

Original Article

Mediating Role of Leadership Self-Efficacy between Formal Developmental Experiences and Leadership Effectiveness: In Pakistani Higher Education Institutions

Saba Ahmed^a, Rukshanda Jabeen^b & Dania Shoaib Khan^{a*}

^a Muhammad Ali Jinnah University - Pakistan

^b SZABIST

Abstract

Effective leadership is a fundamental impetus for achieving organizational success and fostering a motivated, prompt, and high-performing team. The significance of Leadership Effectiveness (LE) has been extensively discussed in literature over the past few years but there hasn't been much empirical research on leadership development in Pakistani higher education. In this quantitative study, the relationship between formal developmental experiences and leadership effectiveness was examined in relation to the mediating role of leadership self-efficacy. A 15-item scale to measure the three research variables was employed in five private sector universities in Karachi city. The sample population included a total of 300 administrative members from higher education institutions including the Dean, Head of Departments, and Departmental Coordinators. Data were analysed using SEM analysis on Smart PLS software. Results of the study indicate the mediating effect of leadership self-efficacy and effectiveness. It was recommended that post-managerial development programs should be encouraged for effective management of teaching-learning processes.

Keywords: Leadership Self-Efficacy, Formal Developmental Experiences, Leadership Effectiveness, Pakistani Higher Education Institutions

1. INTRODUCTION

21st Century has been extensively influenced with the concept of educational leadership. This is hugely because of the impact that the quality of leadership has on institutional objectives and their achievements. There is a widespread acceptance of the difference that effective leaders and managers instill if best possible educational outcomes are desired (Day, C et al., 2020). The role of leaders in managing educational practices has been extensively addressed in recent literature (Alkadash, 2020; Belliba et al., 2022; Kouzes & Posner, 2019). Leadership refers to a process in which an individual influence other within the organization to achieve certain goals and set up connections for a group (Daniëls et al., 2019; Netolicky, 2020; Wangloan et al., 2022). Effective leadership on part of managers and administrators are greatly required for the development of skilled workforce. Literature regarding educational leadership has demonstrated that effective leadership is a necessity for enhancing educational performance (Daing & Mustapha, 2023).

The role of educational managers is regarded as crucial for enhancing teaching and learning processes (Daing & Mustapha, 2023). Effective leadership is linked to improved student learning outcomes, according to researchers, because of its effects on teacher expectations, motivation, and quality of instruction (Kilg et al., 2023). Effective managers are successful leaders that have outstanding interpersonal skills, and competence. They are learners who reflect and hold themselves and their team accountable while fostering



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Corresponding Author: Dania Shoaib Khan, Muhammad Ali Jinnah University - Pakistan

 danialshoaib@jinnah.edu

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a friendly and secure learning environment (Robinson, 2006). When the aforementioned elements come together, a powerful learning environment is produced that is necessary for an educational setting to be successful. Such involvement ensures leaders are well-equipped to address the evolving barriers of educational management and address the diversity of needs within educational practices (Pendy, 2023; Somantri & Iskandar, 2021). Shields (2010), remarked that the social context should be taken into account when aligning education and educational leadership.

This social context provides the baseline for socio cultural norms along with the educational needs of the society as educational leadership is not without values. A culture like Pakistan follows controlling or top down models inherited from the imperialistic designs of former colonial rule (Manan et al., 2023). The unstable nature of development in Pakistan's educational system is supported through both professional and academic courses in educational leadership, offering guidance and help to administrative leaders (Attaullah et al., 2023). Several graduate programs in educational leadership offer courses to help educational administrators strengthen their leadership skills (Butt et al., 2023). Along with degree programs, in-service professional development initiatives are set up to help leaders acquire the skills and knowledge required to improve educational outcomes and the quality of instruction in institutions (Attaullah et al., 2023).

Leadership self-efficacy pertains to an individual's assessment of their ability to effectively undertake leadership tasks and responsibilities (Bandura, 1997). It is also a type of individual objectives that a person would establish for themselves. In educational context, this implies the belief and confidence that a leader carries about their abilities to indirectly teach students through refining their socialization level and learning performance. Self-efficacy is crucial to leaders' success also since it decides the level of effort applied to a specific assignment just as the sorts of goals and objectives that leaders would set for them (Bandura, 1986; Gist & Mitchell, 1992). The research undertaken by Gümüş and Bellibaş (2020) investigates the relationship between professional development (PD) and the leadership practices of school principals. A specific focus lies on the potential mediating impact of self-efficacy. The study involved 130 Turkish administrators and employed a Structural Equation Model (SEM) to evaluate the influence of professional developmental experiences on leadership practices, with self-efficacy serving as a mediator variable. The findings imply a moderately positive correlation between professional developmental experiences and leadership practices.

It was suggested that engaging in professional activities could enhance administrators' leadership practices by boosting their confidence. The study advocates that initiatives in professional development can provide vital knowledge and self-assurance, thus motivating principals to give precedence to learning-centered leadership practices. Similarly, Seibert et al. (2016) introduced a model that examined the relationships between formal developmental experiences, promotability and leader effectiveness. Drawing upon social cognitive and social capital theories, the research proposed that various developmental experiences, including formal development programs, challenging job assignments, and developmental supervision, had a positive impact on a manager's leadership effectiveness and potential for promotion. These impacts were suggested to be mediated by two factors: the manager's perceived level of leadership self-efficacy and the quality of their mentor network.

The study involved a sample of 235 retail managers and yielded interesting findings. The results demonstrated that both leadership self-efficacy and the quality of the mentor network played a complete mediating role in the relationship between challenging job assignments and the likelihood of being considered for promotion. Furthermore, leadership self-efficacy was found to mediate the connection between challenging job assignments and leadership effectiveness. The influence of developmental supervision on promotability was indirectly influenced by the quality of the mentor network.

Theoretical Background

The notion of leadership self-efficacy is congruent with Bandura's social cognitive theory, which states that a person's view of their competence affects their actions, perseverance, and attempts (Bandura, 1977). Higher levels of leadership self-efficacy may inspire leaders to put the information and skills they have gained through developmental programs to use in the context of educational leadership, increasing their effectiveness as a leader (Yang & Bentein, 2023). After Bandura (1977) introduced the idea of self-efficacy to psychology literature, it garnered substantial attention from the management sciences. The idea of self-efficacy has been linked to a wide range of employee behaviors and performance in various organizations (Yoon et al., 2023). An important factor in predicting a range of academic outcomes is perceived self-efficacy among both students and teachers. For instance, a student's motivation and learning may be

affected by their perceptions about their ability to handle their learning outcomes. Similarly, teachers' assessments of their ability to aid in students' learning have an impact on the opportunities for learning they provide and the degree to which their students learn (Bandura, 1989; Chan et al., 2023).

There is little known about the mediating role of leaders self-efficacy of educational administrators between formal developmental experiences and leadership effectiveness. To better understand the relationship between formal developmental experiences, such as educational leadership graduate programs and professional development activities, and leadership effectiveness in Pakistani higher education institutions, this study will examine the potential mediating role of leadership self-efficacy. This research has significant implications for numerous stakeholders in the field of educational leadership and administration. Learning how formal developmental experiences and leadership effectiveness are related via the lens of leadership self-efficacy would be beneficial for educational administrators and leaders. The information can be used for effective decision-making regarding leadership development plans and strategies. The formulation of educational policies that improve the efficacy of programs for leadership development can also be facilitated. The study will contribute to the existing body of knowledge on self-efficacy and leadership outcomes and will be valuable to researchers.

Research Questions

- What is the relationship between formal developmental experiences and effective leadership in higher education institutions?
- What is the mediating role of leadership self-efficacy between formal developmental experience and effective leadership in higher education institutions?

2. METHODOLOGY

Research Design

Researchers followed a quantitative research design for the study since the objective was to statistically investigate the relationship between the three variables. Quantitative research is based on scientific facts. It is the type of research in which data are collected and analyzed in the form of numbers (Thrane, 2022; Williams et al., 2022). One of the key strengths of quantitative research is its ability to provide precise and quantifiable insights into the phenomena under investigation. By utilizing numerical data, researchers can apply statistical techniques to identify patterns, trends, and relationships within the data. This data-driven approach enhances the validity and reliability of their findings, as it allows for a more rigorous examination of the research questions at hand (Thrane, 2022).

Sample Size

The sample of the study included managers of higher educational institutions. A total of 300 administrators including Dean, Head of Departments, and Departmental Coordinators were consulted for data collection. This was done in order to increase the generalizability of the research findings.

Sampling Technique and Sampling Method

The convenient sampling method was used as it allowed the researchers to conveniently include human resource managers and departmental heads who were available to the researcher. Convenience sampling is a non-probability sampling technique in which the participants are available around the location (Krupnikov et al., 2021; Stratton 2021). The selection of samples in convenient sampling is based on the ease of access of the researcher, where respondents who are available at the location are invited to take part in the research (Krupnikov, et al., 2021).

Data Analysis

The researchers used Smart PLS software to evaluate the relationship between formal developmental experiences, leadership effectiveness, and leadership self-efficacy. Smart-PLS software allows the researchers to examine the relationships between multiple latent variables at a time and minimize estimation errors. Researchers found the structural equation model (SEM) suited for the study since the study was exploratory in nature.

Ethical Considerations

Researchers obtained informed consent regarding the objectives of the study before the collection of the data. Respondents were ensured that their information would be kept confidential and would be

used solely for research.

3. RESULTS & FINDINGS

Hypothesis

H1: Leadership self-efficacy mediates the relationships between formal developmental experiences and supervisor ratings of leadership effectiveness.

Independent Variable

- Formal Developmental Experiences

Dependent Variable

- Leadership Effectiveness

Mediating Variable

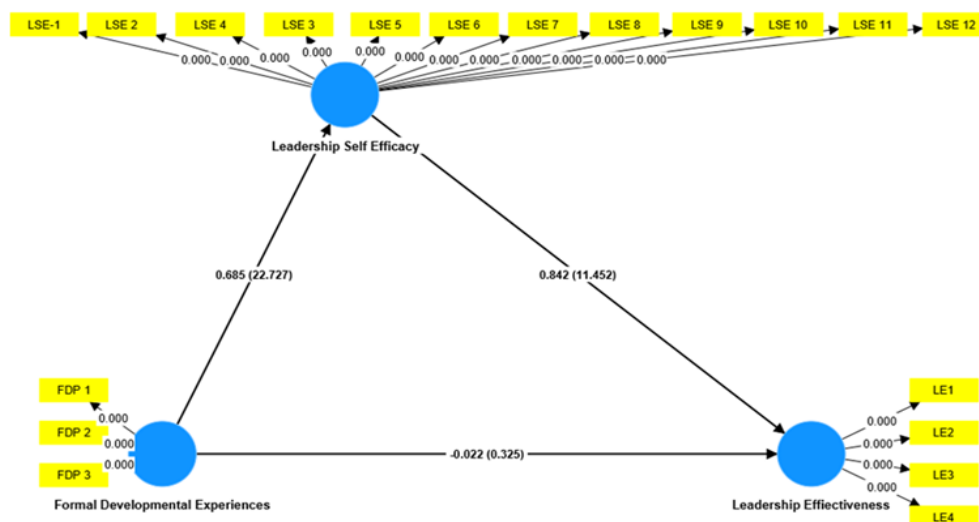
- Leadership Self Efficacy

Reliability and Validity

The stability of the instrument is determined by reliability analysis. If the instrument is re-administered to a similar target population. It indicates that the consistency and readability of the questionnaire is reliable. The reliability of the instrument is calculated in Smart PLS 4.0 software using a composite reliability test. The values for Cronbach's alpha and average variance extracted are higher than 0.7 which means that the questionnaire is acceptable. As Hair (2010) suggests the estimation of reliability can be done by the degree of constancy that lies amongst various variables. The following table indicates composite reliability.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Formal Developmental Experiences	0.869	1.022	0.9	0.756
Leadership Effectiveness	0.896	0.901	0.929	0.767
Leadership Self Efficacy	0.905	0.937	0.92	0.525

Path Diagram



Mediating Analysis

Mediating analysis was performed to assess the role of mediating variable leadership self-efficacy (LSE) on the linkage between formal development experiences (FDE) and leadership effectiveness (LE). The results presented in Table 1 revealed the total effects of formal developmental experiences on leadership effectiveness (LE) were significant (H1: $\beta=0.559$, $t=19.820$, $p=0.000$). With the inclusion of mediating variable leadership self-efficacy (LSE), the impact of formal developmental experiences (FDE) on Leadership Effectiveness (LE) becomes significant ($\beta = 0.027$, $t= 0.400$, $p= 0.689$). The indirect effect of

formal developmental experiences (FDE) on leadership effectiveness (LE) through leadership self-efficacy was found significant ($\beta = 0.584$, $t=8.768$, $p= 0.000$). This indicates that the relationship between formal developmental experiences (FDE) and Leadership Effectiveness (LE) is fully mediated by self-efficacy (LSE).

Total effect (FDE->LE)		Direct Effect		Indirect Effect of FDE on LE					
Coefficient	p-value	Coefficient	p-value		Coefficient	SD	T value	P value	BI [2.5%,97.5%]
0.559	0.000	0.027	0.689	H2:FDE->LSE->LE	0.584	0.057	8.768	0.000	0.154-0.109

Discussion

The mediation analysis carried out in this study is crucial to understanding the complex relationships between formal developmental experiences (FDE), leadership efficacy (LE), and leadership self-efficacy (LSE). The research provides useful insights into the fundamental mechanisms that support leadership development by describing how these factors interact and have an impact on one another. The results indicate a significant impact of formal developmental experiences (FDE) on leadership effectiveness (LE). This suggests that formal developmental experiences have a direct effect on an individual's leadership effectiveness. As Liu et al. (2021) suggest individuals are exposed to a variety of critical job experiences. These specific developmental experiences serve as potential windows of opportunity for an individual's leadership development and its effectiveness. Similarly, researchers have hypothesized that experience, particularly developmental experience, is a potent trigger for leader growth since most successful leaders are quick to recognize the impact of relatively significant work experiences in building their leadership abilities (McCauley& Palus, 2021; Brauckmann et al., 2023).

However, the situation is different when leadership self-efficacy (LSE) is included as a mediating component. The direct impact of FDE on LE becomes statistically insignificant when LSE is factored into the model. This significant finding demonstrates that what individuals think of their own leadership efficacy is the factor effectively mediating the effect of FDE on leadership effectiveness. In other words, rather than just the form of developmental experiences, it is how individuals view and believe in their leadership skills that directly influence leadership effectiveness. Evidence of this can be found in a study by Gümüş and Bellibaş (2020) which suggests that professional developmental experiences could enhance leadership practices by boosting confidence. The study advocates that initiatives in professional development can provide vital knowledge and self-assurance, thus motivating leaders to give precedence to learning-centered leadership practices.

Practical Implications

The results of this research indicate that when individuals possess higher levels of self-efficacy in their leadership abilities, they are better equipped to translate their developmental experiences into enhanced leadership effectiveness. The results hold important implications for leadership development strategies and programs. It is important for not only facilitating formal developmental experiences but also strengthening individuals' self-efficacy beliefs. The results found are aligned with the core principles of Bandura's social cognitive theory, suggesting that individuals with higher perceived self-efficacy are more likely to view challenging activities as avenues for growth and are more willing to embrace such tasks (Bandura, 1989). Promoting self-efficacy can be crucial for maximizing the impact of leadership development initiatives. Leaders and organizations can benefit by targeting interventions that increase individuals' confidence in their leadership abilities, as this appears to be the bridge that fully connects developmental experiences to effective leadership.

4. CONCLUSION

Based on the results of the Structural Equation Model (SEM), a significant connection emerges between professional development, self-efficacy, and leadership effectiveness. A significant relationship exists between administrators' self-efficacy and their perceptions of leadership practices. The heightened influence of self-efficacy on leadership behaviors underscores the necessity for further exploration of

professional development. Future studies could investigate alternative methods beyond professional developmental experiences that could assist administrators at higher education in enhancing their perceived self-efficacy in effectively managing their institutions.

Recommendations

A two-pronged strategy for leadership development should be prioritized by higher education institutions in light of the study's findings. First and foremost, they should keep funding formal developmental experiences (FDE) that are carefully planned and expose participants to crucial work environments and chances for skill development. However, fostering individual's leadership self-efficacy (LSE) should also be a priority. Targeted interventions, helpful criticism, mentoring, and a positive learning environment can all help with this. As individuals who have stronger self-efficacy are better suited to convert their developmental experiences into successful leadership practices, organizations may enhance the effectiveness of their leadership development programs by combining these techniques.

Competing Interests

The author has declared no competing interests.

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