Enhancing Organizational Performance: Investigating the Intersection of Employees’ Job Outcomes and Workplace Environment

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Abstract
Work engagement, job involvement, and job satisfaction are pivotal in shaping employees’ job outcomes, which subsequently influence organizational performance. However, these critical factors are often deficient in Pakistan’s pharmaceutical industry, leading to suboptimal performance levels. This study delved into the relationship between job outcomes and organizational performance, with a particular focus on the mediating role of the workplace environment. An analysis of data from 240 employees across 52 pharmaceutical companies in Lahore, utilizing SPSS and Hayes’ PROCESS macro, revealed that job attitudes significantly impact performance, mediated by the workplace environment. The study identified management practices, effective communication, technology integration, feedback mechanisms, and resource empowerment as key drivers of improved performance. These findings offer valuable insights for policymakers aiming to enhance employee job outcomes and boost organizational performance within the pharmaceutical sector.

Keywords: Organizational performance, employees’ job outcomes, work engagement, job involvement, job satisfaction, and the workplace environment

1. Introduction
In the dynamic and evolving modern business world, organizational success hinges on the intricate interplay between employees’ job outcomes and their workplace environment. This relationship is central to organizational performance, as the workforce—an ensemble of skills and potentialities—makes operations possible. From routine tasks to strategic endeavors, employees articulate and achieve organizational objectives, with their efficiency and effectiveness pivotal to success (Continue & Edeh, 2015; Johari et al., 2012; Noor et al., 2020). Effective human resource management, akin to a conductor shaping a symphony, orchestrates productivity, profitability, and overall success. In a realm marked by fluidity and unpredictability, an adaptable and self-motivated workforce enables organizations to navigate market changes astutely, providing a competitive edge through intellectual capital (Munteanu et al., 2020). Employees are more than mere notes in the organizational symphony; they are virtuoso players whose individual and collective actions compose the melodies of business success. The pharmaceutical industry exemplifies this complex interplay, being crucial for healthcare provision and economic growth. This study, focusing on Pakistan’s pharmaceutical sector, aims to unravel the relationship between employees’ job outcomes, workplace environment dynamics, and their cumulative impact on organizational performance. It highlights the mediating role of the workplace environment in this intricate interrelationship, shedding light on a previously uncharted territory within Pakistan’s pharmaceutical industry.

1.1. Contextualizing the Pharmaceutical Industry
The pharmaceutical industry, as a quintessential cornerstone of modern societal progress, rests at the juncture of scientific innovation, healthcare enhancement, and economic prosperity. Research by Qasem et al. (2024); Qurashi et al. (2020) underscores the industry's substantial contribution to economic development, underpinning advancements in research and development while fostering employment opportunities. In the context of Pakistan, where the pharmaceutical sector stands as a burgeoning pillar of the economy, the ramifications of this industry's performance are intricately woven into the fabric of the nation's progress. However, within the intricate web of achievements and prospects, an unsettling concern casts its shadow—the pervasive issue of high employee turnover, which leads to the loss of talented individuals, incurs substantial replacement costs, and decreases productivity (Braddock, 2024).

1.2. The Looming Challenge of High Employee Turnover
The pharmaceutical industry in Pakistan confronts a distinctive challenge that has far-reaching implications for its sustained growth and impact. The palpable and consistent oscillation in workforce allegiance, a hallmark of high employee turnover, not only ripples through the operational dynamics of the organizations but also permeates the fundamental essence of their functionality. This challenge is underscored by the study conducted by Khan (2020), which highlights that the sector's high attrition rates result from an intricate interplay of motivational deficits, organizational misalignment, and lack of engagement among employees.

1.3. Reframing Organizational Success: A Nexus of Factors
Amidst this backdrop, the fulcrum of organizational achievement revealed to be a multidimensional and synergistic interplay. The dimensions encompassed within the realm of employees’ job outcomes—ranging from their levels of engagement, attitudes, and satisfactions—stand as foundational pillars that shape their contributions to the organization. This assertion resonates with the findings of Eresia-Eke et al. (2023); Khan et al. (2018), who expound upon the intrinsic link between employees' job outcomes and the broader organizational landscape.

1.4. The Mediating Role of Workplace Environment
A noteworthy facet emerges from the labyrinthine relationships that define organizational achievement—the mediating role of the workplace environment. As postulated by Brown and Leigh (1996), the workplace environment is not a mere backdrop but rather a dynamic catalyst that amplifies or dampens the effects of employees’ job outcomes on the broader organizational performance canvas. This environment encapsulates the intricate interplay of organizational culture, leadership styles, and mechanisms of support,

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molding the very context within which employees' job outcomes flourish or falter. A positive workplace environment cultivates the growth of a constructive organizational culture, which in turn elevates employee morale and satisfaction, curbs turnover rates, and bolsters the industry's reputation (Smith & Fredricks-Lowman, 2020; Zhang & Zhang, 2023). Furthermore, contented employees inherently tend to prolong their tenures within the organization, thus reducing turnover rates and the associated costs linked to recruitment and training expenditures (Fair, 2023; Fulmore et al., 2023).

1.5. The Research Nexus: Addressing a Conspicuous Void
This study serves as a guiding light amidst the complex connections within the pharmaceutical industry in Pakistan, where high turnover signifies both a symptom and a cause of organizational challenges. It aims to uncover the intricate relationship between employees' job outcomes, the nuanced workplace environment, and their collective impact on organizational performance. Integrating diverse research paradigms, the study not only explores the facets of job outcomes and workplace dynamics but also examines how the latter influences these outcomes. Grounded in empirical research influenced by scholars like Allen and Meyer (1996), who defined affective commitment, and Kahn (1990), who explored employee engagement, this research seeks a deeper understanding of these critical organizational dynamics.

1.6. Research Aim and Objectives
The primary aim of this research was to untangle the intricate web of relationships among employees’ job outcomes, the workplace environment, and organizational performance within the unique contours of Pakistan's pharmaceutical industry. To achieve this aim, the study pursues the following objectives.

1.6.1. Examine Employees’ Job Outcomes
The research comprehensively explores the dimensions of work engagement, positive work attitude, job satisfaction, job involvement, affective commitment, and intent to stay among employees in the pharmaceutical sector. This examination forms the bedrock for understanding the foundations of employees' experiences and perceptions within their organizational roles.

1.6.2. Uncover Workplace Environment Dynamics
The study investigates the characteristics of the workplace environment, including organizational culture, leadership styles, and employee support mechanisms. By doing so, it seeks to illuminate the contextual factors that either nurture or hinder employees' positive job outcomes.

1.6.3. Analyze the Mediating Role of Workplace Environment
Central to this research is the exploration of how the workplace environment functions as a mediating factor between employees' job outcomes and organizational performance. By dissecting this intermediary mechanism, the study endeavors to reveal the extent to which a conducive workplace environment can potentially enhance organizational performance.

1.6.4. Propose Strategies for Enhancement
Guided by empirical evidence, the study aims to propose pragmatic strategies that organizations operating within Pakistan's pharmaceutical industry can implement to foster positive job outcomes, reinforce the workplace environment, and ultimately bolster organizational performance.

2. Review of Literature
2.1. Organizational Performance
Organizational performance is defined as the extent to which a corporation successfully achieves its intended objectives, goals, and targets, reflecting its effectiveness and efficiency in utilizing resources to deliver value to stakeholders. Anwar et al. (2016) highlight that performance involves the efficient and effective conversion processes at each organizational level. Performance is assessed by comparing actual output against set standards or goals, ensuring resource utilization in a well-structured manner (Abdulrahaman & Garba, 2020), and benchmarking against similar organizations. This multifaceted concept includes financial and non-financial metrics like sales, productivity, market share, customer and employee satisfaction, management quality, innovation, and sustainability (Chen & Zhou, 2021; Rokni et al., 2021; Singh et al., 2022). Organizations must continually monitor and improve their performance to remain competitive and achieve long-term success. Traditionally, performance measurement focused on financial metrics such as return on assets, return on equity, and profit margin (Hernaus et al., 2012), but these have proven limited in communicating strategies and priorities (Neely, 2007). Since the mid-1980s, there has been a shift towards incorporating nonfinancial metrics like customer retention and employee turnover (Maldonado, 2021). Effective performance strategies require a blend of financial and non-financial metrics, which are mutually reinforcing (Hernaus et al., 2012; Kihn, 2010).

In the pharmaceutical industry, profitability, return on assets (ROA), and productivity are critical for overall organizational performance. Profitability supports reinvestment in R&D, talent attraction, and regulatory compliance, enhancing product quality. ROA measures efficiency in generating earnings from total assets, reflecting financial stability and operational performance. Employee productivity, especially in sales and marketing, directly impacts market penetration and revenue. Metrics like value added per employee and commitment indicate workforce efficiency and collaborative strength. High commitment and low turnover reduce costs and improve performance. Managing absenteeism is crucial in this precision sector. Product quality and process efficiency are paramount, with leading companies setting benchmarks for regulatory compliance and customer trust. Innovation and strategic management sustain competitive advantage. A strong reputation attracts investors, government support, and expands market share. Customer retention hinges on addressing complaints promptly to prevent regulatory issues and build loyalty, essential for maintaining competitive positioning. Robust supplier relationships, emphasized during COVID-19, enhance resource sharing and risk management. Trust reduces conflicts, lowers costs, and fosters innovation. Efficiently managing service errors and waste levels preserves reputation, attracts stakeholders, and ensures long-term success in the competitive pharmaceutical landscape. Regulatory changes in the pharmaceutical industry drive organizational performance by ensuring product safety and efficacy, demanding continuous adaptation amid scientific advancements and global health dynamics. Market competition spurs innovation and operational efficiency through substantial investments in research and development. Effective market access strategies are
crucial for reaching patients and impacting financial performance. Intellectual property rights, particularly patents, offer a competitive edge but present challenges like litigation. Drug approvals and clinical trials are pivotal, shaping market entry and revenue generation. Technological advancements streamline drug discovery and manufacturing. Economic conditions influence pricing strategies and supply chain stability, requiring agile fiscal navigation. Trade agreements enhance market access, revenue, and competitive positioning but affect pricing and intellectual property. They provide opportunities in emerging markets, necessitating regulatory compliance and robust risk management. Supply chain disruptions jeopardize product availability and financial stability, exacerbated by natural disasters and health crises. Ethical sourcing and regulatory compliance are essential to manage disruptions effectively. Stricter environmental regulations drive sustainable practices, reducing environmental impact and costs while enhancing reputation. Strong environmental and social governance attract investors, supporting growth and market expansion. Sustainability practices mitigate supply chain risks, foster innovation, and ensure competitive advantage, promoting ecofriendly and ethical operations for long-term organizational sustainability.

2.2. Work Engagement

Work engagement, extensively researched for its profound impact on individuals and organizations, encompasses cognitive, emotional, and physical dimensions, reflecting deep immersion, intense focus, and significant involvement in work tasks (Christian et al., 2011; Macey et al., 2011). It entails the expenditure of energy across these dimensions to effectively pursue job-related objectives (Cameron et al., 2003). Engagement also involves the authentic expression of one's self in work behaviors, fostering innovative performance and punctuality (Kahn, 1990; Turner, 2020). Defined as a positive, affective-motivational state with heightened energy, unwavering dedication, and a strong work-centric focus (Bakker & Albrecht, 2018; Schaufeli & Bakker, 2010), fostering work engagement is crucial in contemporary organizations, driving creativity, task performance, organizational citizenship behavior, and client satisfaction (Bakker, 2014; Bakker & Albrecht, 2018). Particularly pivotal in high-impact sectors like pharmaceuticals, where employee performance directly influences customer satisfaction and loyalty (Tsaur et al., 2019), engaged employees demonstrate elevated energy, involvement, concentration, and job satisfaction (Gersdorf-Van den Berg et al., 2024). While engagement primarily centers on the work role, the employee-organization relationship also plays a vital role in its cultivation (Rahmadani & Schaufeli, 2022). Ultimately, work engagement signifies a high level of energy and intrinsic connection to one's work, fostering organizational growth and prosperity through dedication, enthusiasm, and purposeful contributions (Chikobvu & Harunavamwe, 2022). Nurturing work engagement unlocks benefits such as increased productivity, positive work environments, and a ripple effect of engagement among employees, essential for thriving in today's dynamic work landscape.

2.3. Job Involvement

Job involvement encompasses a complex array of psychological attributes reflecting an individual's commitment, identification, and personal significance towards their employment, extending beyond mere work engagement to include cognitive preoccupation, emotional engagement, and a profound concern for one's job (Kanungo, 1982; Lambert et al., 2021; Lodahl & Kejnar, 1965). It signifies a deep psychological and emotional connection with one's work, where the job becomes integral to one's identity and personal importance (Sharma & Sharma, 2021). This multifaceted concept captures how individuals internalize the value and significance of their occupation, akin to a form of affection or keen interest in their job tasks (Pollock, 1997). Job involvement is influenced by personal contentment and the satisfaction of both intrinsic and extrinsic needs (Gopinath, 2021), with highly involved individuals seeing their job as central to life's rewards and benefits, impacting overall well-being (DeCarufel & Schaan, 1990; Lambert et al., 2021). Those deeply involved exhibit higher efficiency and diligence, viewing their job as integral to life's objectives, whereas lower levels of job involvement may lead to reduced creativity and innovation (Hogan et al., 2013). This intricate relationship underscores job involvement's importance in organizational research, shaping employee behaviours and outcomes within contemporary workplaces.

2.4. Job Satisfaction

Job satisfaction, a fundamental aspect of the work experience, emerges from an individual's evaluation of their job, rooted in emotional reactions and cognitive assessments (Brief & Weiss, 2002; Hoppock, 1935). Researchers have explored this multifaceted concept from diverse angles, yielding varied definitions and frameworks. Central to job satisfaction is whether one perceives his/her job positively or negatively, profoundly influencing overall attitude and emotional well-being (Brief & Weiss, 2002). High job satisfaction correlates with improved job performance, whereas dissatisfaction often leads to poorer outcomes (Bhatti et al., 2018). It encompasses emotional and cognitive responses to the work environment, encompassing attitudes, relationships, and compensation (Gopinath, 2020; Saal & Knight, 1995; Schwepker Jr, 2001), influenced by internal motivators, supervision effectiveness, and workplace social connections (Ali & Anwar, 2021). This comprehensive view significantly impacts an individual's job success. Moreover, job satisfaction serves as a critical determinant of organizational effectiveness, influencing employee commitment, turnover rates, absenteeism, tardiness, accidents, and grievances (Moorhead & Griffin, 1999; Sharma, 2017). It integrates emotional and cognitive dimensions, illuminating perceptions of the work environment and overall contentment (Ekhsan, 2019). Beyond personal disposition, it evaluates job-related factors like roles, the work environment, and interpersonal relationships, encompassing positive emotions, attitudes, values, and beliefs about the job (Lee & Kim, 2023). Research underscores intriguing connections such as the positive link between mental toughness and job satisfaction, juxtaposed with its negative relationship with job stress, highlighting the complex interplay of psychological factors in shaping job satisfaction (Burnett et al., 2020; Clair-Thompson et al., 2015).

2.5. Workplace Environment

The term "workplace environment" in the pharmaceutical industry encompasses a holistic perspective that includes physical, social, and psychological factors influencing employees, such as task execution, job activities, training opportunities, autonomy, sense of achievement, task variety, and intrinsic value (Asif & Rehman, 2021; Oludeyi, 2015; Osazebaru & Anawhe, 2021). This tripartite entity integrates technical, human, and organizational aspects crucial for optimizing employee performance. The multifaceted nature of the workplace environment, as assessed by the Working Environment Scale-10 (Rossberg et al., 2004), underscores its impact on job satisfaction and well-being, influencing productivity and employee interactions (Akinyele, 2010; Havaei et al., 2020; Reina et
Physical environments shape behavior, attitudes, and relationships, directly affecting productivity and satisfaction (Almohtasb et al., 2021; Badranto & Ekhsan, 2020). Understanding the comprehensive impact of the workplace environment on psychological well-being and efficiency is crucial for influencing organizational performance (Sarode & Shirsath, 2014; Transilvanus et al., 2019). The workplace environment encompasses surroundings and conditions that impact employees' sense of security, comfort, and satisfaction in task execution, influencing their productivity and satisfaction (Anam, 2018; Saputra & Mahapatra, 2022). It includes elements that influence ongoing responsibilities and interactions within the organizational framework, emphasizing the importance of conducive environments that facilitate employee performance (Aristarini et al., 2024; Goet, 2022; Vischer, 2008). This environment extends beyond physical workspace to encompass supporting facilities, cleanliness, lighting, and interpersonal relationships, all crucial for enhancing work processes and organizational outcomes.

2.6. Theoretical Framework

This research study establishes a robust theoretical framework elucidating the intricate connections among employees' job outcomes, such as work engagement, job involvement, and job satisfaction, alongside the workplace environment and organizational performance. Central to this framework is the concept of work attitudes, encompassing individuals' emotional and cognitive orientations towards their jobs, influencing their overall satisfaction and performance (Ogunyemi, 2020). The study identifies job satisfaction as reflecting an individual's overall predisposition and well-being at work (Miao, 2011), while job involvement indicates psychological commitment and interest in one's role (Kanungo, 1982; Pollock, 1997). The Social Exchange Theory posits that favorable workplace exchanges enhance work engagement, involvement, and satisfaction, thereby bolstering organizational outcomes (Aldhuwaihi, 2013; Kidombo, 2007; Kidombo et al., 2012; Pinho et al., 2014). Moreover, the Affective Events Theory suggests that positive work events cultivate emotions conducive to higher performance (Redelinghuys et al., 2019). Furthermore, the Resource-Based View Theory asserts that effectively leveraging internal resources and capabilities enhances organizational performance and competitive advantage (Barney, 1991; Hsu & Pereira, 2008). Leadership plays a pivotal role in fostering team cohesion aligning individual aspirations with organizational goals to promote work engagement and enhances performance outcomes (Kidombo, 2007). In the specific context of the pharmaceutical sector in Pakistan, the study identifies critical gaps related to integrating these theoretical perspectives into organizational practices and underscores the need for strategic interventions to fortify workforce capabilities and enhance organizational performance. Addressing these gaps and fostering a conducive workplace environment that supports positive work attitudes, engagement, satisfaction, involvement, commitment, and retention is essential for pharmaceutical enterprises to achieve sustained success in Pakistan's competitive market. This research aims to provide valuable insights into these complex dynamics, offering a nuanced understanding of their impact on organizational performance within the specific context of the Pakistan's pharmaceutical industry.

2.7. Hypotheses Development

2.7.1. Work Engagement and Organizational Performance

Employee work engagement stands as pivotal for organizational success within the pharmaceutical industry, as evidenced by numerous critical studies. Defined as a proactive, enthusiastic mindset towards organizational goals and values (Christian et al., 2011; Song et al., 2023), work engagement fosters a deep understanding of the business environment and active collaboration among employees, thereby enhancing overall performance (Gupta & Sharma, 2016; Jenkins & Delbridge, 2013). Engaged employees contribute significantly to organizational profitability and performance by dedicating themselves to their work (Ahmed et al., 2020; Saks, 2006), thus bolstering the company's reputation and financial outcomes. The relationship between work engagement and organizational performance is paramount, with engaged employees consistently demonstrating better decision-making, proactive planning, and enthusiastic job execution (Khairy et al., 2023; Mansor et al., 2023), ultimately driving productivity and organizational growth (Sharma, 2021). Studies underscore how work engagement shapes a pharmaceutical company's success by highlighting the importance of supporting engaged employees for sustained performance and growth. Moreover, engaged employees find their work meaningful, enhancing their commitment and connection to the organization, thereby positively impacting business outcomes (Saks, 2006; Srimulyani & Hermanto, 2022). Their dedication and motivation contribute directly to organizational growth and financial success (Estimo & Villanueva, 2023; McCutcheon, 2019), further positioning the organization competitively in the market (Guo & Hou, 2022). Engaged employees within the pharmaceutical sector are meticulous and detail-oriented, crucial for compliance and quality control (Chen et al., 2022; Zaman, 2023), thereby enhancing the organization’s reputation and market position. This proactive engagement not only drives operational success but also strengthens the sector’s credibility and ethical standing, fostering continuous growth and high performance. Guided by the Affective Events Theory, the Resource-Based View Theory, and empirical literature, the study posits hypothesis to further explore these dynamics.

H1: There is a positive relationship between work engagement and organizational performance.

2.7.2. Job Involvement and Organizational Performance

The significance of job involvement in the pharmaceutical industry is paramount for organizational success, as it fosters employee loyalty and enhances performance. Job involvement reflects the extent to which individuals connect with their work, actively engage in tasks, and perceive job outcomes as integral to their self-concept (Anindyta & Anggraini, 2022; Gopinath, 2020). Eneh (2022) underscores its role in empowering employees and enhancing performance through active participation. High job involvement correlates with increased motivation and exceeding expectations, driven by a strong tie between self-esteem and job performance (Tarq & Dia, 2022). This connection extends to punctuality and a sense of accomplishment (Gilavand & Mehralizadeh, 2022), contributing to employee commitment and organizational success. Job involvement also strengthens organizational commitment, aligning employees with company goals and values, fostering a positive culture, and enhancing performance (Lambert et al., 2021). It reduces turnover rates and associated costs by retaining experienced employees (Al-Surah et al., 2021), ensuring operational continuity and stability. Moreover, job involvement positively impacts employee well-being, reducing stress and enhancing job satisfaction, thereby boosting productivity and reducing absenteeism (Al-Surah et al., 2021; Elorza et al., 2022). Employees' deep commitment to organizational goals and ownership is evident, enhancing engagement and loyalty (Purwanto, 2020; Rajendran & Doraisamy, 2022). In the pharmaceutical sector, job involvement is pivotal, influencing productivity, innovation, commitment to
quality, and overall organizational success. Guided by Affective Events Theory, Resource-Based View Theory, and literature, the study posits hypothesis to further explore these dynamics.

H2: There is a positive relationship between job involvement and organizational performance.

2.7.3. Job Satisfaction and Organizational Performance

Job satisfaction, essential for fostering positive employee orientation and emotional engagement with their work (Giri & Pavan Kumar, 2010), is pivotal in organizational development, correlating with enhanced performance and adverse outcomes in cases of dissatisfaction (Bhatti et al., 2018). It encompasses positive emotions such as pleasure, enthusiasm, passion, and affection (Jain, 2016). Organizational performance evaluates employee conduct and effectiveness within the organizational context (Kalogiannidis, 2021), influencing task quality. Job satisfaction significantly impacts job performance, thereby influencing overall organizational effectiveness (Kalogiannidis, 2021), fostering enthusiastic and dedicated task execution (Sathyanarayan & Lavanya, 2018). Moreover, job satisfaction bolsters morale, discipline, and work performance, facilitating achievement of organizational goals (Chih et al., 2008), with contented employees often outperforming dissatisfied counterparts (Basak et al., 2013). Satisfied employees are more likely to remain with the organization, further contributing to its success (Basak et al., 2013), while also enhancing production quality (Shahnawaz Adil, 2015). In the pharmaceutical sector, where precision and compliance are critical, job satisfaction significantly influences employees’ meticulousness and commitment to stringent quality standards (Niaz & Nwagwu, 2023). Studies indicate a direct link between job satisfaction and reduced errors, improved precision, and regulatory compliance (Bhat et al., 2023; Schaufeli & Bakker, 2010; Wang & Li, 2021), crucial for organizational performance in pharmaceutical settings (Fu et al., 2023; Scanlan & Hazelton, 2019). Furthermore, job satisfaction correlates with increased motivation and innovation among employees, crucial for research and development outcomes (Nemaei, 2012; Shafaee & Nejati, 2023). This creativity contributes significantly to organizational success and competitiveness (Bakotic, 2016). Empirical studies consistently affirm the positive association between job satisfaction and various dimensions of organizational performance (Alrazehi et al., 2021; Hilton et al., 2021; Imran et al., 2021; Latif et al., 2013; Miah, 2018), substantiating its critical role in shaping organizational outcomes. Supported by Affective Events Theory, Resource-Based View Theory, and literature, the study posits hypothesis to further explore these dynamics.

H3: There is a positive relationship between job satisfaction and organizational performance.

2.7.4. Workplace Environment and Organizational Performance

The management of the workplace environment, encompassing physical and social dimensions, is crucial for employee performance and organizational success (Awan & Tahir, 2015; Galanti et al., 2021). Though not directly involved in production, the workplace environment significantly influences employee engagement and motivation (Al Sabei et al., 2020; Sutaguna et al., 2023). A well-designed environment that prioritizes employee well-being enhances productivity and performance (Badrianto & Ekhsan, 2020; Sutaguna et al., 2023). Conversely, an inadequate environment can hinder performance and reduce motivation (Nanzushi, 2015; Wilson, 2015). Factors influencing the workplace environment, both positive and negative, are critical in shaping employee behaviors and organizational outcomes (Goet, 2022; Lankeshwar, 2016). Improving the physical workspace can lead to significant productivity gains. Strategic interventions targeting workplace environment factors are essential to cultivate a positive culture and maximize productivity. Additionally, a diverse and inclusive workplace is a strategic advantage in the pharmaceutical industry (Nanzushi, 2015; Nurminen, 2023). Diverse teams enhance problem-solving and innovation, crucial for complex solutions (Kumar & Gupta, 2023). Collaboration and teamwork are vital for success, requiring supportive environments that facilitate communication and multidisciplinary approaches Alshehhi et al. (2023); Osemwegie (2023). Resilient workplace environments with clear communication and supportive cultures help organizations navigate challenges effectively (Yildiz & Akkas, 2023; Zhabin, 2023). Robust crisis management strategies enhance performance during turbulent times, emphasizing resilience in organizational settings (Roscoe et al., 2022; Wysokińska-Senkus et al., 2023). Compliance with regulatory standards ensures product quality and operational integrity in the pharmaceutical sector (Curcuruto & Griffin, 2023; Tawade & Pandya, 2023). Ethical leadership and governance foster integrity and stakeholder trust, essential for sustained success (Anggirawan et al., 2023; Badar et al., 2023). A positive workplace culture reinforces ethical behavior and organizational values, enhancing employee commitment and performance (Jain et al., 2023; Raja et al., 2019). This comprehensive approach supported by theories like Social Exchange Theory, Affective Events Theory, and Resource-Based View Theory, forms the basis for hypothesis exploring these interconnected dynamics within the pharmaceutical industry.

H4: There is a positive relationship between the workplace environment and organizational performance.

2.7.5. Work Engagement and Workplace Environment

Work engagement significantly shapes the workplace environment within the pharmaceutical industry, reflecting a positive and fulfilling outlook characterized by strength, commitment, and immersion (Varghese & Joseph, 2020). This synergy fosters employee well-being, job satisfaction, positive work attitudes, and a strong intention to stay with the organization (Wan et al., 2018). Constructive attitudes enhance work engagement and job performance (Rich et al., 2010; Simbula & Guglielmi, 2013), affecting both individual workers and overall organizational performance (Chen, 2018; Mäkkikangas et al., 2016). A workplace environment grounded in respect, dignity, and recognition promotes pride, collaboration, and an ethical culture (Sarwar & Abugre, 2013). Engaged employees contribute ideas and feedback, fostering transparency, innovation, and continuous improvement (Li et al., 2022; Sheoran et al., 2023). They also actively participate in wellness programs, enhancing mental and physical well-being (Jacobs et al., 2018; Munoz et al., 2022), and promote a robust health and safety culture (Bakker & Demerouti, 2017; Saleem et al., 2022). Work engagement affects productivity, innovation, well-being, safety, compliance, learning, recognition, adaptability, collaboration, sustainability, and social responsibility, driving organizational success. Its multifaceted nature includes talent acquisition, employee voice, health, safety, and ethical decision-making, aligning with organizational goals. Understanding and fostering work engagement are strategic imperatives, supported by theories like Social Exchange Theory, Affective Events Theory, and Resource-Based Theory, which leads to postulate hypotheses.

H5: There is a positive relationship between work engagement and the workplace environment.
H6: The workplace environment mediates relationship between work engagement and organizational performance.

2.7.6. Job Involvement and Workplace Environment

Job involvement, defined as the way individuals perceive their job and relationship with the workplace environment (Abdallah et al., 2017; Kappagoda, 2013), is crucial in shaping the dynamics of the pharmaceutical industry. Highly involved employees see their job as integral to their life, contributing significantly to their self-esteem, adaptability, dedication, and superior performance (Kanungo, 1982; Weng et al., 2023). In a business landscape characterized by evolving strategies for competitive advantage, organizations face increased complexity, challenging workplace environments, and heightened pressure on employees to meet tight deadlines with agility (Afshari et al., 2022). These high demands can lead to stress and burnout (Komlenac et al., 2022), making it essential for managers to establish a positive workplace environment and foster job involvement (Smith et al., 2018). Nelson (1993); Purwanto (2022) highlight that job involvement motivates employees to be more productive and creative, underscoring its importance for a thriving workplace in the pharmaceutical industry. Furthermore, job involvement enhances work-life integration (Bradley et al., 2023; Grant et al., 2007), reduces burnout, and promotes overall well-being in an industry with demanding workloads. It also positively influences workplace diversity and inclusion (Jaiswal & Dyaram, 2020); Singh and Gupta (2015), emotional intelligence (Papoutsi et al., 2019; Selvi & Aiswarya, 2023), and the effectiveness of employee recognition programs (Bhende et al., 2020). Additionally, job involvement fosters ethical decision-making (Schwarz et al., 2023), crucial for maintaining ethical standards in research and development. Recognizing and cultivating high levels of job involvement is thus essential for fostering a positive and supportive workplace culture, optimizing overall performance in pharmaceutical organizations (Kaur et al., 2022). Drawing on the Social Exchange Theory, Affective Events Theory, Resource-Based View Theory, and relevant literature, the following hypotheses were proposed:

H7: There is a positive relationship between job involvement and the workplace environment.

H8: The workplace environment mediates relationship between job involvement and organizational performance.

2.7.7. Job Satisfaction and Workplace Environment

Job satisfaction is a pivotal determinant of the pharmaceutical industry's workplace environment, influencing key dimensions crucial for organizational success. Research by De Simone et al. (2018); Halbesleben and Wheeler (2008) highlights its personal-level benefits, such as enhancing job performance and fostering employee retention. Elevated job satisfaction results in greater enthusiasm and commitment, positively shaping the overall organizational environment. This sentiment is closely tied to employees' attitudes and perceptions of their roles, including factors like compensation, challenge, autonomy, and collegial relationships (Bakotić, 2016). The complexity of job satisfaction involves the interplay of emotions, attitudes, and interactions within the workplace context (Badrianto & Ekhsan, 2020), and stakeholders' perceptions of the organization are significantly influenced by employee contentment (Gross et al., 2021). Employees form cognitive, emotional, and intentional responses to their job and workplace environment, determining their satisfaction levels (Wang et al., 2020). Job satisfaction also correlates significantly with a healthy and safe workplace environment (Donley, 2021) and is influenced by the characteristics of the workplace (Cera & Kusaku, 2021). Satisfied employees are more likely to align with organizational values and norms. Studies by Grawitch et al. (2006); Nader et al. (2022) highlight the connection between job satisfaction and well-being initiatives, which reduce absenteeism and improve morale. Job satisfaction also encourages participation in corporate social responsibility initiatives, crucial in the pharmaceutical industry where ethical considerations are paramount (Bakker et al., 2008; Silva et al., 2023). Satisfied employees contribute to a positive workplace environment, enhancing performance, resilience, innovation, and ethical behavior. Thus, pharmaceutical companies prioritize initiatives to enhance job satisfaction, fostering a positive and dynamic workplace. Based on the Social Exchange Theory, Affective Events Theory, Resource-Based Theory, and relevant literature, the following hypotheses were proposed:

H9: There is a positive relationship between job satisfaction and the workplace environment.

H10: The workplace environment mediates relationship between job satisfaction and organizational performance.

3. Methodology

3.1. Population

The research aimed to explore the impact of employees' job outcomes on organizational performance, specifically within Pakistan's pharmaceutical sector. A focused exploration of 52 pharmaceutical companies in Lahore was conducted to investigate the mediating role of the workplace environment in this context. This localized, industry-specific approach was crucial to understand complex relationship between job outcomes and organizational performance. Employees from these companies were selected as the sample, providing valuable insights due to their expertise in job outcomes, workplace environment, and organizational performance. The study faced challenges such as obtaining permissions from companies and potential non-response bias due to busy schedules. To address these, a non-probability purposive sampling technique was employed, securing a sample size of 240 participants. This approach ensured an adequate number of participants necessary for this study. The selection process prioritized including decisionmakers across various hierarchical levels to capture comprehensive insights into organizational dynamics and responsibilities within the pharmaceutical industry in Pakistan.

3.2. Research Approach

3.2.1. Design

The study employed a pragmatic research paradigm, meticulously designing its methodology to investigate the complex relationships between employees' job outcomes, the workplace environment, and organizational performance. This included developing testable predictions using quantitative methods aligned with an objectivist ontology. A cross-sectional correlational design was utilized, collecting data at two distinct time points to mitigate common method bias and enhance reliability. Data collection involved surveying employees on job outcomes and the workplace environment initially, followed by organizational performance measures later, ensuring a nuanced exploration over time. Purposive sampling was deliberately chosen to recruit participants from Pakistan's pharmaceutical sector, focusing on their unique insights relevant to the study's objectives. This approach facilitated an in-depth
3.2.2. Measures and Instrumentation
In the study, organizational performance was evaluated through financial and non-financial dimensions, with the latter including twelve items from Hernaus et al. (2012). Participants rated this on a 5-point Likert scale, with negatively worded items reverse scored to minimize bias. The overall score was calculated by averaging the items, with a higher score indicating better performance; Cronbach's alpha was 0.792, showing good reliability. Work engagement was measured using Schaufeli and Bakker’s 9-item scale, with participants rating items from 1 (never) to 5 (always). The scores were summed and averaged, with higher scores indicating greater engagement; Cronbach's alpha was 0.837, reflecting very good reliability. Job involvement was evaluated using a 6-item scale by Lodahl and Kejnar, later validated by Ejigou and Fiori, rated from 1 (disagree) to 5 (agree). The scores were averaged, with Cronbach's alpha of 0.757, indicating acceptable reliability. Job satisfaction was assessed with a 5-item scale based on Brayfield and Rothe’s model, using a 5-point Likert scale. Negative items were reverse scored, and the average score was calculated, with Cronbach's alpha at 0.759, indicating acceptable reliability. The workplace environment was assessed using a 10-item scale by Røssberg et al. (2004), with ratings from 1 (not at all) to 5 (very often). The average score was calculated, with Cronbach's alpha at 0.825, showing very good reliability.

3.3. Data Collection
Internal validity is crucial in research, ensuring that causal relationships are accurately established without interference from external factors. Achieving strong internal validity involves meticulous design, experimental control, random assignment, and careful operationalization of variables to mitigate threats such as history, maturation, and selection bias. This approach enhances confidence in study outcomes and their alignment with hypothesized relationships. The questionnaire validation process focused on internal validity, analyzing correlation coefficients for 45 selected questions, which showed significant correlations and confirmed the reliability and validity of constructs like work engagement, job involvement, and job satisfaction. Test-retest reliability was also assessed by administering the questionnaire twice to ensure stable and consistent results over time, crucial for robust research findings. Additionally, the data collection process involved distributing surveys via questionnaires to employees in 52 pharmaceutical companies in Lahore, Pakistan, targeting job outcomes, workplace environment, and organizational performance. Following VanVoorhis and Morgan (2007), a sample size of 240 was calculated for eight variables, with 320 surveys distributed to accommodate potential non-response. After rigorous vetting, 240 completed surveys were included, utilizing carefully designed scales rated from 1 (not at all) to 5 (very often) to ensure validity and reliability, thus supporting robust statistical analyses and generating credible research outcomes.

3.4. Data Analysis
Data analysis in this study involved inspecting, cleaning, and interpreting data to draw insights and support research objectives. It included data preparation, descriptive statistics, Pearson's correlation, and linear regression to explore the impact of job outcomes on organizational performance, along with mediation analysis using Hayes Process to evaluate the workplace environment's role. SPSS v26 and data visualization ensured validity, reliability, and adherence to ethical standards. Reliability was measured through internal consistency, with Cronbach's alpha used to ensure that the tool consistently assessed the same construct, achieving a coefficient of 0.70 or higher for satisfactory reliability. Construct validity was established by defining a theoretical framework, reviewing literature, formulating items, seeking expert input, and conducting exploratory factor analysis and correlation checks. A comprehensive study examined the relationships between work engagement, job involvement, job satisfaction, and organizational performance, using correlation and regression analyses, including mediation analysis to reveal positive associations and significant effects. The workplace environment significantly and partially mediated these relationships, explaining 17.08% to 22.42% of the effects, highlighting its crucial role in enhancing organizational performance.

4. Results
4.1. Data Quality and Statistical Assumptions in Regression Analysis
Detecting and addressing outliers was crucial to ensure robustness and validity of the findings, and the dataset for this research study exhibited no outliers or missing values, enhancing the reliability of the statistical analyses and the overall integrity of the research findings. Linearity tests confirmed significant linear relationships between work engagement, job involvement, job satisfaction, and organizational performance, with non-significant deviations from linearity underscoring the stability of these connections. Homoscedasticity was validated through various plots and tests, indicating consistent error variance across independent variables. The independence of errors, crucial for reliable regression analysis, was affirmed using the Durbin-Watson statistic, with values indicating no autocorrelation, thus bolstering the credibility of the regression model. The normality assumption was satisfied as skewness and kurtosis values fell within acceptable ranges, ensuring the suitability of the data for analysis. Furthermore, the independence of independent variables was confirmed with variance inflation factor values below 1.2 and tolerance factors above 0.8, indicating no multicollinearity. This comprehensive attention to data quality and statistical assumptions strengthens the study’s findings and enhances the robustness and generalizability of the research outcomes.

4.2. Descriptive Analysis of the Sample
Research questionnaires were distributed across 52 pharmaceutical companies in Lahore to ensure a diverse and representative sample, including employees from various managerial functions and demographic distributions. The survey included 240 participants, with 193 identifying as male (80.4%) and 47 as female (19.6%), allowing for a detailed examination of gender dynamics using SPSS, coded as 1 for male and 2 for female. Participants also specified their highest educational attainment, with 48 individuals (20%) holding master’s degrees and 192 (80%) being graduates. Age data, collected across seven categories ranging from 26 to 60 years, showed that the predominant age group was 26-30 years (41.25%). Professional experience varied, with most participants having 6-10 years of experience (48.33%). The survey achieved a response rate of 84.69% from 320 targeted respondents, resulting...
in 271 participants from the 52 pharmaceutical companies, with 240 completed questionnaires included for analysis. Ensuring data validity, a meticulous process involving a pilot test and comprehensive reliability testing using SPSS v26 was followed. Reliability, measured by Cronbach's alpha values closer to 1.0, ranged from 0.711 to 0.837, reflecting satisfactory internal consistency. These values align with standards set by recognized psychological societies and scholars like DeVellis and Nunnally, who set a threshold of 0.70 for reliability. Specific reliability tests yielded alpha coefficients of 0.837 for work engagement, 0.757 for job involvement, 0.759 for job satisfaction, 0.792 for organizational performance, and 0.725 for the workplace environment, ensuring the findings are credible and aligned with established psychometric standards. This comprehensive approach enhances the robustness and generalizability of the research findings.

4.3. Analysis of Data
4.3.1. Descriptive Statistics, Reliability and Correlations Analysis
Table 1 provides information on the descriptive statistics, including the mean, standard deviation, which allows for an understanding of the data pattern. The simple correlations test was applied to see the association between a) work engagement, b) job involvement, c) job satisfaction (IVs), and organizational performance (DV) and intervening variable i.e. the workplace environment. This statistical analysis helped us to understand the effects of IVs on DV and the mediating influence of the intervening variable.
Table 1 exhibited the reliabilities for this study estimated α = .837 for work engagement (9 items, Mean= 4.1991, SD= .42651), α = .757 for job involvement (6 items, Mean= 4.2417, SD= .45782), α = .759 for job satisfaction (5 Items, Mean = 4.3500, SD= .51602), α = .825 for the workplace environment (10 items, Mean= 4.2037, SD= .38019), and α = .792 for organizational performance (15 items, Mean= 3.9731, SD= .30680).

Table 1: Means, standard deviations, correlations and reliabilities of work engagement, job involvement, and job satisfaction the workplace environment, and organizational performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>WE</th>
<th>JI</th>
<th>JS</th>
<th>WpE</th>
<th>OP</th>
</tr>
</thead>
<tbody>
<tr>
<td>WE</td>
<td>4.1991</td>
<td>.42651</td>
<td>(.837)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JI</td>
<td>4.2417</td>
<td>.45782</td>
<td>.065</td>
<td>(.757)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JS</td>
<td>4.3500</td>
<td>.51602</td>
<td>.141</td>
<td>.251</td>
<td>(.759)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WpE</td>
<td>4.2037</td>
<td>.38019</td>
<td>.171</td>
<td>.216</td>
<td>.186</td>
<td>(.825)</td>
<td></td>
</tr>
<tr>
<td>OP</td>
<td>3.9731</td>
<td>.30680</td>
<td>.329</td>
<td>.200</td>
<td>.220</td>
<td>.168</td>
<td>(.792)</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)
Note: N= 240. Alpha reliabilities are presented in parentheses. *p< .05, **p< .01

The analysis shows that factor loadings for both independent and dependent variables are highly statistically significant, consistently meeting or exceeding the 0.70 threshold. This confirms the reliability of the variables and supports robustness and trustworthiness of the measurement model and the overall analytical framework.

4.3.2. Results of Correlation Analysis
The r-values, or correlation coefficients, indicate the strength and direction of the relationship between two variables. A positive r-value suggests a positive correlation, meaning that as one variable increases, the other tends to increase as well. Conversely, a negative r-value indicates a negative correlation, implying that as one variable increases, the other tends to decrease. The magnitude of the r-value reflects the strength of the correlation, with values closer to 1 or -1 indicating a stronger relationship. As for the p-values, these play a crucial role in determining the statistical significance of the observed correlations. A p-value less than the chosen significance level (typically 0.05 or 0.01) suggests that the observed correlations are unlikely to have occurred by random chance. In other words, a low p-value provides evidence to reject the null hypothesis, indicating that the observed relationships are statistically significant.

The results of the present research reveal several noteworthy associations between key variables. Work engagement exhibits a stronger positive correlation with organizational performance (r = .329, p < .01), emphasizing on the pivotal role of engaged employees in fostering organizational success. Similarly, job involvement (r = .200, p < .01), and job satisfaction (r = .220, p < .01), all demonstrate positive and significant relationships with organizational performance, highlighting the importance of employee engagement, involvement, and satisfaction in contributing to enhanced organizational performance. These findings collectively underscore the multifaceted connections between employee attitudes and behaviours and the overarching success of the organization. The findings of the research study also highlight that work engagement exhibits a positive correlation with the workplace environment (r = .171, p < .01), emphasizing on the role of engaged employees in contributing to a positive workplace atmosphere. Similarly, job involvement (r = .216, p < .01), and job satisfaction (r = .186, p < .01), all demonstrate positive and significant relationships with the workplace environment, highlighting the influence of these factors on shaping a conducive and positive work setting. These findings collectively emphasize on the interconnectedness between employee attitudes and the broader work environment, emphasizing on the importance of fostering positive employee experiences for a healthier workplace.

The study discerns several other key associations among variables that a noteworthy positive and statistically significant relationship is identified between work engagement and job satisfaction (r = .141, p < .05), suggesting that heightened work engagement corresponds to increased job satisfaction. Despite a positive correlation between work engagement and job involvement, it is not statistically significant (r = .065, p > .05), implying a weak predictive connection between work engagement and job involvement. Moving to job-related variables, a positive and significant correlation is evident between job satisfaction and job involvement (r =
.251, \( p < .01 \), underscoring their interconnectedness. These nuanced associations shed light on the intricate dynamics among key variables, contributing valuable insights to organizational understanding.

**4.4. Testing of Hypotheses**

Grounded in an extensive literature review, this study formulated and tested ten hypotheses using data from 240 respondents across 52 pharmaceutical companies in Pakistan. Surveys were the primary data collection tool, and SPSS v26 was used for data analysis, employing descriptive statistics, Pearson correlation, linear regression, and Hayes Process mediation analysis. Regression analysis, key to this study, examined relationships between variables to assess the influence of independent variables on dependent ones. This robust analytical framework ensured methodological soundness, enhancing the study’s credibility and reliability.

**Figure 1: Path diagram indicating correlation between various constructs of theoretical model**

The path diagram illustrates the direct and indirect relationships of the independent variables (work engagement, job involvement, and job satisfaction) with the dependent variable (organizational performance) through the intervening variable (workplace environment). The \( \beta \) values, or regression coefficients, indicate the strength and direction of these relationships: A positive \( \beta \) value suggests a positive relationship, while a negative \( \beta \) value indicates a negative one. \( p \)-values determine the statistical significance of these relationships; a \( p \)-value below 0.05 or 0.01 suggests that the results are unlikely due to chance. Thus, \( \beta \) values reveal the nature and direction of relationships, while \( p \)-values confirm their statistical significance.

The path diagram illustrates impact of work engagement on organizational performance, represented by a \( \beta \) value of .329 and a significance value < .01, confirming a positive significant relationship (H1). Job involvement, with a \( \beta \) value of .200 and a significance value < .01, demonstrates a positive significant relationship with organizational performance (H2). Likewise, job satisfaction exhibits a positive significant relationship with organizational performance, supported by a \( \beta \) value of .168 and a significance value < .01 (H3). Furthermore, the workplace environment, with a \( \beta \) value of .186 and a significance value < .01, confirms a positive significant relationship with organizational performance (H4).

The impact of work engagement demonstrates a confirmed positive significant relationship with the workplace environment, as indicated by a \( \beta \) value of .171 and a significance value < .01 (H5). Job involvement, with a \( \beta \) value of .216 and a significance value < .01, demonstrates a positive significant relationship with the workplace environment, confirming H7. Job satisfaction also establishes a positive significant relationship with the workplace environment, supported by a \( \beta \) value of .186 and a significance value < .01 (H9). However, the validation of hypotheses based on indirect relationships was accomplished through regression analysis, as detailed in the subsequent paragraphs.

**4.5. Mediation Analysis**

**4.5.1. The Relationship of Work Engagement with Organizational Performance; Mediated by the Workplace Environment**

The study favours to assess whether the workplace environment mediates relationship between work engagement and organizational performance. Employing SPSS v26 and Hayes' PROCESS v4.2 (Hayes, 2017), the data underwent mediation analysis utilizing the bootstrapping method, following the guidelines of Preacher and Hayes (2008). Initial Pearson r Correlation results indicate positive associations among all variables. As per Table 1 and 2, work engagement significantly predicts organizational performance (\( \beta=2.364, \text{95\% CI [.1497, .3232], } p<.01 \)). Notably, the workplace environment significantly mediates this relationship (\( \beta=.0141, \text{95\% CI [.0004, .0355], } p \text{ remains significant} \)), explaining 17.08\% of the effect. However, work engagement retains a substantial positive direct effect (\( \beta=.2223, \text{95\% CI [.1347, .3099], } p<.01 \)), fully supporting H6. The findings indicate that employees exhibiting work engagement foster vigour, dedication, and absorption, consequently enhancing organizational performance.

**Table 2: Mediation model of work engagement with organizational performance through workplace environment**

<table>
<thead>
<tr>
<th></th>
<th>95% Confidence Interval</th>
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<tbody>
<tr>
<td></td>
<td>( \beta )</td>
</tr>
<tr>
<td><strong>Total Effect</strong></td>
<td>.2364</td>
</tr>
<tr>
<td><strong>Direct Effect</strong></td>
<td>.2223</td>
</tr>
<tr>
<td><strong>Indirect Effect</strong></td>
<td>.0141</td>
</tr>
</tbody>
</table>

Note: \( \beta = \text{Unstandardized Coefficient}, p < 0.01, \text{LL} = \text{Lower Limit}, \text{UL} = \text{Upper Limit}, \text{CI} = \text{Confidence interval} \)

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4.5.2. The Relationship of Job Involvement with Organizational Performance; Mediated by the Workplace Environment

The study favours to assess whether the workplace environment mediates relationship between job involvement and organizational performance. Employing SPSS v26 and Hayes’ PROCESS v4.2 (Hayes, 2017), the data underwent mediation analysis utilizing the bootstrapping method, following the guidelines of Preacher and Hayes (2008). Initial Pearson r Correlation results indicate positive associations among all variables. As per Table 1 and 3, job involvement significantly predicts organizational performance ($\beta$=.1339, 95% CI [.0500, .2177], p<.01). Notably, the workplace environment significantly mediates this relationship ($\beta$=.0189, 95% CI [.0013, .0439], p remains significant), explaining 21.55% of the effect. However, job involvement retains a substantial positive direct effect ($\beta$=.1150, 95% CI [.0297, .2003], p<.01), fully supporting H7. The findings suggest that employee job involvement enhances organizational performance through deep psychological and emotional connections.

Table 3: Mediation model of job involvement with organizational performance through workplace environment

<table>
<thead>
<tr>
<th></th>
<th>95% Confidence Interval</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>p</td>
</tr>
<tr>
<td>Total Effect</td>
<td>.1339</td>
<td>.0019</td>
</tr>
<tr>
<td>Direct Effect</td>
<td>.1150</td>
<td>.0085</td>
</tr>
<tr>
<td>Indirect Effect</td>
<td>.0189</td>
<td>Sig.</td>
</tr>
</tbody>
</table>

Note: $\beta$ = Unstandardized Coefficient, p $< 0.01$, LL = Lower Limit, UL = Upper Limit, CI = Confidence interval

4.5.3. The Relationship of Job Satisfaction with Organizational Performance; Mediated by the Workplace Environment

The study favours to assess whether the workplace environment mediates relationship between job satisfaction and organizational performance. Employing SPSS v26 and Hayes’ PROCESS v4.2 (Hayes, 2017), the data underwent mediation analysis utilizing the bootstrapping method, following the guidelines of Preacher and Hayes (2008). Initial Pearson r Correlation results indicate positive associations among all variables. As per Table 1 and 4, job satisfaction significantly predicts organizational performance ($\beta$=.1307, 95% CI [.0566, .2047], p<.01). Notably, the workplace environment significantly mediates this relationship ($\beta$=.0145, 95% CI [.0007, .0338], p remains significant), explaining 22.42% of the effect. However, job satisfaction retains a substantial positive direct effect ($\beta$=.1162, 95% CI [.0413, .1910], p<.01), fully supporting H9. The findings indicate that employees exhibiting job satisfaction foster positive behaviour and contentment, consequently enhancing organizational performance.

Table 4: Mediation model of job satisfaction with organizational performance through workplace environment

<table>
<thead>
<tr>
<th></th>
<th>95% Confidence Interval</th>
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<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>p</td>
</tr>
<tr>
<td>Total Effect</td>
<td>.1307</td>
<td>.0006</td>
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<tr>
<td>Direct Effect</td>
<td>.1162</td>
<td>.0025</td>
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<tr>
<td>Indirect Effect</td>
<td>.0145</td>
<td>Sig.</td>
</tr>
</tbody>
</table>

Note: $\beta$ = Unstandardized Coefficient, p $< 0.01$, LL = Lower Limit, UL = Upper Limit, CI = Confidence interval

5. Discussion

The regression coefficients, denoted as $\beta$ values, indicate the strength and direction of associations between independent and dependent variables. A positive $\beta$ value signifies a positive correlation, while a negative $\beta$ value denotes an inverse relationship. The significance of these relationships is assessed through p-values, with a p-value below 0.05 or 0.01 indicating statistical significance. Hypothesis 1 found a significant positive impact of work engagement on organizational performance ($\beta$ = .329, p < .01), aligning with studies by Waheed et al. (2017) and Markos and Sridevi (2010). Hypothesis 2 revealed that job involvement positively affects organizational performance ($\beta$ = .200, p < .01), corroborating Brooke et al. (1988). Hypothesis 3 established a positive link between job satisfaction and organizational performance ($\beta$ = .220, p < .01), consistent with Krishna et al. (2022). Hypothesis 4 found a significant positive impact of the workplace environment on organizational performance ($\beta$ = .168, p < .01), supporting Chandrasekar (2011). Hypothesis 5 showed that work engagement positively influences the workplace environment ($\beta$ = .171, p < .01), in line with Abun et al. (2021). Hypothesis 6 demonstrated that the workplace environment partially mediates the relationship between work engagement and organizational performance ($\beta$ = .0141, p < .01), validating Ren et al. (2021). Hypothesis 7 revealed that job involvement positively impacts the workplace environment ($\beta$ = .216, p < .01), agreeing with Raza et al. (2021). Hypothesis 8 confirmed that the workplace environment partially mediates the relationship between job involvement and organizational performance ($\beta$ = .0189, p < .01), supporting Ali et al. (2020). Hypothesis 9 found that job satisfaction positively affects the workplace environment ($\beta$ = .186, p < .01), consistent with Shuck and Wollard (2019). Hypothesis 10 showed that the workplace environment partially mediates the relationship between job satisfaction and organizational performance ($\beta$ = .0145, p < .01), aligning...
6. Conclusions, Implications and Summary

6.1. Conclusions
This study critically examines the complex relationships among employees' job outcomes—work engagement, job involvement, and job satisfaction—the workplace environment, and organizational performance within the pharmaceutical sector in Pakistan. It underscores the profound impact of these factors on organizational success, highlighting their interconnectedness and the pivotal role of a supportive workplace environment. The findings emphasize the strategic importance of fostering positive job outcomes and a conducive workplace culture to enhance overall organizational effectiveness. Furthermore, the study provides actionable insights for optimizing performance through targeted human resource management strategies and adaptive organizational practices tailored to the specific dynamics of the pharmaceutical industry. It contributes to organizational theory by empirically validating these relationships, offering practical implications for enhancing job outcomes and sustaining organizational success amidst evolving global business landscapes.

6.2. Limitations and Future Research Directions
The study provides crucial insights for pharmaceutical organizations in Pakistan, focusing on the impact of employees' job outcomes (work engagement, job involvement, and job satisfaction) on organizational performance. It emphasizes the mediating role of the workplace environment in these relationships. While findings align with hypotheses, acknowledging study limitations is essential. These include generalizability beyond the pharmaceutical sector in Pakistan, the cross-sectional design's constraints on causal inference, and the omission of variables like job design and leadership. Methodologically, diversifying data collection methods and enhancing sample size and response rates could strengthen future research. Moreover, exploring negative outcomes, controlling for external variables, and addressing cultural and demographic factors would offer a more nuanced understanding and application of findings in diverse organizational contexts.

6.3. Implications of the Study

6.3.1. Theoretical Implications
The research delves deeply into the intricate dynamics of the pharmaceutical industry, where the dual imperatives of delivering high quality services and achieving financial success are paramount. Highlighting the pivotal role of skilled employees as indispensable assets, as emphasized by Noor et al. (2020), the study demonstrates that the workplace environment critically shapes employees' job outcomes, thereby influencing organizational performance. It underscores that an optimal workplace environment acts as a catalyst, enabling employees to fully utilize their potential and demonstrate their capabilities effectively, while a negative or unsupportive environment can lead to social conflicts, negative attitudes, dissatisfaction, and increased turnover rates, all of which detrimentally impact organizational success. Furthermore, the research significantly enriches the organizational knowledge landscape within the pharmaceutical sector by providing a nuanced understanding of how various aspects of employees' job outcomes—such as satisfaction, commitment, and engagement—interact with the workplace environment to enhance overall organizational effectiveness. This comprehensive exploration transcends traditional boundaries, offering insights that contribute to theoretical frameworks like the Job Characteristics Model and Social Exchange Theory. By highlighting the mediating role of the workplace environment, the study advances theoretical discourse and offers practical guidance for organizational leaders aiming to improve performance through strategic management of work environments. It advocates prioritizing the creation of supportive workplace environments conducive to positive job outcomes, including enhancing job resources, reinforcing psychological contracts, and promoting positive work attitudes among employees. These recommendations align with contemporary theories in organizational behavior and human resource management, ensuring that organizational practices are grounded in empirical insights into the complex dynamics of employee satisfaction and performance. In conclusion, the research establishes a robust foundation for future studies in organizational dynamics within the pharmaceutical sector, providing an integrated framework that synthesizes theoretical advancements with practical applications. By elucidating the intricate relationships between employee job outcomes, workplace environments, and organizational success, the study offers invaluable insights essential for fostering sustained performance and growth in this specialized industry context.

6.3.2. Practical Implications
Effective organizational management is integral to driving business performance, requiring meticulous evaluation of employee suitability for their roles. Certain employees consistently demonstrate hard work, high motivation, and favourable performance, significantly contributing to organizational success. The study emphasizes the substantial impact of employees' job outcomes on overall organizational performance, with the workplace environment being a critical mediating factor. This research provides valuable guidance for creating a supportive workplace conducive to positive job outcomes, thereby enhancing overall performance. It advocates for initiatives to improve workplace environments, such as equitable treatment, adequate resources, diversity, inclusion, and safety. Training on positive work attitudes and employee engagement is also recommended to foster optimism and proactive behavior, enhancing both individual and organizational prosperity. The findings, though focused on the pharmaceutical industry in Pakistan, have broader implications, offering a comprehensive framework for organizations worldwide to refine their practices, enhance employee satisfaction, and achieve sustained success. Strategies like job design, employee involvement, and training on engagement for fostering job satisfaction and organizational performance. Employee growth opportunities and a supportive environment, are vital for organizational stability. Leadership strategies, such as investing in employee development and feedback mechanisms, are essential for organizational success. Cultivating a culture of recognition, well-being, and growth, as well as leveraging team dynamics, technology, and mentorship, further enhances performance. Proactive crisis and change management, flexible work arrangements, and fostering diversity and inclusion are also critical. The research underscores the importance of
sustainable talent management and cross-functional training, emphasizing environmental sustainability and community engagement. Encouraging innovation and leveraging predictive analytics for human resource excellence are highlighted as strategic approaches for organizational success.

6.3.3. Diverse Ramifications

The study significantly enhances the methodological landscape of organizational research by integrating various job outcomes—such as work engagement, job involvement, and job satisfaction—into a comprehensive framework that elucidates their collective impact on organizational performance. Through mediation analysis and an examination of the workplace environment as a mediator, the study reveals complex relationships within organizational structures, particularly in the pharmaceutical sector in Pakistan. This industry-specific focus tailors methodologies to unique characteristics, contributing to discussions on the generalizability of organizational studies. Employing quantitative methods, especially regression analysis, ensures a rigorous exploration of the dynamics between job outcomes, the workplace environment, and organizational performance. The practical implications provide actionable insights, encouraging future researchers to incorporate applied approaches.

Policy implications offer a strategic blueprint for organizations to enhance job outcomes and foster a conducive workplace environment, aiding policymakers in shaping policies for a healthy, productive workforce, thereby boosting economic growth. The research also ignites academic discourse by providing fresh perspectives on the intricate relationship between job outcomes and organizational performance, stimulating further research and discussion within organizational behavior, management, and human resource development. Highlighting the importance of a positive workplace environment in regulatory compliance within the pharmaceutical sector, the study guides companies to enhance employee satisfaction, engagement, and performance, contributing to industry-wide best practices. Nationally, the research offers guidance for refining workplace management practices that align with fostering a productive workforce, with implications for diverse industries. Internationally, it enriches global discussions on effective organizational management, advocating for universal principles of leadership and employee management, and encouraging global collaboration and partnerships. Aligning with several United Nations Sustainable Development Goals (SDGs), the study promotes sustained and inclusive economic growth, drives innovation, creates sustainable workspaces, and fosters multi-stakeholder partnerships, ultimately supporting a broader vision of sustainable and inclusive development.

6.4. Recommendations

The current research unveils substantial insights into organizational dynamics and lays the foundation for future studies by examining the interplay between employees' job outcomes, the workplace environment, and organizational performance. It paves the way for future investigations to refine and expand these relationships. The suggestions presented serve as a roadmap for guiding prospective research initiatives, aiming to cultivate a more sophisticated understanding of organizational dynamics, particularly in the pharmaceutical industry in Pakistan. Longitudinal studies are recommended to scrutinize changes and causal relationships over time, providing insights into the dynamic nature of the investigated variables. Global and industry comparative studies could explore analogous relationships in diverse settings, enhancing cross-cultural comprehension and generalizability. Employing mixed-methods research could offer a more comprehensive exploration of the factors influencing job outcomes and organizational performance. Future research could also delve into the impact of negative outcomes, such as employee burnout, on organizational performance. The effects of remote and hybrid work models on job outcomes and the workplace environment warrant further investigation, as do industry-specific factors that influence these relationships. Exploring job design and specific tasks can provide a deeper understanding of their impact on job outcomes and performance. Additionally, the role of employee demographics, such as age, gender, education level, and experience, in shaping these dynamics should be examined. Intervention studies and experimental designs could assess the effects of targeted organizational interventions on job outcomes and performance, offering practical recommendations for organizational leaders. Emphasizing strategic initiatives to enhance positive job outcomes can significantly boost organizational performance. The role of technology, including AI and IT, in shaping job outcomes and organizational performance, particularly the impact of technostress, is another critical area for future research. The comprehensive impact of job outcomes and the workplace environment on employee well-being, mental health, and psychological safety within teams should be explored to understand their influence on organizational success. Investigating how leaders navigate and facilitate adaptation during external crises, such as pandemics, can provide valuable insights into the impact of such events on job outcomes and performance. Finally, delving into the diverse cultural and demographic dimensions across different regions of Pakistan can enhance the understanding of how these factors influence employees' interactions with organizational management and supervisors, contributing to a more holistic evaluation of organizational dynamics within Pakistan's unique cultural context.

6.5. Summary of the Study

The research have a look at examined key elements influencing employees' task consequences and their effect on organizational performance, highlighting the essential position of organizational management in shaping a conducive workplace environment. This environment influences employees' self-concept and motivational factors, fostering engagement, involvement, and positive work attitudes, which are essential for high organizational performance. The study revealed that the workplace environment mediates the relationship between job outcomes and performance, underscoring the need for organizations to cultivate supportive settings to enhance job outcomes like work engagement, job involvement, and job satisfaction. These findings provide practical insights for organizations aiming to improve performance through strategic initiatives that address workforce needs, foster positive ethics, and promote professional behavior. In the competitive pharmaceutical industry in Pakistan, these insights are particularly valuable, emphasizing the importance of employee engagement, commitment, and retention to gain a strategic advantage. By implementing strategies that enhance employee participation and satisfaction, organizations can achieve higher productivity and success, leveraging the study's findings to address gaps and fortify overall industry performance.
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