

**LEADERSHIP RESILIENCE IN CRISIS
MANAGEMENT: AN ANALYTICAL STUDY**



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A thesis submitted in partial fulfillment of the requirement for the degree of MS
Educational Leadership and Management

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APPROVAL SHEET

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By

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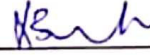
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AUTHOR'S DECLARATION

It is hereby declared that author of the study has completed the entire requirement for submitting this research work in partial fulfillment for the degree of MS Educational Leadership and Management. This thesis in its present form is the original work of the author except those which are acknowledged in the text. The material included in the thesis has not been submitted wholly or partially for award of any other academic certification than for which it is being presented.

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SUPERVISOR'S CERTIFICATE

The thesis titled “**Leadership Resilience and Crisis Management: An Analytical Study**” submitted by Ms. Natasha Fatima Shad Reg. No 39-FOE/MSELM/F23 in partial fulfillment of MS degree in Educational Leadership and Management has been completed under my guidance and supervision. I am satisfied with the quality of student’s research work and allow her to submit this for further process as per IUI rules and regulations.

Dr. Munazza Mahmood

Dedication

This thesis is lovingly dedicated to my beloved PARENTS, whose endless prayers, unconditional love, and unwavering support have been my greatest strength throughout this journey. Their sacrifices and encouragement have shaped every step of my academic and personal growth. Whatever I have achieved and will achieve in the future is because of them.

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Abstract

Leadership resilience refers to the attitude of being resistant and adapted to crises and their recovery. Resilience of leaders plays important role in managing schools during unstable political and economic state. This study aimed at analysis of leadership resilience in crisis management. The study had focused on the role of resilience of leaders in crisis management in educational institutions and how leaders face or tackle different stages of crisis management. The research had taken a Quantitative research approach. Descriptive research design was utilized for the research. In this research, data were gathered from principals of secondary schools in urban sectors of Islamabad. Both public and private schools' principals were selected as the population of the study. The population of the study included 111 secondary schools' principals of Islamabad from which sample of 97 principals were selected using Gay sampling table. Stratified sampling technique was utilized to select the participants for the research. For this purpose, two strata were identified which are public school leaders and private school leaders. For the collection of data, two survey questionnaires were used. To check the resilience level of the participants, Connor-Davidson Resilience Scale (CS-RISC) was adapted which consists of 25 items. As for the second instrument, Crisis Management Scale was developed which analyzed the crisis management practices of school leaders. This instrument was self-made by the researcher on the basis of related literature and other related instruments. Both the instruments were checked by experts to check the validity and as for the reliability, pilot testing was done. Cronbach alpha value for the CD-RISC scale was found to be 0.87 and for the Crisis Management scale, it was 0.85. Data were analyzed by calculating mean scores, standard deviation, t-test, pearson correlation, and simple linear regression. The findings showed the overall high resilience of school leaders and their mean score showed good practice of crisis management strategies except for the preparedness and planning stage of crisis management. The findings also showed that there was no significant difference in leadership resilience and crisis management practices among public and private school leaders. Based on the findings, it is recommended that school administrations may conduct regular crisis preparedness drills and advance planning to strengthen their readiness and ensure a proactive approach to potential emergencies.

Keywords: *Resilience, Leadership resilience, Crisis management, Secondary school principal*

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CHAPTER 1

INTRODUCTION

This era of unparalleled global crises creates several crises in the educational institutions, responsible for the instability and the break in the learning process. In this time of instability politically, economically, and in terms of public health emergencies, the school leaders need to play a greater role for the stability and working of the schools. The most required quality of the leader at this time is resilience. This is the main factor in dealing with uncertainty and guaranteeing continuity in schooling.

Effective crisis management indeed plays a role in school improvement and resilience in performance. Schools are therefore able to overcome great hurdles when done effectively. The school leader, with the input of crisis management skill, can be better placed to deal with unforeseen matters to ensure that the institution remains stable and continues uninterrupted even during adversity. Such skills are indispensable for schools to tackle current crises and for long-term planning. This enable schools to foresee possible problems and respond strategically. In cases where resources might be lacking, schools can then enjoy their potential and chart a path toward eventual success by cultivating leadership able to manage crises. In Pakistan, leadership resilience is critical to sustaining the integrity in the institution especially when crisis and pressure from outside occur quite often in the education sector, with sustainable educational output (Deliva, 2023). Crisis can befall an educational entity and shatter its stability when it is least expected, as explained by Kezo (2024), and in such times, resilience is the most exposed.

Resilient school leaders become that column guiding institution leaders through uncertainty with steadfast calmness and resolve the crises. They turn downsides into upsides, which is to say they turn around adversity into progress. Traits like adaptability, inspiration, and remaining focused in the midst of crisis clearly distinguish them as good leaders. The leadership resilience is not about getting through the crisis, but about emerging stronger and driving an institution towards sustainable success.

1.1 Background of the Study

The resilience of global leadership has been realized as an important ingredient in organizational stability as it incurs during crises. Resilient leaders are equipped to face uncertainty with effectiveness in how they prepare, adapt, recover, and lead people through the uncertainty. Al Shamlan (2023) adds that resilient leaders are positive at heart. They see hardships as opportunities rather than threats. Resilient leaders remain open to feedback. They actively seek information from the people around them to discover possible avenues for improvement. In addition, resilient leaders can be flexible, easily changing their approach when the suggestions or feedback elicit a need to change. This adaptability and openness are fundamental dispositions through which resilient leaders move through crises. "Zero Trauma Transformation," as introduced by Hamel and Välikangas (2003), quoted in Välikangas (2020), stresses working through such changes right before they become crises. This culminates with the overcoming of the denial of the necessity of change, the stimulation of heterogeneity of options of strategy, resource flow to new uses, and the twin demands of efficiency and renewal.

The four major challenges to leadership identified - cognitive, strategic, political, and ideological, are crucial in maintaining strategic renewal and survival in an increasingly dynamic environment. Leadership resilience is fundamental to crisis management because it enables leaders to take the reins of their institutions through circumstances that are both unpredictable and demanding. Such leaders endure pressures of a crisis but adapt fast to changing conditions, making valid decisions that ensure stability and long-term success.

Chatzipanagiotou & Katsarou (2023) says that in secondary schools, particularly in areas experiencing socio-political challenges, leadership resilience is important in providing academic continuity and institutional well-being. The resilient leader thereby predicts the future crises of school disruption and comes up with an effective crisis management plan before the actual occurrence of such events. Disruptions are therefore minimized, and a feeling of security is created among the people in the institution. Such resilient leaders, who stay calm under pressure, communicate freely, and exploit resources, turn crises into developments for greater benefit and improvement of the school institution. There is a wide research gap on leadership resilience within Pakistan, especially at the levels of secondary schools;

however, elsewhere numerous studies have been conducted. While schools in Islamabad are battling with issues of political unrest, economic recession, and social problems, very few discussions and theories are known for how such administrators manage to display resilience in the face of such crises.

This study filled this gap as it found how leadership resilience advances crisis management in Islamabad's secondary schools. In focusing on the details of this specific context, the study looked for the manner in which school leaders handle unique challenges and how their resilience impacts crisis management effectiveness. This study filled the gap of literature and found out the responses of school leaders on how they prepare for, respond to, and recover from crises which occur in their institutions. It also founded the communication gaps and channels of the school leaders during crises, and the strategies they used to manage those crises. The conclusions contributes to a broader understanding of what constitutes leadership resilience and lead to practical recommendations regarding the manner in which educational institutions across Pakistan can structure their approaches toward effective crisis management.

1.2 Problem Statement

The increasingly complex and dynamic nature of modern crises, such as the political instability, economic downturns, and social issues, poses significant challenges to organizations and their leaders. In the context of Pakistan, and particularly in Islamabad's secondary schools, these crises have resulted in frequent administrative disruptions, resource constraints, and pressure on school heads to maintain stability. Effective crisis management is crucial for organizational survival, reputation, and long-term success. However, the ability of leaders to navigate these crises is often hindered by their own resilience, or lack thereof. Despite the growing body of research on leadership resilience and crisis management, there is a significant gap in understanding the interplay between these two constructs. Existing studies in Pakistan have largely focused on higher education or general organizational leadership, leaving a clear gap in empirical evidence regarding school leaders, especially principals in Islamabad. While leadership resilience is critical for leaders to cope with the emotional and psychological demands of crisis management, it is often overlooked in favor of more technical or operational aspects of crisis management. Moreover, no empirical study in Islamabad's school context has examined how

principals' resilience influences their crisis preparedness, response, and recovery processes.

This study aimed to address this gap by exploring the role of leadership resilience in crisis management. Specifically, this study responds to the lack of analytical, quantitative evidence on the relationship between leadership resilience and crisis management practices among secondary school leaders in Islamabad. Specifically, it aimed to investigate how leadership resilience influences crisis management outcomes, and what strategies leaders can employ to build their resilience in the face of crisis. The significance of this study lies in its potential to contribute to the development of more effective crisis management strategies, which prioritize the well-being and resilience of leaders. By examining the interplay between leadership resilience and crisis management, this study provides valuable insights for organizations seeking to build their capacity for crisis resilience. In doing so, it also contributes to filling the contextual and methodological gap identified in Pakistani school leadership research.

1.3 Objectives of the Study

The objectives of the study are:

1. To find out the level of resilience of public and private school leaders.
2. To analyze the crisis management practices of public and private school leaders.
3. To determine the difference between the leadership resilience of public and private school leaders.
4. To compare the crisis management practices of public and private school leaders.
5. To determine the relationship between leadership resilience and crisis management practices of school leaders.
6. To determine the effect of leadership resilience on crisis management practices of school leaders.

1.4 Research Questions

Research questions of the study are:

1. What is the level of resilience of public and private school leaders?

2. What are the crisis management practices used by public and private school leaders?

1.5 Research Hypotheses

H₀₁: There is no significant difference in leadership resilience between public and private school leaders.

H₀₂: There is no significant difference in crisis management practices between public and private school leaders.

H₀₃: There is no significant relationship between leadership resilience and crisis management practices of school leaders.

H₀₄: There is no significant effect of leadership resilience on crisis management practices of school leaders.

1.6 Significance of the Study

The study significantly contributes to the knowledge of leadership resilience and how it helps leaders to play their role in crisis management. This study is helpful for the leaders, especially the school leaders, to identify their resilience level, and also guides them on how to manage the crisis at their institutions. Thus, the study helps to address a critical gap in the literature on leadership resilience and crisis management in the context of secondary schools.

The findings from this study contribute to improving the leadership strategies and crisis preparedness of school administrators, ensuring more effective and stable educational environments during turbulent times. Furthermore, this study offers practical insights into the resilience level of secondary school leaders and how these levels affects their ability to manage crises.

These findings can be used to develop training programs and interventions aimed at enhancing leadership resilience, ensuring that school leaders are better equipped to handle future challenges. The study's results not only benefit school leaders but also policymakers, educational administrators, and teacher training programs by providing actionable recommendations to strengthen leadership resilience across Pakistan's secondary education sector.

1.7 Delimitations of the Study

The study was delimited to:

1. F, G, H, and I sectors of Islamabad.
2. Secondary level schools only.

1.8 Operational Definitions

1.8.1 Leadership Resilience

Leadership resilience refers to a leader's ability to withstand, adapt to, and recover from challenges, setbacks, and crisis. It is characterized by adaptability, emotional intelligence, persistence, and learning orientation of leaders. These attributes enable leaders to remain effective under pressure, maintain a positive outlook; and lead their teams through adversity with confidence and clarity.

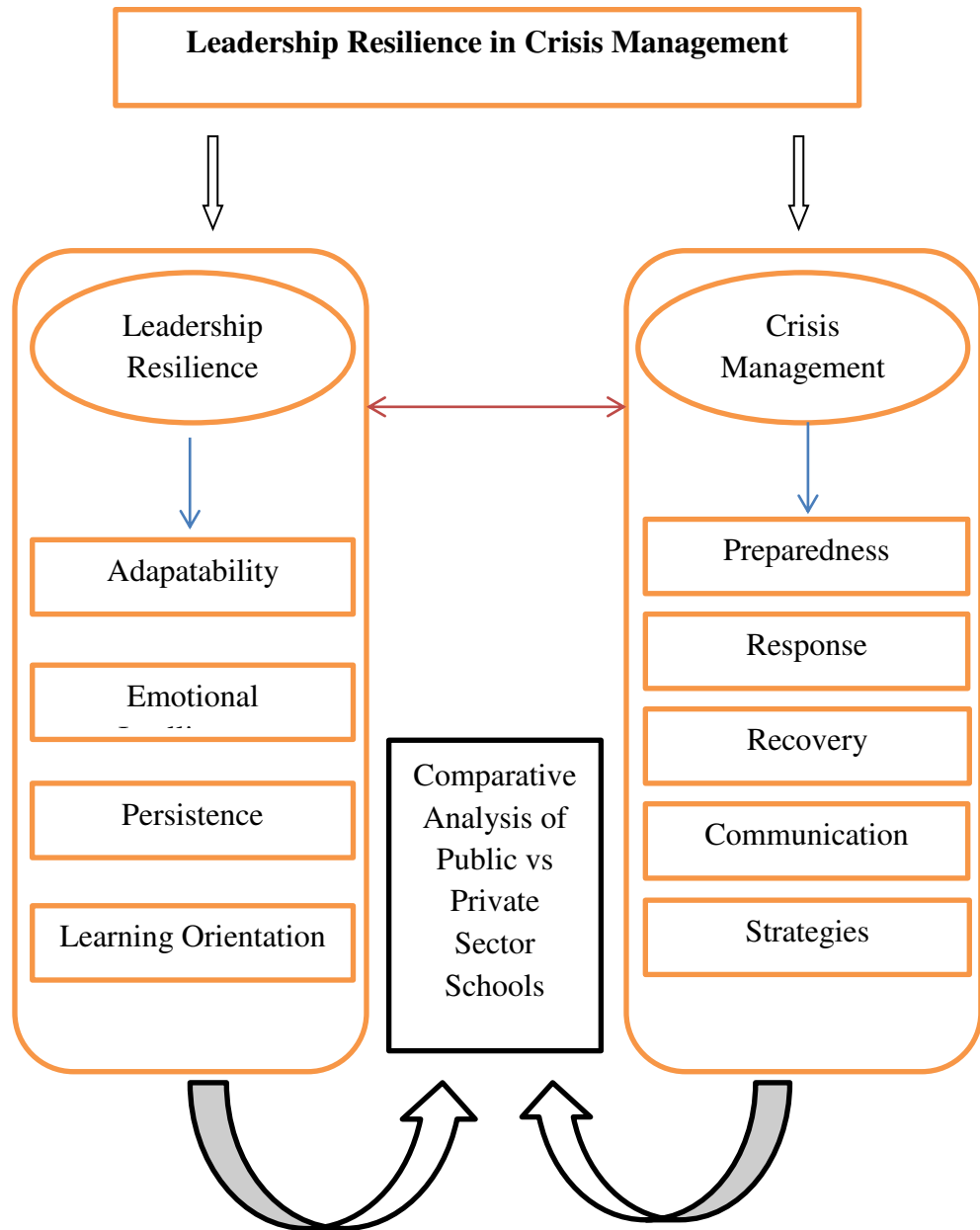
1.8.2 Crisis Management

Crisis management refers to the process by which school leaders prepare for, respond to, recover from, and communicate during unforeseen or foreseen disruptions or emergencies that threaten the normal operation of the institution. It includes preparing strategic plans, communicating effectively with stakeholders, making swift decisions, and utilizing available resources to minimize the impact of the crisis.

1.9 Conceptual Framework

Figure 1.1

Conceptual Framework



(Fernandes et al., 2023) & (Ahti et al., 2023)

CHAPTER 2

LITERATURE REVIEW

Leadership resilience in crisis management is basically founded on the simple idea of making an organization culture that will be resilient and capable of shock absorption in dealing with volatilities. Within the crisis management domain, leadership resilience hence focuses on the possibility of mobilizing change within strategically targeted up to 20% minority part of the workforce which will give the organization a tipping point leading to the betterment of resilience by the whole. Crisis leadership has also been described differently from normal leadership. This is because it will have to focus on providing insights and effectively exercising crisis management to achieve corporate sustainability (Soni, 2014). Adaptive leadership extends this framework as it has made leaders adapt to changing situations in flexible ways so as to increase adaptability and response when crises occur (Hayashi & Soo, 2012; Heifetz et al., 2009). These models in relation suggest resilient and adaptive leadership for difficult times enables the creation of an environment that fosters flourishing organizations under adverse conditions.

2.1 Resilience

The term resilience comes from a Latin 'resiliens', meaning the elastic quality of a material. Ledesma (2014) defined resilience as the capacity to bounce back from frustration, adversity, and misfortune. He identifies resilience as the ability to overcome crises that are free from significant obstacles in working. Resilience has often been used interchangeably with persistence, adaptation, and positive coping. The researchers define resilience more generally as peoples' responses to risk or crises (Ledesma, 2014). However, while these global models explain resilience broadly, limited empirical evidence exists on how such leadership behaviors manifest in school settings, particularly in Pakistan.

Resilience is the ability to deal with adversities and cope with stressors and is also characterized by personal variability from one person to another; it's what those leaders have to create too, for the self and their teams (Mills & McKimm, 2016). Resilience is the ability or capacity of a system or capability to perform beyond the

critical execution of mission objectives under less-than-positive circumstances or the presence of antagonistic action'.

Resilience is becoming a very serious issue of scholarly focus for the social sciences due to its relationship to the characteristics of regions that are able to develop innovative strategies in dealing with shocks and disturbances (Pinto & Guerreiro, 2018). Resilience is the ability of a system that maintains its reliability and proper functioning throughout changes, for example failure of some components or changing conditions, achieved through the means of advanced monitoring, error detection, and reconfiguration methodologies. These definitions, though diverse, collectively highlight resilience as a key personal resource for school leaders during crises.

2.2 Leadership Resilience

Leadership resilience is an important attribute that equips a leader to respond appropriately to varied challenges and establish a sustainable organizational climate. Leadership resilience is defined as adapting, recovering, and responding in a positive way to adversity. Resilience in leadership was defined as being able to survive and bounce back from adversity that breeds success in an organizational environment. The leaders who are resilient help reduce employee turnover and improve organizational performance to improve the ultimate effectiveness of the team better. Baykal (2018) contends that the concept of leadership resilience, a particular focus on authentic leadership, builds organizational resilience through the empowerment of followers, advances psychological safety, promotes the expression of adaptive behaviors in the midst of crises, and enhances overall adaptability and outcomes of recovery. While Baykal emphasizes psychological safety, Seville (2018) places greater focus on organizational recovery, showing that leadership resilience incorporates both emotional and operational competencies.

Leadership resilience is the ability of leaders to adapt, support their teams, and create an environment that fosters worker resilience during crises, and such resilience influences organizational rebounding and general performance (Seville, 2018). Leader resilience encompasses self-concept well-being and internal locus of control and constructive cognitive processes, thus improving a leader's potential to recover and sustain a transformative leadership paradigm (Folan, 2019). According to Nzinga et al. (2021), leadership resilience is cultivated through behavioral, cognitive, and

contextual competencies that facilitate the capacity to negotiate adversity efficaciously, forge collaborative efforts, as well as improve interpersonal acumen for countervailing strong health system responses and adaptability.

Leadership resilience is critical for the achievement of organizational goals because it entails understanding the difficulties of the inside, making tough decisions and the potential to inspire others and hence generating a culture defined by flexibility and resilience. According to Gray (2017), leadership resilience is learned through experiential learning, and this equips leaders with the ability to push through the tough times and sustain situational awareness, which leads to an effective cognitive framework that strengthens them in challenging organizational transitions. Resilience encompasses not just how people understand and lead to strengthen resilience but also that those capacities can empower them or a group to undertake demanding situations (Brewer et al., 2019).

2.3 Theories of Leadership Resilience

Leadership resilience has developed through several theoretical frameworks that essentially highlight a leader's ability to adapt, recover, and maintain efficacy in the context of adversity. In this light, leadership resilience is basically developed out of theories that merge the psychological with the organizational dynamics-the nature in which leaders respond to challenge and, more importantly, take their organizations through stormy times.

2.3.1 Adaptive Leadership Theory

The adaptive leadership theory makes it very easy to explain the concept of resilience. It stated that resilient leaders are those who can adapt easily to changed circumstances, especially during crises time, by readjusting their leadership strategies and behaviors. Adaptive leadership enables the leader to work effectively in complex and unpredictable environments by motivating collaboration, involving their teams, and taking prudent decisions amid uncertainty (Heifetz et al., 2009).

Within the context of higher education, Al Shamlan (2023) identified the utility of adaptive leadership to help educational leaders align their practices with institutional or national visions, such as the Saudi Vision 2030. Aligning their practices with institutional or national visions is significant when systemic changes

are forced upon institutions by factors outside of themselves. The flexible leaders will thus be very efficient at handling not only those that are expected but also the unexpected hence building strength in their teams and institutions. However, adaptive leadership focuses primarily on change management, making it only partially aligned with crisis-specific resilience in school contexts.

2.3.2 Psychological Capital (PsyCap)

The other significant theoretical construct building the base of leadership resilience is termed psychological capital, or PsyCap. PsyCap comprises four dimensions: hope, efficacy, resilience, and optimism (Luthans et al., 2007). These psychological resources ensure that leaders maintain a positive outlook and do not lose hope at any point in time. The leaders who have a high level of PsyCap tend to set achievable goals, develop confidence in their abilities, and also maintain hope and optimism even in the most trying times.

Al Shamlan in his 2023 study indicated that leadership in Saudi higher education deploys positive mindset practices and methods of self-leadership to help deal with the pressure and vagueness that come with leading. These factors overlap dimensions of PsyCap where resilience helps leaders recover from adversity, while hope and optimism enable them to push forward toward the achievement of long-term goals. Such qualities are significant to leaders in the secondary school category in Islamabad, where they experience the challenges of handling crisis situations based on political instability and economic difficulties within learning institutions (Al Shamlan, 2023). Compared to adaptive leadership, PsyCap emphasizes the internal psychological resources of leaders, which directly relates to resilience as measured in this study

2.3.3 Transactional and Transformational Leadership Theories

These, transactional and transformational leadership theories, are comparative in significance in the comprehension of leadership resilience. Transactional leadership is described as the maintenance of the status quo and the daily operations management through structurally defined frameworks and reward-based systems (Abramova et al., 2021). The opposite side to this is transformational leadership, which is more like resonance with resilience in that it fosters inspiration and motive among the followers to achieve high performance under times of crises.

Transformational leaders are those who manage to build resilience by instilling a common vision, encouraging innovation, and creating an environment that encourages flexibility and development.

Abramova et al. (2021) discussed crisis management concerning the pandemic COVID-19 situation and learnt that transformational leadership is relevant for building resilience in the educational community. A well-functioning leader was one who not only created shared sense but empowered the teams better, thus better equipped for handling long-term crisis situations (Abramova et al., 2021). It is such an observation of much importance in the secondary educational institutions, wherein it is capable of an effective establishment of a strong school culture adequately resistant and resilient enough in crises.

2.4 Leadership Resilience-Building Practices

A theoretical framework that discusses leadership resilience inherently involves resilience-building practices. According to Patterson et al. (2012), the resilient leaders are involved in practices that promote the development of their own and their teams' resilience. The different practices include the management of pressure, the building of social networks, and enhancing a positive outlook. Leaders who actively engage in building resilience are better equipped to handle crises and chart the way their organization weathers turbulent times.

According to Abramova et al. (2021), community cooperation, communication, and flexibility are considered essential resilience-building practices for leaders operating in the K-12 educational environment. Such practices resonate with some theoretical frameworks that emerged prior to this discussion and explain how resilient leaders are not only able to survive the crises but build more resilient communities (Abramova et al., 2021). Resilience-building practices can help leaders create a non-threatening environment in which the teachers, students, and staff have better mental preparation to meet the crises happening in the institutional circles. These practices not only strengthen individual resilience but also enhance crisis management capacity by enabling leaders to respond calmly and systematically.

2.5 Self-Leadership and Emotional Regulation

Where self-leadership is seen as the leader's ability to manage his emotions, thoughts, and behaviors, it remains to be the most critical aspect of resilience.

Resilient leaders manifest better composure and self-informed choices, being self-aware and emotive regulation (Al Shamlan, 2023). Self-leadership also involves activities such as goal setting, problem solving, and continuous self-improvement-activities all indispensable during crisis periods.

Self-leadership should be considered one of the defining features of leadership resilience in higher education. Leaders who are more capable of emotional management and who can better preserve their positive outlook are much more likely to lead effectively during periods of crisis and uncertainty. This self-regulation ability is probably the most-needed feature of leaders within the often-debilitated learning environment, thereby staying calm and composed, while enabling their institutions to come out of the mess (Al Shamlan, 2023).

2.6 Crisis Management in Educational Institutions

Crisis management is the systematic approach or measure that identifies, prepares to respond to, responds to, and recovers from adversities in entities. This process essentially involves prospective identification of hazards and challenges, contingency response protocols exercising, and assimilation of lessons learned from the past events toward minimizing the impacts of future crises (Economic Crisis Management, 2023). Crisis management is defined as structured planning and response to such events that are associated with a high impact but low-probability events that pose high threatening potential for the continuation of an organization, underlining strategic and proactive planning at all times and the effective implementation of communication strategies (Salahi et al., 2023).

School crisis management should be proactive in strategies and planning frameworks that favor the robustness and flexibility of school educational institutions and organizations in the event that crises strike with cultural sensitivities always in mind to promote effective communication towards both students and staff. This entails ongoing monitoring and finding the problems that are surfacing so it can benefit from the resources utilized in the process of continuing quality education and appropriately respond to challenges emerging from crises such as war or diseases (Koshelieva et al., 2023).

Crisis management is a core area in institutions of learning. The school leadership has to navigate through unpredictable events such as the COVID-19

pandemic, which unfolds in unpredictable ways (Abramova et al., 2021). Crisis management is defined as an operational strategy for response to situations that put people or organizations in disadvantaged positions through unexpected events therefore; crisis management requires school leaders to acquire special skills for good response to these conditions. Preparedness is considered a proactive approach, and there is always a requirement for it. Leaders have to treat a crisis as “a crime” in order to reduce damages and provide safety.

School leaders are at the same time facing new challenges that can constantly make it challenging for crisis management especially in case of chronic crises, since increased demands are placed on leadership. Effective communication of crises also plays an important role, as is seen in the event of COVID-19, where timely and clear information was very important for the maintenance of schools as well as trust in the community. However, the extent to which leadership resilience supports these crisis management functions in Pakistani schools remains under-researched.

Resilience-building practices are also identified as a key component where fostering resilience through collaboration, resource allocation, and support systems not only helps in managing the present crisis but also prepares for future ones. It finally provides a framework for education leaders, hence to further the resilient community development, as well as the overall crisis management capability of their leads (Abramova et al., 2021).

2.7 Extent of Crisis Management in Education

The domain of crisis management in educational institutions is quite wide-ranging, mainly in terms of incidents that may affect pedagogical processes, learning outcomes, or administrative functions. There can be many different types of educational crises, such as natural disaster events, pandemics, and instances of violence in schools, cyber intrusions, or infrastructural failures. Each of them has its particular challenges and requires a specific type of crisis management. An example of a global disaster relevant to this report is the COVID-19 pandemic, which forced educational institutions to quickly adapt to this disaster and substitute traditional face-to-face learning with online modalities, at the same time as addressing educational and psychological impacts on the students and their teachers (Tsagdi et al., 2022).

The domain of crisis management includes the acute incident phase but not only that; it's the extensive recovery process coupled with knowledge acquisition from the practice experience. The educational leader is supposed to ensure that crisis management interventions resolve the immediate situation and even equip the institution better in the face of next impending crises through strength and policy enhancement (Tsagdi et al., 2022).

2.8 Crisis Management Frameworks and Models

Some models of crisis management provide more structure in how educational leaders are taught to deal with crises:

2.8.1 Fink's Four-Stage Model of Crisis Management

Fink's (1986) model as cited in Chatzipanagiotou & Katsarou (2023), defines crisis management as a cyclical process, comprising four stages:

2.8.1.1 Pro-dromal phase

Identification of early warning signs of an imminent crisis and preventive measures are taken to decrease the risk.

2.8.1.2 Acute stage

The immediate action is required to contain the impact of the crisis.

2.8.1.3 Chronic stage

Long-term consequences become the requirement of the hour.

2.8.1.4 Resolution Stage

The crisis is resolved, and the ordinary work of the institution is regained (Chatzipanagiotou & Katsarou, 2023).

2.8.2 Coomb's Three-Stage Model

Coombs (2007) as cited by Chatzipanagiotou & Katsarou (2023) identifies three stages of crisis management.

2.8.2.1 Pre-crisis

Planning and prevention measures are taken in advance in terms of risk assessments and crisis management protocols.

2.8.2.2 Crisis

At the moment of crisis, reactions are released to effectively address the situation.

2.8.2.3 Post-crisis

The emphasis is on restoration and learning, with activities intended to prevent the next crisis and enhance crisis readiness (Chatzipanagiotou & Katsarou, 2023).

2.8.3 Mitroff's Five-Stage Model

Mitroff (1994) as cited in Chatzipanagiotou & Katsarou (2023) does consider a more sophisticated approach with five stages:

2.8.3.1 Signal detection

Signal detection refers to early detection of possible risks and measure precaution.

2.8.3.2 Probing and prevention

It includes thorough investigation into the possible crises and prevention.

2.8.3.3 Damage Containment

This stage mitigates against damage caused by the disaster.

2.8.3.4 Recovery

Recover stage tends to restore normal operations while addressing long-term consequences.

2.8.3.5 Learning

This stage involves using the crisis as a learning opportunity to improve future responses (Chatzipanagiotou & Katsarou, 2023).

Though these models differ in structure, all emphasize preparedness, communication, and recovery which constructs are central to this study's crisis management scale.

2.9 Crisis Management Framework in Educational Institutions

Crisis management frameworks thus have to develop fully crisis management plans that detail procedures for managing each of the classes of crises. Such plans normally include:

2.9.1 Preparedness

To tackle the emergencies and crises in educational institutions, preparedness phase is crucial. This stage includes preparing various strategies to predict, prepare for and alleviate the impacts of crises. The key aspects of preparedness phase of crises include management planning, continuous training, and infrastructure development. These aspects collectively contribute in developing strong framework for crises response.

Administrators in educational institutions shall be equipped with necessary management tools such as contingency plans, sustainability, capability building initiatives and dynamic policies, which will help them to prepare for any type of crises their institute could face in the future. These plans and preparedness would help them to respond effectively to crises (Pastor et al., 2024).

The school heads carry risk assessment exercises and respond to such events by formulating specific plans such as communication plans, evacuation, and crisis management teams (Tsagdi et al., 2022).

2.9.2 Response

Every institute responds to crises in different ways but mostly they prepare Emergency Preparedness and Response Plan (EPRP) to resolve the crises within the institution. This plan is made to address the emergencies in most efficient way and to ensure the safety of all the stakeholders as well as of the institution. This plan also helps in minimizing damage to the environment, and supports the well being of the institution and community during crises (Sabri et al., 2024).

In response stage of crisis management, the educational institutions implements proactive planning, strong communication strategies, and address culture

sensitivity to tackle the crises. Immediate actions are taken by institutions to ensure the safety and well being while promoting resilience and adaptation in diverse contexts in this phase (Johnson, 2023).

The response team implements the response plan in a crisis, coordinating efforts institution-wide to alleviate the immediate impact of a crisis. Communication with stakeholders at this point was highly needed to build transparency and trust (Chatzipanagiotou & Katsarou, 2023).

2.9.3 Recovery

Now that the immediate crisis has passed, school leaders return to normal, paying attention to the psychosocial and operational effects that the crisis has left on students, faculties, and the larger school community (Tsagdi et al., 2022).

The recovery stage of crisis management in institutions is a versatile process which involves different stages and all stakeholders to restore educational institutions' services and ensure resilience. This phase not only rebuild physical infrastructure but is also critical for emotional and psychological well-being of students and staff.

2.10 Crisis Leadership in Educational Institutions

Leadership plays a crucial role in the effectiveness of response strategies about crisis management in educational institutions. Effective crisis leadership entails swift decision-making, clear communication, and emotional intelligence to allay the fears and anxieties of all stakeholders. For example, educational leaders should be resilient, taking their respective institutions through the crisis while maintaining students', teachers', and parents' confidence (Chatzipanagiotou & Katsarou, 2023). Leadership skills of being adaptable, creative, and empathetic explain the reason leaders survive crises, for these are very important in maneuvering through complex and fast-changing situations.

Educational crisis leadership involves actual management of unforeseen high-risk situations with best management practices where the welfare of students, employees, and members is placed first and foremost in the creation of a niche distinct from main crisis management approaches (Toby et al., 2024). Crisis management through education leadership also applies coherent, transformational practice to improve responses to crises, minimize possible risks, and strengthen leaders' self-efficacy in order to keep practice (Areba, 2024). Competent leadership in

addressing crises within the context of educational institutions is vital because it addresses the strategies that will be adopted concerning examination malpractice and suboptimal performance, therefore creating an educational atmosphere that is constructive in nature (Ankeli, 2024).

2.11 Gender difference in leadership resilience and crisis management

Gender-based leadership resilience reflects how age, support networks, and personal characteristics influence leaders' responses to adversity. Studies show that many female leaders display strong resilience despite unique challenges, and women in academia often demonstrate tenacity even with limited institutional support, which is vital for their mental well-being (Setlhodi & Ramatsui, 2024). Research further indicates that female deans show higher resilience than their male counterparts due to accumulated professional adversity and lived experiences that strengthen coping abilities (Isaacs, 2014). At the same time, resilience is not restricted to women; younger male leaders also display notable resilience influenced by age and situational factors (Reed, 2018).

Christman and McClellan (2012) argue that traditional masculine–feminine binaries oversimplify leadership attributes, and their qualitative study shows that both male and female leaders draw on hybrid resilience traits shaped by gender expectations. Their findings emphasize that leadership resilience is better understood through nuanced perspectives that recognize varied leadership styles.

Research on female educational leadership in South Africa highlights that resilience is shaped by theoretical, practical, and psychological preparation, with mentorship and supportive relationships playing essential roles in leadership transitions and in handling adversity (De Bruyn & Mestry, 2020). Their study also notes that women leaders frequently use relational and collaborative approaches, rely more on mentoring and peer networks, and demonstrate adaptability shaped by experiences of discrimination and systemic barriers, whereas male leaders often adopt more hierarchical and individualistic approaches (De Bruyn & Mestry, 2020).

In crisis management, gender differences appear in leadership styles and coping strategies. Women often exhibit adaptive leadership grounded in communication and care, which is crucial during crises (Tevis et al., 2021). In

contrast, male leaders may demonstrate more transformational styles emphasizing influence and intellectual stimulation (Mohd et al., 2022). The COVID-19 pandemic further highlighted the emotional labor demands on women and the impact of systemic gender inequalities on crisis leadership performance (Hayes, 2023). Since school crisis management requires effective communication and collaboration, existing gender roles may significantly shape how male and female leaders navigate crisis situations.

2.12 Public vs. Private School Leaders' Resilience in Crisis Management

For this study, the focus is specifically on how public and private school leaders differ in resilience and crisis management practices. Public and private schools vary remarkably in institutions; therefore, their operating systems, academic achievements, and student compositions differ as well.

Public schools are heavily governed by government laws, and are obligated to enroll every student residing in their district; thus, the students are usually a diverse lot. As a consequence, private schools have more flexibility to present particular curricula and to admit selective students that gradually result in a more homogeneous socio-economic demographic (OECD, 2024; Goyal & Pandey, 2009). Public schools are restricted by state regulations as well as funding tools, thereby restricting their room to maneuver in decision-making processes.

Private schools, however, can operate individually. Such independence may guarantee tailored methodologies and curricula for the classroom. Public schools cross the rungs of socio-economic statuses as compared to private schools, which have most students hailing from the elite class of society (OECD, 2024). This demographic disadvantage would greatly impact academic results because students that are enrolled in private institutions usually have test performance levels generally above superior (Goyal & Pandey, 2009). While research thus suggests instructional quality for the two types of institutions are homogeneous, private schools frequently advertise better outputs with criteria-used as the reason for more stringent student selection processes (Canbolat, 2023).

Besides these, the public-private divide in education may be more of an ideological split than a material difference since both are increasingly representative of market-driven principles (Boyles, 2015).

There is quite significant variation in both public and private institutions regarding the resilience of leadership, which can be attributed to such determinants as the dedication of educators, socio-economic contexts, and strategic approaches to crisis management.

According to empirical findings, the resilience among teachers in public institutions is notably higher compared to those in private schools because of better support mechanisms and high job security (Muti'ah et al., 2023). In adversity, such as the COVID-19 pandemic, public schools have shown forward-thinking and innovative ways to continue learning in life, stressing the emotional environment and community (Hamid et al., 2023; Buskila et al., 2024). Excellent leadership in both spectrums also requires powerful communication abilities, effective resource management, and an ability to create a caring environment for teaching as well as learning (Galorio & Bauyot, 2024). Recognizing these, however, it must be noted that private school leaders can also exhibit leadership resilience in the face of innovative actions and flexibility, responding to the changes and challenges presented in the educational environment in quick, effective ways. Such adaptability produces unique advantages for a private educational establishment to make up for leadership resilience. Crisis management in public and private learning institutions presents numerous specific strategies that depend on the nature of the organizational setup and the level of stakeholder involvement.

Public schools focus more on policy development, crisis response teams, and community involvement to effectively address several crises. This approach promotes collaborative action, where they elaborate on the fact that community engagement in crisis situation is a necessity. In contrast, private schools pay so much attention to promoting quite tailored crisis management plans because these plans are very much dependent on structured communications. Recent studies have reported that private organizations are doing pretty well with highly tailored plans and proper communication with stakeholders (Sinlapapiromsuk et al., 2023). Public schools usually offer excellent professional development chances for employees, regardless of whether they are teachers or staff. In that process, they pay special attention to the emotional and psychological safety during crisis events. Private educational institutions tend to use such specific leadership training to promote context-dependent crisis management. This is a reflection of how each sector interacts with stakeholders-

the public schools usually get to partner with broader networks within communities while the private schools always achieve that goal through effective communication with a more focused group of stakeholders. While both schools' ultimate goal is the effective management of crises, public schools face different hindrances in the actual policy implementation because of bureaucratic limitations, whereas private schools, which carry more operational autonomy, quickly respond to the changing requirement. Thus, institutional differences may shape leader resilience and crisis handling—hence the need for public-private comparison in this study.

2.13 Organizational Resilience in Schools

Organizational resilience within educational institutions pertains to their ability to adjust, recuperate, and prosper in the face of disruptions and uncertainties. This paradigm is becoming increasingly essential within the realm of higher education, especially as institutions encounter adversities such as the COVID-19 pandemic and other crises. Resilience embodies a meta-capacity that encompasses phases of adaptation, transformation, and anticipation, underpinned by fundamental capabilities including strategic foresight and operational agility (Agapova et al., 2024).

The differentiation between organizational resilience and individual resilience is paramount for comprehending the methodologies employed by both entities in addressing challenges. Organizational resilience denotes the ability of an organization to adjust and prosper in the face of adversity, whereas individual resilience is concerned with an individual's capacity to endure stress and recuperate from hardships. The interaction between these two manifestations of resilience is of considerable importance, as organizational resilience can amplify individual resilience, thereby enhancing employee engagement and overall performance. A resilient organization has the potential to alleviate psychological distress among its workforce, cultivating a nurturing work environment that encourages individual resilience (Taylor et al., 2019). Furthermore, heightened individual resilience is associated with superior job performance, underscoring the significance of personal resilience for effective functioning within an organizational context (Wang et al., 2022).

Resilient educational institutions exhibit a pronounced capability to recuperate from disturbances such as natural disasters and health crises through meticulous strategic planning, active community engagement, and innovative pedagogical practices. These institutions implement a variety of frameworks to guarantee the sustained delivery of education, underscoring the significance of preparedness and proficient crisis management. Resilient educational institutions recover from disruptions by modifying their instructional methodologies, integrating digital educational technologies, restructuring curricula to reflect student experiences, and ensuring unwavering support from governmental entities and stakeholders, thus preserving educational continuity and resourcefulness in times of crisis (Afolabi & Olajuyigbe, 2022). Laigo (2023) delineates financial governance, instructional strategies, and social frameworks as pivotal themes that empower private educational institutions to uphold the continuity of learning amidst disruptions such as the pandemic, thereby accentuating the critical role of collaborative endeavors and educational resources in cultivating resilience. These organizational capabilities underscore the importance of leadership resilience, as leaders shape structural readiness during crises

2.14 Leadership resilience and Decision-Making in Crises

Leadership resilience is integral to the efficacy of decision-making processes during periods of crisis, as it incorporates the elements of adaptability, emotional intelligence, and strategic foresight. Leaders who exemplify these characteristics are capable of maneuvering through uncertainty and cultivating organizational resilience, thereby ensuring that teams remain concentrated and motivated. The effectiveness of leadership in crisis situations underscores the importance of adaptability, transparency, and prompt decision-making. Such characteristics are paramount for minimizing adverse impacts and facilitating recovery, thereby enabling organizations to traverse uncertainty and stress while upholding clear communication and robust direction for their teams (Ranjan & Rai, 2024). Leadership resilience significantly enhances decision-making in times of crisis by promoting adaptability, emotional intelligence, and a solutions-oriented approach. These attributes empower leaders to adeptly navigate economic and operational disruptions, fostering a supportive

organizational culture that advocates for proactive risk mitigation and team adaptability (Tamim, 2025).

Cognitive flexibility is the capacity to modify one's cognition and behavior in response to environmental changes. This capability can be developed through specific training and supportive learning settings, thereby improving leaders' ability to confront adversity (Örün & Sever, 2024). The integration of cognitive flexibility and critical thinking is essential for nurturing leadership resilience, especially in contemporary turbulent contexts. Resilient leaders not only bounce back from difficulties but also modify their tactics in accordance with evolving situations. This adaptability is augmented by cognitive flexibility, which facilitates effective shifts in perspectives and methodologies. The synergy between these qualities fosters an organizational culture of resilience, empowering them to prosper in the face of challenges

Crisis decision-making in education is a complex process shaped by leadership, governance, and emergency challenges. Effective crisis management is vital for educational continuity and the welfare of students and staff. Azlan et al. (2024) indicates that crisis decision-making entails strategic problem-solving and leadership practices that promote resilience and support for stakeholders during crises. It also requires comprehension of the unforeseen, public, high-stakes, novel, and emotionally charged aspects of crises. Effective leadership prioritizes the welfare of students, faculty, staff, and communities.

The study by Freeman et al. (2021) indicates that higher education institutions implemented centralized decision-making during the COVID-19 pandemic to facilitate remote operations, highlighting the necessity for governance models that integrate emergency decision-making with traditional collegial processes. Effective crisis decision-making in education necessitates skills such as adaptability, transparent communication, ethical considerations, and systemic analysis. To ensure leadership efficacy amid uncertainty, continuous professional development and an innovative culture are vital for fostering resilience and operational stability.

2.15 Impact of Leadership Resilience on Teacher and Student Outcomes

The influence of leadership resilience on teacher performance is profound,

supported by studies demonstrating effective leadership styles correlate with improved educational results. Leadership resilience creates conditions conducive for teachers to excel, adapt, and enhance their performance. Evidence suggests that supportive leadership enhances teacher resilience, subsequently improving performance. Teachers receiving feedback, autonomy, and growth opportunities show increased resilience and job satisfaction (Bagdziuniene et al., 2022). The study reveals that supportive leadership positively affects teacher resilience, indirectly influencing performance via job resources. Nonetheless, the direct effect of leadership on resilience dimensions was deemed non-significant, emphasizing the role of mediators.

In order to improve performance, the servant leadership model places a strong emphasis on the well-being of teachers and creating a positive work environment. Research indicates that teachers who experience servant leadership are more resilient and motivated. According to the research, by creating a supportive environment, leadership resilience enhances teacher performance. It highlights how crucial excellent servant leadership is to improving organizational climate, which in turn boosts teacher effectiveness and motivation in the classroom.

Leadership resilience has a complex effect on student results, affecting both academic achievement and personal growth. Students' critical thinking, self-leadership, and general adaptation to learning environments are all improved by leadership resilience.

Through the improvement of self-regulation behaviors, resilience in leadership has a good correlation with students' academic success. For example, a study discovered that resilience increases self-regulation, which, when bolstered by grit and social support, improves academic performance (Li et al., 2024). According to research, transformational leadership has less of an effect on student outcomes than instructional leadership, which is defined by establishing clear objectives and promoting teaching methods (Robinson et al., 2008).

Resilience in leadership enhances students' mental and emotional health. According to research, students who are more resilient adjust to college life better, and resilience has a significant role in their capacity to handle difficulties (Won & Seong, 2023). Resilient student leadership techniques, like encouraging a common goal and facilitating action, greatly improve students' self-resilience and equip them

for leadership roles in the future (Fauzi et al., 2023). Even though it is often known that leadership resilience improves student outcomes, it is important to keep in mind that different leadership philosophies have different consequences. For example, compared to more organized instructional approaches, transformational leadership might not be as successful at promoting academic success, indicating the necessity for customized leadership techniques in educational environments.

2.16 Leadership Resilience Training and Development Programs

The development of resilience in school leaders requires the implementation of key skills and strategies that prepare them to effectively handle challenges. Empirical research emphasizes varied approaches towards strengthening resilience in educational leadership, highlighting the importance of proactive leadership, community engagement, and personal well-being. It is assumed in the study by Buskila et al. (2024) that professional development programs should focus on fostering school leaders' resilience by promoting proactive, pragmatic, and innovative approaches, enabling them to find meaning, set goals, and manage the emotional climate during crisis moments. The resilience preparation of school leaders involves the use of systematic professional development initiatives, mentorship opportunities, and strategic leadership development policies. This helps develop an efficient leadership pipeline, thus enabling leaders to effectively face challenges and enhance their resilience in integrated senior high schools (Galorio & Bauyot, 2024).

Development of resilience among education leaders is critical towards successfully navigating the complexities and challenges that exist in modern educational environments. Resilience provides leaders with the ability to masterfully weather crises, adjust to changing situations, and maintain education standards. Scholarly literature identifies multiple methodologies and factors critical to developing resilience in education leadership. These include anticipatory planning, effective communication, emotional intelligence, and continuous professional development. Additionally, inculcating a positive mindset and trailblazing leadership is critical to overcoming adversity and achieving academic resilience. The following sections outline the basic elements of building resilience in education leaders.

2.16.1 Anticipatory Planning and Crisis Leadership

Educational leaders gain great benefits through extended training in crisis leadership in addition to creating contingency frameworks to effectively prepare for potential disruptions. Anticipatory planning requires the vision of potential challenges and the creation of strategies to effectively address those (Hill-Berry & Burris-Melville, 2024).

2.16.2 Emotional Intelligence and Communication

Emotional intelligence is a construct that is crucial for leaders to successfully navigate crises since it greatly enhances their ability to handle stress and communicate effectively with stakeholders. Effective communication ensures that all members of the education community are well informed and actively engaged during times of crisis (Hill-Berry & Burris-Melville, 2024).

2.16.3 Continuous Professional Development

Persistent professional development helps leaders stay up to date with current instructional methodologies and technology, thus enhancing their resilience (Hill-Berry & Burris-Melville, 2024). Training and faculty development in the use of technology are necessary for the successful transition to new modes of instruction delivery (Almerez & Duping, 2022).

2.16.4 Positive Mindset and Innovative Leadership

The embracement of a positive mindset and innovative leadership approaches allows leaders to adjust to changing situations and coordinate resources with effectiveness (Almerez & Duping, 2022). Those leaders with high performance attribute a prominent position to positive cognition and creativity as the mechanisms to overcome stressors and distractions (Hamid et al., 2023).

2.16.5 Interpersonal Relationships and Problem Solving

Developing good interpersonal relationships and undertaking problem-solving tasks are good methods of building resilience. Educational leadership training focuses on vicarious learning and relationship construction to facilitate the development of resilience (Lamb & Carver, 2020).

Although resilience is necessary for educational leaders, it is notable that challenges and stress can also generate creativity and performance. Leaders need to

balance stress management with optimistic thinking in order to sustain engagement and commitment under adversity (Hamid et al., 2023).

2.17 Summary

The literature reviewed shows that resilience is a key trait of effective leadership. It helps school leaders adjust, recover, and maintain performance during tough times. Resilient leaders are adaptable, optimistic, emotionally strong, and capable of turning challenges into chances for growth. Research highlights that resilience is not just an individual trait; it is also a group and contextual process influenced by experience, support systems, cultural values, and organizational habits.

The crisis management literature emphasizes the importance of being prepared, responding effectively, communicating well, recovering quickly, and planning for the long term as essential parts of handling crises in schools. Crisis management models stress the need for proactive planning, involving stakeholders, and learning from past experiences to improve school capabilities.

The link between leadership resilience and crisis management is clear. Resilient leaders can stay calm under pressure, make good decisions, encourage teamwork, and ensure that teaching and learning continue during crises. However, existing studies point out gaps in preparedness, a lack of training opportunities, and differences across sectors and regions.

In summary, the literature shows that leadership resilience is fundamental to effective crisis management. It also calls for more research, especially in the educational context of Pakistan. This sets the stage for the current study, which aims to examine how school leaders demonstrate resilience and manage crises in the local setting.

Overall, the reviewed literature shows the multidimensional nature of crisis management and leadership resilience. However, most current studies are international and focus on higher education rather than school leadership. There is a clear lack of empirical evidence examining how resilience influences crisis management practices in Islamabad's secondary schools. This study addresses this gap by analyzing resilience levels, crisis management practices, and differences among public and private sector school leaders.

CHAPTER 3

RESEARCH METHODOLOGY

This section explains the research methodology of the current study. The study is about the resilience and crisis management practices of school leaders. In this section research design, population, sample, instrument, data collection, data analysis techniques, and ethical considerations have been discussed in details.

3.1 Research Design and Paradigm

This study follows Quantitative approach of research. Descriptive research design has been used for conducting this research. This design is found to be appropriate because the study has examined the existing conditions without any manipulation. The paradigm of the study is positivist. This is because the study is objective in nature and is following quantitative research approach.

3.2 Population

The population of the study was all the principals of the secondary schools in the F, G, H, and I sectors of Islamabad Capital Territory. Both private and public schools' principals of this area were included in the population of the study. In the above mentioned sectors of Islamabad, there are 73 registered private secondary schools under PEIRA (Private Educational Institutions Regulatory Authority, 2024) and 38 government/ public secondary schools under FDE (Federal Directorate of Education, 2023). So the total population of the study was 111 principals. Population figures were verified from the official records of FDE and PEIRA.

Table 3.1

Population of the study

Schools	Principals
Public Schools	38
Private Schools	73
Total Population	111

3.3 Sample

For the sample of the study, stratified sampling technique was used. Two strata were identified by the researcher, which are public school principals and private school principals. Stratified sampling technique was used because these two sectors differ administratively which may affect the resilience and crisis management practices of their leaders. 35 principals were selected as a sample from the public sector schools and 62 principals were selected from private sector schools of sectors F, G, H, and I of Islamabad. Proportional allocation was used for the fair representation from both the sectors. The sample size was selected using sampling table developed by Krejcie and Morgan (1970) as cited by Gay (2000) in his book, *Educational Research: Competencies for Analysis and Application*.

Table 3.2

Sample of the study

	Population	Sample
Public School Principals	38	35
Private School Principals	73	62
Total Sample		97

3.4 Instrument

To collect the data, two research instruments were used. As for the first instrument, researcher adapted standardized instrument which is CD-RISC (Connor-Davidson Resilience Scale). This is a 25 item questionnaire which is in the form of five-point Likert scale (5 to 1), developed to check the resilience level of individuals (Connor & Davidson, 2003). In this scale, 5 indicates that the statement is true nearly all the time, 4 indicates that the statement is often true, 3 means the statement is sometimes true, 2 indicates that the statement is rarely true and 1 indicates that the statement is not true at all. By using this instrument, the researcher had checked the resilience level of the secondary school leaders.

The second instrument is a self developed Crisis Management Scale which consists of five different dimensions and 34 items. The instrument is based on 5-point Likert scale (5-1). In this instrument 5 indicates strongly agree, 4 indicates agree, 3 indicates neutral, 2 indicates disagree, and 1 indicates strongly disagree. The five dimensions of the instrument are Crises Management Preparedness, Crises Response, Recovery from Crises, Communication, and Strategies for Crises Management. This instrument was used to check the crisis management practices of school leaders. The Crisis Management Scale development followed a structured and systematic process. First, a thorough review of the crisis management literature was carried out to establish a theoretical basis. From this review, the important dimensions for crisis management were identified: preparedness, response, communication, recovery, and strategies. Following this, items were generated for each dimension that would comprehensively cover the construct. These then underwent expert review to establish content validity, and pilot testing for item clarity, reliability, and overall effectiveness of the scale.

3.5 Procedure (Validity, Pilot testing, and Reliability)

Validity refers to the degree to which an instrument accurately measures the concept it intends to measure. In this study validity of both the instruments was ensured to confirm that the instruments accurately assessed leadership resilience and crisis management practices among school leaders. For this purpose, both the instruments were analyzed by five experts in the field of education. Based on their suggestions, the items of CD-RISC scale were rephrased and specified according to present study. After the rephrasing the tool was again revalidated to ensure content validity of the instrument. Crisis management scale was also refined based on the expert opinions. Content validity of both the instruments was ensured and instruments were considered relevant and simple by experts. Consequently, the instruments used in this research study were considered valid measures for analyzing leadership resilience and crisis management practices among secondary school leaders, after incorporating the feedback of experts in the field.

Before administering the final instruments to the target population, a pilot test was conducted to ensure clarity, appropriateness, and suitability of the questionnaire items. For this purpose, 10% of the total sample was selected which comprised of 10 secondary school principals who were not included in the final study (Connelly,

2008). The purpose of the pilot testing was to identify any ambiguous, confusing or redundant statements in both the modified CD-RISC scale and the self developed Crisis Management Scale, and to make necessary improvements based on the feedback. This testing helped in refining the items, ensuring that the respondents understood the statements, and confirming that the instruments were good to administer within the secondary school settings.

Reliability refers to the consistency and stability of an instrument in measuring the intended construct across different contexts and time (Gay, Mills, & Airasian, 2012). After the pilot testing, the reliability of both instruments was assessed using the Cronbach Alpha technique through SPSS software. Cronbach's Alpha determines the internal consistency of the items within each scale. Higher values of Cronbach alpha indicate stronger reliability, confirming that the items in a scale consistently measure the same underlying construct. The calculated values of Cronbach Alpha for the modified CD-RISC scale was 0.87 and the Crisis Management Scale was 0.85 which demonstrated acceptable reliability levels, which indicated that the instruments were internally consistent and suitable for the main data collection phase.

Table 3.3

Reliability Statistics of CD-RISC Scale

Instrument	Constructs	No. of Items	Cronbach's Alpha Value
CD-RISC Scale		25	0.87
	Adaptability	7	0.79
	Emotional Intelligence	6	0.71
	Persistence	6	0.80
	Learning Orientation	6	0.74

Table 3.4*Reliability Statistics of Crisis Management Scale*

Instrument	Constructs	No. of Items	Cronbach's Alpha Value
Crisis Management Scale		34	0.85
	Preparedness	7	0.82
	Response	6	0.87
	Recovery	7	0.86
	Communication	7	0.80
	Strategies for CM	7	0.83

3.6 Data Collection

For the present study, the data were collected from the principals of the secondary schools in F, G, H, and I sectors of Islamabad by visiting the schools. The participants included in the sample of the study were given two options to fill the questionnaires according to their convenience. They were to either fill out the questionnaires given to them in printed form or they were also given option to fill them in soft form (Google form). Some principals took the first option and filled the questionnaires in printed form while others asked for Google form link to fill the questionnaires as per their convenience.

3.7 Data Analysis

The study is analytical because it focused on systematically comparing leadership resilience and crisis management practices between public and private school leaders. By analyzing resilience as an individual variable, the study highlights how leaders adapt and recover from challenges, while the analysis of crisis

management practices emphasizes their strategies for handling unexpected events. Employing statistical methods ensures objectivity and accuracy in identifying variations, providing reliable evidence to inform leadership practices and enhance educational outcomes.

The data collected from the respondents was entered into Statistical Package for Social Sciences (SPSS) for analysis. Both descriptive and inferential statistical techniques were used to address the research objectives.

Descriptive statistics including mean statistics and standard deviation were applied to determine the level of leadership resilience among secondary school principals and to examine their crisis management practices.

To test the hypotheses and examine the differences between groups, independent sample t-tests were employed (inferential statistics). These tests were used to compare leadership resilience and crisis management practices between public and private school leaders. To determine the relationship between the leadership resilience and crisis management practices of school leaders, Pearson correlation test was employed. To check the effect of leadership resilience on crisis management, linear regression was calculated.

3.8 Ethical Considerations

In order to guarantee the psychological, emotional, and physical security of the participants participating in this study, several ethical considerations were followed. First, all participants of the study participated voluntarily and were asked to give verbal informed consent and were guided about current study. All personal information and answers were treated as confidential and anonymous to participants and so data can only be accessed by the researcher. Participants had a right to withdraw from the study at any moment without penalty or obligation to provide reason. It was strictly voluntary participation. There was no coercive or overly influential manipulation in soliciting participants. All interactions took place in a safe, comfortable, and neutral environment in which the physical safety and well-being of participants were warranted.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATIONS

4.1 Introduction

This chapter presents the analysis and interpretation of the data collected to address the study's research goals. This analysis aimed to look at the leadership resilience of secondary school principals and their crisis management practices. It also sought to identify any differences based on school sector (public & private). The data were analyzed using descriptive statistics, including mean and standard deviation, to determine the overall trends and levels of the variables. Furthermore, inferential statistics, particularly the independent samples t-test, was used to compare the resilience and crisis management practices of principals in public and private sector schools. Pearson correlation was used to determine the relationship between the variables, and simple linear regression was conducted to check the effect of leadership resilience on crisis management practices of school leaders. The results are shown in tables, followed by their interpretation in relation to the research questions and objectives.

Two instruments were used to achieve the objectives of the study. One of them is CD-RISC scale which was adapted by the researcher. This questionnaire analyzes the level of resilience of school leaders. The other is a self developed Crisis Management Scale which has been used to check the crisis management practices of school leaders. The analysis and interpretations of these instruments based on the objectives is presented in this chapter.

Table 4.1*Sector wise Percentage of the Sample*

Sector	N
Public	35
Private	62
Total	97

Table 4.1 shows that 35 public secondary schools (36.1%) and 62 private secondary schools (63.9%) of Islamabad were included in the sample of the study.

Table 4.2*Cut-off Ranges for Responses Interpretation*

Mean Scores Range	Interpretation
1.00-2.49	Low
2.50-3.49	Medium
3.50-5.00	High

(Best & Kahn, 2006)

Table 4.2 shows the cut-off ranges for determining the levels of resilience of school leaders. The mean scores ranging between 1.00 to 2.49 shows the low resilience level, the means score between 2.50 to 3.49 shows medium resilience level and the mean score between 3.50 and 5.00 shows the high level of resilience.

4.2 Descriptive Statistics

4.2.1 Resilience Level of School Leaders

This section analyzes the data to find out the level of resilience of secondary school principals. Sub-construct wise analysis of CD-RISC scale has been presented below in the form of tables.

Table 4.3

Responses on Resilience level of school leaders

Sub-constructs	N	Mean	SD
Adaptability	97	3.90	0.57
Emotional Intelligence	97	3.93	0.58
Persistence	97	4.06	0.69
Learning Orientation	97	4.04	0.62
Overall Resilience	97	3.98	0.56

Table 4.3 presents the mean scores of the sub-constructs of leadership resilience scale. The results show that all four dimensions showed high level of resilience of school leaders. Persistence has the highest mean score (4.06), suggesting that school leaders consistently continue their efforts, remain goal-oriented, and maintain determination even during crisis situations. Learning orientation also scored close (4.04) to the persistence showing that leaders are always ready to learn from situations. Emotional intelligence and adaptability also show high levels. The overall resilience mean score of 3.98 reflects a high level of leadership resilience among the school leaders.

Table 4.4*Responses of Leaders on Crisis Management Practices*

Crisis Management Practices	Mean	SD
Crisis Management Preparedness	3.86	0.62
Crisis Response	4.22	0.61
Recovery from Crisis	4.09	0.57
Communication	4.11	0.57
Strategies for Crisis Management	4.11	0.61
Overall Crisis Management	4.07	0.53

Table 4.4 shows the mean scores and standard deviation for different dimensions of the crisis management scale. The results indicate that Crisis Response had the highest mean score (4.22), suggesting that school leaders are highly effective in taking timely and appropriate actions during crises. This is followed by Recovery from Crisis (4.09), Communication (4.11), and Strategies for Crisis Management (4.11), all of which show strong practices among principals in ensuring smooth post-crisis operations, maintaining open channels of communication, and adopting effective strategies. The dimension of Crisis Management Preparedness recorded the lowest mean score (3.86), indicating that while leaders are generally proactive, there is comparatively less emphasis on planning and preventive measures before a crisis occurs. Overall score for the crisis management practices of school leaders (4.07) shows that these practices are followed closely by school leaders.

4.3 Inferential Statistics

T-test Results

H_{01} : There is no significant difference in leadership resilience between public and private school leaders.

Table 4.5

Difference in leadership resilience between public and private school leaders

Sector	N	Mean	t-value	Df	p-value
Public Sector	35	4.12	1.94	84.31	0.056
Private Sector	62	3.90			

Table 4.5 shows that the t-value = 1.94 and p-value = 0.056, which is greater than the significance level of 0.05. Moreover, the table shows a minor difference in the mean score of public sector leaders (4.12) and private sector leaders (3.90). Thus, the null hypothesis that there is no significant difference in the leadership resilience of public and private school leaders is accepted, as the difference is not statistically significant.

H₀₂: There is no significant difference in crisis management practices between public and private school leaders.

Table 4.6

Difference in Crisis Management Practices between public and private school leaders

Sector	N	Mean	t-value	Df	p-value
Public Sector	35	4.15	1.25	94.95	0.215
Private Sector	62	4.03			

Table 4.6 shows that the t-value = 1.25 and p-value = 0.215, which is greater than the significance level of 0.05. Moreover, the table indicates a very small difference in the mean score of public sector leaders (4.15) and private sector leaders (4.03). Hence, the null hypothesis that there is no significant difference in the crisis management practices of public and private school leaders is accepted, as the difference is not statistically significant.

H₀₃: There is no significant relationship between leadership resilience and crisis management practices of school leaders.

Table 4.7

Relationship between leadership resilience and crisis management practices of school leaders

Variable	S	R	p-value
Leadership resilience	97	0.709	0.000
Crisis management practices			

Table 4.7 shows that Pearson product–moment correlation was performed to examine the relationship between leadership resilience and crisis management practices of school leaders. The results indicates a strong, positive, and statistically significant relationship between the two variables ($r = .709$, $p < .001$), suggesting that school leaders with higher levels of resilience tend to demonstrate more effective crisis management practices. Based on this result, the null hypothesis H₀₃, which stated that there is no significant relationship between leadership resilience and crisis management practices, is rejected.

H₀₄: There is no significant effect of leadership resilience on crisis management practices of school leaders.

Table 4.8

Regression Coefficient of Leadership Resilience on Crisis Management Practices of School Leaders

Variable	<i>B</i>	β	<i>SE</i>	<i>Sig</i>
Constant	1.425		0.273	0.000
Leadership Resilience	0.665	0.709	0.068	0.000
R ²	0.503			

Note. N=97

Table 4.8 shows that simple linear regression analysis was conducted to determine the effect of leadership resilience on crisis management practices of school leaders. The regression model was statistically significant, $F(1, 95) = 96.27$, $p < .001$, indicating that leadership resilience significantly predicts crisis management practices. The model explained 50.3% of the variance in crisis management practices ($R^2 = .503$), demonstrating a strong predictive relationship. The coefficient results further revealed that leadership resilience had a positive effect on crisis management practices ($B = .665$, $t = 9.811$, $p < .001$), suggesting that an increase in leadership resilience leads to an improvement in the crisis management abilities of school leaders. Based on these findings, the null hypothesis H₀₄ is rejected.

CHAPTER 5

SUMMARY, FINDINGS, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

This chapter includes summary of the study, findings based on data analysis, discussion about the research, conclusion based on the results and findings, and finally the recommendations.

5.1 Summary

This study explored how secondary school principals in Islamabad handle leadership resilience and crisis management. It aimed to understand how well school leaders deal with challenges, bounce back from setbacks, and manage crises in their institutions. Leadership resilience was seen as a key factor that helps principals maintain stability and lead effectively during uncertain and difficult times. The research also looked into the crisis management practices that principals use to prepare for, respond to, and recover from crises in their schools. This provides insights into how ready secondary schools are to face unexpected challenges. The study was based on the following objectives: (i) to find out the level of resilience of school leaders, (ii) to find out the crisis management practices of school leaders, (iii) to find out the difference between the leadership resilience of public and private school leaders, (iv) to compare the crisis management practices of public and private school leaders. The population of the study consisted of 111 secondary school principals from both public and private sector schools. These schools were located in F, G, H, and I sectors of Islamabad. The sample of the study consisted of 97 secondary school principals, 35 from public schools and 62 from private schools. The sample was based on stratified random sampling technique. Krejcie and Morgan sampling table (1970) as cited by Gay (2000) was used to select the sample size for each stratum. Two research instruments were used for this study. The first one is CD-RISC scale which was adapted by the researcher and it was based on 5 point scale ranging from Not true at all to True nearly all the time. This instrument was used to check the resilience level of school leaders. The second instrument is Crisis Management Scale which is a self developed scale. It consists of 5 point Likert scale ranging from Strongly disagree to Strongly agree. This instrument was developed to find out the crisis management practices of the school leaders. The validity of both the

instruments was checked by the experts and pilot testing was done for the instruments. Reliability of CD-RISC scale and CMS was calculated using Cronbach Alpha technique and the values were 0.87 and 0.85 respectively. Reliability of sub-constructs of both the tools was also calculated. Data was collected by the researcher through personal visits to the schools. Research gave the options to principals of filling the questionnaires in hard form (printed form) or in soft form (Google forms) as convenient for them. Some respondents filled the printed form of questionnaires and some asked for Google form link. For the analysis of data mean scores and standard deviation was calculated using SPSS software to find out the resilience level and crisis management practices of school leaders. T-test was applied to find out the differences between resilience level and crisis management practices among public and private school leaders. Pearson correlation was applied to determine the relationship between the leadership resilience and crisis management practices of school leaders. Regression analysis was done for checking the effect of leadership resilience on crisis management practices of school leaders.

5.2 Findings

After the analysis of the collected data, following findings were drawn on the basis of objectives of the study.

Objective 1: To find out the level of resilience of school leaders

1. The overall resilience level of secondary school leaders was high, with an overall mean score of 3.98. (Table 4.3)
2. Persistence had the highest mean score (4.06), indicating that leaders remain goal-oriented and determined even during crisis situations. (Table 4.3)
3. Learning orientation was also high (4.04), suggesting that leaders actively learn from experiences and adapt their strategies. (Table 4.3)
4. Emotional intelligence scored 3.93, reflecting leaders' ability to manage emotions effectively in challenging situations. (Table 4.3)
5. Adaptability scored 3.90, showing that leaders can adjust their approaches according to changing circumstances. (Table 4.3)

6. The combination of these four dimensions indicates that school leaders possess well-rounded and strong leadership resilience, enabling them to respond effectively to crises. (Table 4.3)

Objective 2: To analyze the crisis management practices of school leaders.

7. The overall crisis management practices of school leaders were high, with an overall mean score of 4.07. (Table 4.4)
8. Crisis Response had the highest mean score (4.22), indicating that leaders are highly effective in taking timely and appropriate actions during crises. (Table 4.4)
9. Recovery from Crisis scored 4.09, showing that leaders ensure smooth post-crisis operations and restore normal functioning efficiently. (Table 4.4)
10. Communication scored 4.11, reflecting leaders' ability to maintain open and effective communication during and after crises. (Table 4.4)
11. Strategies for Crisis Management also scored 4.11, suggesting that leaders adopt well-planned strategies to handle crises effectively. (Table 4.4)
12. Crisis Management Preparedness had the lowest mean score (3.86), indicating that there is relatively less focus on preventive measures and proactive planning before crises occur. (Table 4.4)
13. These findings suggest that while school leaders excel in responding to and recovering from crises, there is room for improvement in pre-crisis planning and preparedness. (Table 4.4)

Objective 3: To determine the difference between the leadership resilience of public and private school leaders.

14. The t-value (1.94) and p-value (0.056) which is greater than significant value 0.05, shows that there is no significant difference between the leadership resilience of public and private school leaders. So the null hypothesis is accepted (Table 4.5).

Objective 4: To compare the crisis management practices of public and private school leaders.

15. The t-value (1.25) and p-value (0.215) which is greater than significance level of 0.05 shows that there is no significant difference in the crisis management practices of public and private school leaders. So the null hypothesis is accepted (Table 4.6).

Objective 5: To determine the relationship between leadership resilience and crisis management practices of school leaders.

16. The analysis revealed a strong, positive, and statistically significant relationship between leadership resilience and crisis management practices ($r = 0.709$, $p < 0.001$), indicating that school leaders who exhibit higher levels of resilience are more likely to implement effective crisis management strategies and respond efficiently to challenging situations. So, the null hypothesis that there is no significant relationship between leadership resilience and crisis management practices of school leaders is rejected. (Table 4.7)

Objective 5: To determine the effect of leadership resilience on crisis management practices of school leaders.

17. Simple linear regression analysis revealed that leadership resilience is a significant predictor of crisis management practices among school leaders ($B = 0.665$, $\beta = 0.709$, $p < 0.001$). The model explained 50.3% of the variance in crisis management practices ($R^2 = 0.503$), indicating that higher levels of leadership resilience lead to improved crisis management abilities. Based on this result, the null hypothesis that there is no significant effect of leadership resilience on crisis management practices of school leaders is rejected. (Table 4.8)

5.3 Discussion

The present study assessed the resilience capacity of secondary school principals in Islamabad and crisis management approaches, and the differences between public and private sector organizations. The study revealed that school

principals showed high resilience (overall mean score of 3.98 on the CD-RISC scale) and demonstrate good crisis management approaches such as preparedness, response, recovery, communication, and organizational continuity strategies. The findings support the literature that identifies leadership resilience as a decisive force behind good crisis management in schools.

The results verified that school principals demonstrated an incredible ability to adapt quickly to a range of challenges, drawing upon past experiences of crisis management in building endurance, and their perseverance even in apparently hopeless circumstances. Such high resilience levels are in line with conceptualizations presented by Ledesma (2014) and Mills & McKimm (2016), which define resilience as the capacity to recover from hardship and sustain performance under high-pressure situations. Similarly, Gray (2017) opines that resilience is mostly acquired through learning by experience, an argument supported in this study, where majority of the principals credited their resilience to their past experience of crisis management.

Interestingly, resilience was not solely made up of internal psychological components; leaders also drew upon social and spiritual resources. For example, the presence of belief in divine assistance and having supportive peers were significant aspects of resilience. The claim made by Nzinga et al. (2021), which states resilience, is formed through cognitive, behavioral, and contextual ability, such as supportive networks, is evidenced through this result. Within the Pakistani context, where religion and group decision-making are prominent, these results indicate resilience is not only shaped within personal characteristics but also within cultural and relational ones.

The study found crisis management practices to be extremely effective, with school principals reporting high levels of readiness, team engagement, and adaptability. For example, prioritization of students' and employees' well-being, pre-assignment of staff roles, and effectiveness in communication with stakeholders were strongly emphasized. These findings confirm the observation made by Salahi et al. (2023) that effective crisis management is essentially grounded in planned organization, effective communication, and anticipatory measures. In addition, the findings confirm Mitroff's (1994) five-step model of crisis management, particularly in the emphasis on planning, damage control, and recovery. These findings reflect the

preventive and responsive stages of crisis management outlined by Coombs (2007), suggesting that Islamabad's school leaders largely follow a proactive model despite limited institutional resources.

In addition, the findings lean towards the tendency of principals to view crises as opportunities for development and institutional growth. This is consistent with the transformational leadership dimension explained by Abramova et al. (2021), where crisis is used by leaders to develop innovation and resilience in institutions. It is also consistent with the claims by Robinson et al. (2008), who articulate instructional leadership as key in ensuring educational continuity during crises.

Although the literature often emphasizes the structural differences between public and private schools, such as dependence on policy in public schools and autonomy with flexibility in private schools (Hamid et al., 2023; Sinlapapiromsuk et al., 2023), the present study did not find any significant difference in either leadership resilience or crisis management practices between the two groups. This similarity can be attributed to the shared external challenges faced by the two sectors in the same city, including resource limitations, delays in administration, and recurring security or policy disruptors that create comparable pressures on school leaders irrespective of institutional type. Under such uniform conditions, principals develop parallel coping strategies and crisis responses, which may explain the statistical convergence observed in this study. This finding is also supported by previous research that similarly reported no significant sector-based difference in resilience levels among school leaders in comparable educational contexts (Nurjaningsih, 2025).

The findings highlight resilience as not only being an individual trait but also a necessary organizational demand. Islamabad's educational leaders demonstrated an ability to combine personal resilience with group team strategies and cultural reliance on belief and trust in efforts to sustain their institutions in times of crisis. This synergy supports Taylor et al. (2019), who postulate that organizational resilience is based on individual resilience and therefore enables better overall institutional performance. The research also showed that although principals overall were proactive, factors such as frequent crisis drills and external expert involvement scored relatively lower. This reflects the disparity between policy planning and operational procedure, as noted by Boyles (2010), who noted systemic deficiencies in public institutions. Strengthening

the weaker factors would improve resilience capacity in schools substantially.

The findings show that there is a significant and strong relationship between leadership resilience and crisis management practices of secondary school leaders. This indicates that the higher the level of resilience a leader has, the more capable one is in managing and delivering in a crisis situation efficiently. These results are consistent with the literature that resilient leaders are more capable of managing uncertainty, sustaining emotional stability, and making timely decisions during a crisis (Al Shamlan, 2021; Smith & Riley, 2012). The positive correlation supports the argument that resilience is an important personal attribute of leaders that enhances a leader's ability to navigate complex and pressurized situations, hence providing continuity and stability for educational institutions in adverse events.

In addition, regression analysis showed that leadership resilience was a significant predictor of crisis management practices. This means it is not just a relationship but also a causal impact wherein the greater the resilience, the stronger the crisis management capability of school leaders. This result is in line with past research that has established that resilient leaders are those who actively use adaptive strategies, learning orientation, and emotional intelligence to manage crises effectively (Luthar et al., 2006). The findings support the theoretical insight that resilience is not only a coveted but also a determining characteristic for effective crisis leadership. As a result, the study is in a position to give empirical evidence to support the assertion that developing leadership resilience can directly enhance preparedness, response, and recovery capacities among school leaders in the time of crisis.

5.4 Conclusion

On the basis of the analysis and findings of the research, the following conclusions were made:

1. Secondary school leaders in Islamabad demonstrated a high level of leadership resilience, with persistence and learning orientation being the strongest dimensions, indicating their ability to remain determined and continuously learn from experiences.
2. Crisis management practices among school leaders were high overall, with the strongest performance in crisis response, communication, recovery, and

strategic management, while pre-crisis preparedness was relatively lower.

3. There is no substantial difference in public and private school leaders' resilience level.
4. There is no significant difference in the crisis management practices of public and private secondary school leaders.
5. There exists a strong, positive, and statistically significant relationship between leadership resilience and crisis management practices, indicating that more resilient leaders are better equipped to manage crises effectively.
6. Leadership resilience was found to be a significant predictor of crisis management practices, highlighting that improvements in resilience directly enhance leaders' crisis management abilities.
7. It is to conclude that leadership resilience is a critical factor for effective crisis management, and fostering resilience among school leaders can strengthen their preparedness, response, recovery, and overall management of crisis situations.

5.5 Recommendations

On the basis of findings and conclusion, following recommendations were drawn:

- 1 Secondary school leaders demonstrated high resilience, particularly in persistence and learning orientation. So it is recommended that school administrations may provide structured professional development programs focusing on enhancing persistence and adaptive learning, which can be implemented through workshops, mentorship, and action-learning projects by school leadership teams.
- 2 Crisis management practices were strong in response, recovery, communication, and strategies, but preparedness was comparatively lower. So it is recommended that the school management and educational authorities may organize regular crisis simulation drills, risk assessment exercises, and preparedness workshops to strengthen pre-crisis planning and proactive measures.
- 3 No difference was found between public and private schools in resilience and crisis practices. Therefore, uniform policy guidelines and equal access to resources may be ensured for both sectors by education policymakers at the

national and provincial levels.

- 4 There is a strong positive relationship between leadership resilience and crisis management practices. So it is recommended that Education department officials and school principals may incorporate resilience-building initiatives, such as coaching, peer support groups, and stress management sessions, to enhance leaders' capacity to handle crises effectively.
- 5 Leadership resilience significantly predicts crisis management practices so, it is recommended that Policymakers and school boards may design policies that integrate resilience assessment into leadership development programs, ensuring that leaders with high resilience are identified, supported, and assigned to roles requiring crisis management responsibilities.

5.6 Recommendations for the Future Research

The future researches can explore following dimensions:

- 1 As this study was delimited to secondary level schools of Islamabad only than future researches can be conducted on leadership resilience in different regions and educational levels.
- 2 Further research can explore the underlying factors contributing to high resilience levels among principals in Islamabad.
- 3 Future researches can explore the views of teachers, students, and parents, along with school leaders.
- 4 Future researches can use longitudinal research designs to look at changes in resilience over time.
- 5 As this study used quantitative approach, in future qualitative or mixed-methods approaches can be employed for further insights.
- 6 Future studies can investigate differences in resilience and crisis management styles based on gender.

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**Leadership Resilience in Crisis Management: An Analytical Study
Connor-Davidson Resilience Scale (CD-RISC 25)**

Respected Principals, the Researcher is MS scholar at the International Islamic University, Islamabad, and researching the topic “**Leadership Resilience in Crisis Management: An Analytical Study**”. This questionnaire has different statements to determine the resilience level of school leaders. Your responses will be kept confidential and only used for research purposes.

Demographic Information

Gender Male Female
Sector Public Private

Please mark the space corresponding to the statement number that best describes you about each statement.

	1	2	3	4	5
	Not true at all	Rarely true	Sometimes true	Often true	True nearly all the time

	Statement	1	2	3	4	5
	Adaptability					
1	I am able to adapt quickly when unexpected challenges arise in my leadership role					
2	I can lead effectively, even when the situation is uncertain or overwhelming.					

3	I am able to bounce back quickly after setbacks or failures in leadership					
4	I remain focused and make clear decisions under pressure					
5	I am capable of making tough or unpopular decisions during critical times					
6	I trust my judgment and instincts when making leadership decisions in uncertain situations					
7	I feel in control of my actions and decisions, even during chaotic situations					
Emotional Intelligence						
8	I have at least one trusted colleague or advisor I can rely on during a crisis					
9	I try to maintain a sense of humor and optimism when dealing with organizational crises					
10	Even in hopeless situations, I continue to lead with determination					
11	In times of institutional crisis, I know where and how to seek support or resources					
12	I can manage painful emotions like fear, stress, or frustration while leading others					
13	I have a strong sense of mission and purpose in my leadership role					
Persistence						
14	I consistently put in my best effort, even when managing severe crises					

15	I believe I can accomplish leadership goals, even when faced with major obstacles					
16	I take initiative and guide my team in finding solutions during crisis situations					
17	I do not let leadership failures discourage me from future efforts					
18	I work diligently to achieve goals, even during crisis situations					
19	I take pride in how I lead and manage through difficult times					
	Learning Orientation					
20	I believe divine guidance or fate sometimes supports me in leading through difficult times					
21	My previous experiences of managing crises give me confidence in current situations					
22	Leading through stressful situations has made me a stronger and more resilient leader					
23	I believe every crisis has a reason and offers a learning opportunity for leadership growth					
24	I view myself as a strong and resilient leader when navigating challenges					
25	I see crises as opportunities to grow as a leader and to improve my institution					

APPENDIX II

CRISIS MANAGEMENT SCALE

Please mark the space corresponding to the statement number that best describes you about each statement.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Sr. No.	Statements	SD	D	N	A	SA
Crisis Management Preparedness						
1	I regularly assess potential risks and prepare plans to address them.					
2	I ensure my school has clear protocols in place for handling crises.					
3	I actively involve my team in preparing for potential crises.					
4	I stay updated on new strategies or tools for managing crises.					
5	I ensure that crisis management drills are conducted regularly at my school					
6	I allocate specific roles to staff members in advance to handle crises efficiently.					
7	I engage with external experts to review and improve our crises preparedness plans.					
Crises Response						
8	I respond quickly and effectively when a crisis occurs.					

9	I prioritize the safety and well-being of students and staff during crises.					
10	I communicate clearly and promptly with stakeholders during crises.					
11	I stay flexible and adjust my plans as the crisis evolves.					
12	I focus on minimizing disruptions to teaching and learning during crises.					
13	I seek feedback from my team to make informed decisions during a crisis.					
Recovery from Crises						
14	I take active steps to restore normalcy after a crisis.					
15	I reflect on the crises and identify areas for improvement.					
16	I use crises as opportunities to strengthen the resilience of my school community.					
17	I ensure that lessons learned from crises are documented and shared.					
18	I provide support to staff and students to help them recover emotionally after a crisis.					
19	I evaluate the long-term impact of the crises on the school's performance and well being.					
20	I implement regular post crises evaluations to improve future preparedness.					

Communication					
21	I encourage open communication among staff during crises.				
22	I collaborate with other schools or community leaders during crises.				
23	I provide regular updates to parents and stakeholders during crises.				
24	I actively seek input from staff when making critical decisions during crises.				
25	I foster a culture of trust to improve communication during crises.				
26	I use multiple communication channels (e.g. Emails, meetings, social media) to reach all stakeholders during crises.				
27	I ensure staff members feel empowered to share concerns or suggestions during challenging times.				
Strategies for Crisis Management					
28	I delegate tasks effectively to my team during crises to ensure efficiency.				
29	I build strong relationships with staff to foster trust and support during challenging times.				
30	I conduct regular training sessions to enhance the crisis preparedness of my team.				
31	I encourage creative problem-solving to address unexpected challenges during crises.				

32	I focus on maintaining a positive school environment to reduce the psychological impact of crises on staff and students.					
33	I prioritize mental health and well-being initiatives for staff and students during and after crises.					
34	I engage external experts or resources to get help in managing crises effectively when needed.					

Thank you for responding!

SAMPLE OF THE STUDY

List of Public Sector Schools

Sr. No.	Name of School
1	IMSG(VI-X) G-6/1-3
2	IMSG (VI-X) G-6/2, ISLAMABAD
3	IMSG (I-X) G-11/2
4	IMSG (VI-X) G-7/1 Islamabad
5	Islamabad Model School For Girls (Vi-X), G-7/2 IBD
6	IMSG (VI-X) F-7/2
7	IMSG (VI-X) F-6/1
8	Islamabad Model School For Girls(I-X)PM Staff Colony G,5 Islamabad
9	IMSB (I-X) P.M. Colony G-5 Islamabad
10	Islamabad Model School For Girls (VI-X) G-8/2, Islamabad
11	IMSG (VI-X) G-9/3, ISLAMABAD
12	IMSG (VI-X) G-9/4
13	IMSG (I-X) G-9/1 ISLAMABAD
14	IMSG (VI-X) G-10/1
15	IMSG (I-X) ,G-10/3
16	Islamabad Model School For Girls (VI-X), St. 10, G-11/1, Islamabad
17	Islamabad Model School For Boys (I-X), I-8/1, Islamabad.
18	IMSB (VI-X) I-8/4 Islamabad
19	IMSG (VI-X) I-8/1
20	Islamabad Model School I-8/1 Islamabad
21	IMSG (VI-X) I-10/4
22	IMSG (VI-X) I-9/4 Islamabad
23	Shamowail Tariq Shaheed Model School Ffor Boys VI-X G-8/1 Islamabad
24	IMSB (VI-X), G-10/3, Islamabad
25	IMSB (VI-X) G-9/1

26	Saqib Ghani Shaheed Model School For Boys (VI-X), G-9/1, Islamabad
27	Wasif Ali Shaheed Model School for Boys (VI-X), G-11/2
28	Islamabad Model School for Boys (VI-X) G-7/3-1, Islamabad
29	IMSB (VI-X) F-6/2
30	Tanveer Hussain Shaheed Model School For Boys G-7/4, Islamabad
31	IMSB (VI-X) I-10/2 Islamabad
32	Islamabad Model School for Boys (VI-X) No.2, I-9/4, Islamabad
33	IMSB (VI-X) G-8/4
34	IMSG (VI-X) F-11/1
35	IMSG(VI-X) F-11/1

SAMPLE OF THE STUDY
List of Private Sector Schools

Sr. No.	Name of Institute	Branch/ Address
1	Al Huda International School	Plot No. 58, Nazimuddin Road, Sector F-8/4, Islamabad.
2	Al Mustafa Learning International School System (ALI School System)	House No. 1136, Neelum Road, Sector G-9/4, Islamabad
3	Allied School	House No. 387, Ibn e Sina, Sector G-10/2, Islamabad.
4	Americano International School	House No. 1, Street No. 8, Sector G-13/3, Islamabad.
5	Angelique School	Street No. 81, Embassy Road, Sector G-6/4, Islamabad.
6	Apples The Grooming School	House No. 04, Nazimuddin Road, Sector F-10/1, Islamabad.
7	Bahria Foundation College	House No. 242, Street No. 45, Sector F-11/3, Islamabad.
8	Brainstorm Education System	Makkah Plaza, I-10, Islamabad
9	CDA Model School	Sector I-9/4, Islamabad.
10	Concordia College (City Campus)	House No. 06, Nazimuddin Road, Sector F-10/4, Islamabad.
11	Dar Ali Bin Abi Talib	Opp Shifa International Hospital, Sector H-8/1, Islamabad.
12	Future World School & College	Plot No. 56, Sector H-11/4, Islamabad
13	Hira Islamic School & College System	House No. 768, Service Road (West), Sector G-9/1, Islamabad.
14	Huffaz Science School & Education System	Street No. 35-B, Near Chaudhry Market, Sector I-9/4, Islamabad.
15	International Islamic University Islamabad (IIUI)	House No. 485, Street No. 09, Ahmed Faraz Road, Sector F-10/2, Islamabad.
16	Islamabad Grammar School	Plot No. 13, Service Road (North), Sector I-8/2, Islamabad.
17	Khaldunia High School	Plot No. 2-S, Street No. 94, Sector G-11/3, Islamabad.
18	Khatoon e Fatima High	Street No. 55, Sector F-8/4, Islamabad.

	School	
19	Mashal Model School	Mohallah Aspalal, Noorpur Shahan, Bari Imam, Islamabad.
20	Nurture International School	Plot No. 01, Street No. 94, Sector G-11/3, Islamabad.
21	Oxbridge Islamic Grammar School	House No. 07, Main Double Road, Sector F-11/3, Islamabad.
22	Oxford High School	Plot No. 413, Street No. 43, Sector G-9/1, Islamabad.
23	Pakistan Sweet Home Model School System	Near HEC, Sector H-9/4, Islamabad
24	Preparatory School Islamabad	Block No. 18, Street No. 31, Diplomatic Enclave II, Sector G-5, Islamabad.
25	Roots IVY International Schools (Angelique Campus)	Embassy Road G/6-4, Islamabad.
26	Sky School System	House No. 310, Margalla Road, Sector F-11/3, Islamabad
27	SOS Hermann Gmeiner School	Near Police Academy, Opp. Nust University, Sector H-11, Islamabad.
28	Step Schools (Capital Campus) [Old: Resource Academia]	238, Major Road, Sector F-11/4, Islamabad (Old: 286 Sumbal Raod, Sector F-10/4, Islamabad)
29	The Air Grammar School	House No. 20, Street No. 687, Main Double Road, Sector G-13/3, Islamabad
30	The Educators (Federal Campus)	House No. 57-C, Saddar Road, Sector G-6/1-3, Islamabad.
31	The Educators (Islamabad Campus)	House No. 293, Street No. 100, Sector I-8/4, Islamabad.
32	The National School & College	House No. 1462-1465, Street No. 18, Sector I-10/1, Islamabad.
33	The Science School	Plot No. 26, Sector H-9/1, Islamabad
34	The Smart School (Capital Campus)	House No. 01, Street No.128, Sector G-13/4, Islamabad.
35	TIPS Academy & School (Leads Campus)	Plot No. 1-F, Street No. 19, Lead Building, Bazar No. 5, Bismillah Market, Sector I-10/1, Islamabad.
36	Joan Mcdonald School	Street # 09, Sector H8/4, Islamabad.
37	Resource Academia (Capital Campus),	286 Sumbal Road, F-10/4, Islamabad
38	Dar-e-Arqam School G-11 Campus	House No. 650, Main Service Road, West Sector G-11/1, Islamabad
39	Apples the Grooming School	House No.04, Main Nazimuddin Road, F-10/1,

		Islamabad
40	School Of International Studies In Science And Arts (SISA)	31-Mauve Area, Shan-UIHaquee Road, G-9/1, Islamabad
41	Dr. A. Q. Khan School Syestem Capital Campus	Opposite street 169, service road east, G-13/3, Islamabad
42	Army Public School	Sher Khan Complex, Street No: 143, G-11/4, Islamabad
43	Nurture International School	Plot No.1, Main Double Road, (Street 94), G-11/3, Islamabad.
44	1564 New Siddeeq Public Montessori and High School	Babrus Abbas Road, House No.3, Street No.788, G-13/4, Islamabad.
45	Peshawar Model School (Islamabad Campus)	H.No. 85, Ahmad Faraz Road, F-10/1, Islamabad
46	The Air Grammer School	H.NO. 20, St. 687, Main Double Road, G-13/3, Islamabad
47	Crescent International School	H.No. 25/H, Ibn-e-Sina Road, G-10/3, Islamabad H.No. 25/H, Ibn-e-Sina Road, G-10/3, Islamabad
48	Iqra Pilot School	HOUSE. No. 468, St. 58, Main Double Road, I-8/3, Islamabad
49	Islamabad Convent School H-8/4 Campus	St. 9, H-8/4, Islamabad
50	International Islamic University Islamabad Schools	H,no. 18, Shahzada Abdul Qayyum Road, I-8/3, Islamabad
51	Anglo Oriental School,	House No.1028-1029- 1030, Street No.3 I-10/2, Islamabad
52	CDA Model School,	I-9, Islamabad
53	EMS High School	plot No. 57, Sector H-11/4, Behind FAST University, Islamabad
54	Telecom Foundation School Systems	G-8/4, Islamabad
55	Beacon House School System, F-11 Campus,	H.No. 238, Main Double Road, F-11/4, Islamabad
56	Resource Academia (Capital Campus)	286 Sumbal Road, F-10/4, Islamabad
57	Edupedia School System (SLI Campus)	6- Nazim-ud-Din Road, F-10/4, Islamabad
58	SLS Montessori and School	Plot No. S-6, St. 124, G-11/4, Islamabad
59	Foundation Public School	G-10/4, Islamabad
60	The Educators, Capital Campus	Durbar Chowk, Service Road West Opposite, G-11/1, Islamabad

61	Jinnah Public School	942, Sector I-10/1, Islamabad
62	IIUI Schools, G-13 Campus	Opposite Street No.37, G-13/2, Islamabad