

Impact of Training & Development, Career Development on Employee Performance, with Organizational Commitment as a Mediator: Evidence from the IT Industry in Pakistan

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ABSTRACT

The purpose of this analysis is to validate the role of organizational commitment as a mediator in the connection between training and development, career development, and work performance. Information was gathered from 85 participants using a survey conducted through random sampling. The research methodology involved using descriptive statistics, measurement, and structural models through Smart PLS. This study specifically explored the link between training and development and work performance, as well as between career development and work performance. It was also discovered that organizational commitment is significantly linked to work performance. Additionally, the relationship between training and development, career development, and work performance is influenced by organizational commitment. Managers and business leaders need to understand the necessary policies to enhance employees' work performance and organizational commitment, and to encourage appropriate behaviors. Furthermore, organizations should put in place the necessary resources for career development and training programs to address both current and future organizational requirements. The study also analyzes the findings, and limitations, and provides recommendations for future research. This research fills a gap by investigating comprehensive training, career development practices, organizational commitment, and work performance within a broader organizational context where such studies have been limited.



Introduction

In today's dynamic business environment, characterized by rapid transformations and heightened competition, organizations are increasingly recognizing the vital significance of comprehensive training and development programs, clear career advancement opportunities, and nurturing a strong sense of organizational commitment. These elements go beyond being supplementary perks; they are foundational to enhancing employee effectiveness and driving the overall success of the organization. By strategically investing in these critical areas, companies not only equip their workforce with essential skills but also foster an engaged and motivated workplace culture, ultimately leading to sustained growth and innovation.

Training and development programs are meticulously designed to provide employees with the essential skills and knowledge necessary to excel in their specific roles. By systematically refining their abilities, these initiatives promote a culture of continuous learning, which in turn leads to significantly improved employee performance, increased productivity, and a surge of innovation within the workplace. Such programs can take various engaging forms, including immersive workshops that encourage collaborative problem-solving, interactive online courses tailored to different learning styles, personalized mentorship arrangements that connect less experienced employees with seasoned professionals, and hands-on on-the-job training experiences that allow for practical application of newly acquired skills. This strategic investment in employee growth not only enriches the individual's career journey but also strengthens the organization's competitive edge in an increasingly fast-paced marketplace.

Moreover, career development initiatives play a crucial role in aligning employee ambitions with the overarching strategic goals of the organization. By providing well-defined pathways for career advancement—such as leadership training, skills certification programs, and succession planning—organizations empower employees to achieve their professional aspirations while fostering a profound sense of loyalty and commitment. This alignment cultivates a vibrant workplace culture where employees feel valued and are motivated to actively contribute to the organization's success, driving a collective effort toward shared objectives and enhancing overall team cohesion.

The retention of dedicated employees is particularly critical in a landscape where job-hopping has become commonplace. A strong sense of organizational commitment cultivates a profound level of job satisfaction, which significantly reduces the likelihood of turnover. When employees feel a genuine connection with their organization's mission and core values, they are not only more inclined to stay but also more motivated to channel their energies into fostering its growth and success. This deep commitment enhances organizational efficiency; dedicated employees typically work with greater diligence and actively nurture a positive workplace culture. Such a culture, characterized by collaboration, enthusiasm, and mutual respect, has the power to attract top-tier talent and sustain long-term success in a challenging and ever-evolving environment.

In conclusion, as organizations navigate the complex landscape of today's business world, prioritizing comprehensive training and development programs, abundant career growth opportunities, and a steadfast commitment to nurturing employee dedication emerges as a crucial imperative. These strategic practices not only elevate individual skills and competencies but also lay a strong foundation for enduring organizational success and sustainability within an ever-evolving marketplace. By fostering an environment that values growth and commitment, organizations can better position themselves to thrive in a competitive landscape while ensuring the well-being and satisfaction of their workforce.

Problem Statement

Despite the widely acknowledged significance of various factors influencing employee performance, a substantial gap persists in our understanding of how training and development initiatives, opportunities for career advancement, and a robust sense of organizational commitment converge to predict work performance within Pakistan's burgeoning IT industry.

Many organizations allocate extensive resources to comprehensive training programs aimed at enhancing employee skills and knowledge. These training initiatives often include workshops, online courses, mentorship programs, and hands-on projects tailored to specific industry needs. However, the full impact of these efforts on overall employee performance frequently remains uncharted and inadequately measured. Organizations often rely on qualitative assessments or anecdotal evidence rather than quantifiable metrics to gauge the effectiveness of their training programs, leading to a lack of clear insights into how these initiatives translate into improved performance.

Furthermore, the pivotal role of organizational commitment as a mediator in this intricate relationship is rarely examined in depth. Research indicates that employees who feel a strong commitment to their organization are more likely to engage fully in their roles and demonstrate higher levels of job satisfaction. However, the mechanisms through which organizational commitment influences the relationship between training, career advancement, and performance are not well understood. This lack of thorough exploration results in a diminished grasp of the dynamic interplay among these factors and their collective influence on employee outcomes.

Such insights are particularly crucial in a rapidly evolving sector like information technology, where adaptability, innovation, and high performance are paramount for success. As the industry continues to advance with emerging technologies and changing market demands, clarifying these connections could pave the way for more effective strategies to enhance employee performance and satisfaction. By fostering a deeper understanding of how training, career growth opportunities, and organizational loyalty intersect, leaders can develop targeted interventions that not only improve individual performance but also contribute to the overall success and competitiveness of the organization in the IT landscape.

Gap Analysis

Previous research on employee development has predominantly concentrated on specific facets, such as training programs, career advancement opportunities, and the level of commitment employees demonstrate towards their organizations. However, many of these studies dissect these elements in isolation, neglecting to consider their intricate interconnections and cumulative effects. For instance, while the works of Sendawula et al. (2018) and Mamy et al. (2020) establish a strong positive correlation between well-structured training programs and enhanced employee performance, they fail to explore how factors like career growth potential and organizational loyalty may influence or amplify this relationship.

Moreover, the research conducted by Guzeller and Celiker (2022) emphasizes the critical role of employee engagement in driving performance but does not provide a nuanced analysis of how engagement interacts with training initiatives and opportunities for career progression. This lack of exploration leaves a gap in understanding how these variables collectively shape overall performance outcomes within an organizational context.

The notable omission in the literature highlights the necessity for a more holistic and integrated approach that captures the complexity of these dynamics. By examining the interplay between

training, career development, employee commitment, and engagement, researchers could gain deeper insights into the factors that contribute to improved performance and workplace satisfaction, thus equipping organizations with the knowledge needed to foster a more effective and motivated workforce.

Research Objectives

The primary objective of this study is to conduct an in-depth analysis of the complex relationships among training and development, career advancement, and organizational commitment, specifically focusing on how these factors serve as critical indicators of employee effectiveness within the rapidly evolving IT industry in Pakistan. This research aims to provide a thorough understanding of how these interconnected elements not only influence individual performance but also play a significant role in determining the overall success and resilience of organizations in this fast-paced sector characterized by constant technological advancements and shifting market demands.

To achieve this, the study is structured around three key objectives:

- 1. Investigate the immediate and tangible effects of training and development initiatives on enhancing employee performance.*
- 2. Assess how opportunities for career progression foster a sense of organizational commitment and loyalty among employees.*
- 3. Examine the intermediary role of organizational dedication in shaping the relationship between training programs and employee performance outcomes.*

Through these focal points, this study seeks to offer valuable insights into the intricate interplay between employee development and organizational success. The findings aim to inform and enrich the strategic frameworks that underpin human resource management practices in IT organizations, ultimately fostering a more effective and resilient workforce capable of navigating the challenges posed by an ever-evolving technological landscape.

Research Questions

To achieve the objectives outlined in this study, we will utilize a set of meticulously crafted research questions that will steer our investigation and illuminate our findings with greater clarity and depth.

- 1. What is the direct impact of training and development programs on the overall performance of employees in their respective roles?*
- 2. In what ways does career development foster a deeper sense of organizational commitment among employees, ultimately leading to enhanced job satisfaction and loyalty?*
- 3. How does organizational commitment serve as a mediating factor in the relationship between training initiatives and employee performance, influencing the effectiveness of such training efforts?*

Research Significance

This study unveils significant implications for both academic literature and the practical operations of organizations, particularly within the dynamic field of human resource management. By

delivering a comprehensive analysis of the intricate interconnections between training, career development, and organizational commitment, this research aims to provide profound insights that can prove invaluable for HR practitioners in effectively managing their workforce.

For organizations, especially those operating in the rapidly evolving IT sector, these insights have the potential to revolutionize the design and implementation of training and development programs. Such initiatives are not merely about enhancing individual employee performance but also about cultivating a motivated and dedicated workforce that is eager to contribute to the company's success. By investing in holistic training initiatives—including mentoring, on-the-job training, and e-learning platforms—companies can establish clear pathways for career progression that appeal to ambitious employees. This, in turn, fosters a vibrant culture characterized by continuous learning, professional growth, and retention of top talent.

Furthermore, this research addresses existing gaps in the current academic landscape by shedding light on the nuanced ways that training and career development strategies collectively influence a variety of employee outcomes, including job satisfaction, productivity, and loyalty. By emphasizing the subtle yet complex relationships among these elements, the findings strive to elucidate the mechanisms that drive employee engagement and bolster organizational commitment. This deeper understanding ultimately contributes to enhanced business performance, revealing that organizations with robust training programs and structured career development are more likely to achieve their strategic objectives.

In addition, the study outlines practical recommendations for HR professionals to craft targeted HR practices that align seamlessly with the overarching goals of their organizations. By employing data-driven approaches to assess the effectiveness of training programs and continuously adapting them to meet the evolving needs of employees, organizations can not only boost individual performance but also enhance overall organizational resilience and competitiveness in the marketplace.

Literature Review

The intricate relationship between training and employee performance has been extensively researched across diverse industries, highlighting its critical importance in enhancing workforce capabilities. For instance, a study conducted by Sendawula et al. (2018) in Uganda's health sector unveiled a notable positive correlation between well-structured training initiatives and employee performance metrics. Their findings clearly indicated that enhanced training not only equips employees with essential competencies—such as clinical skills and communication techniques—but also directly translates into significantly improved performance outcomes, including increased patient satisfaction and reduced error rates. Complementing this perspective, Mamy et al. (2020) examined the garment sector in Bangladesh and found similar results, where targeted skill development training programs were associated with a marked increase in employee productivity, efficiency, and overall performance. This reinforces the argument that strategic investments in training yield substantial returns in terms of workforce effectiveness, ultimately benefiting organizational performance.

Additionally, the impact of career development on organizational commitment emerges as a vital theme within this context. Kraimer et al. (2011) emphasized that when organizations actively support employees' career progression through mentorship programs and clear advancement pathways, employees experience a profound sense of commitment to their roles and the organization itself. This relationship becomes even more compelling when coupled with observations from Pshembayeva et al. (2022), who posited that effective career development

strategies—notably those that include skills assessments and personalized development plans—not only enhance job satisfaction but also significantly decrease turnover intentions. This, in turn, fortifies employees' commitment to their organizations and helps maintain stability in the workforce. Numerous researchers have also delved into the mediating role that organizational commitment plays in bridging the gap between training and employee performance. For example, Rawashdeh and Tamimi (2020) discovered that employees' perceptions of the quality and relevance of their training positively influence their organizational commitment levels, which subsequently plays a pivotal role in elevating employee performance. This finding suggests that the direct impact of training on performance can be significantly amplified when viewed through the lens of organizational commitment, indicating that employees who feel valued are more likely to apply their skills effectively.

Furthermore, the importance of employee engagement as a mediator in the training-performance relationship cannot be overstated. Guzeller and Celiker (2022) illustrated that high levels of employee engagement—characterized by enthusiasm, investment, and a sense of belonging to the organization—are closely related to improved performance outcomes. Engaged employees are more adept at leveraging training opportunities to elevate their performance, as they feel empowered and motivated to apply new skills in their roles. This idea resonates with the findings of Hussain et al. (2020), who argued that comprehensive training and development initiatives are essential in cultivating organizational commitment, which subsequently enhances employee performance and drives innovation within teams. In summary, the existing literature underscores the profound interconnectedness of training, career development, and organizational commitment as vital elements influencing employee performance. Organizations that prioritize these facets—by investing in robust training programs, fostering career progression opportunities, and actively engaging their workforce—are more likely to cultivate a committed and high-performing workforce. This, in turn, translates to significant contributions to overall organizational success, competitiveness, and sustainability in an ever-evolving market landscape.

Employee performance is a critical determinant of organizational success, particularly in knowledge-intensive sectors like information technology (IT). Among various human resource practices, training and development (T&D), career advancement opportunities, and organizational commitment emerge as vital predictors of work performance that warrant careful consideration.

Training and development are essential for enhancing employee skill sets and fostering their adaptability amid continuous technological innovations. Research indicates that well-structured training programs not only enhance individual competencies but also contribute significantly to overall organizational productivity and innovation by creating a more skilled workforce. In the context of Pakistan, empirical studies reveal that intentionally designed training initiatives significantly improve both technical skills and employee motivation. These improvements lead to increased efficiency, particularly in essential industries like IT and telecommunications (Jehanzeb & Bashir, 2013; Khan et al., 2016). As the IT landscape evolves at a rapid pace, continuous skill development becomes an indispensable component of effective performance management strategies (Shah et al., 2020).

Career development is equally important, encompassing mentorship, clearly defined promotional pathways, and opportunities for personal growth. This aspect plays a crucial role in shaping employee perceptions and outcomes. When employees perceive a transparent and achievable path for advancement, they are generally more motivated to engage in proactive work behaviors and demonstrate higher levels of job engagement. Studies conducted in Pakistan consistently highlight a strong correlation between career development opportunities and enhanced task performance and job satisfaction. This is especially true when employees believe they are valued, supported, and

equipped to succeed in their professional roles (Naeem & Khan, 2017; Rafique et al., 2019). In the competitive IT sector, where attracting and retaining top talent poses ongoing challenges, a robust career development framework is essential for maintaining a skilled workforce.

Organizational commitment—defined as the emotional and psychological bond employees feel towards their organization—plays a significant role in fostering positive work behaviors and reducing turnover rates. The three-component model of commitment, which includes affective, continuance, and normative dimensions, offers a comprehensive framework for understanding employee loyalty and engagement levels (Meyer & Allen, 1991). Research in Pakistan has shown that affective commitment, in particular, correlates positively with heightened individual performance and reduced absenteeism, indicating that employees who feel a strong emotional connection to their organization are more likely to contribute positively to its overall success (Ahmad et al., 2010; Shafiq & Naseer, 2021). In sectors such as IT, characterized by high employee mobility, nurturing a strong sense of organizational commitment is crucial for long-term sustainability and growth.

Although many studies explore these constructs in isolation, there remains a notable gap in research that examines training and development, career development, and organizational commitment as interrelated factors influencing work performance. This gap is particularly significant in Pakistan's burgeoning IT industry, where empirical research is lacking despite the sector's increasing contribution to the national economy (Siddiqui et al., 2022). Addressing this gap is essential to develop a comprehensive understanding of the multifaceted drivers of employee performance in this dynamic and fiercely competitive environment, ultimately aiding organizations in optimizing their human resource practices for improved outcomes.

Theoretical framework development and hypotheses development

The social exchange theory (SET) underscores the pivotal role of theoretical frameworks in understanding the intricate connections among training and development, career advancement, and job performance, all through the lens of organizational commitment, as articulated by P.M. Blau in 1964. This foundational theory posits that social behavior is the result of an exchange process aiming to maximize benefits and minimize costs. Expanding on this framework, researchers Y.J. Zoller and J. Muldoon (2019) illustrate how SET elucidates workplace behavior as a function of reciprocal relationships and mutual expectations between employees and employers. They argue that when organizations actively attend to and satisfy the emotional and social needs of their employees, it fosters a robust sense of commitment to the organization's goals. This commitment, in turn, translates into enhanced work performance, a relationship supported by the findings of Cropanzano and Mitchell (2005).

Conversely, a nuanced perspective shared by M.A. Camilleri (2021) suggests that hotel staff who are provided with ample opportunities for training and professional development may paradoxically experience reduced emotional attachment and loyalty to their hospitality employers. This observation invites an exploration of the idea that the initiation of career development initiatives can evoke a psychological response, motivating employees to engage in their work with higher levels of efficacy and efficiency, as noted by Balozzi, Othman, and Isa (2018). Such insights are particularly critical in the hotel industry, where effective and well-structured career development strategies can significantly enhance organizational commitment among the workforce, thereby impacting overall service quality and customer satisfaction (B. Al Jabri and I. Ghazzawi, 2019; D. Dorta-Afonso and M. González-de-la-Rosa, 2021).

At its core, the premise of SET underscores not only the enhancement of employee work performance (M.C. Gavino et al., 2021; Balozi, Othman, and Isa, 2018) but also the cultivation of a psychological environment that nurtures employees' sense of belonging, enthusiasm, and commitment to the organizational objectives. This supportive atmosphere encourages employees to go beyond their basic job responsibilities, adopt a proactive work approach, and contribute innovative ideas towards achieving strategic targets. As a result, their overall performance is elevated, as demonstrated in studies by Gavino et al. (2021) and Dorta-Afonso et al. (2021).

Consequently, employees establish a solid connection with the organization, shaping positive perceptions and deepening their commitment to its mission and values (L.W. Mihardjo et al., 2020). Such committed employees display a profound sense of attachment and a willingness to align their personal ambitions with the organizational requirements and objectives (C.N. Arasanmi et al., 2019; Cropanzano and Mitchell, 2005; Dorta-Afonso et al., 2021). Therefore, when viewed through the lens of SET, organizational commitment emerges as a crucial mediator in enhancing employee work performance, illuminating the reciprocal benefits of a nurturing and supportive workplace environment that prioritizes the well-being of its employees.

Training and development and work performance

Training and development represent a meticulously structured approach aimed at enhancing employees' understanding, skills, mindset, and overall proficiency, all of which are essential for effectively achieving organizational goals (M.A. Camilleri, 2021). This structured approach encompasses various learning methods, such as workshops, seminars, and online courses, tailored to meet the diverse needs of employees at different skill levels and career stages. By fostering a culture of continuous learning, organizations can ensure that their workforce remains not only competent but also adaptable in the face of changing market dynamics.

Engaging in training workshops serves to elevate employees' competencies and capabilities, enabling them to perform specific tasks with greater efficiency and effectiveness (U. Yavas, O.M. Karatepe, T. Avci, M. Tekinkus, 2003). These workshops often involve hands-on activities, role-playing scenarios, and real-world problem-solving exercises, which facilitate the practical application of theoretical knowledge. Consequently, employees emerge from these sessions not only equipped with new techniques but also with a heightened confidence in executing their responsibilities.

Numerous organizations have established dedicated divisions focused on specialized training, recognizing its pivotal role in fostering a workforce that remains abreast of the latest knowledge, skills, experiences, and competencies required in today's dynamic work environment (K. Bahl, R. Kiran, A. Sharma, 2022; M.C. Gavino, J.R. Lambert, E. Elgayeva, E. Akinlade, 2021). These divisions often design tailored training programs that address specific industry trends, regulatory changes, and technological advancements, thereby positioning the organization as a leader in innovation and agility.

Moreover, extensive research indicates a strong correlation between effective training and the performance of government employees, suggesting that investment in employee development yields tangible benefits not only for individuals but also for organizational efficiency and public service delivery (J. Gould-Williams, F. Davies, 2005). For example, well-trained government personnel are more likely to implement policies effectively and respond to citizen needs promptly, reinforcing the importance of training in enhancing governmental operations.

In particular, a noteworthy study highlighted the significant positive effects of training and development on the work performance of the healthcare workforce in Uganda, underscoring the

universal importance of continued professional development across various sectors (K. Sendawula, S. Nakyejwe Kimuli, J. Bananuka, G. Najjemba Muganga, 2018). This study illustrated how targeted training programs significantly improved patient care standards, leading to better health outcomes, which emphasizes the critical nature of professional growth in high-stakes environments.

Additionally, the profound impact of skill enhancement on employee performance within organizations has been extensively documented (M.M.B. Mamy, R. Shabbir, M.Z. Hasan, 2020; M.A. Camilleri, 2021). Organizations reporting high investment in employee training often see measurable improvements in productivity, job satisfaction, and employee retention rates, further reinforcing the value of developmental initiatives.

However, it is essential to acknowledge that there may be instances where training and development initiatives can inadvertently have a negative effect on work performance. Factors such as poorly designed training programs, lack of alignment with organizational goals, or inadequate post-training support can lead to confusion or overwhelm among employees, as highlighted in previous studies (A. Dysvik, B. Kuvaas, 2008; D.L. Truitt, 2011). These instances serve as a crucial reminder that for training programs to be effective, they must be carefully planned, executed, and evaluated to ensure they meet the needs of both the organization and its employees.

H1. Training and development (T&D) is closely connected to work performance.

Career development and work performance

M. Rahayu, F. Rasid, and H. Tannady (2019) highlighted that career development serves as a vital connector between the organizational demands and the individual aspirations of employees. This systematic process is meticulously designed to equip employees with the necessary tools, skills, and experiences required for advancing into more complex and elevated roles within their workplaces. By fostering an environment that prioritizes career advancement, organizations can enhance employee engagement, satisfaction, and retention. Furthermore, engaging in comprehensive career development programs empowers employees to not only hone their skills and broaden their knowledge but also deepen their understanding of industry dynamics and organizational objectives. As a result, employees become more adept contributors to organizational progress (S. Kaur, G. Kaur, 2021).

The impact of career advancement on job performance is significant and can lead to measurable improvements across several key areas, including the quality of work produced, adherence to deadlines, and a proactive attitude toward tasks (M.A. Balozzi, S.Z. Othman, M.F.M. Isa, 2018). Research has revealed that well-structured career development initiatives yield positive outcomes for job performance among bank employees in Pakistan, indicating a clear link between employees' professional growth and their performance metrics (Z. Ali, B. Mahmood, A. Mehreen, 2019). Similarly, earlier studies have established a strong correlation between professional growth opportunities and organizational success within the pharmaceutical industry, demonstrating how fostering talent can drive innovative practices and market performance (F.N.K. Otoo, E.A. Otoo, G.K. Abledu, A. Bhardwaj, 2019).

Comparable positive effects on job performance through targeted career development efforts have also been observed in the healthcare sector, where improved patient care outcomes and operational efficiencies have been correlated with professional development programs (M.A. Balozzi, S.Z. Othman, M.F.M. Isa, 2018). In the airline industry, initiatives aimed at enhancing employee skills have led to better customer service and operational performance metrics (C. Yoopecth, S. Nimsai,

B. Kongarchapatara, 2021). Additionally, A. Carmeli, R. Shalom, and J. Weisberg (2007) underscored the critical connection between robust career development efforts and enhanced work performance, emphasizing that organizations with a solid commitment to employee growth consistently achieve higher levels of performance. In light of these compelling findings, it becomes essential to propose the following:

H2. Career development has a significant relationship with work performance

Training and development and organizational commitment

When employers invest in comprehensive training programs for their employees, particularly within the framework of psychological contracts, it can significantly enhance the commitment of staff to the organization (V. Kadiresan, M. Selamat, S. Selladurai, C. Ramendran, R. Mohamed 2015). Such investment not only reflects the organization's genuine commitment to elevating the skills, abilities, and experiences of its workforce, but it also fosters an environment that promotes professional growth and advancement at every level within the hospitality industry (M.A. Camilleri 2021). In return, employees often respond with reciprocal commitment, demonstrating positive behaviors and attitudes that align closely with the organization's overarching goals (J. Gould-Williams, F. Davies 2005).

The critical role of training in the development of human capital is underscored by its capacity to equip workers with essential tools and techniques. These resources not only enhance individual skill sets but also nurture a deep-seated dedication to the organization in a sustainable manner. This sustained dedication is pivotal for the long-term viability and success of the workplace (E. Choi, S. Yu 2022; A. Suryanarayana 2022). A substantial body of previous studies has consistently substantiated the positive influence of training and development programs on fostering organizational commitment, illustrating how such initiatives can lead to increased job satisfaction, reduced turnover rates, and enhanced employee performance (M. Shoaib, Z. Abbas, M. Yousaf, R. Zámecník, J. Ahmed, S. Saqib 2021; E. Mylona, D. Mihail 2020).

However, it is important to note that (A.M. Rawashdeh, S.A. Tamimi 2020) have raised critical arguments against the generalized notion that training invariably enhances organizational commitment. They suggest that the effectiveness of training initiatives can be influenced by a variety of factors, such as the relevance of the training content, the quality of the training delivery, and the individual employee's prior experiences and motivations. Similarly, earlier research has produced comparable findings, indicating a more nuanced view of the relationship between training and commitment (N. Bashir 2015). In light of these mixed results, it is hypothesized that:

H3. The connection between training and development and organizational commitment is quite strong.

Career development and organizational commitment

In a comprehensive study conducted by M. Rahayu, F. Rasid, and H. Tannady in 2019, rigorous statistical data analysis revealed that career development, particularly focusing on career management strategies, plays a crucial role in enhancing organizational commitment among employees. The researchers employed a mixed-methods approach, combining quantitative surveys and qualitative interviews, to illuminate how structured career development frameworks can foster a deeper connection between employees and their organizations.

In a related inquiry, A. Supeli and P.A. Creed (2016) underscored a substantial link between effective career development practices and heightened levels of organizational commitment across

various work environments. Their research involved case studies spanning multiple industries, demonstrating that organizations with proactive career development initiatives often experience lower turnover rates and increased employee satisfaction.

Numerous scholarly sources, including the works of F. Cherif (2020), F. Baldi and L. Trigeorgis (2020), as well as T. Liu, H. Shen, and J. Gao (2020), have consistently found a significant correlation between the implementation of career development initiatives and enhanced employee commitment to their organizations. These studies adopt diverse methodologies, from longitudinal analyses to cross-sectional surveys, reinforcing the premise that employees are more likely to remain loyal to organizations that invest in their professional growth and offer clear pathways for advancement.

Conversely, R.L. Silaban, A.W. Handaru, and A. Saptono (2021) presented a thought-provoking counterpoint by highlighting the potential negative impact of certain training and development initiatives—specifically, those perceived as obligatory or misaligned with employees' career aspirations. Their findings suggest that without proper alignment and communication, these initiatives can lead to feelings of resentment or disengagement, which subsequently leads to the hypothesis that not all career development strategies yield positive outcomes for organizational commitment. Therefore, a nuanced approach to career management is essential to ensure that the development efforts resonate positively with the workforce.

H4. Career development is substantially linked with organizational commitment.

Effects of organizational commitment on work performance

Enhancing the effectiveness of businesses necessitates a comprehensive understanding of how organizational dedication profoundly influences employee performance across various sectors, particularly within the banking, insurance, and healthcare industries. Research conducted by Mihardjo et al. (2020) and Piaralal et al. (2014) illustrates that employee commitment is significantly shaped by key factors such as competitive rewards, structured and comprehensive training programs, empowerment initiatives that encourage employee input and participation, and effective teamwork strategies that foster collaboration and communication.

In the hospitality sector, an in-depth investigation by Arasanmi and Krishna (2019) and Cropanzano and Mitchell (2005) revealed that organizational commitment serves a pivotal role in enhancing employee performance. This commitment not only boosts productivity but also plays a crucial role in meeting the diverse needs and expectations of guests, thereby improving overall customer satisfaction. Additionally, studies conducted in Pakistani restaurants have uncovered a compelling relationship between employee loyalty and job performance. Various scholars, including Swalhi et al. (2017), have employed a range of methodologies, such as surveys and case studies, to explore the intricate interplay between emotional commitment and strong work performance, revealing essential insights into this vital connection.

It is also important to note that not all findings in this area present a uniformly positive outlook. Previous research, such as that conducted by Suliman and Iles (2000) and Yiing and Ahmad (2009), suggests that organizational commitment may, in certain contexts, adversely affect employee performance, potentially leading to burnout or disengagement. Given this complex landscape of organizational dynamics, it is crucial to hypothesize about the underlying mechanics at play in this relationship, considering both the positive and negative influences of commitment on employee outcomes.

H5: The level of commitment within an organization has a significant impact on an individual's performance at work.

The mediating role of organizational commitment

Previous research has convincingly demonstrated that a robust sense of dedication to an organization significantly shapes the operational dynamics of local government and enhances the overall effectiveness of its workforce (M. Rahayu, F. Rasid, H. Tannady, 2019). In the hospitality industry, for instance, employees' commitment to their organization is crucial not only for reducing turnover intentions but also for concurrently boosting job performance, ultimately leading to higher customer satisfaction and organizational success (C.O. Guzeller & N. Celiker, 2020). This aligns with the principles of Social Exchange Theory (SET), which posits that in professional environments, an individual's level of recognition, preparedness, and emotional commitment is profoundly influenced by the perceptions and behaviors exhibited by their colleagues and supervisors.

Research conducted by Dorta-Afonso et al. (2021) and García-Cruz & Valle-Cabrera (2021) further underscores the significance of this commitment, particularly among restaurant employees in Pakistan, where it serves as a critical mediator that connects the work environment to employee retention rates. This commitment manifests as an emotional and psychological investment in the organization, which can persuade employees to remain even amidst external job market pressures. Similarly, Swalhi et al. (2017) revealed that principles of organizational justice within the small and medium enterprise (SME) sector have a notable effect on employee performance by promoting enhanced work output in the context of franchise operations, reinforcing the idea that fair treatment directly correlates with productivity.

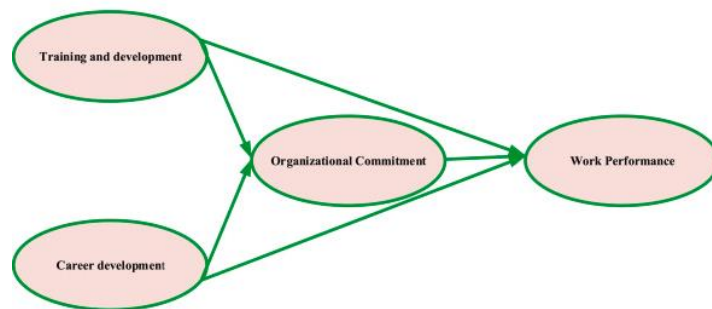
Moreover, Garg (2017) highlighted that commitment to the organization also mediates the significant influence of workplace spirituality on firm performance in India. This suggests that a workforce that feels engaged and spiritually fulfilled tends to be more productive, as their alignment with the organization's values fosters a greater sense of belonging and purpose. Further research by Dorta-Afonso et al. (2021) and Chang & Chen (2011) identified a significant interplay among various internal mobility resources, employment stability perceptions, work-life balance initiatives, educational support opportunities, and the level of employee engagement within the Spanish hospitality sector. All these factors are deeply affected by the level of dedication that employees feel toward their organizations.

Despite these valuable insights, it is essential to acknowledge that previous investigations have only partially addressed the intricate relationships between these concepts, leaving gaps in the empirical understanding (Mihardjo et al., 2020; Meyer et al., 2002). Furthermore, Suliman and Iles (2000) illustrated a significant correlation between factors such as rewards, human capital development, training opportunities, and social responsibility practices within the Takaful industry across South Asian countries, with organizational commitment serving as a mediating factor that influences these relationships.

Interestingly, it was also discovered that dedication to the organization did not function as an intervening variable between the work environment and supervisor effectiveness, indicating that other factors may play a more prominent role in shaping this particular dynamic. Based on the comprehensive findings presented, the following hypotheses are proposed:

H6: The relationship between training and development and work performance is mediated by organizational commitment.

H7. The association between career development and work performance is mediated by organizational commitment.



Research Methodology

Research Paradigm

The present study seeks to elucidate the mediating role of organizational commitment in the relationship between training and development, career advancement, and work performance. By adopting a comprehensive quantitative research approach, this investigation aims to systematically measure and analyze numerical data, thereby facilitating an objective exploration of the phenomena under consideration. This methodology is designed to capture a wide range of employee perspectives, emotions, challenges, and behaviors in quantifiable terms, placing a strong emphasis on empirical evidence rather than subjective experiences.

The quantitative approach is particularly advantageous for this study as it allows for the quantification of key elements—such as the degree of organizational commitment, specific training programs, career progression metrics, and various performance indicators—thus providing clarity and structure to the research process (P. Piepiora, Z. Piepiora, J. Bagińska 2020; W. Cieśliński, P. Piepiora, K. Witkowski 2019; A. Bryman 2017). Furthermore, this methodology not only establishes a coherent research framework but also identifies and minimizes extraneous variables that could detract from the study's primary objectives.

Through the formulation of testable hypotheses—such as the hypothesis that higher levels of training and development positively impact employee commitment, which in turn enhances work performance—this structured approach enables rigorous analysis and validation (A. Bryman 2017). According to P.M. Nardi (2018), the structured quantitative method offers clarity in achieving established research goals, effectively organizes data for meaningful interpretation, and relies on a well-defined framework that ensures precision, ultimately enhancing the relevance and applicability of the findings. This rigorous framework can guide organizational leaders in making informed decisions regarding employee development and potential strategies for improving overall work performance and satisfaction.

Research Design

The data for this study was meticulously collected through a comprehensive questionnaire designed with a logical and structured approach to ensure clarity and ease of understanding for respondents. The questionnaire incorporated a mix of closed-ended and open-ended questions, allowing for both quantitative measurement and qualitative insights. A quantitative research

method was employed to achieve a high level of precision in measurement and analysis, facilitating statistical comparisons and hypothesis testing.

This study adheres to a positive research paradigm, emphasizing the importance of objective and empirical evaluation of data in understanding the phenomena under investigation. To analyze the collected data effectively, SmartPLS 4 was utilized, a sophisticated statistical tool renowned for its robustness in assessing complex relationships among variables. This choice was strategic, as SmartPLS 4 provides advanced capabilities for evaluating structural equation models, including the ability to test path coefficients and assess the overall model fit.

The selection of SmartPLS 4 was further justified by its superior ability to assess both the validity and reliability of the measurements. The tool's algorithms offer a more nuanced and accurate assessment than traditional regression analysis, allowing for a clearer interpretation of the data and deeper insights into the underlying constructs. Through this rigorous analysis, the study aims to provide valuable contributions to the existing body of knowledge in the field.

Pilot Testing

The questionnaire underwent an extensive and meticulous refinement process, with a strong focus on ensuring its reliability and validity through a series of rigorous pilot tests. To achieve this, a carefully selected sample of 20 respondents, representing a diverse demographic in terms of age, gender, and educational background, participated in the initial assessment. Their feedback proved invaluable, uncovering nuanced perspectives on the questionnaire's structure and content.

Insights gathered from this group, which included professionals from various fields and individuals with different levels of expertise related to the subject matter, enabled the research team to make targeted adjustments. These adjustments enhanced the clarity and comprehensibility of each question and its corresponding response options. For example, some complex terms were simplified, and ambiguous phrases were reworded to ensure that all respondents interpreted the questions in a consistent manner. This iterative process not only refined the questionnaire's overall framework but also significantly increased its potential for generating reliable and valid data in subsequent studies.

Table 1: Normality Testing

	Cramér-von Mises test statistic	Cramér-von Mises p value
CD	1.111	0.000
OC	0.652	0.000
TD	0.784	0.000
WP	0.253	0.001

In each of the four test results conducted, the p-values were consistently found to fall below the critical threshold of 0.05, indicating a statistically significant result. This compelling evidence allows us to confidently reject the null hypothesis in all instances examined, which posits that there is no effect or relationship present. Such a rejection signifies that for every construct investigated—such as behavioral patterns, performance metrics, or response rates—the observed data demonstrates a notable deviation from the expectations derived from a standard normal distribution.

Furthermore, the calculated values of the test statistics provide a quantitative measure of the extent of these deviations. Higher test statistic values reflect increasingly substantial discrepancies from

the anticipated outcomes under the null hypothesis, emphasizing the strength of our findings. This phenomenon underscores the robustness of the evidence against the null hypothesis, suggesting that the underlying distributions of the data are not merely different but exhibit distinct and notable non-normal characteristics. These non-normal traits could include skewness, kurtosis, or other statistical anomalies, which further reinforce the conclusion that the constructs under study are influenced by factors beyond what is typically expected in a standard normal framework. This insight opens avenues for deeper analysis and understanding of the underlying mechanisms at play.

Sampling & Data Collection

A diverse cohort of 85 full-time employees from various sectors—including Information Technology, Pharmaceuticals, Education, and Retail—participated in this comprehensive study, which aimed to delve deep into the relational system-related hypothesis. This hypothesis posits that every human system is fundamentally relational and universally applicable (J.F. Hair, M. Sarstedt, C.M. Ringle, J.A. 2012). The researchers deliberately selected participants from these varied industries to ensure a thorough investigation into how relational dynamics manifest in different organizational contexts. This relational aspect acts as a persistent thread that interlinks individuals across distinct work environments, illuminating the intricate interconnectedness that defines modern workplaces.

To gather data, each participant completed a meticulously designed self-administered questionnaire. The questionnaire was created using Google Forms and incorporated the Likert scale, allowing respondents to rate their perceptions and experiences across a range of statements. The study adheres to strict ethical guidelines; participation was entirely voluntary, and only individuals who met specific eligibility criteria were invited to complete the survey. To protect the privacy and confidentiality of the participants, no identifiable information was collected, which was clearly communicated to respondents throughout the data collection process. Participants were encouraged to provide candid responses by assuring them that there was no right or wrong answers, promoting a supportive environment for genuine expression.

The diverse backgrounds of the 85 engaged employees enriched the research with a wide array of perspectives and experiences, effectively reflecting the rich cultural and professional tapestry of Pakistan's workforce. This diversity is crucial, as it allows for a more nuanced understanding of how relational dynamics function across different fields, potentially leading to enhanced collaborative practices and workplace relationships.

Measurement Procedure:

- **Work performance questionnaire:** To assess work performance (WP), 8 items were employed to achieve the objectives. For instance, initiating new tasks upon completion of previous ones. The revised WP utilizes a five-point Likert-type scale (ranging from "Strongly agree" to "Strongly disagree") to evaluate work performance.
- **Organizational commitment questionnaire:** This study used 7 items to evaluate organizational commitment as a mediating variable. The revised organizational commitment scale employs a five-point Likert scale (ranging from "strongly agree" to "strongly disagree") to gauge organizational commitment. For example, one item states that the company regards employees' issues as its own.
- **Training and development questionnaire:** An evaluation was conducted using four items to assess the training and development facilities provided by companies to enhance work

performance and achieve goals effectively. The revised training and development program comprises four items rated on a five-point Likert-type scale (ranging from "Strongly agree" to "Strongly disagree") to measure employee training and development. For instance, one item assesses if employees are given ongoing training to deliver quality service.

- **Career development questionnaire:** The research employed four measures to evaluate career advancement and enhance employee job productivity. This revised career development involves a four-item Likert-type scale (ranging from strongly disagree to strongly agree) that assesses staff work performance. For instance, I value having a formal procedure for achieving career development.

Analysis Plan

This research employed Partial Least Squares Structural Equation Modeling 3.0 (PLS-SEM) alongside SPSS 23 to conduct a comprehensive analysis of the data and its evaluation. SPSS 23 was explicitly utilized to analyze the demographic profile of the participants, providing essential insights into the characteristics and backgrounds of the sample population.

The choice of PLS-SEM as a multivariate statistical modeling technique stemmed from its robust capacity to uncover and predict complex relationships between various variables. PLS-SEM effectively measures both observed and latent variables and adeptly addresses model errors. Renowned for its exploratory nature, PLS-SEM aligns seamlessly with the research objective of forecasting outcomes derived from the study, making it a fitting choice for this analysis.

Moreover, one of the notable advantages of PLS-SEM is its ability to establish significant associations within different populations, even when working with relatively small sample sizes. This technique does not require data to adhere to the assumptions of normal distribution, making it highly versatile and applicable in a wide range of research scenarios.

By utilizing PLS-SEM, the study was able to validate both direct and indirect effects, thereby effectively testing the underlying hypotheses. The research adhered to the methodological guidelines established by Hair for testing the model's hypotheses. This systematic approach facilitated a rigorous examination of the relationships within the data, enhancing the overall reliability and validity of the findings.

Table 2: Measurement Tools

Measurement	Items
Work Performance	(WP1) I take on extra responsibilities at work. (WP2*) I start new tasks on my own when my old ones are finished. (WP3) I take on challenging work tasks when they become available. (WP4*) I actively work on keeping my job knowledge up to date. (WP5*) I come up with creative solutions to new problems. (WP6*) I continuously look for new challenges in my job. (WP7*) I actively participate in work meetings. (WP8*) I feel that the company considers employees' problems to be its own problems.
Organizational Commitment	(OC1) The company is a big family of which the employees are a part. (OC2) The company creates an emotional bond with its employees. (OC3) For the company, the employees have a great deal of meaning. (OC4) The company provides the employees with a strong sense of belonging.

	(OC5*) The company has few options for replacing employees when they decide to leave. (OC6*) The major reason why the company tries to retain its employees is because if they left, it would be very hard to find a replacement with workers of the same proficiency. (OC7*) Employees in our company receive continued training to provide good service.
Training & Development	(TD1) Employees in our company receive extensive customer service training before they encounter any customers. (TD2) Employees of our company receive training on how to serve customers better. (TD3) Employees of our company are trained to deal with customer complaints. (TD4) Employees of our company receive training on dealing with customer problems.
Career Development	(CD1) A formal process to attain career development is important to me. (CD2) Career development is important to me. (CD3*) I understand the need for continuous career development. (CD4) Career planning tools are essential to support my career development.
*These items were dropped during testing	

Descriptive head

Measurement Model Assessment

This comprehensive evaluation of the model focuses on meticulously assessing the accuracy and validity of its underlying concepts. To gauge accuracy, we employ two critical statistical measures: Cronbach's alpha and composite reliability. A score exceeding 0.70 is typically deemed satisfactory for both measures. In our analysis, Cronbach's alpha values impressively range from 0.866 to 0.764, firmly within the accepted range, thereby reinforcing the model's reliability.

Furthermore, we examine convergent validity, which is confirmed by the average variance extracted (AVE). For our model to maintain convergent validity, the AVE values must surpass the threshold of 0.50. The reported AVE values, ranging from 0.710 to 0.524, not only meet this criterion but also indicate a robust level of convergence among the constructs.

Additionally, by thoroughly evaluating the external loadings presented in the associated table, we uncover further compelling evidence supporting the reliability of the observable variables about their corresponding underlying constructs. Notably, most of these loadings exceed the acceptable threshold of 0.7, reinforcing the model's overall integrity and effectiveness in capturing the intended dimensions.

Structural Model Assessment

A structural model assessment calculates co-linearity, path coefficients (β), and p-values. Co-linearity testing verifies the stability of standardized regression weights among variables and assures that they are not prone to high standard errors.

The path coefficients were investigated, and it was discovered that all coefficients were significant.

Data Analysis and Result

The study aims to investigate how organizational commitment mediates the relationship between training and development, career development, and work performance. To achieve this goal, a theoretical framework involving two dependent variables, and one independent variable is presented.

Demographics profile:

Table 3: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	50	58.8	58.8	58.8
	Male	35	41.2	41.2	100.0
	Total	85	100.0	100.0	

Table 4: Age category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-27	43	50.6	50.6	50.6
	28-37	23	27.1	27.1	77.6
	38-47	13	15.3	15.3	92.9
	48 and above	6	7.1	7.1	100.0
	Total	85	100.0	100.0	

Table 5: Industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bank	11	12.9	12.9	12.9
	Consultancy Firm	2	2.4	2.4	15.3
	Education	5	5.9	5.9	21.2
	Educational consultant	2	2.4	2.4	23.5
	Educational services	1	1.2	1.2	24.7
	FMCG	13	15.3	15.3	40.0
	Food shop	1	1.2	1.2	41.2
	FinTech	1	1.2	1.2	42.4
	Health Care	7	8.2	8.2	50.6
	Information Technology	24	28.2	28.2	78.8
	Mall Industry	4	4.7	4.7	83.5

	Pharmaceuticals	2	2.4	2.4	85.9
	Retail	9	10.6	10.6	96.5
	Services	1	1.2	1.2	97.6
	Textile	1	1.2	1.2	98.8
	Travel Agency	1	1.2	1.2	100.0
	Total	85	100.0	100.0	

Table 6: Years of experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 years	35	41.2	41.2	41.2
	4-6 years	20	23.5	23.5	64.7
	7-10 years	10	11.8	11.8	76.5
	Less than 1 year	9	10.6	10.6	87.1
	More than 10 years	11	12.9	12.9	100.0
	Total	85	100.0	100.0	

Table 7: Level of Management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Middle Level	43	50.6	50.6	50.6
	Lower level	13	15.3	15.3	65.9
	Senior Level	29	34.1	34.1	100.0
	Total	85	100.0	100.0	

The sample consisted of 58.8% females and 41.2% males, showcasing a slight predominance of female participants. In examining the age distribution, a significant portion, 50.6%, fell within the youthful demographic of 18 to 27 years, while 27.1% were in the 28 to 37 age range, indicating a strong representation of younger professionals. The middle-aged group, comprising those aged 38 to 47 years, accounted for 15.3%, and the senior segment of 48 years and above made up 7.1% of the participants.

Participants hailed from a variety of industries, with a notable concentration in Information Technology, which represented 28.2% of the sample. Retail followed with 10.6%, and Health Care comprised 8.2%, reflecting a diverse professional background among the respondents.

In terms of work experience, 41.2% reported having 1-3 years in their fields, suggesting a relatively young workforce, while 23.5% possessed 4-6 years of experience, and a smaller portion, 12.9%, had extensive experience with over 10 years in their respective industries.

When categorized by management level, 50.6% of respondents held positions in Middle Management, demonstrating a robust representation of individuals in supervisory roles, while 34.1% occupied Senior Management positions, indicating a substantial presence of experienced

leaders. Lastly, 15.3% were situated in Lower Management, rounding out the diverse management hierarchy within the sample.

Results

Descriptive Analysis

In our study, we employed structural equation modeling (SEM) using SmartPLS software to thoroughly examine our hypotheses with precision and rigor. This advanced statistical technique allowed us to explore both direct and indirect relationships among the various constructs integral to our research, facilitating a nuanced understanding of the data. SEM is widely recognized as a premier analytical method that effectively synthesizes multiple regression models and various analytical techniques (Barron & Kenny, 1986). It excels in clarifying the intricate interplay between exogenous variables—those that operate independently—and endogenous variables, which are influenced by other factors within the model framework.

By integrating principles of factor analysis and multivariate analysis, SEM offers a holistic framework for our analysis that accommodates complex relationships and interactions. This capability is particularly valuable in behavioral research, where variables often do not operate in isolation. Additionally, SEM empowers us with deep insights into the intricate cause-and-effect dynamics, enabling us to vividly illustrate how diverse variables interact within our established causal framework.

To further strengthen our findings, we implemented bootstrapping techniques, which allowed for a rigorous assessment of both direct and indirect effects (Shrout & Bolger, 2002). This resampling method is especially advantageous as it remains robust and applicable across a wide spectrum of sample sizes, whether large and diverse or smaller and more focused (Hayes, 2013). By utilizing bootstrapping, we enhanced the credibility and reliability of our results, ensuring that our conclusions are supported by empirical evidence and a robust statistical foundation. Ultimately, our application of SEM and bootstrapping techniques provides a comprehensive and reliable analysis, contributing valuable insights to the field.

Table 8: Descriptive Statistics and Confirmatory Factor Analysis

Items	Descriptive Stats					Confirmatory Factor Analysis		
	Mean	Median	Observed min	Observed max	Standard deviation	Outer Loadings	Cramér-von Mises test statistic	Cramér-von Mises p value
CD 1	0.000	0.082	-1.857	1.490	0.413	0.911	2.161	0.000
CD 2	0.000	-0.022	-1.303	1.513	0.329	0.944	1.442	0.000
CD 4	0.000	-0.009	-1.472	2.183	0.466	0.885	2.856	0.000
OC 1	0.000	-0.042	-1.109	1.867	0.378	0.926	0.312	0.000
OC 2	0.000	-0.050	-1.079	0.903	0.300	0.954	0.257	0.001
OC 3	0.000	0.023	-1.024	0.834	0.326	0.945	0.244	0.001

OC 4	0.000	-0.060	-1.017	1.020	0.546	0.838	0.320	0.000
OC7	0.000	0.026	-2.278	1.697	0.626	0.780	0.577	0.000
T&D 1	0.000	0.211	-2.133	1.389	0.631	0.776	0.729	0.000
T&D 2	0.000	0.142	-2.249	2.418	0.572	0.820	1.196	0.000
T&D 3	0.000	-0.075	-2.020	1.546	0.477	0.879	0.343	0.000
T&D 4	0.000	-0.042	-2.177	1.248	0.481	0.877	0.729	0.000
WP 1	0.000	0.214	-3.355	1.205	0.623	0.782	0.611	0.000
WP 3	0.000	-0.023	-2.098	1.386	0.675	0.737	0.169	0.013

Measurement Model Analysis

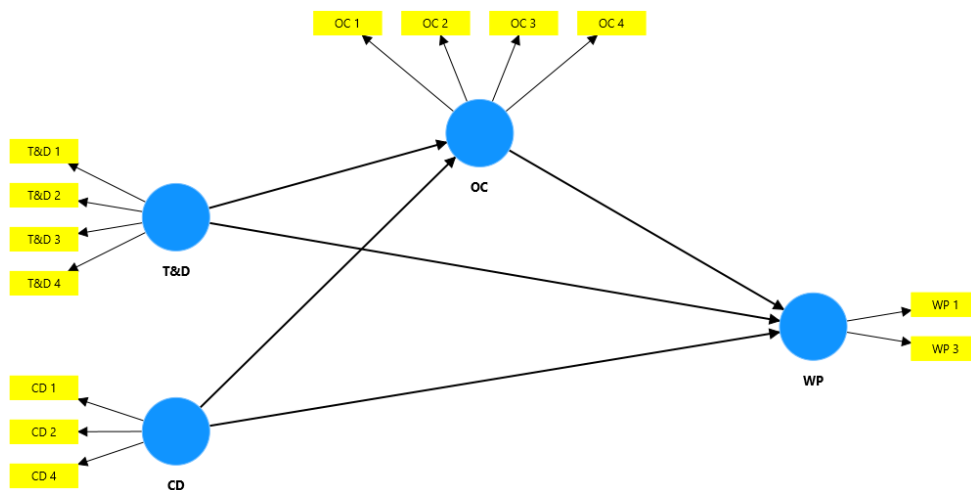


Figure 2

The factor loadings demonstrate strong associations between the observed items and their respective constructs, all surpassing the acceptable threshold of 0.70. Which is deemed satisfactory. In the case of Career Development (CD), items CD1 (0.911), CD2 (0.944), and CD4 (0.885) show high loadings, indicating a solid representation of the construct. Similarly, for Organizational Commitment (OC), OC1 (0.926), OC2 (0.954), OC3 (0.945), and OC4 (0.838) display strong loadings, with OC7 slightly lower but still acceptable at 0.780. Regarding Training and Development (T&D), the items T&D1 (0.776), T&D2 (0.820), T&D3 (0.879), and T&D4 (0.877) demonstrate robust loadings as shown in table 4 below, suggesting a good representation of the construct. Finally, for Work Performance (WP), WP1 (0.782) and WP3 (0.737) exhibit moderately yet acceptably high loadings. Overall, the factor loadings indicate that the items effectively capture their underlying constructs, ensuring reliable measurement.

Table 9: Data Reliability Analysis

	Cronbach's Alpha	Composite Reliability	AVE
Career Development	0.866	0.905	0.710
Organizational Commitment	0.829	0.874	0.573
Training and Development	0.863	0.905	0.704
Work Performance	0.764	0.789	0.524

The metrics evaluating the reliability and validity of the constructs are comprehensively detailed in Tables 9 and 10 below. To ensure a robust assessment of construct reliability and validity, we implemented a series of rigorous statistical measures, including Cronbach's alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and the Heterotrait-Monotrait Ratio (HTMT).

Our analysis confirmed that both Cronbach's alpha and composite reliability exceeded the accepted threshold of 0.70, as recommended by Fornell and Larcker (1981). This result indicates a strong level of factor reliability, affirming the consistency of the constructs being measured.

To further enhance the accuracy and robustness of our constructs, we meticulously scrutinized the items within specific categories. During this evaluation, we identified and judiciously removed certain items that exhibited low factor loadings, which were negatively impacting the overall reliability. This carefully considered refinement process was crucial in strengthening the validity of our measurements and ensuring that the constructs accurately reflect the underlying theoretical concepts.

Table 10: Discriminant validity of the variable

	Heterotrait Monotrait Ratio (HTMT)			
	CD	OC	T&D	WP
CD				
OC	0.493			
T&D	0.149	0.582		
WP	0.563	0.740	0.453	

Discriminant validity is a crucial aspect of construct validation, established when a specific concept within a theoretical model is demonstrated to be statistically different from other concepts in the model (Carmines and Zeller, 1979). To confirm discriminant validity, it is essential that the Average Variance Extracted (AVE) for each construct surpasses the threshold of 0.5. This means that each construct captures at least 50% of the variance within its indicators, a benchmark emphasized by Chin (1998). Moreover, an additional verification of discriminant validity can be achieved by examining the correlation matrix; specifically, the diagonal values—representing the squared correlations of the constructs—should be significantly larger than the off-diagonal values. This pattern indicates that the constructs are distinct and uncorrelated, suggesting a clear separation in their conceptual domains. Conducting such analyses is vital for ensuring that the constructs being evaluated are indeed unique entities and not inadvertently related, thereby bolstering the theoretical framework of the study.

Structural Model Analysis: (Path Coefficient)

Following the establishment of a robust measurement model, attention transitions to the Structural Model Analysis. This stage is critical as it evaluates the relationships among constructs and their predictive capabilities. A bootstrapping analysis, as recommended by Chin (1998), is performed to test the significance of the path coefficients within the model. The findings from this analysis reveal highly robust beta coefficients, which reflect the strength and directionality of the relationships between constructs. Accompanying statistical metrics, such as t-statistics and p-values, consistently fall below the conventional threshold of 0.05. This demonstrates a strong level of statistical significance at the 95% confidence interval for all variables assessed. These results are aligned with best practices in Partial Least Squares Structural Equation Modeling (PLS-SEM) advocated by Hair, Hult, Ringle, and Sarstedt (2017), further reinforcing the credibility and validity of the proposed structural model. The integration of these analytical techniques ensures a comprehensive understanding of the interrelationships among constructs, thereby providing substantial support for the hypotheses being tested.

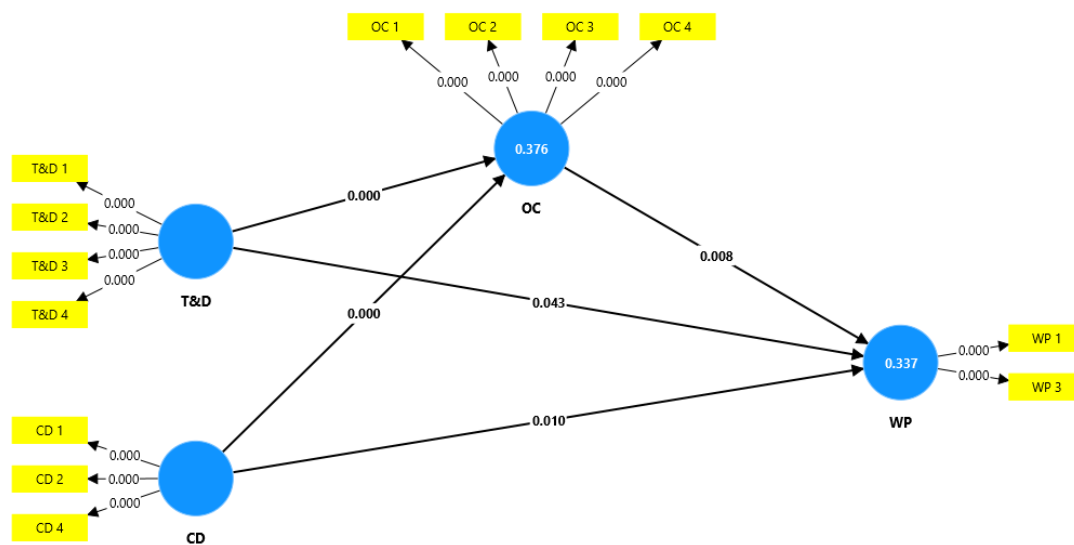


Figure 3

Table 11: Regression Analysis

		Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Decisions
CD	-> OC	-0.486	-0.488	0.081	5.983	0.000	Supported
CD	-> WP	0.324	0.323	0.126	2.578	0.010	Supported
OC	-> WP	-0.323	-0.343	0.121	2.659	0.008	Supported
T&D	-> OC	0.400	0.407	0.088	4.523	0.000	Supported
T&D	-> WP	0.307	0.304	0.152	2.019	0.043	Supported
CD	-> OC	0.157	0.168	0.067	2.359	0.018	Supported
WP							

T&D ->	-0.129	-0.141	0.063	2.039	0.041	Supported
OC ->						
WP						

The findings from the structural model unveil intriguing relationships among key variables such as career growth, training and development, organizational commitment, and job performance. Notably, the analysis reveals that career development exerts a negative influence on organizational commitment, with a significant coefficient of $\beta = -0.486$ ($p < 0.001$). This indicates that as employees focus on advancing their careers, their allegiance to the organization may diminish, suggesting a potential conflict between individual aspirations and organizational loyalty.

Conversely, career development positively affects job performance, evidenced by a coefficient of $\beta = 0.324$ ($p = 0.010$). This result implies that while employees' pursuit of career advancement may detract from their commitment to the organization, it simultaneously fosters improvements in their job performance. This dual effect indicates that employee motivations are complex and multifaceted.

Moreover, the data highlights that organizational commitment has a negative impact on job performance, with a coefficient of $\beta = -0.323$ ($p = 0.008$). This finding reveals a complex dynamic within the workplace, suggesting that high levels of commitment do not necessarily lead to elevated job performance and may even hinder it under certain circumstances.

On a more positive note, the study finds that training and development initiatives significantly enhance both organizational commitment ($\beta = 0.400$, $p < 0.001$) and job performance ($\beta = 0.307$, $p = 0.043$). These results underscore the critical role that well-structured training programs play in creating a committed workforce that excels in their performance metrics, emphasizing the value of investing in employee development.

Furthermore, the analysis identifies organizational commitment as a mediator in the relationship between career development and job performance ($\beta = 0.157$, $p = 0.018$), as well as between training and development and job performance ($\beta = -0.129$, $p = 0.041$). This mediation effect highlights the nuanced interplay among these factors, illustrating that the pathways to enhanced job performance are significantly influenced by employees' levels of commitment to the organization.

Overall, the model demonstrates strong predictive capability, lending substantial support to all hypotheses examined. The results highlight the intricate, interconnected relationships among career-related variables, emphasizing the importance of strategic training and development initiatives in fostering both commitment and performance within the organizational context. By recognizing these dynamics, organizations can better tailor their approaches to employee development and engagement, ultimately benefiting overall productivity and employee satisfaction.

Discussion

The findings of this comprehensive analysis unveil a compelling and significant association between work experience and the training and development of employees within various sectors. This interconnectedness has been underscored in earlier literature reviews, further reinforcing the notion that well-structured training programs, characterized by clear objectives and measurable outcomes, can have a transformative effect on employee performance (K. Sendawula, S. Nakyejwe Kimuli, J. Bananuka, G. Najjemba Muganga, 2018).

Specifically, research focusing on IT corporations in Pakistan reveals that when employees are given access to targeted and essential training that is aligned with their job roles and industry trends, their performance in task execution markedly improves. This enhancement can be attributed to the vital role training plays in enriching employees' knowledge, skills, and overall competencies, thereby empowering them to excel in their respective roles and contribute meaningfully to their organizations.

Furthermore, the analysis brings to light a statistically significant relationship between career development initiatives—such as mentorship programs, succession planning, and professional certifications—and overall job performance among employees in Pakistan. This suggests that organizations prioritizing the career advancement of their employees through structured pathways and skill development can effectively elevate workplace productivity and efficiency. Prior studies corroborate these findings, indicating a direct link between the availability of career growth opportunities within various organizations and significant improvements in performance metrics, such as sales figures and customer satisfaction scores (Z. Ali, B. Mahmood, A. Mehreen, 2018; S. Kaur, G. Kaur, 2021).

Similar trends have emerged in the service industry, where extensive literature validates the assertion that professional development is closely tied to enhanced job performance, particularly with regards to customer interaction and service delivery standards (F.N.K. Otoo, E.A. Otoo, G.K. Abledu, A. Bhardwaj, 2019; C. Yoopetch, S. Nimsai, B. Kongarchapatara, 2021).

Additionally, this research delineates the profound relationship between training and development programs and organizational commitment. It has been observed that as employees receive more comprehensive training—encompassing both technical skills and soft skills—they frequently cultivate a deeper sense of belonging to their organization. This emotional and intellectual bond significantly amplifies their commitment over time, leading to reduced turnover rates and higher employee morale. The literature corroborates these findings, illuminating similar results across various studies (F. Cherif, 2020; F. Baldi, L. Trigeorgis, 2020; T. Liu, H. Shen, J. Gao, 2020).

Moreover, research indicates a noticeable correlation between employee organizational commitment in Pakistan and their work performance, emphasizing that a strong emotional attachment to the organization can enhance productivity and efficacy. When employees feel valued and see opportunities for personal and professional growth, they are more likely to go above and beyond in their roles.

Furthermore, previous studies have established that affective commitment—characterized as an emotional bond between employees and their organization—exerts a significant influence on work performance across diverse sectors (A. Swalhi, S. Zgoulli, M. Hofaidhllaoui, 2017; C.N. Arasanmi, A. Krishna, 2019; R. Cropanzano, M.S. Mitchell, 2005). This analysis provides robust statistical validation for the profound and impactful connection between the work performance of hoteliers—whose roles often involve direct customer engagement—and their access to training and development opportunities. This relationship is notably influenced by their organizational commitment, highlighting that employees who feel a sense of loyalty and attachment to their organization are better positioned to respond effectively to the demands of their jobs.

The extensive evidence amassed in this research reinforces the strong link between professional growth and job effectiveness, illustrating the critical role that dedication to the organization plays in enhancing overall employee performance. Ultimately, investing in training and career development initiatives not only nurtures talent but also translates into tangible business outcomes, solidifying the organization's competitive edge in an increasingly dynamic marketplace.

Implications

Theoretical Implication

This research significantly enriches our understanding of the intricate dynamics of organizational behavior, employee psychology, and work performance while also highlighting the profound impacts of career development and training initiatives within diverse workplace settings. By strategically leveraging the principles of Social Exchange Theory (SET) and the Tamkin Work Performance Model, the study compellingly illustrates that both structured career development pathways and comprehensive, skill-focused training programs function as essential catalysts for enhancing work performance across various industries.

Importantly, the findings reveal that organizational commitment acts as a crucial mediator in this relationship, signifying that when employees experience meaningful engagement through thoughtfully designed training modules and career advancement opportunities, they are more likely to demonstrate heightened levels of loyalty and commitment to their organization. This research validates existing literature by confirming that organizational commitment strengthens the connection between training, development, and work performance metrics. Moreover, it broadens our understanding by demonstrating that the positive outcomes resulting from training and career development initiatives not only enhance organizational commitment but also significantly elevate overall employee performance metrics, such as productivity levels, job satisfaction, and retention rates.

Practical Implication

From a practical standpoint, the study articulates a compelling case for the critical importance of employee engagement in the decision-making processes within organizations. This engagement serves as a vital means to foster greater commitment and propel job performance to new heights. It is essential for organizational leaders and managers to prioritize initiatives that enhance employee satisfaction and empowerment, as these elements are pivotal in driving both individual and collective performance as well as long-term organizational success.

Managers are encouraged to implement robust training frameworks that feature ongoing skill development, mentorship programs, and career coaching, while also providing abundant opportunities for career growth. Such measures not only enhance employee performance but also foster a deep-seated sense of commitment to the organization. Tailoring training programs to align with the specific needs and aspirations of employees—by conducting regular assessments and seeking employee input—can enrich their knowledge base, sharpen their skills, and positively influence their attitudes and outlook on career progression.

This, in turn, nurtures cultural loyalty and aligns individual goals with the broader objectives of the organization. As performance levels rise and employees feel valued and empowered, they are likely to cultivate a more optimistic perspective regarding their future prospects within the organization. For Human Resource Development (HRD) practitioners, this study underscores the critical importance of motivating employees and fostering enduring commitment, which are essential strategies for minimizing turnover and enhancing productivity levels.

By understanding and implementing effective HRD strategies, organizations can empower employees to exceed expectations and contribute meaningfully to the achievement of organizational objectives. Ultimately, a workforce characterized by strong commitment and engagement results in improved performance outcomes and encompasses a culture of continuous improvement, fostering long-term organizational success.

Limitation & Future Research Direction

This study primarily relied on self-reported memories regarding concept indicators from a volunteer sample, utilizing a survey methodology to investigate the intricate interrelationships among various psychological and organizational variables. However, the sample appears to be limited to a specific demographic group characterized by a notable degree of homogeneity, predominantly composed of males with above-average cognitive abilities, which raises questions about the generalizability of the findings.

To address these limitations, future research should prioritize the integration of diverse data sources, including objective performance metrics and qualitative insights from a broader spectrum of participants. A longitudinal research approach is essential to adequately capture the dynamic and evolving nature of the relationships under examination over time, allowing for a more nuanced understanding of how these factors interact and influence one another.

Furthermore, it is crucial to expand research efforts to encompass a wider array of industries that mirror diverse demographic populations, particularly given the possibility that the findings may vary significantly across generations with differing educational backgrounds and work experiences. Investigating these relationships among participants from various educational trajectories and socio-economic statuses is highly recommended to enrich the findings and enhance their applicability.

Additionally, researchers should delve into other mediating variables that could substantially influence these dynamics, such as organizational support systems, levels of employee engagement, job satisfaction metrics, and the prevailing organizational culture, which collectively shape the work environment and outcomes.

Conclusion

This study aimed to illuminate the impact of organizational dedication on the relationship between career growth, training initiatives, and work efficiency within the dynamic and rapidly evolving Information Technology (IT) sector in Pakistan. Our findings provide compelling empirical evidence that career advancement opportunities and targeted training programs play critical roles. These factors not only serve as mediators but also act as moderators within the examined context.

Notably, the research highlights that the strength of the connection between career development, available training opportunities, and employee work efficiency is significantly influenced by the level of organizational commitment demonstrated by the employees. High levels of commitment often correlate with increased motivation and productivity. Ultimately, critical factors such as active employee engagement, the availability of comprehensive and relevant training programs, and clearly articulated pathways for career advancement emerged as crucial contributors to enhancing overall work efficiency within the IT workforce. By fostering these elements, organizations can better support their personnel, leading to improved performance and job satisfaction.

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