do you perceive as the biggest technological or infrastructural challenges in implementing digital solutions in Pakistan's financial sector?
5. How do consumer behaviors or perceptions influence the success of digital initiatives in your organization?
6. What do you see as the major opportunities for digital transformation within the financial sector in Pakistan?
7. How do you integrate digital transformation into your organization's overall strategic goals?
8. Can you describe a leadership intervention or initiative that was introduced to promote digital innovation within your organization?
9. What strategies do you employ to manage resistance to change when implementing digital technologies?
10. In what ways have leadership-driven innovations improved operational efficiency in your organization?
11. How have leadership interventions enhanced the accessibility of financial services, particularly for underserved populations?

12. What impact have leadership-driven innovations had on your institution's competitiveness within the financial sector?