

Gender Disparities in Career Development: Obstacles Faced by Women in the Public Education Sector

The Journal of Educational Paradigms
2026, Vol. 08(01) 458-469
© 2026 THACRS
ISSN (Print): 2709-202X
ISSN (Online): 2709-2038
DOI:10.47609/0801032026



Javaria Khalid¹, Chaudhry Kashif Mahmood*², Tayyiba Khalil², Imran Manzoor²

Abstract

This study delves deeply into the pervasive and persistent gender disparities that act as significant impediments to the career development of women within the public education sector in Pakistan. This study shed light on the diverse challenges that hinder women's progression, encompassing aspects such as limited access to professional development opportunities, the prevailing workplace culture, the delicate balance between work and personal life, and the impact of existing promotional policies. The study applied a qualitative research approach, and data were gathered through semi-structured interviews conducted with senior-level management from higher education institutions in Pakistan's public sector. The obtained data was analysed through NVivo 12 software. The study has found that multifaceted gender disparities persist in women's career development, including structural preferences for men in leadership roles, discriminatory hiring practices, and limited training opportunities for women. Workplace culture perpetuates gender biases, creating hostile environments that undervalue and exclude female professionals. Gender-specific promotional policies disadvantage women, perpetuate inequalities, and hinder career development. Perceptions of leadership and authority reinforce stereotypes of women's incompetence in authoritative roles, further marginalizing their progression opportunities. This study addresses gender equality challenges in public education, offering stakeholders guidance to create equitable, supportive environments that promote women's professional growth, advancement, and opportunities across all institutional levels.

Keywords: Gender Disparities, Career Development, Obstacles, Workplace Culture.

INTRODUCTION

The public education sector constitutes a foundational pillar within the broader educational landscape and plays a transformative role in shaping future societal leaders. Despite progressive strides in multiple domains, persistent gender disparities continue to shape professional trajectories, particularly for women in public education. These disparities are not only evident in representation but also in the differential access to career-enhancing opportunities. Understanding the structural and sociocultural factors contributing to these disparities demands a nuanced and comprehensive analysis of the challenges that women face in their pursuit of career advancement (Shah et al., 2023).

Gender imbalances remain a pervasive concern across various professional fields, including education, where women often confront unique and systemic obstacles to progression (Cheryan et al., 2017). In a sector where professional expertise and leadership capabilities are critical, it becomes imperative to critically examine the barriers that inhibit women's development and visibility in senior roles (Wanjiku et al., 2020; Thelma & Ngulube, 2024). These barriers are multifaceted and embedded within institutional practices, cultural norms, and policy frameworks that, collectively, limit women's full participation and growth.

A significant and well-documented impediment to women's career advancement in public education is the limited availability and accessibility of professional development programs and structured mentorship pathways (Mohamed et al., 2023). Empirical studies suggest that women are often underrepresented in such initiatives, which are vital for skill enhancement, leadership preparation, and

network building. The absence of targeted development programs not only stifles individual career trajectories but also reinforces institutional gender stratification, particularly at upper organizational tiers (Cheryan et al., 2017; Mohamed et al., 2023; Shah et al., 2023).

Equally important is the influence of organizational culture and implicit biases in shaping women's professional experiences. The public education sector, akin to many other professional arenas, may perpetuate entrenched cultural norms and gendered expectations that undermine women's authority, visibility, and career progression (Adisa et al., 2021; Bowles et al., 2019; Horta & Tang, 2023). These implicit biases, though often unacknowledged, create structural disadvantages that hinder women's ability to compete equitably for leadership roles. Addressing these cultural and attitudinal barriers is essential to fostering inclusive professional environments that affirm gender equity. Moreover, balancing work-related responsibilities with familial and societal obligations presents a distinct challenge for many women in public education (Nwagbara, 2020). The sector's demanding nature, combined with prevailing social expectations regarding caregiving roles, disproportionately affects women's capacity to pursue promotions or engage in additional professional activities (Coleman, 2020). This tension between professional aspirations and domestic responsibilities constitutes a persistent barrier to upward mobility and underscores the need for policies that support work-life integration (Wirajaya et al., 2019; Zubainur et al., 2020).

¹ Razak Faculty of Technology & Informatics, Universiti Teknologi Malaysia, KL, Malaysia.

² College of Business Administration, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia.

Institutional policies governing promotion and advancement also warrant critical scrutiny. Existing promotional frameworks may unintentionally disadvantage women by embedding gender-neutral criteria that do not adequately account for gendered experiences or structural inequalities (Weick, 1995; Rosa et al., 2020; Mahmood, 2022). In some cases, merit-based evaluations fail to consider the contextual challenges faced by female educators and administrators. Thus, ensuring fairness in promotion requires the systematic re-evaluation of assessment criteria to eliminate hidden biases and promote genuine meritocracy (D'Agostino et al., 2022). Perceptions of leadership and authority within the education system further contribute to gender-based disparities. Deep-seated stereotypes regarding women's leadership capabilities can undermine both self-confidence and external recognition, thereby discouraging qualified women from aspiring to, or attaining, higher professional positions (Campo, 2018). Deconstructing these gendered perceptions is vital to fostering leadership cultures that are inclusive, diverse, and equitable.

In conclusion, addressing the gender disparities that persist in career development within the public education sector necessitates a multifaceted and integrative approach. This includes expanding access to mentorship and professional development programs, confronting and transforming organizational cultures, supporting work-life balance, revising promotion criteria to account for gender-specific barriers, and challenging traditional leadership paradigms. Through a systematic exploration of these interrelated dimensions, institutions can move toward cultivating professional environments that empower women and facilitate their full participation and advancement in the public education workforce.

Objective of the Study

This research aims to investigate the challenges to the career development of women and thoroughly understand the multifaceted obstacles women encounter as they navigate the landscape of professional growth within higher education institutions in Pakistan.

Literature Review

Gender-based stereotypes and preconceived notions about leadership continue to present formidable barriers to women's advancement within professional environments. These stereotypes often cast doubt on women's competence and leadership potential, creating a narrative that questions their suitability for senior positions (Kausar et al., 2024). Such biases are internalized over time, contributing to reduced self-efficacy, diminished ambition, and a reluctance to pursue high-level roles (Castaño et al., 2019). This psychological impact is compounded when organizational cultures reinforce these stereotypes, leading to entrenched systemic barriers that disproportionately hinder women's career development.

Yang and Kim (2016) explored the influence of leadership perception on female educators' career confidence within private educational institutions. Their research revealed a significant positive correlation between supportive leadership environments and increased confidence among women in pursuing career advancement. This underscores the crucial role that institutional leadership can play in either reinforcing or challenging gender hierarchies. Importantly, the authors emphasized that leadership

styles and perceptions are not neutral; rather, they reflect institutional priorities and cultural values that either support or undermine gender inclusivity. Smith and Johnson (2017), in a parallel study, investigated structural hindrances affecting women's professional growth in private higher education. Their analysis indicated that gender bias significantly constrains women's upward mobility, particularly when unacknowledged and unaddressed. These findings reinforce the urgency of implementing targeted interventions to dismantle discriminatory practices and ensure gender-sensitive organizational reform (Mousa, 2021).

Beyond institutional leadership and organizational bias, the intersection between work responsibilities and family obligations has emerged as a significant barrier to women's career advancement. This dual responsibility often imposes disproportionate demands on women, generating stress and reducing the time available for professional development, networking, and visibility-enhancing tasks (Barkhuizen et al., 2022). As a result, many women are compelled to opt out of high-stakes roles, project leadership, or promotion pathways, which in turn perpetuates gender disparities within organizational hierarchies. To mitigate these effects, progressive organizations are increasingly recognizing the value of adopting flexible work policies, parental leave options, and family-friendly practices. These measures not only support gender equity but also contribute to improved employee retention and organizational performance (White & Maniam, 2020).

Organizational culture plays an equally vital role in shaping women's experiences within the workplace. Cultures that actively promote diversity, inclusion, and equity foster professional environments where women can thrive. These environments are characterized by equitable access to leadership development, transparent performance evaluation, and a genuine commitment to addressing gender bias (Thelma & Ngulube, 2024). Conversely, workplace cultures that adhere to rigid, patriarchal norms often limit women's access to senior roles by reinforcing traditional gender expectations (Longman et al., 2018; Mahmood et al., 2022). Garcia and Rodriguez (2018), in their seminal qualitative research, analyzed the workplace experiences of female faculty members in higher education institutions. Through content analysis, they uncovered a pervasive culture of gender bias that systematically impedes women's progression. Their findings emphasized the necessity of cultural transformation at both structural and interpersonal levels to facilitate a more inclusive professional landscape.

A closely related issue is restricted access to professional development opportunities. Skill-building programs, leadership training, and mentorship are critical components of career advancement. However, women are often underrepresented in these initiatives due to institutional biases or resource allocation disparities (Abalkhail, 2017). This exclusion not only limits women's ability to build the competencies required for leadership but also perpetuates the cycle of underrepresentation. Equitable access to professional development is thus a foundational requirement for fostering inclusive workplaces. Brown and Martinez (2016) examined this issue in the context of private

educational institutions and reported that limited access to training and mentorship significantly undermined women's career growth. Their study, which focused on the lived experiences of women employees, concluded that structural reforms are urgently needed to address these disparities and to expand women's participation in leadership tracks (Laursen & Austin, 2020; Wang & Chen, 2020; Jamison-McClung, 2022).

In summary, the literature reveals a multi-layered, systemic pattern of barriers that impede women's career development in the education sector. These include internalized and institutionalized gender biases, restrictive workplace cultures, work-life integration challenges, and unequal access to professional development. Collectively, these factors not only hinder women's individual progress but also undermine organizational diversity and effectiveness. The need for theoretically grounded, context-sensitive frameworks to interrogate and address these barriers is therefore evident, leading to the adoption of a theoretical lens in this study.

Theoretical Approach

To effectively analyze the institutional and structural dynamics that reproduce gender disparities within the public education sector, this study draws upon Gendered Organizations Theory, originally proposed by Joan Acker in 1990. This theory provides a comprehensive sociological framework for understanding how gender is embedded within the very fabric of organizational life, not merely as a variable to be considered, but as a constitutive element of structure, culture, and practice (Charmaz, 2014; Rodriguez & Guenther, 2022).

According to Acker, organizations are not neutral entities; they are social systems that reflect and reproduce dominant gender norms and hierarchies. Gendered divisions of labor, normative role expectations, and implicit assumptions about competence and leadership often converge to create environments that favor masculine-coded behaviors while marginalizing feminine-coded ones. In educational institutions, this dynamic manifests in recruitment, promotion, task assignments, and leadership pipelines often to the disadvantage of women (Stamarski & Son Hing, 2015).

Applying this theoretical lens to the public education sector in Pakistan enables a nuanced analysis of how organizational routines, discourses, and power structures shape gendered career outcomes. For instance, promotional pathways may be formally open to all but are informally navigated through male-dominated networks or performance metrics that undervalue collaborative, student-centered leadership styles often associated with women. Additionally, time-bound performance evaluations may disadvantage women balancing professional and domestic responsibilities, highlighting how seemingly neutral practices are, in fact, gendered in their impact.

The Gendered Organizations Theory also illuminates the mechanisms through which workplace cultures perpetuate gender inequality. These mechanisms include informal practices such as exclusion from decision-making forums, stereotypical assessments of leadership capabilities, and the valorization of long working hours a model that penalizes individuals with caregiving responsibilities. These dynamics help explain the persistent

underrepresentation of women in leadership roles despite formal commitments to gender equality.

Furthermore, this theoretical approach provides insight into systemic barriers such as a lack of access to mentorship, biased promotion practices, and leadership models that privilege assertiveness and individualism, traits more commonly socially encouraged in men. By analyzing these dynamics, the theory supports the formulation of targeted interventions that move beyond surface-level gender parity measures and toward transformative organizational change.

In the context of this study, the Gendered Organizations framework will serve as the analytical foundation for examining the institutional, cultural, and policy-related factors that shape women's career experiences in the public education sector. This includes a critical interrogation of restricted access to development opportunities, exclusionary workplace cultures, challenges in achieving work-life balance, and the gendered nature of promotional policies. Ultimately, the theory enables a holistic and systemic understanding of the gender gap and supports the development of context-specific strategies to promote equity and inclusion within public education institutions.

METHOD

The current study applied a qualitative research method (Morrow, 2005) that provides a comprehensive understanding of social or human situations, allowing participants to express themselves authentically (Alvesson, 2011; Alvesson & Kärreman, 2011; Toma, 2011).

Design and Sample

This study employed an investigative qualitative research design to examine the challenges women face in career development within Pakistan's public higher education sector. A total of 10 participants (6 females and 4 males), aged 43-59 years and holding senior-level positions such as Director, Deputy Registrar, Assistant Registrar, and Registrar across three public universities in Rawalpindi and Islamabad, were recruited. All participants were married, reflecting typical marital status in the professional context studied. Participants were selected using purposive and snowball sampling based on their experience and responsibility in academic career management. Inclusion criteria required participants to hold positions directly involved in decision-making or mentorship, ensuring meaningful insights into the career trajectories of female employees (Farooq et al., 2020; Laursen & Austin, 2020). In line with prior qualitative research practices (Kvale, 1983; Strauss & Corbin, 1990), data collection continued until data saturation was achieved, which occurred after 10 in-depth semi-structured interviews. This approach aligns with established qualitative methodology, prioritizing the depth and richness of information over the number of participants and ensuring comprehensive coverage of the challenges women encounter in career progression.

Inclusion criteria

The participants were selected from academic positions within higher educational institutions, encompassing roles such as assistant, deputy, registrar, and director, both male and female. This selection was based on the similarity of their work-related obligations in career development. All participants were affiliated

with public sector institutions in Rawalpindi and Islamabad. The study was conducted at three public sector universities in the twin cities (Rawalpindi and Islamabad) of Pakistan. The selection of Rawalpindi and Islamabad (the capital) for this research on women's career advancement in higher education institutions in Pakistan is justified by the unique administrative, political, and educational landscape of these twin cities of Pakistan. This choice allows for a focused study on the impact of federal policies and administrative practices, providing insights that can directly influence national strategies for gender equality in higher education institutions.

Instrument

In-depth interviews can articulate the participants' views and perspectives, offering a holistic picture of their realities. Interviews have long been recognized as valuable tools for capturing individuals' interpretations of their experiences and social processes (Lofland et al., 2006; Seidman, 2006; Sattari & Sandefur, 2019). The current study used semi-structured interviews with open-ended questions, which were employed for their flexibility in exploring challenges encountered by women in career development.

Procedure

The present study was conducted in two phases. Phase I of the study will focus on discussions with participants. The sample was selected from the Rawalpindi and Islamabad regions. The duration of the discussion varied from person to person. However, the average time was one and a half hours for each discussion.

During the interview, six open-ended questions were asked of each participant to understand the challenges females encounter in their career development. The demographic sheet was designed to acquire personal information from the participants. The demographic sheet included name, age, work experience, current position, and marital status. The saturation point was achieved after conducting ten interviews. When a study delivers maximum information about a particular phenomenon, and no further analytical information emerges, it is said to have reached data saturation. At that stage, the researcher stopped collecting more data (Moser & Korstjens, 2018).

Data from each participant was transcribed into written form. The thematic analysis approach analysed written data. The analysis followed these steps: that is, the initial encounter of the researcher with the data, (ii) identification of the themes, (iii) clustering of the themes, and (iv) synthesizing the codes into descriptions (Smith et al., 1999). Themes regarding gender disparity in women's career development-related challenges were extracted, including limited access to professional development, workplace culture and bias, balancing work and family responsibilities, promotional policies and criteria, and perceptions of leadership and authority. Based on these themes, an interview record sheet was developed to collect data for the primary study.

During phase II, the study was based on finalized interview guidelines. Ten in-depth interviews were conducted, and before conducting the interviews, the researcher briefed the participants about the study objectives and assured them of the confidentiality of their information. After obtaining consent from participants, they were given a few necessary instructions. Interviews were

conducted on an individual basis in a separate room and a comfortable environment. Participants took a maximum of about one hour, and the average interview duration was about 30 to 40 minutes. Interviews were audio recorded after obtaining consent from the participants, and the interviewer also preserved the field notes during interviews and reviewed them one by one at the end. At the end of each interview, the participants were warmly thanked for their cooperation. Considering field notes and audio recordings of the interviews, all the information gathered from study participants was transcribed on an answer record sheet, and later themes were extracted.

Research ethics guidelines have been considered in this study. Before obtaining permission from the participants, they were informed of the Study's aim and purpose. Moreover, the interview was recorded using audio recorders with the consent of the participants. In addition, they were assured of the confidentiality of their information, and the identification of the participants has been kept confidential in the current study. The participants were also instructed to be able to withdraw from the research at any time without any hesitation.

RESULTS AND DISCUSSION

Each interview was audio recorded and transcribed on a white page of Word. Researchers first translated those verbatim interviews into English and regional and national languages to perform a thematic analysis. However, as English is not Pakistani's native language and the sample stated their answers as they were accessible in Urdu, the researcher listened to all the recorded interviews individually to transcribe them in English. This methodology involves translation, as it is required in qualitative studies if the target publication language differs from the data collected in another source language. After that, we performed data analysis. The study used NVivo 12 software for a thematic analysis approach for importing, organizing, and exploring data or analysis. While conducting thematic analysis, the researcher followed six steps: familiarization, coding, generating themes, reviewing themes, defining and naming themes, and writing up. Researchers carried out this data analysis process to ensure the rigor of qualitative interviews (Toma, 2011). A thematic analysis approach was used to analyse the data. Major and sub-themes were extracted by separating the repetitive and common themes. Thematic analysis is considered the most widely recognized form of analysis in qualitative research (Guest et al., 2012; Hennekam et al., 2020). Five sub-themes emerged regarding the gender disparities in career development by analyzing the challenges encountered by women, as listed in Figure 1.

According to the emerging model, women face numerous challenges in career development, including limited access to professional development opportunities, often due to systemic barriers or biased practices within organizations. Balancing work and family responsibilities can be particularly challenging for women, as societal expectations and caregiving duties often fall disproportionately on them.

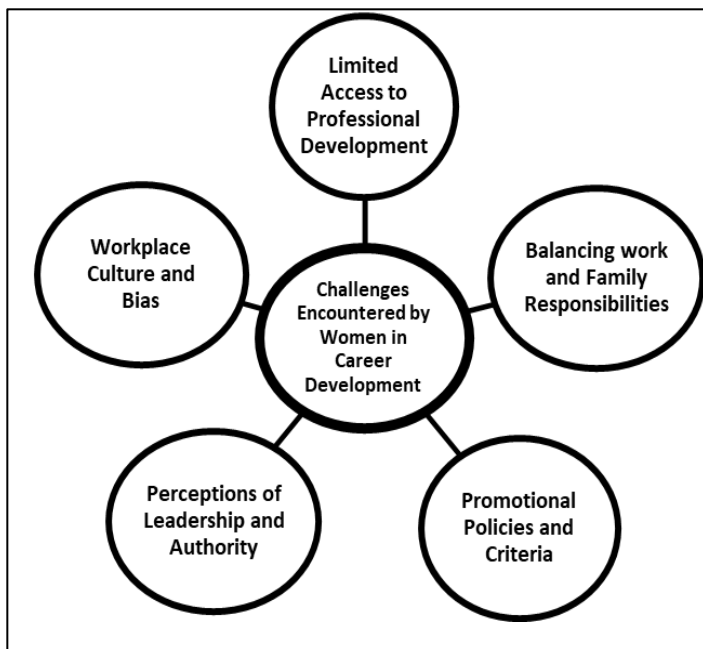


Figure I. Gender disparities in career development, the challenges encountered by women emerged

Promotional policies and criteria may also disadvantage women, with biases embedded in evaluation processes or criteria favoring traditional masculine traits. Additionally, perceptions of leadership and authority can hinder women's progression, as stereotypes and implicit biases may undermine their credibility and capabilities. Workplace culture and bias further exacerbate these challenges, as ingrained gender norms and discriminatory practices create environments where women may feel undervalued or excluded, impeding their career development. Addressing these issues requires comprehensive strategies to dismantle systemic barriers and promote inclusivity and equality in all facets of the workplace. Further, Table 1 represents the demographic characteristics of the research participants.

The demographic sheet was designed to acquire personal information from the participants. This table provides a summary of the participants involved in the study, detailing their pseudonyms, work experience, current position, marital status, gender, and age. The pseudonyms (e.g., WCD-P1, WCD-P2) are used to maintain anonymity. The participants' work experience ranges from 13 to 30 years, with various roles such as Director, Additional Registrar, Assistant Registrar, Deputy Registrar, and Registrar. All participants are married, reflecting a standard marital status among the participants. Gender distribution is fairly balanced, with six females and four males.

Table 1. Research participants' Designation and length of experience (N=10)

Participants	Pseudonym	Work experience	Current position	Gender	Marital Status	Age
WCD-P1	DSA	26 years	Director	Female	Married	59
WCD-P2	DNS	23 years	Director	Female	Married	53
WCD-P3	DNR	14 years	Director	Male	Married	45
WCD-P4	MBY	25 years	Additional Registrar	Female	Married	53
WCD-P5	DHK	18 years	Additional Registrar	Male	Married	47
WCD-P6	MS	30 years	Assistant Registrar	Female	Married	51
WCD-P7	DNR	20	Deputy Registrar	Female	Married	45
WCD-P8	DBN	20	Director	Male	Married	57
WCD-P9	AS	13	Registrar	Male	Married	43

WCD-P10 DFJ 22 Director Female Married 58

The age of participants ranges from 43 to 59 years, indicating a diverse age group. Overall, this table provides a comprehensive overview of the demographic and professional characteristics of the study participants, offering insights into their backgrounds and experiences within the public education sector in Pakistan. The diversity in positions and experiences provides a rich pool of perspectives for exploring the challenges encountered by women in career development within the public education sector in Rawalpindi and Islamabad, Pakistan.

FINDINGS

Limited Access to Professional Development

Limited access to professional development refers to restricted training, mentorship, and skill-enhancement opportunities for individuals within a particular industry or organization. This constraint often hampers career growth and progression, especially for women, by depriving them of the necessary resources and support to advance. It can result from various factors, including organizational policies, budgetary constraints, and biases, ultimately contributing to career development and opportunity disparities. During the interview regarding women's career development in the context of challenges being faced by women, research participants WCD-P8, WCD-P4, and WCD-P5 expressed their experiences as follows:

"There is a preference for females as teachers and lecturers, but in administrative positions, management side, or executive level, the majority are males" (DBN)

"Most of the women did not get training because of their problems as women. This is how women are kept behind, being less skilled and unfit for promotion" (MBY)

"Females have a chance to compete, but the issue is it is not exactly an equal chance" (DHK)

These statements encapsulate the multifaceted challenges faced by women in educational institutions regarding career development. The first statement highlights a gender disparity in roles within the academic hierarchy, where women are predominantly directed towards teaching positions rather than administrative or managerial roles. This indicates a structural preference for men in leadership positions. The second note highlights the systemic block hindering women's access to professional development opportunities. Women's limited training opportunities perpetuate a cycle of skill deficiency, reinforcing the insight of their inadequacy for senior positions. Despite having the opportunity to compete, as noted in the third statement, women still face significant hurdles in achieving career parity with their male counterparts. The acknowledgment of an unequal playing field underscores the persistence of gender partialities and operational impediments that hinder women's career progression in educational settings.

Workplace Culture and Bias

Workplace culture and bias encompass the prevailing attitudes, norms, and organizational behaviours that influence interactions, decisions, and opportunities. These cultural dynamics can create barriers for individuals, particularly women, by perpetuating stereotypes, favouring certain groups, and fostering discriminatory

practices. Addressing workplace culture and bias is crucial for promoting inclusivity, diversity, and equitable treatment, enabling all employees to thrive and contribute effectively. About workplace culture research participants WCD-P6, WCD-P-9 and WCD-P7 stated that:

"In my opinion, there is no such initiative that is a specific opportunity for females because we always see male dominance in the workplace. Even if you look at the application process, you will surely see that male applicants are many and female applicants are few. Females are not preferred; they prefer males in hiring. It is the culture here. I really never see any such special initiatives that could support females" (MS)

"When you talk about the practices, we see that even the institution's environment, such as male behaviour, discrimination, and other things, is less supportive for females" (AS)

"Overall, organizational or workplace culture is not in favour of females. They do not accept the female happily. Male dominance here. Male has their groups and setups. They never give preference to females in any special teamwork" (DNR)

These statements highlight the pervasive presence of gender bias and an unsupportive workplace culture within the public education sector, significantly affecting women's career development. The first opinion underscores the systemic preference for male employees in hiring processes, indicating a structural bias that disadvantages female applicants. This preference reflects broader societal norms and reinforces male dominance in leadership roles. The second comment further emphasizes the discriminatory practices and male-dominated environment within educational institutions, suggesting a hostile climate for female professionals. Finally, the third statement underscores the entrenched nature of male dominance and the lack of inclusivity in organizational culture. The prevalence of male-centric groups and the exclusion of females from collaborative opportunities underscore systemic barriers to women's development. Collectively, these insights illuminate the urgent need for institutional interventions to address workplace biases and foster a more equitable environment conducive to women's career progression in the public education sector.

Balancing Work and Family Responsibilities

Balancing work and family responsibilities refers to the challenge of managing professional duties alongside familial obligations. For women, this often entails managing career aspirations with caregiving duties, household chores, and other familial responsibilities. Achieving a harmonious balance requires organizational support, flexible work arrangements, and societal recognition of the importance of shared caregiving responsibilities. Concerning work balancing and family responsibilities, research participants WC-P1 and WCA-P3 shared their views:

"For me, work balance and family responsibilities are the biggest hurdles to beat in the senior position. It is widespread in our society that a female is

responsible for all the domestic chores, whether she is serving in a senior position or anywhere else" (DSA)

"In our social system, there is not much family support in this regard. However, women still try to manage it. If they get support from their husbands and parents, they can better move toward their careers. Unfortunately, a woman has to do everything. So, if there is no such cooperation on the part of the parents, husband, and the institution, the managerial position is a real challenge for her" (DNR)

These statements shed light on women's significant challenges in balancing work responsibilities with family duties, particularly in attaining senior positions within the public education sector. The first remark highlights the immense burden placed on women, who are often expected to manage both professional and domestic responsibilities single-handedly. This cultural expectation perpetuates gender roles and impedes women's career development by limiting their ability to dedicate sufficient time and energy to their professional roles. The second observation underscores the lack of adequate family support for women in their career pursuits, emphasizing the critical role of spousal and familial cooperation in facilitating women's career progression. Without such support systems, women encounter formidable obstacles in achieving senior positions, underscoring the need for systemic changes to support women's work-life balance and promote their professional growth within the public education sector. Research participants WCD-P9 and WCD-P2 added their views as:

"A working woman has double duty, and she performs the domestic chores and the office work. Moreover, in this regard, family support is very important to manage. Besides this, the husband's cooperation also plays an important role" (AS)

"There is no such work balance. A woman, after working till 4:00 or 5 in the office, gets exhausted. Reaching back home, he needs to perform even the work that her husband and other family members can do. It is because of the fact that they say to such a woman that she was doing the job of her own will. So, don't do this and stay at home because you are meant for home, not for work outside. So, these challenges and the social taboos are the big blocks" (NS)

These statements underscore women's difficult challenges in balancing their professional and domestic responsibilities within the public education sector. The first observation highlights the inherent double burden placed on working women, who are expected to fulfil both household chores and office duties simultaneously. Family support, particularly from husbands, is crucial in alleviating this burden and enabling women to manage their dual roles effectively. However, the second remark paints a bleak picture of the reality many working women face, emphasizing the absence of adequate work-life balance and the pervasive societal expectation that women prioritize domestic

duties over their careers. Such entrenched gender norms and societal taboos pose significant barriers to women's career development, perpetuating inequality and hindering their professional growth within the public education sector. Addressing these challenges requires comprehensive strategies to dismantle gender stereotypes, promote equitable distribution of domestic responsibilities, and foster supportive environments that enable women to thrive personally and professionally.

Promotional Policies and Criteria

Promotional policies and criteria encompass organizations' guidelines and requirements for career development. These policies outline the qualifications, performance metrics, and evaluation criteria for employees progressing to higher organizational positions. Gender-specific policies and biases can influence promotional opportunities, impact women's development, and contribute to gender disparities in the workplace. In the interviews regarding women's career development in educational institutions, research participants WCD-P2, WDA-P4, and WCD-P10 expressed their experiences as follows:

"Discrimination can be seen in unequal pay, limited access to higher positions. There may be a lack of policies that support and promote women" (NS)

"Males are supported in the selection process if the people come from a male-dominant mindset. They feel that it would be easier for them to do the jobs" (BY)

"A female has a lot of commitments. For instance, sometimes, she cannot even prepare for the exam for departmental promotions. It is because of this reason that she can be in a family where there are certain issues at her home. She could easily miss the chance. Some females take a break in their careers, in the case of infants. This causes a delay in her promotion" (DFJ)

These statements highlight the systemic challenges women encounter in the realm of promotional policies and criteria within the public education sector. The first observation underscores the prevalence of discrimination, manifested through unequal pay and limited access to higher positions, which perpetuates gender disparities in career development. Moreover, the lack of supportive policies further exacerbates these inequalities, hindering women's progress and perpetuating a cycle of underrepresentation. The second remark sheds light on the implicit bias favoring males in the selection process, perpetuated by a male-dominant mindset within the industry. This bias undermines the merit-based evaluation of candidates and reinforces gender-based barriers to career growth. Lastly, the third statement highlights the additional challenges women face due to familial commitments, such as caregiving responsibilities, which often result in career interruptions and delays in promotional opportunities. These insights underscore the urgent need for policy reforms and organizational interventions to address gender inequalities, promote meritocracy, and create inclusive environments that facilitate women's career development within the public education sector.

Perceptions of Leadership and Authority

Perceptions of leadership and authority refer to individuals' subjective views and beliefs regarding leadership roles and the exercise of power within organizations. Cultural norms, gender stereotypes, and personal experiences can influence these perceptions, shaping how individuals perceive leadership effectiveness and legitimacy. Gender biases may lead to misconceptions about women's leadership capabilities, affecting their opportunities for development and representation in leadership positions. During interviews concerning women's career development in educational institutions, participants WCD-P8, WCD-P2, and WCD-P7 shared their respective experiences.

"Society understands that women do not have decision-making power" (DBN)

"There is a stigma that women cannot do authoritative work" (DNS)

"There is a perception in our society that women are comparatively weaker and less decisive" (DNR)

These statements shed light on the pervasive gender biases and stereotypes surrounding perceptions of leadership and authority within the public education sector. The first observation highlights a societal misconception that women lack decision-making power, reflecting deep-rooted gender norms that undermine women's leadership capabilities. The second remark underscores the existence of a stigma suggesting that women are incapable of authoritative roles, perpetuating restrictive gender roles, and limiting women's professional opportunities. Furthermore, the third statement reinforces the notion of gendered perceptions, suggesting that women are perceived as inherently weaker and less decisive, thereby marginalizing their potential for leadership positions. These perceptions contribute to the underrepresentation of women in leadership roles and perpetuate systemic obstructions to their career development within the public education sector. Addressing these biases and stereotypes is crucial for fostering an inclusive and equitable environment that recognizes and empowers women's leadership abilities.

Research participants WCD-P4, WCD-P5, and WCD-P10 shared their views as:

"They operate by saying, 'This man works under the headship of a woman,' And feel insulted" (MBY)

"It is the male-oriented setup where males intend to keep them strong in this power structure. They don't want to be under the supervision of the females" (DHK)

"First is the male mindset, which does not give acceptance to females as a leader" (DFJ)

These statements reveal entrenched gender biases and resistance to female leadership within the public education sector. The first remark highlights how the perception of a man working under a woman's leadership is viewed as derogatory, indicating deeply ingrained gender norms that prioritize male authority. This reflects a broader societal attitude that devalues women in leadership roles. The second observation underscores a male-oriented power structure that actively resists female supervision, perpetuating gender inequality and hindering women's development. Additionally, the third statement emphasizes the prevalence of a

male mindset that rejects female leadership, further marginalizing women and reinforcing gender-based hierarchies. Addressing these perceptions is crucial for promoting gender equality and creating inclusive leadership environments where women can thrive and contribute effectively.

FINDING & DISCUSSION

The present study highlights several critical aspects of gender disparities in career development within public higher education institutions in Pakistan. Key challenges identified include limited access to professional development opportunities, workplace biases and cultural norms, difficulties in balancing work and family responsibilities, and gender-specific promotional policies. These findings align with prior research emphasizing systemic barriers faced by women in professional environments. For instance, limited access to training and mentorship mirrors observations by Brown and Martinez (2019) and Mohamed et al. (2023), who reported that structural biases restrict women's career advancement. Similarly, the pervasive male-dominated workplace culture observed in this study resonates with Garcia and Rodriguez (2018) and Longman et al. (2018), highlighting how entrenched cultural norms and discriminatory practices impede women's visibility and participation in leadership roles.

The study further underscores the challenges women face in balancing work and family responsibilities, reflecting findings from Nwagbara (2020) and White and Maniam (2020), who noted that caregiving obligations disproportionately affect women's professional engagement. Our findings extend this understanding to the public education context, demonstrating that inadequate family and institutional support further exacerbates career progression barriers for women. Gender-specific promotional policies also emerged as a significant barrier. Consistent with Wang and Chen (2020) and D'Agostino et al. (2022), the study shows that formal evaluation criteria often fail to account for gendered challenges, favoring traits traditionally associated with men and penalizing career interruptions. This highlights the need for re-evaluating promotion practices to ensure fairness and meritocracy.

Finally, perceptions of leadership and authority reinforce systemic biases against women, as suggested by Yang and Kim (2016) and Campo (2018). Deep-rooted stereotypes regarding women's decision-making capabilities and authority create barriers to leadership roles, limiting professional growth despite formal equality measures. Addressing these biases requires both organizational and cultural interventions that challenge gendered expectations and foster inclusive leadership.

In summary, this study integrates with existing literature by confirming, extending, and contextualizing prior findings in the public education sector. The results emphasize the importance of holistic strategies that include expanding professional development opportunities, reforming workplace culture, supporting work-life balance, revising promotional policies, and challenging leadership stereotypes. Through these targeted

REFERENCES

Adisa, T. A., Gbadamosi, G., & Adekoya, O. D. (2021). Gender apartheid: The challenges of breaking into "man's world".

interventions, stakeholders can create equitable and supportive environments that enable women to thrive professionally and advance in their careers.

CONCLUSION

In the present study, research data indicated the pervasive gender disparities and multifaceted challenges hindering women's career development within the public education sector in Pakistan. Through in-depth interviews and thematic analysis, the study identifies key obstacles such as limited access to professional development, workplace biases, work-life balance challenges, and gender-specific promotional policies. By offering actionable sanctions for policymakers, educational institutions, and organizational heads, the study highlights the urgent need for policy reforms, cultural shifts, and systemic changes to promote gender equity and create a supportive environment conducive to women's career development. By addressing these challenges collectively, stakeholders can work towards building a more inclusive and equitable public education sector that leverages the full potential of its workforce and contributes to broader societal advancement.

Limitations, Suggestions, and Implications of the Study

While this study provides valuable insights into the challenges hindering women's career development within public higher education in Pakistan, several limitations should be acknowledged. First, the sample size was small ($n = 10$) and limited to senior-level management in universities of Rawalpindi and Islamabad, which may reduce the generalizability of the findings to other regions, educational institutions, or professional sectors. Second, the study primarily included married participants with higher education, potentially overlooking the experiences of unmarried women or those with different educational backgrounds. Third, reliance on qualitative interviews introduces subjectivity, as participants' responses may reflect social desirability bias or personal perspectives.

Future research should aim to address these limitations. Studies could include a larger and more diverse sample, incorporating participants across different marital statuses, educational levels, and geographic locations to enhance generalizability. Longitudinal research could examine career trajectories over time, assessing the long-term impact of institutional policies, workplace culture, and family responsibilities on women's advancement. Additionally, comparative studies across public and private sectors or cross-cultural analyses could provide deeper insights into systemic and contextual factors affecting gender disparities in career development.

For policymakers and organizational leaders, the study highlights the need to implement interventions such as mentorship programs, flexible work arrangements, gender-sensitive promotional policies, and initiatives to transform workplace culture. Future guidelines should emphasize evidence-based strategies that not only reduce barriers but also proactively foster inclusivity, equity, and women's representation in leadership roles.

Gender, Work & Organization, 28(6), 2216–2234.
<https://doi.org/10.1111/gwao.12681>

Abalkhail, J. M. (2017). Women and leadership: Challenges and opportunities in Saudi higher education. *Career Development*

- International*, 22(2), 165–183. <https://doi.org/10.1108/CDI-03-2016-0029>
- Alvesson, M. (2011). *Management of knowledge-intensive companies* (Vol. 61). Walter de Gruyter.
- Alvesson, M., & Kärreman, D. (2011). *Qualitative research and theory development: Mystery as method*. SAGE.
- Bowles, H. R., Thomason, B., & Bear, J. B. (2019). Reconceptualizing what and how women negotiate for career advancement. *Academy of Management Journal*, 62(6), 1645–1671. <https://doi.org/10.5465/amj.2017.1322>
- Brown, L., & Martinez, M. (2019). Career challenges for women in private education: An empirical investigation. *Gender and Education*, 25(3), 245–263.
- Barkhuizen, E. N., Masakane, G., & van der Sluis, L. (2022). In search of factors that hinder the career advancement of women to senior leadership positions. *SA Journal of Industrial Psychology*, 48(1), 1–15. <https://doi.org/10.4102/sajip.v48i0.1956>
- Campo, P. A. (2018). *Overcoming gender-based barriers: Experiences of women presidents in higher education* (Doctoral dissertation, Northcentral University).
- Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). Sage.
- Castañó, A., Fontanil, Y., & García-Izquierdo, A. L. (2019). “Why can’t I become a manager?” A systematic review of gender stereotypes and organizational discrimination. *International Journal of Environmental Research and Public Health*, 16(10), 1813. <https://doi.org/10.3390/ijerph16101813>
- Cheryan, S., Ziegler, S. A., Montoya, A. K., & Jiang, L. (2017). Why are some STEM fields more gender balanced than others? *Psychological Bulletin*, 143(1), 1–35. <https://doi.org/10.1037/bul0000052>
- Coleman, M. (2020). Women leaders in the workplace: Perceptions of career barriers, facilitators and change. *Irish Educational Studies*, 39(2), 233–253. <https://doi.org/10.1080/03323315.2019.1697952>
- D’Agostino, M., Levine, H., Sabharwal, M., & Johnson-Manning, A. C. (2022). Organizational practices and second-generation gender bias: A qualitative inquiry into the career progression of U.S. state-level managers. *The American Review of Public Administration*, 52(5), 335–350. <https://doi.org/10.1177/02750740221074640>
- Farooq, M., Ahmad, N. M., Mushtaq, A. Q., Ahmad, R. M., Ali, F. H., & Mujahid, A. B. (2020). Role of women at top management in public sector universities of Islamabad, Pakistan. *Journal of the Research Society of Pakistan*, 57(1), 181.
- Garcia, S., & Rodriguez, E. (2018). Examining the role of workplace culture in career advancement: A study in private educational settings. *Journal of Gender in Education*, 22(4), 421–438.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. SAGE Publications.
- Hennekam, S., Ladge, J., & Shymko, Y. (2020). From zero to hero: Sudden hero status among nonphysician health care workers during COVID-19. *Journal of Applied Psychology*, 105(10), 1088–1100. <https://doi.org/10.1037/apl0000814>
- Horta, H., & Tang, L. (2023). Male and female academics' gendered perceptions of academic work and career progression in China. *Higher Education Quarterly*, 77(3), 515–536. <https://doi.org/10.1111/hequ.12391>
- Jamison-McClung, D. (2022). Mentorship, sponsorship, and professional networking. In *Uprooting bias in the academy* (pp. 175–187).
- Kausar, S. K., Hafeez, F. F. A., & Anwar, S. (2024). Potential obstacles hindering the progression of women into leadership roles within education. *Journal of Contemporary Trends and Issues in Education*, 3(2), 1–23.
- Kvale, S. (1983). The qualitative research interview – A phenomenological and a hermeneutical mode of understanding. *Journal of Phenomenological Psychology*, 14(2), 171–196. <https://doi.org/10.1163/156916283X00090>
- Laursen, S., & Austin, A. E. (2020). *Building gender equity in the academy: Institutional strategies for change*. Johns Hopkins University Press.
- Lofland, J., Snow, D., Anderson, L., & Lofland, L. (2006). *Analyzing social settings: A guide to qualitative observation and analysis* (4th ed.). Wadsworth.
- Longman, K., Daniels, J., Lamm Bray, D., & Liddell, W. (2018). How organizational culture shapes women’s leadership experiences. *Administrative Sciences*, 8(2), 8. <https://doi.org/10.3390/admsci8020008>
- Mahmood, C. K. (2022). Exploring the impact of transformation to web-based learning during COVID-19. *IBIMA Business Review*, Article 852705. <https://doi.org/10.5171/2022.852705>
- Mahmood, C. K., Khalil, T., Al-Karaneh, A. F. A., & Sarfaraz, T. (2022). Students’ satisfaction with e-learning in Saudi higher education during COVID-19. In A. K. Alghamdi (Ed.), *Teaching in the pandemic era in Saudi Arabia* (pp. 154–167). Brill.
- Mohamed, S., Abbashar, A., & Abushama, H. (2023). Women’s career motivation: Social barriers and enablers in Sudan. *Frontiers in Psychology*, 14, 1153613. <https://doi.org/10.3389/fpsyg.2023.1153613>
- Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counselling psychology. *Journal of Counseling Psychology*, 52(2), 250–260. <https://doi.org/10.1037/0022-0167.52.2.250>
- Moser, A., & Korstjens, I. (2018). Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. *European Journal of General Practice*, 24, 9–18. <https://doi.org/10.1080/13814788.2017.1375091>
- Mousa, M. (2021). How workplace fun is experienced in the banking sector? A qualitative study. *Employee Relations*, 43(3), 687–703. <https://doi.org/10.1108/ER-06-2020-0278>
- Nwagbara, U. (2020). Institutions and organisational work-life balance policies: Exploring challenges faced by Nigerian women. *Journal of Work-Applied Management*, 12(1), 42–54. <https://doi.org/10.1108/JWAM-12-2019-0037>
- Rodriguez, J. K., & Guenther, E. A. (2022). Gendered organization theory. In *Oxford Research Encyclopedia of Business and*

- Management*.
<https://doi.org/10.1093/acrefore/9780190224851.013.21>
- Rosa, R., Drew, E., & Canavan, S. (2020). An overview of gender inequality in EU universities. In *The gender-sensitive university* (pp. 1–15).
- Sattari, N., & Sandefur, R. L. (2019). Gender in academic STEM: A focus on men faculty. *Gender, Work & Organization*, 26(2), 158–179. <https://doi.org/10.1111/gwao.12297>
- Seidman, I. (2006). *Interviewing as qualitative research*. Teachers College Press.
- Shah, M. K. M., Kamal, M. H. M., Soh, M. A. C., Saili, J., Jaafar, Q. H., & Othman, I. W. (2023). Fostering the digital generation: Challenges in higher education institutions. *Technology Management*, 8(33), 331–360.
- Smith, J. A., Jarman, M., & Osborn, M. (1999). Doing interpretative phenomenological analysis. In M. Murray & K. Chamberlain (Eds.), *Qualitative health psychology* (pp. 218–241). Sage Publication.
- Smith, J., & Johnson, A. (2017). Breaking the glass ceiling: Gender disparities in private education. *Journal of Educational Equality*, 15(2), 112–130.
- Stamarski, C. S., & Son Hing, L. S. (2015). Gender inequalities in the workplace: Effects of organizational structures and decision makers' sexism. *Frontiers in Psychology*, 6, 135488. <https://doi.org/10.3389/fpsyg.2015.01357>
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage.
- Thelma, C. C., & Ngulube, L. (2024). Women in leadership: Examining barriers to women's advancement. *Asian Journal of Advanced Research and Reports*, 18(6), 273–290.
- Toma, J. D. (2011). Approaching rigor in applied qualitative research. In the *SAGE handbook for research in education* (pp. 263–281).
- Wang, Q., & Chen, L. (2020). Promotional policies and women's career advancement in private education. *Educational Policy Analysis*, 30(2), 198–215.
- Wanjiku, S. M., Karobia, A. W., & Njeru, J. K. (2020). Women in the education sector: Monitoring and evaluation of empowerment and leadership. *International Journal of Education and Learning Systems*, 5.
- Weick, K. E. (1995). *Sensemaking in organizations*. Sage Publications.
- White, C., & Maniam, B. (2020). Flexible working arrangements, work-life balance, and working women. *Journal of Business and Accounting*, 13(1), 59–73.
- Yang, H., & Kim, E. (2016). Leadership perceptions and women's career confidence: Insights from private education. *Journal of Leadership in Education*, 19(1), 82–99.
- Wirajaya, G., Suganda, L. A., & Zuraida, Z. (2019). Indonesian students' social-emotional competencies and their English academic achievement. *Journal of Education and Learning (EduLearn)*, 13(2), 163–169. <https://doi.org/10.11591/edulearn.v13i2.12160>
- Zubainur, C. M., Johar, R., Hayati, R., & Ikhsan, M. (2020). Teachers' understanding about the characteristics of realistic mathematics education. *Journal of Education and Learning (EduLearn)*, 14(3), 456–462. <https://doi.org/10.11591/edulearn.v14i3.8458>.
- Lin, & Wu. (2014). Exploring the role of dynamic capabilities in firm performance under the resource-based view framework. *Journal of Business Research*, 407–413.
- Lin, Y., & Wu, L. Y. (2014). Exploring the role of dynamic capabilities in firm performance under the resource-based view framework. *Journal of Business Research*, 407–413.
- Lord, G., R., Day, V., D., Zaccaro, J., A. (2017). Leadership in applied psychology: Three waves of theory and research. *Journal of Applied Psychology*, 434.
- Luo, W. Q., & Shan, Y. J. (2022). Public servant leadership and employee innovative performance: A moderated mediation model. *Journal of Shandong University of Finance and Economics*, 85-94+120.
- Ma, Z., Khan, S., H., Chughtai, S., M. (2023). A review of Supervisor–Subordinate Guanxi: Current Trends and Future Research. *Sustainability*, 795.
- McAdam, R. H. (2017). Developing management capability within a horizontal supply chain in performance measurement deployment and evolution: A dynamic capabilities and goal theory perspective. *Production Planning & Control*, 610-628.
- Mehralian, G., Moradi, M., Babapour, & J. (2021). How do high-performance work systems affect innovation performance? The organizational learning perspective. . *Personnel Review* .
- Mehralian, G., Sheikhi, S., Zatzick, C., & Babapour, J. (2022). The dynamic capability view in exploring the relationship between high-performance work systems and innovation performance. *The International Journal of Human Resource Management*, 1-31.
- Mehralian, G., Sheikhi, S., Zatzick, C., & Babapour, J. (2023). The dynamic capability view in exploring the relationship between high-performance work systems and innovation performance. *The International Journal of Human Resource Management*, 1-31.
- Miao, R. T., & Cao, Y. (2020). Impact of high-Performance work systems on employee innovation behavior from the perspective of capital integration: a cross-level study. *Econ. Sci.*, 72-85.
- Milner, J., McCarthy, G., Milner, & T. (2018). Training for the coaching leader: How organizations can support managers. *Journal of Management Development*, 188-200.
- Minbaeva. (2013). Strategic HRM in building micro-foundations of organizational knowledge-based performance. . *Human Resource Management Review*, 378-390.
- Montani, F., Courcy, F., & Vandenberghe, C. (2017). Innovating under stress: the role of commitment and leader-member exchange. *Journal of Business Research*, 1-13.
- Mweru, M.C., M., & T.M. (2016). Features of resource-based view theory: An effective strategy in outsourcing. *Murang'a University of Technology, Institutional Repository*, 214-218.
- Nadeem, K., Riaz, A., Danish, & Q., R. (2019). Influence of high-performance work system on employee service performance and OCB: the mediating role of resilience. *J. Glob. Entrepreneursh.*, 1-13.

- Narayanan, K., V., Colwell, K., Douglas, & L., F. (2009). Building organizational and scientific platforms in the pharmaceutical industry: A process perspective on the development of dynamic capabilities. . *British Journal of Management*, S25–S40.
- Neirotti, P., & Raguseo, E. (2016). On the contingent value of IT-based capabilities for the competitive advantage of SMEs: Mechanisms and empirical evidence. *Information & Management*, 139–150.
- O'Reilly, & Tushman. (2008). Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Research in Organizational Behavior*, 185–206.
- Obeidat, M., S., Mitchell, R., Bray, & M. (2016). The link between high performance work practices and organizational performance: Empirically validating the conceptualization of HPWP according to the AMO model. . *Employee Relations*, 578–595.
- Oparaocha. (2016). Towards building internal social network architecture that drives innovation: a social exchange theory perspective. *J. Knowl. Manag.*, 534–556.
- Pahos, N., & Galanaki, E. (2022). Performance effects of high performance work systems on committed, long-term employees: a multilevel study. *Front. Psychol.*
- Park, O., Bae, J., Hong, & W. (2019). High-commitment HRM system, HR capability, and ambidextrous technological innovation. *The International Journal of Human Resource Management*, 1526-1548.
- Patel, Messersmith, & Lepak. (2013). Walking the tightrope: An assessment of the relationship between high-performance work systems and organizational ambidexterity. *Academy of Management Journal*, 1420–1442.
- Peláez, Z., J., M., Salanova, M., Martínez, & M., I. (2020). Coaching-based leadership intervention program: A controlled trial study. *Frontiers in Psychology*, 3066.
- Ployhart, R. (2021). Resources for what? Understanding performance in the resource-based view and strategic human capital resource literature. *Journal of Management*, 1771–1786.
- Podsakoff, P.M., Mackenzie, S.B., Podsakoff, & N.P. (2012). “Sources of method bias in social science research and recommendations on how to control it”. *Annual Review of Psychology*, 539-569.
- Rao, T. (2014). HRD Audit: Evaluating the Human Resource Function for Business Improvement. *Sage Publications*.
- Rosha, A., lace, & N. (2021). Assessment of the impact of coaching on a company's performance: A review of methods. *Journal of Open Innovation: Technology, Market, and Complexity*, 233.
- Rosing, K., & Zacher, H. (2016). A new perspective on individual ambidexterity and its relationship with innovative performance. . *Academy of Management Proceedings*.
- Sarkar, S., Coelho, D.M., Maroco, & J. (2016). Strategic orientations, dynamic capabilities, and firm performance: An analysis for knowledge intensive business services. *Journal of the Knowledge Economy*, 1000-1020.
- Schilke, O., Hu, S., Helfat, & E., C. (2018). Quo vadis, dynamic capabilities? *Strategic Management Journal*, 390–409.
- Sekaran, U., & Bougie, R. (2003). Research Methods for Business: A Skill Building Approach. *Singapore: Willey*.
- Shahzad, F. A., & Bajwa, S. U. (2019). Unpacking the relationship between high-performance work systems and innovation performance in SMEs. *Personnel Review*, 977–1000.
- Singh, K., S., Mazzucchelli, A., Vessal, S. R., A. (2021). Knowledge-based HRM practices and innovation performance: role of social capital and knowledge sharing. *J. Int. Manag.* .
- Stremersch, S., Camacho, N., Keko, E., & Wuyts. (2022). Grassroots innovation success: the role of self-determination and leadership style. . *Int. J. Res. Market.*, 396–414.
- Sung, & Choi. (2018). Effects of training and development on employee outcomes and firm innovative performance: Moderating roles of voluntary participation and evaluation. *Human Resource Management*, 1339–1353.
- Takeuchi, R., Lepak, P., D., Heli, W., K. (2007). An empirical examination of the mechanisms mediating between high-performance work systems and the performance of Japanese organizations. *The Journal of Applied Psychology*, 1069–1083.
- Teece. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. . *Strategic Management Journal*, 1319-1350.
- Teece. (2018). Business models and dynamic capabilities. *Long Range Planning*, 40–49.
- Teece, J., D., Pisano, G., Shuen, & A. (2009). Dynamic capabilities and strategic management. *Knowledge and Strategy*, 77–116.
- Teece, Pisano, & Shuen. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 509-533.
- Tierney, P., & Farmer, S. (2011). Creative Self-Efficacy Development and Creative Performance Over Time. *J. Appl. Psychol.*, 277–293.
- Turró, A., Urbano, D., Peris-Ortiz, & M. (2014). Culture and innovation: the moderating effect of cultural values on corporate entrepreneurship. *Technological Forecasting and Social Change*, 360-369.
- Volberda, & Karali. (2015). Reframing the compositional capability: A resource-based view on ‘a composition-based view of firm growth’. *Management and Organization Review*, 419-426.
- Wang, & Zatzick. (2019). Human capital acquisition and organizational innovation: A temporal perspective. *Academy of Management Journal*, 99–116.
- Wang, G., Waldman, A., D., H., & Zhang. (2014). A meta-analysis of shared leadership and team effectiveness. *Journal of Applied Psychology*, 181–198.
- Wei, & Lau. (2010). High performance work systems and performance: The role of adaptive capability. *Human Relations*, 1487-1511.

- Welbourne, T.M., Johnson, D.E., Erez, & A. (1998). The role-based performance scale: validity analysis of a theory-based measure. *Academy of Management Journal*, 540-555.
- Wu. (2007). Entrepreneurial resources, dynamic capabilities and start-up performance of Taiwan's high-tech firms. *Journal of Business Research*, 549-555.
- Yalcinkaya, G., Calantone, J., R., Griffith, & A., D. (2007). An examination of exploration and exploitation capabilities: Implications for product innovation and market performance. *Journal of International Marketing*, 63-93.
- Yu, W., Chavez, R., Jacobs, M.A. (2018). Data-driven supply chain capabilities and performance: A resource-based view. *Transportation Research Part E: Logistics and Transportation Review*. 371-385.
- Zhang, J., Bal, M., P., Akhtar, N., M., Z. (2019). High performance work system and employee performance: the mediating roles of social exchange and thriving and the moderating effect of employee proactive personality. *Asia Pacific J. Hum. Resour.*, 369-395.
- Zhang, J., Zhu, F., Liu, N., Z. (2022). Be in your element: The joint effect of human resource management strength and proactive personality on employee creativity. *Frontiers in Psychology*, 851539.
- Zhong, L., Wayne, S.J., Liden, & R.C. (2016). Job engagement, perceived organizational support, high-performance human resource practices, and cultural value investigation. *J. Organ. Behav.*, 823-844.
- Zhou, & Wu. (2009). Technological capability, strategic flexibility, and product innovation. *Strategic Management Journal*, 547-561.
- Zhu, F., Gao, Y., Chen, & X. (2022). Tough love: impact of high-performance work system on employee innovation behavior. *Front. Psychol.* .