

Professional Development and Career Advancement for Women Educators: Examining the Influence of Employment Conditions

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Abstract:

This research paper investigates the impact of employment conditions on professional development and career advancement for women educators. With a focus on assessing how professional development programs, career advancement opportunities, and family support systems affect employment outcomes, this study utilizes data collected from 715 women educators through a snowball sampling technique. Data analysis is conducted using Smart PLS 4, where bootstrapping techniques test the hypotheses and confirm the validity and reliability of the constructs. The findings highlight the significant role of supportive employment conditions and family dynamics in fostering career growth, offering insights for policies aimed at enhancing professional development for women in education. This study provides valuable implications for policymakers and educational institutions on how to better support women educators in their professional journeys.

1. Introduction

The professional development and career advancement of women educators are essential not only for enhancing educational quality but also for empowering female professionals and promoting gender equity in the workplace. However, women in education frequently face unique challenges related to employment conditions that hinder their growth and satisfaction. For instance, women in academia often experience salary disparities compared to their male counterparts, which can lead to decreased job satisfaction, motivation, and a sense of inequity in the workplace (Reid, 2021). In addition, many women endure precarious employment situations, particularly in adjunct or part-time roles, which undermines their career stability and limits long-term professional opportunities (Mbukanma & Strydom, 2022).

Female educators are also disproportionately burdened with administrative and caregiving responsibilities, which often leads to burnout and dissatisfaction ("Confrontations Faced by Women in Higher Education Institutions and Strategies to Overcome the Anomalies in the Mid-Career," 2022). These added responsibilities, compounded by high expectations to fulfil "invisible labor" roles—such as providing mentorship and emotional support—can complicate their paths to recognition and advancement within academic institutions (Reid, 2021). Furthermore, women educators frequently encounter barriers to accessing mentorship and professional development programs, which are critical for career progression and skill enhancement (Mbukanma & Strydom, 2022; "Confrontations Faced by Women in Higher Education Institutions and Strategies to Overcome the Anomalies in the Mid-Career," 2022).

Despite the recognized importance of supporting women educators, gaps remain in understanding how these employment conditions impact career advancement and professional development. This study seeks to address these gaps by examining how factors such as access to professional development programs, career advancement opportunities, family support systems, and equitable workplace policies influence employee satisfaction and professional development outcomes for women educators. By providing insights into these dynamics, this research aims to inform policies and practices that foster a more supportive and equitable work environment for women in education. This understanding can contribute to shaping more inclusive workplaces where female educators are empowered to thrive professionally and personally.

2. Literature Review:

Research indicates that teachers' working conditions significantly impact their employment, development, and performance outcomes. Factors such as class sizes, workdays, job security, and benefits play a critical role in educational success (Nelson, 1994). A supportive employment context fosters professional growth, as teachers in stable, secure positions demonstrate growth across various domains of knowledge, while those in unstable roles may experience setbacks (Pietsch, 2011). Working conditions, including recruitment systems, pay structures, and working hours, affect teachers' motivation and quality of life, which, in turn, influence their dedication to their schools (Castillo, 2013). Additionally, school-level factors, such as collaboration among teachers and leadership focused on instruction, are associated with higher levels of participation in effective professional development, ultimately enhancing instructional quality (Opfer, 2016). These findings highlight the importance of favorable working conditions in promoting teacher development and improving the quality of education.

Literature on professional development programs underscores their essential role in enhancing teaching effectiveness. Successful programs are often guided by specific factors directly tied to their efficacy (Guskey, 1991). Such programs play a vital role in school improvement and can significantly impact teacher learning (Borko, 2004). Studies have shown that well-implemented professional development initiatives lead to substantial improvements in teachers' competencies, expanding pedagogical knowledge and enhancing teaching skills (Nurjanah et al., 2023). In primary education, these programs are particularly valuable for addressing teachers' challenges and improving their competencies (Osiesi, 2020). However, the effectiveness of these programs depends on consistent implementation and consideration of relevant factors. Continuous, effective professional development is crucial for educators, especially at the primary level, to sustain improvements in teaching quality and student outcomes (Osiesi, 2020; Guskey, 1991). Research shows that satisfaction with professional development correlates with motivation for career growth (İsmet Potera & Fatmir Mehmeti, 2019). Despite gender-specific challenges, women academics, such as those in Pakistan, view career development as a source of pride (Shah et al., 2020). The literature highlights the significance of well-designed professional development programs in supporting educators' career advancement and job satisfaction, while also emphasizing the need to address gender-specific barriers.

Mentorship and professional development opportunities positively influence career advancement and job performance among women educators. Mentorship is particularly beneficial for women in educational administration, providing guidance and support from experienced professionals (Ehrich, 1995). Such relationships are vital for career success but are often less accessible to women (Ehrich, 1994). Developmental relationships, like mentoring, are valued by managerial women and are linked to improved work and career outcomes (Burke & McKeen, 1994). In academia, mentoring enhances career aspirations and drives institutional change (Ntshongwana, 2024). Professional development initiatives for women educators address gender imbalances, particularly in senior academic positions, through management development courses, research development programs, and other career-focused interventions (Brown, 2000; Devos, 2003). While these programs generally yield positive individual outcomes, they are less effective at catalyzing institutional change. Systematic evaluation, integration of existing knowledge into practice, and efforts to foster institutional transformation are needed to maximize the potential of these initiatives.

Research on women in educational careers reveals substantial barriers to advancement, including gender discrimination, stereotypes, and institutional structures that hinder progress. Institutional factors, such as male-dominated environments, entrenched practices, and limited networking opportunities, pose significant challenges (Storey et al., 2017; Majid Khan et al., 2024). Family responsibilities, perceptions of women leaders, and work-life imbalances further complicate career trajectories (Maheshwari & Nayak, 2020). However, factors like family and mentor support, evolving employer mindsets, and recognition of women's leadership capabilities can facilitate career growth. Research underscores the need for targeted policies and strategies to promote gender inclusivity and equal opportunities in academic leadership, especially in rapidly developing economies (Maheshwari & Nayak, 2020; Khan et al., 2024).

Family support systems play an integral role in women educators' professional development and job satisfaction. Studies show that family support significantly impacts job satisfaction for female teachers (Sutardi et al., 2020) and is a crucial support mechanism for women in educational leadership roles (Higginbottom, 2019). Corporations have responded to the increasing presence of women in the workforce by implementing innovative family-supportive policies, such as flexible benefits and corporate daycare (Sullivan, 1981). Family dynamics, including responsibilities and partnership status, influence career decisions and opportunities for women in academia, particularly as they navigate the demands of family and career (O'Brien, 2010). Recognizing the importance of family support, institutions are encouraged to adopt comprehensive approaches that accommodate the unique challenges faced by women educators.

Employee satisfaction and development conditions significantly impact career outcomes for women educators. Research shows that women often face higher teaching, service, and mentoring workloads, particularly women of color (Misra et al., 2021). Although full professors tend to have greater influence and advancement opportunities, women continue to face underrepresentation in senior roles, particularly when intersected with race and culture (Allen et al., n.d.). Unfavorable employment conditions, such as temporary contracts and lack of transparency in workload distribution, exacerbate these challenges. Favorable conditions, including supportive work environments, clear assignment processes, and departmental

rewards, are linked to increased job satisfaction and retention (Mansell et al., 2006; Al Sabei et al., 2019). Systemic changes, such as equitable policies, mentorship, and increased female representation in leadership roles, are essential for fostering women's career advancement and mitigating disparities (Allen et al., n.d.; Pyke, 2013).

Overall, professional development and career advancement for women educators are pivotal for enhancing skills and empowerment. Studies highlight the value of continuous career development in strengthening teaching abilities and digital competencies, particularly for marginalized groups like refugee women educators (Bradley et al., 2020). In STEM and academia, professional development and inclusion significantly influence career advancement, though women often face challenges related to leadership access and pay equity (Ekakoro, 2023; Vanderslice & Litsch, 1998). These findings emphasize the importance of development programs, inclusion, and mentorship while also acknowledging the persistent barriers to gender parity in education and STEM fields.

3. Research Objectives:

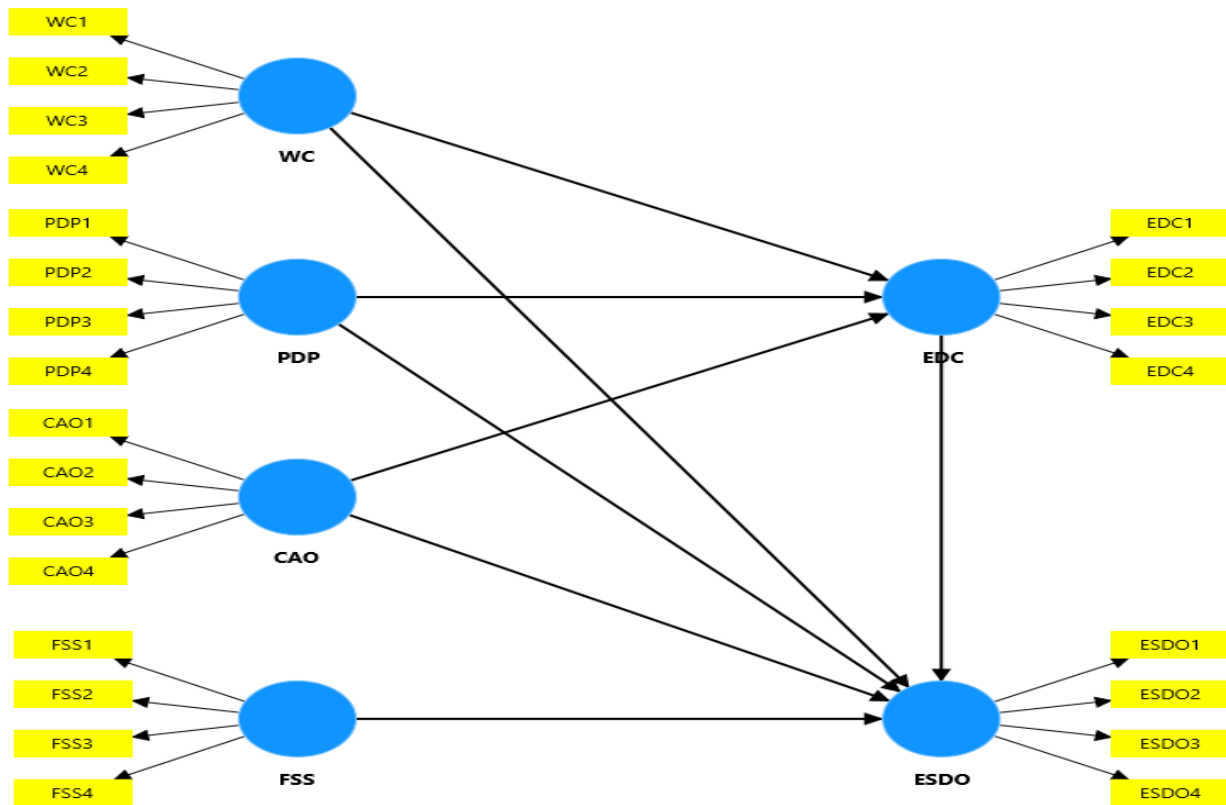
1. To analyze the influence of Career Advancement Opportunities (CAO) on Employment Development Conditions (EDC) and Employment Satisfaction & Development Outcomes (ESDO).
2. To examine the relationship between Employment Development Conditions (EDC) and Employment Satisfaction & Development Outcomes (ESDO).
3. To assess the impact of Family Support Systems (FSS) on Employment Satisfaction & Development Outcomes (ESDO).
4. To investigate the role of Professional Development Programs (PDP) in influencing both Employment Development Conditions (EDC) and Employment Satisfaction & Development Outcomes (ESDO).
5. To evaluate the effect of Work Conditions (WC) on Employment Development Conditions (EDC) and Employment Satisfaction & Development Outcomes (ESDO).

After formulating the objectives of the study based on the research gaps, following hypotheses have been proposed by the researchers:

Hypotheses:

1. **H1:** Career Advancement Opportunities (CAO) have a positive and significant impact on Employment Development Conditions (EDC).
2. **H2:** Career Advancement Opportunities (CAO) have a negative and significant impact on Employment Satisfaction & Development Outcomes (ESDO).
3. **H3:** Employment Development Conditions (EDC) have a positive and significant impact on Employment Satisfaction & Development Outcomes (ESDO).
4. **H4:** Family Support Systems (FSS) positively and significantly affect Employment Satisfaction & Development Outcomes (ESDO).
5. **H5:** Professional Development Programs (PDP) have a positive and significant effect on Employment Development Conditions (EDC).

6. **H6:** Professional Development Programs (PDP) have no significant effect on Employment Satisfaction & Development Outcomes (ESDO).
7. **H7:** Work Conditions (WC) positively and significantly influence Employment Development Conditions (EDC).
8. **H8:** Work Conditions (WC) have no significant impact on Employment Satisfaction & Development Outcomes (ESDO).



1. Figure: 1 Research Model

Research Methodology

This study is based on 717 responses. A total of 723 responses are received including six male respondent which research excluded from analysis due to gender limitation of research. convenience sampling is employed to collect data from Government and private school female teachers. The questionnaire uses for data collection is consist of two parts first part is focused on collection demographic information of teachers and second part includes various scales to measure latent variable under research. These scales are adopted and modified for this research from various researches like work conditions (WC) scale Llinares-Insa et al. (2018) and Moos

& Insel (1974), the career advancement opportunities (CAO) scale from Li, K. (2014), the professional development programs (PDP) scale from Mourão, L., et al. (2022), the employment and development conditions (EDC) scale from Çalışkan, A., & Koroğlu, E. Ö. (2024), the family support system (FSS) scale from Chen, Y., et al. (2013), and the employee satisfaction and development output (ESDO) scale from Myskova, R. (2011). The questionnaire is developed with google form and a short link were generated and share on social media, like WhatsApp groups, Facebook groups and e-mail of school teachers and related groups. After data collection data were cleaned and coded for analysis. Partial Least Squares Structural Equation Modeling (PLS-SEM) has become a popular tool for analyzing relationships between latent variables in marketing research (Sarstedt & Cheah, 2019). While primarily used in information technology and marketing, Smart PLS is expanding into other fields, such as human resources (Sander & Teh, 2014). As PLS-SEM continues to evolve, Smart PLS remains a prominent choice for researchers seeking to analyze complex relationships between variables (Sarstedt & Cheah, 2019). In this study smart PLS 4.0 software is used in order to analyze the researcher's hypothetical model. In order to run the structural equation modeling (SEM), the two step approach in structural equation modeling (SEM) is widely recommended for theory testing and development. Anderson & Gerbing (1988). In this study, the outer measurement model is composed of six latent variables. Partial Least Squares (PLS) path modeling has gained popularity in business and social sciences research, particularly for analyzing causal path models with multiple indicators (Goodhue, 2017; Henseler et al., 2016).

Results & discussion

Two stages data analysis is followed. Firstly, the EFA was used to analysis the data. First, the EFA was used to construct the study factors: work conditions, career advancement opportunities, professional development programs, family support system, employment and development conditions, and employee satisfaction & development. Secondly, the SEM was applied to know the strength and direction between proposed variables and employee satisfaction and development outcomes.

The results in this section progress from an analysis of the measurement model to the structural model, followed by mediation analysis, and conclude with the presentation of the bootstrapped model for hypothesis testing.

Table-1

Outer Loadings of the Six Reflective Constructs

Career Advancement Opportunities	Outer loadings	Employment and Development Conditions	Outer loadings
CAO1	0.920	EDC1	0.786
CAO2	0.944	EDC2	0.789
CAO3	0.947	EDC3	0.814
CAO4	0.899	EDC4	0.875

Work Conditions	Outer	Family Support System	Outer
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	loadings		loadings
WC1	0.788	FSS1	0.870
WC2	0.877	FSS2	0.880
WC3	0.886	FSS3	0.870
WC4	0.785	FSS4	0.890

Employee Satisfaction and Development outcomes	Outer loadings	Professional Development Programs	Outer loadings
ESDO1	0.799	PDP1	0.826
ESDO2	0.768	PDP2	0.827
ESDO3	0.777	PDP3	0.835
ESDO4	0.709	PDP4	0.856

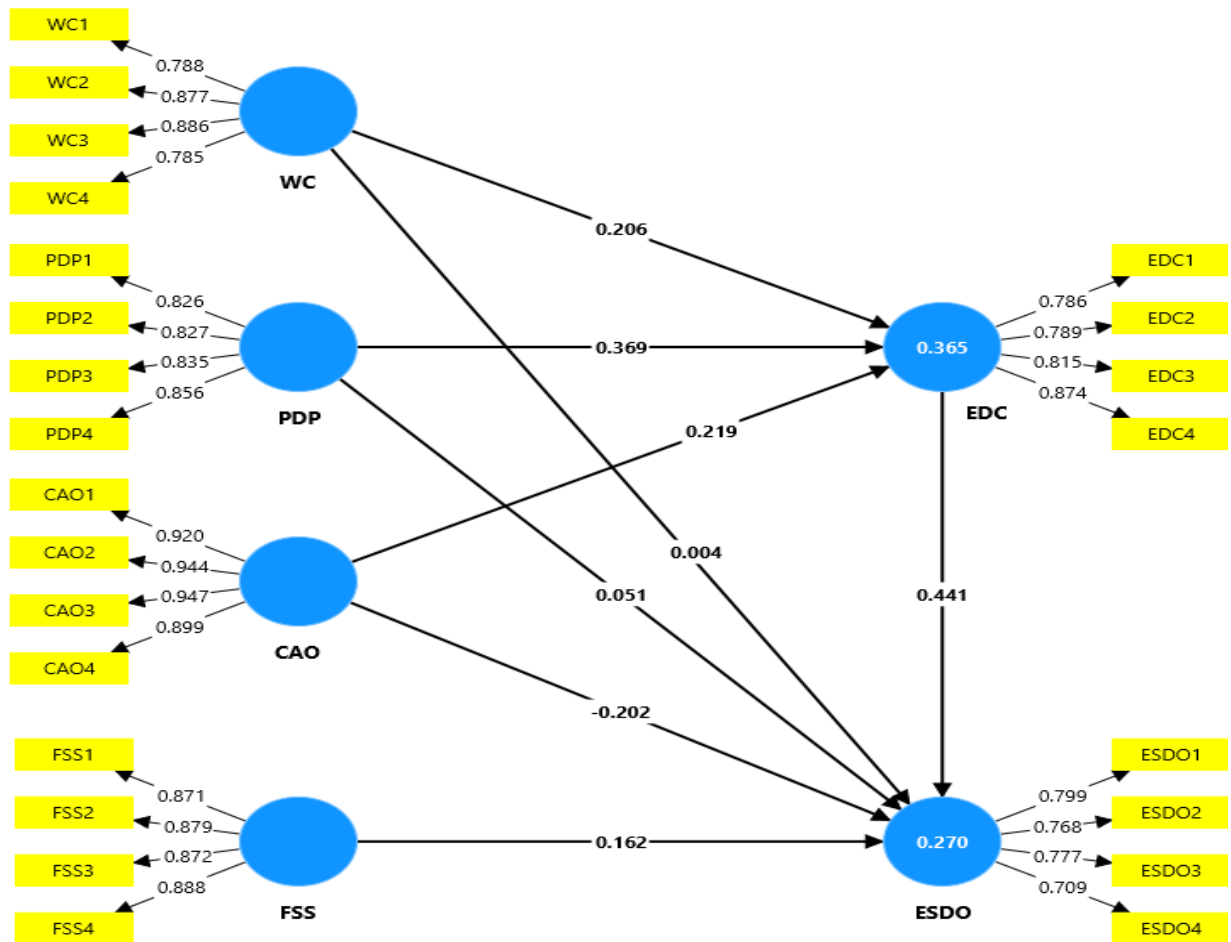


Figure-2 SEM- Model

To begin, the outer measurement model was assessed to examine the convergent validity of all instruments. This assessment was based on three key parameters: Factor Loadings,

Composite Reliability (CR), and Average Variance Extracted (AVE). First, factor loadings for each reflective construct were analyzed as an initial step in validating the measurement model. In the preliminary analysis, some items exhibited low factor loadings; these were removed to refine the outer model, in line with the reflective nature of the constructs, which allows for item removal to enhance model fit (Güvendir, M. A., & Özkan, Y. Ö. 2022). Reflective scales permit item removal because each item in these constructs measures a single concept through various similar statements. After removing items with low loadings, the structural equation model was re-evaluated. Subsequently, all factor loadings met or exceeded the recommended threshold of 0.7, indicating a robust outer measurement model (Bollen, 2019). Tables 1.1 to 1.6 below display the adapted items from the original instruments and their respective outer loadings as estimated in the outer measurement model using PLS-SEM:

Table 1.1
Items Adapted from Career Advancement Opportunities Scale

Career Advancement Opportunities	Outer loadings
CAO1: There are adequate opportunities for me to get promoted in my current school.	0.920
CAO2: The promotion criteria at my school are clear and transparent.	0.944
CAO3: My efforts are acknowledged and rewarded through promotions.	0.947
CAO4: The evaluation process for promotions is gender-neutral.	0.899

All the items (CAO1, CAO2, CAO3, and CAO4) exhibit very high outer loadings, ranging from 0.899 to 0.947. This suggests that each item contributes significantly to the construct, indicating strong internal consistency and reliability for measuring perceptions of career advancement.

Table 1.2
Items Adapted from Work Conditions Scale

Work Conditions	Outer loadings
WC1: I am satisfied with the salary I receive.	0.789
WC2: My school provides sufficient job stability and security.	0.880
WC3: I feel that the work assigned to me is reasonable for my position.	0.887
WC4: I feel valued and respected by my colleagues and management.	0.781

The outer loadings for this scale range from 0.785 to 0.885, indicating that each item meaningfully contributes to the construct of work conditions. Although WC4 (0.785) has a slightly lower loading, it still meets the threshold, demonstrating sufficient indicator reliability and contributing to an overall reliable measurement of work conditions.

Table 1.3

Items Adapted from Employment and Development Conditions Scale

Employment and Development Conditions	Outer Loadings
EDC1: My workload is manageable and allows for work-life balance.	0.786
EDC2: I am treated fairly at my workplace compared to my male counterparts.	0.789
EDC3: I have access to resources and materials necessary for effective teaching.	0.814
EDC4: My job expectations are clearly communicated and achievable.	0.875

Outer loadings for this construct fall between 0.786 and 0.875. These values confirm that the items consistently measure the intended construct, reflecting employees' perceptions of fair treatment, resources, and work-life balance.

Table 1.4

Items Adapted from Employee Satisfaction and Development Output Scale

Employee Satisfaction and Development Output	Outer Loadings
EDO1: The workload I manage allows me to feel satisfied in my role.	0.799
EDO2: I have developed professionally since joining my current school.	0.768
EDO3: There are sufficient career advancement opportunities in my school.	0.777
EDO4: The support systems in place help me manage my work and personal life effectively.	0.709

Employee Satisfaction and Development Output Scale (Table 1.4): All items show acceptable loadings (0.709–0.799), EDO4 has a relatively lower loading of 0.709, which is just on the threshold. This item still contributes to the construct but less robustly than others. Overall, the scale shows sufficient reliability in measuring perceptions of professional satisfaction and career advancement output.

Table 1.5

Items Adapted from Family Support System scale

Family Support System	Outer Loadings
FSS1: I receive help from family members with household responsibilities.	0.870
FSS2: I feel encouraged by my family to pursue professional development.	0.880
FSS3: My family provides emotional support when I face challenges at work.	0.870

FSS4: My family understands the demands of my job and is supportive during busy periods. 0.890

All items (FSS1–FSS4) have very high loadings (0.870 to 0.890), indicating a strong relationship with the family support construct. These loadings reflect excellent reliability, suggesting that each item captures a significant aspect of family support as perceived by respondents.

Table 1.6

Items Adapted from Professional Development Programs scale

Professional Development Programs	Outer Loadings
PDP.1: There is ample training programs aimed at enhancing teaching skills.	0.826
PDP2: I receive adequate mentoring support from senior staff or administrators.	0.827
PDP3: My school provides financial or logistical support to attend workshops and seminars.	0.835
PDP4: There are clear career-enhancing programs that prepare me for leadership roles.	0.856

The loadings for this scale range from 0.826 to 0.856, which exceeds the recommended threshold, confirming reliable measurement of professional development. These results suggest that items consistently reflect participants' views on access to training, mentoring, and career-enhancing opportunities.

The outer loadings for each construct demonstrate strong indicator reliability, as most items have factor loadings close to or above the acceptable threshold of 0.7, which is generally considered indicative of adequate indicator reliability (Hair et al., 2013).

Outer loadings for all the constructs under study are evaluated, Now the next step is to assess the CR and convergent validity through AVE. The CR assesses how well observed variables represent underlying constructs, assuming a reflective measurement model where the latent construct causes the item scores (Grujters et al., 2021). All constructs have CR values above 0.8, demonstrating that each construct is reliably measured. The Career Advancement Opportunities construct has the highest CR (0.961), suggesting that it is very well represented by its items. Composite reliability is often measured using internal consistency estimates like Cronbach's alpha, which should ideally fall between 0.7 and 0.9 (Tavakol & Dennick, 2011). All constructs have CR values above 0.8, demonstrating that each construct is reliably measured. The Career Advancement Opportunities construct has the highest CR (0.961), suggesting that it is very well represented by its items. The Average Variance Extracted (AVE) is a crucial measure in construct validation, indicating the amount of variance captured by a construct relative to measurement error (Mendes dos Santos & Cirillo, 2021). An AVE above

0.5 is generally considered acceptable, suggesting that more than half of the variance is attributed to the construct rather than error (Machleit, 2019). All constructs show AVE values above 0.5, supporting adequate convergent validity. Career Advancement Opportunities has the highest AVE (0.861), indicating that its items collectively capture the construct well, while Employee Satisfaction and Development Outcomes has the lowest AVE (0.583) but remains above the threshold.

Table 2. Construct reliability, validity, and AVE

	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Career Advancement Opportunities	0.946	0.961	0.861
Work Conditions	0.855	0.902	0.698
Employment and Development Conditions	0.833	0.889	0.667
Employee satisfaction and Development outcomes	0.761	0.848	0.583
Family Support System	0.901	0.931	0.770
Professional Development Programs	0.857	0.903	0.700

Discriminant validity is critical in assessing construct validity and preventing multicollinearity in research involving latent variables. Traditional methods like Fornell and Larcker criterion have been widely used (Ab Hamid et al., 2017), but newer approaches such as the heterotrait-monotrait (HTMT) ratio of correlations are emerging as more stringent alternatives (Yusoff et al., 2020; Ab Hamid et al., 2017). HTMT value below 0.85 is considered acceptable.

Table 3 Discriminant Validity for constructs (HTMT)

	1	2	3	4	5	
1: Career Advancement Opportunities						
2: Work Conditions		0.435				
3: Employment and Development Conditions		0.058	0.581			
4: Employment Satisfaction and Development outcomes		0.295	0.533	0.401		
5: Family Support System		0.298	0.605	0.356	0.470	
6: Professional Development Programs		0.367	0.515	0.251	0.359	0.501

Table -4

Estimates of Structural Equation Modeling (Hypothesis testing).

	β	F2	t value	P values	Results
H1: CAO -> EDC	0.219	0.066	6.190	0.000	Accepted
H2: CAO -> ESDO	-0.202	0.045	5.275	0.000	Accepted

H3: EDC -> ESDO	0.441	0.157	8.945	0.000	Accepted
H4: FSS -> ESDO	0.162	0.026	4.309	0.000	Accepted
H5: PDP -> EDC	0.369	0.171	10.348	0.000	Accepted
H6 PDP -> ESDO	0.051	0.002	0.958	0.338	Rejected
H7: WC -> EDC	0.206	0.051	4.955	0.000	Accepted
H8: WC -> ESDO	0.004	0.000	0.085	0.933	Rejected

The hypothesis testing results in Table 4 reveal significant insights into the relationships between various factors, such as Career Advancement Opportunities (CAO), Employment Development Conditions (EDC), Employment Satisfaction & Development Outcomes (ESDO), Family Support Systems (FSS), Professional Development Programs (PDP), and Work Conditions (WC). The path from CAO to EDC shows a positive and significant relationship, with a path coefficient (β) of 0.219, F^2 of 0.066, and a t-value of 6.190 ($p = 0.000$), indicating that CAO significantly influences EDC. Similarly, CAO has a significant negative impact on ESDO, as demonstrated by a path coefficient of -0.202, F^2 of 0.045, and a t-value of 5.275 ($p = 0.000$). Additionally, EDC has a strong positive effect on ESDO, with a path coefficient of 0.441, F^2 of 0.157, and a t-value of 8.945 ($p = 0.000$).

Family Support Systems (FSS) also show a significant positive influence on ESDO, with a path coefficient of 0.162, F^2 of 0.026, and a t-value of 4.309 ($p = 0.000$). Professional Development Programs (PDP) positively impact EDC, as indicated by a high path coefficient of 0.369, F^2 of 0.171, and a t-value of 10.348 ($p = 0.000$). However, PDP does not have a significant effect on ESDO, with a path coefficient of 0.051, F^2 of 0.002, and a t-value of 0.958 ($p = 0.338$). Work Conditions (WC) positively influence EDC, with a path coefficient of 0.206, F^2 of 0.051, and a t-value of 4.955 ($p = 0.000$), but show no significant effect on ESDO, indicated by a path coefficient of 0.004, F^2 of 0.000, and a t-value of 0.085 ($p = 0.933$). Overall, the results support most hypotheses, indicating that CAO, EDC, and FSS play important roles in influencing employment satisfaction and development outcomes. In contrast, the relationships between PDP -> ESDO and WC -> ESDO were not significant, highlighting areas where these factors may have limited impact.

Conclusion

This study employed a two-stage data analysis approach to investigate the factors influencing employee satisfaction and development outcomes. The Exploratory Factor Analysis (EFA) identified six key constructs: Career Advancement Opportunities (CAO), Work Conditions (WC), Professional Development Programs (PDP), Family Support System (FSS), Employment and Development Conditions (EDC), and Employee Satisfaction and Development Outcomes (ESDO). Structural Equation Modeling (SEM) was subsequently used to assess the relationships between these variables and test the proposed hypotheses.

The findings reveal significant relationships between the constructs. CAO positively influences EDC, with a path coefficient of 0.219, a t-value of 6.190, and a p-value of 0.000, demonstrating that transparent and fair career progression opportunities improve employment development conditions. However, CAO negatively impacts ESDO, with a path coefficient of -0.202, a t-value of 5.275, and a p-value of 0.000, suggesting that certain career advancement criteria might conflict with overall satisfaction.

EDC emerged as a critical driver of ESDO, showing a strong positive relationship with a path coefficient of 0.441, a t-value of 8.945, and a p-value of 0.000. FSS also significantly influences ESDO, with a path coefficient of 0.162, a t-value of 4.309, and a p-value of 0.000, highlighting the essential role of familial support in fostering employee satisfaction and development.

PDP positively impacts EDC (path coefficient = 0.369, t-value = 10.348, p-value = 0.000) but does not directly affect ESDO (path coefficient = 0.051, t-value = 0.958, p-value = 0.338). This indicates that professional development programs primarily enhance developmental conditions rather than directly influencing satisfaction. Similarly, WC positively impacts EDC (path coefficient = 0.206, t-value = 4.955, p-value = 0.000) but lacks a direct significant effect on ESDO (path coefficient = 0.004, t-value = 0.085, p-value = 0.933), underscoring the importance of foundational working conditions in enabling development without directly affecting satisfaction.

Overall, the study underscores the importance of EDC as a central mediator in the relationship between organizational factors and employee outcomes. While CAO, FSS, and EDC significantly impact ESDO, PDP and WC demonstrate indirect effects, indicating areas where these factors may require additional support or integration to enhance employee satisfaction. These findings provide actionable insights for organizations aiming to improve employee satisfaction and development through targeted policies and interventions. Future research could explore additional mediators and moderators to further clarify the observed relationships.

References

- Hamid, M. R. A., Sami, W., & Sidek, M. H. M. (2017). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. *Journal of Physics Conference Series*, 890, 012163. <https://doi.org/10.1088/1742-6596/890/1/012163>
- Yusoff, A. S. M., Peng, F. S., Razak, F. Z. A., & Mustafa, W. A. (2020). Discriminant Validity Assessment of Religious Teacher Acceptance: The Use of HTMT Criterion. *Journal of Physics Conference Series*, 1529(4), 042045. <https://doi.org/10.1088/1742-6596/1529/4/042045>

Hamid, M. R. A., Sami, W., & Sidek, M. H. M. (2017b). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. *Journal of Physics Conference Series*, 890, 012163. <https://doi.org/10.1088/1742-6596/890/1/012163>

Santos, P. M. D., & Cirillo, M. Â. (2021). Construction of the average variance extracted index for construct validation in structural equation models with adaptive regressions. *Communications in Statistics - Simulation and Computation*, 52(4), 1639–1650. <https://doi.org/10.1080/03610918.2021.1888122>

Machleit, K. A. (2019). Developing Measures of Latent Constructs. In *Routledge eBooks* (pp. 93–103). <https://doi.org/10.4324/9781351137713-5>

Rebecca, Reid. (2021). 5. Retaining Women Faculty: The Problem of Invisible Labor. PS Political Science & Politics, doi: 10.1017/S1049096521000056

Gruijters, S. L., Fleuren, B. P. I., & Peters, G. Y. (2021, April 16). Crossing the seven Cs of internal consistency: Assessing the reliability of formative instruments. <https://doi.org/10.31234/osf.io/qar39>

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>

Ifeanyi, Mbukanma., Kariena, Strydom. (2022). 2. Challenges to and Enablers of Women's Advancement in Academic Careers at a Selected South African University. *International Journal of Learning, Teaching and Educational Research*, doi: 10.26803/ijlter.21.12.3

(2022). 4. Confrontations Faced by Women in Higher Education Institutions and Strategies to Overcome the Anomalies in the Mid-Career. doi: 10.4018/978-1-6684-4451-1.ch004

Borko, H. (2004). Professional Development and Teacher Learning: Mapping the Terrain. *Educational Researcher*, 33(8), 3–15. <https://doi.org/10.3102/0013189x033008003>

Guskey, T. R. (1991). Enhancing the effectiveness of professional development programs. *Journal of Educational and Psychological Consultation*, 2(3), 239–247. https://doi.org/10.1207/s1532768xjepc0203_3

Mehmeti, İ. P. F. (2019). RELATION BETWEEN TEACHERS' JOB SATISFACTION AND THEIR MOTIVATION FOR PROFESSIONAL DEVELOPMENT. *Journal of Turkish Studies*, Volume 14 Issue 4 (Volume 14 Issue 4), 2647–2658. <https://doi.org/10.29228/turkishstudies.23515>

Nurjanah, L., Wicaksono, B. H., Andini, T. M., & Effendi, M. I. (2023). Evaluation of teacher professional development program: A review of pre-service English teacher professionalism.

Journal of English Language Teaching and Learning (JETLE), 5(1), 20–27.
<https://doi.org/10.18860/jetle.v5i2.23820>

Prince, N. O. M. (2020). The import of professional development programmes for primary school teachers in Nigeria. *International Journal on Integrated Education*, 3(10), 48–55.
<https://doi.org/10.31149/ijie.v3i10.677>

Bawaneh, A.K. (2020). Science Teachers' Satisfaction Level of Professional Development Programs in Enhancing their Teaching Practices.

Shah, S.J., Bashir, S., & Amin, M. (2020). Career Progression of Women Academics in Pakistani Universities: Enablers and Barriers.

Chen, T., Chang, P., & Yeh, C. (2004). An investigation of career development programs, job satisfaction, professional development and productivity: the case of Taiwan. *Human Resource Development International*, 7(4), 441–463. <https://doi.org/10.1080/1367886042000246049>

Ehrich, L. C. (1995). Professional mentorship for women educators in government schools. *Journal of Educational Administration*, 33(2), 69–83.
<https://doi.org/10.1108/09578239510081318>

Ehrich, L. C. (1994). A Mentoring Programme for Women Educators. *School Organisation*, 14(1), 11–20. <https://doi.org/10.1080/0260136940140102>

Burke, R. J., & McKeen, C. A. (1994). Training and Development Activities and Career Success of Managerial and Professional Women. *Journal of Management Development*, 13(5), 53–63. <https://doi.org/10.1108/02621719410058383>

Ntshongwana, Z. (2024). The Importance of Mentorship Opportunities for Women in Academia: A Systematic Review. *African Journal of Inter/Multidisciplinary Studies*, 6(1).
<https://doi.org/10.51415/ajims.v6i1.1430>

Brown, R. (2000). Personal and professional development programmes for women: Paradigm and paradox. *The International Journal for Academic Development*, 5(1), 68–75.
<https://doi.org/10.1080/136014400410123>

Devos, A.M. (2003). The potential of women's programmes to generate institutional change.

Gavin, D.A. (1994). Evaluating Career-Development Programs for Women: Critique and Recommendations. *Canadian Journal of Counselling and Psychotherapy*, 28.

Storey, V. A., Anthony, A. K., & Wahid, P. (2016). Gender-Based Leadership Barriers. In *IGI Global eBooks* (pp. 244–258). <https://doi.org/10.4018/978-1-5225-1049-9.ch018>

Khan, M., Sulaiman, R., Nazir, O., Khan, S., & Awan, S. (2024). The unseen in the glass ceilings: examining women's career advancement in higher education institutions through a multi-level institutional lens. *Human Resource Development International*, 1–28. <https://doi.org/10.1080/13678868.2024.2342762>

Maheshwari, G., & Nayak, R. (2020). Women leadership in Vietnamese higher education institutions: An exploratory study on barriers and enablers for career enhancement. *Educational Management Administration & Leadership*, 50(5), 758–775. <https://doi.org/10.1177/1741143220945700>

Nguyen, T. L. H. (2012). Barriers to and facilitators of female Deans' career advancement in higher education: an exploratory study in Vietnam. *Higher Education*, 66(1), 123–138. <https://doi.org/10.1007/s10734-012-9594-4>

Maheshwari, G., & Nayak, R. (2020b). Women leadership in Vietnamese higher education institutions: An exploratory study on barriers and enablers for career enhancement. *Educational Management Administration & Leadership*, 50(5), 758–775. <https://doi.org/10.1177/1741143220945700>

Khan, M., Sulaiman, R., Nazir, O., Khan, S., & Awan, S. (2024c). The unseen in the glass ceilings: examining women's career advancement in higher education institutions through a multi-level institutional lens. *Human Resource Development International*, 1–28. <https://doi.org/10.1080/13678868.2024.2342762>

Sutardi, D., Novitasari, D., Asbari, M., Silitonga, N., Nugroho, Y.A., Hutagalung, D., Mustofa, M., Chidir, G., Basuki, S., & Yuwono, T. (2020). Pengaruh Work-Family Conflict, Stres Kerja dan Social Support terhadap Kepuasan Kerja: Studi Kasus pada Guru Wanita di Tangerang.

Higginbottom, K., & Robinson, K. (2019). The Critical Importance of Support Systems for Women Educational CEOs. *European Journal of Educational Management*, volume–2–20019(volume2-issue2.html), 59–72. <https://doi.org/10.12973/eujem.2.2.59>

Sullivan, J. (1981). Family Support Systems Paychecks Can't Buy. *Family Relations*, 30(4), 607. <https://doi.org/10.2307/584351>

Alexander-Albritton, C., & Hill, N. R. (2015). Familial and Institutional Factors: Job Satisfaction for Female Counselor Educators. *Counselor Education and Supervision*, 54(2), 109–121. <https://doi.org/10.1002/ceas.12008>

O'brien, L.M. (2010). Speaking Ourselves: The Intersections of Women Educators' Personal and Professional Lives. *Current Issues in Education*, 13.

Sullivan, J. (1981b). Family Support Systems Paychecks Can't Buy. *Family Relations*, 30(4), 607. <https://doi.org/10.2307/584351>

Beauregard, T. A. (2007). Family Influences on the Career Life Cycle. In *Edward Elgar Publishing eBooks*. <https://doi.org/10.4337/9781847208828.00011>

Penney, S. C. (2015). Balancing Family and Career on the Academic Tightrope. *Canadian Journal of Higher Education*, 45(4), 457–479. <https://doi.org/10.47678/cjhe.v45i4.184396>

Misra, J., Kuvaeva, A., O'meara, K., Culpepper, D. K., & Jaeger, A. (2021). Gendered and Racialized Perceptions of Faculty Workloads. *Gender & Society*, 35(3), 358–394. <https://doi.org/10.1177/08912432211001387>

Henderson, K. A., Harrolle, M., Rich, S., & Moretz, J. (2011). Women Faculty, Higher Education, and the Recreation/Leisure Field. *SCHOLE a Journal of Leisure Studies and Recreation Education*, 26(2), 14–27. <https://doi.org/10.1080/1937156x.2011.11949677>

Bascia, N., & Young, B. (2001). Women's Careers Beyond the Classroom: Changing Roles in a Changing World. *Curriculum Inquiry*, 31(3), 271–302. <https://doi.org/10.1111/0362-6784.00198>

Allen, K., Butler-Henderson, K., Reupert, A.E., Longmuir, F., Finefter-Rosenbluh, I., Berger, E.P., Grové, C., Heffernan, A., Freeman, N.C., Kewalramani, S., Krebs, S., Dsouza, L., Mackie, G., Chapman, D., & Fleer, M. *Journal of University Teaching & Learning Practice* Work like a girl: Redressing gender inequity in academia through systemic solutions solutions.

Mansell, A., Brough, P., & Cole, K. (2006). Stable predictors of job satisfaction, psychological strain, and employee retention: An evaluation of organizational change within the New Zealand Customs Service. *International Journal of Stress Management*, 13(1), 84–107. <https://doi.org/10.1037/1072-5245.13.1.84>

Sabei, S. D. A., Labrague, L. J., Ross, A. M., Karkada, S., Albashayreh, A., Masroori, F. A., & Hashmi, N. A. (2019). Nursing Work Environment, Turnover Intention, Job Burnout, and Quality of Care: The Moderating Role of Job Satisfaction. *Journal of Nursing Scholarship*, 52(1), 95–104. <https://doi.org/10.1111/jnu.12528>

Meeusen, V. C., Van Dam, K., Brown-Mahoney, C., Van Zundert, A. A., & Knape, H. T. (2011). Understanding nurse anesthetists' intention to leave their job. *Health Care Management Review*, 36(2), 155–163. <https://doi.org/10.1097/hmr.0b013e3181fb0f41>

Proctor, S. (2017). Strategies to Improve Job Satisfaction and Reduce Voluntary Employee Turnover of Nurses.

Pyke, J. (2013). Women, choice and promotion or why women are still a minority in the professoriate. *Journal of Higher Education Policy and Management*, 35(4), 444–454. <https://doi.org/10.1080/1360080x.2013.812179>

Vicary, A., & Jones, K. (2017). The Implications of Contractual Terms of Employment for Women and Leadership: An Autoethnographic Study in UK Higher Education. *Administrative Sciences*, 7(2), 20. <https://doi.org/10.3390/admsci7020020>

Strachan, G., Bailey, J., Wallace, M., & Troup, C. (2013). Gender equity in professional and general staff in Australian universities: the contemporary picture. *Labour & Industry a Journal of the Social and Economic Relations of Work*, 23(3), 215–230. <https://doi.org/10.1080/10301763.2013.839086>

Allen, K., Butler-Henderson, K., Reupert, A.E., Longmuir, F., Finefter-Rosenbluh, I., Berger, E.P., Grové, C., Heffernan, A., Freeman, N.C., Kewalramani, S., Krebs, S., Dsouza, L., Mackie, G., Chapman, D., & Fler, M. Journal of University Teaching & Learning Practice Work like a girl: Redressing gender inequity in academia through systemic solutions solutions.

Bradley, L., Bahous, R., & Albasha, A. (2020). Professional development of Syrian refugee women: proceeding with a career within education. *Studies in Continuing Education*, 44(1), 155–172. <https://doi.org/10.1080/0158037x.2020.1840342>

Ekakoro, E. N. (2023). Impact of Women Empowerment on Career Advancement of Female Engineers. *African Journal of Empirical Research*, 4(2), 976–983. <https://doi.org/10.51867/ajernet.4.2.99>

Vanderslice, R., & Litsch, K. (1998). Women in Development: Advancing Women in Higher Education.

Nacheva-Skopalik, L. (2022). Employment opportunities for personal and professional development for women in Science and University Education - some Bulgarian experience. *E-REVISTA INTERNACIONAL DE LA PROTECCION SOCIAL*, 2(7), 225–242. <https://doi.org/10.12795/e-rips.2022.i02.14>

Sarstedt, M., & Cheah, J. (2019). Partial least squares structural equation modeling using SmartPLS: a software review. *Journal of Marketing Analytics*, 7(3), 196–202. <https://doi.org/10.1057/s41270-019-00058-3>

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>

- Goodhue, D. (2017). Mediterranean Conference on Information Systems (MCIS) 2011 MEASUREMENT ERROR IN PLS , REGRESSION AND CB-SEM.
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial Management & Data Systems*, 116(1), 2–20. <https://doi.org/10.1108/imds-09-2015-0382>
- Sander, Tom and Teh, Phoey Lee * (2014) *SmartPLS for the human resources field to evaluate a model*. In: International Scientific Conference "New Challenges of Economic and Business Development", 8-10 May 2014, Riga, University of Latvia.
- Nelson, F. H. (1994). Conditions of Employment for Teachers in the United States. *The Clearing House a Journal of Educational Strategies Issues and Ideas*, 68(2), 82–89. <https://doi.org/10.1080/00098655.1994.9957202>
- Pietsch, M. (2011). Expanding the professional knowledge base of beginning teachers: the influence of differentiated employment experience on the development of competency in teaching.
- Castillo, P. G. (2013). Las condiciones laborales y el desempeño docente. Un estudio de las condiciones de trabajo de los profesores de secundaria y su influencia en la calidad educativa, con respecto al desempeño docente. *Revista Iberoamericana De Educación*, 63(1), 1–12. <https://doi.org/10.35362/rie631789>
- Opfer, D. (2016). Conditions and Practices Associated with Teacher Professional Development and Its Impact on Instruction in TALIS 2013. *OECD Education Working Papers*. <https://doi.org/10.1787/5jlss4r0lrg5-en>
- Li, K. (2014). The impact of career development on employee commitment of Part-Time faculty (PTF) in Hong Kong’s Continuing Professional Development (CPD) sector. *British Journal of Education Society & Behavioural Science*, 4(1), 52–73. <https://doi.org/10.9734/bjesbs/2014/4810>
- Moos, R. H., & Insel, P. M. (1974). Work Environment Scal. In *PsycTESTS Dataset*. <https://doi.org/10.1037/t06503-000>
- Llinares-Insa, L. I., González-Navarro, P., Zacarés-González, J. J., & Córdoba-Iñesta, A. I. (2018). Employability Appraisal Scale (EAS): Development and Validation in a Spanish Sample. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.01437>

Çalışkan, A., & Köroğlu, E. Ö. (2024). İş Tatmini: Bir Ölçek Geliştirme Çalışması. *Antalya Bilim Üniversitesi Uluslararası Sosyal Bilimler Dergisi*, 4(2), 112–134. <https://doi.org/10.54969/abuijss.1440762>

Chen, Y., Shaffer, M., Westman, M., Chen, S., Lazarova, M., & Reiche, S. (2013). Family Role Performance: Scale Development and Validation. *Applied Psychology*, 63(1), 190–218. <https://doi.org/10.1111/apps.12005>

Mourão, L., Tavares, S. M., & Sandall, H. (2022). Professional development short scale: Measurement invariance, stability, and validity in Brazil and Angola. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.841768>

Güvendir, M. A., & Özkan, Y. Ö. (2022). Item removal strategies conducted in exploratory factor analysis: A comparative study. *International Journal of Assessment Tools in Education*, 9(1), 165-180.

Bollen, K. A. (2019). When Good Loadings Go Bad: Robustness in Factor Analysis. *Structural Equation Modeling a Multidisciplinary Journal*, 27(4), 515–524. <https://doi.org/10.1080/10705511.2019.1691005>