



RESEARCH ARTICLE

Burnout to Brilliance: Elevating Bangalore's IT Sector with Psychological Capital, Stress Reduction, and Employee Well-being

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ABSTRACT

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This study aims to examine the effects of lower occupational stress, psychological capital, a supportive work environment, work-life balance, employee assistance programs (EAPs), and the social support of employees in the information technology (IT) sector in Bangalore. The interaction of these constructs of the study is analyzed while taking into consideration the job demands-resources (JD-R) model, conservation of resources (COR) theory, and self-determination theory (SDT) for a better understanding of their ultimate role in employee outcomes. The data were collected from 520 IT professionals and then presented statistically to assess the interrelationship between the variables. This analysis indicates that lower occupational stress is a factor that positively influences employee well-being and performance, with psychological capital and a work environment as crucial factors at play. Similarly, work-life balance, EAPs and social support appear to be important contributors to improved well-being and performance. Clearly, it is important for employees working under stressful conditions in high-pressure industries to effectively manage their stress levels and work environment to optimize employee outcomes.

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1. INTRODUCTION

The Indian information technology (IT) sector has emerged as a pillar of the nation's economy. It plays a significant role in contributing to GDP, creating employment opportunities and generating technology-driven growth (NASSCOM, 2021; Kumar, 2020; Srivastava Bhatnagar, 2018). Over the past two decades, India has solidified itself as a global hub for software services, IT-enabled services and business process outsourcing (BPO) and is now making significant strides in becoming a leader in emerging technologies such as artificial intelligence, machine learning and cloud computing (NASSCOM, 2021; Kumar, 2020; Srivastava Bhatnagar, 2018). Bangalore has emerged as the Silicon Valley of India and is home to many multinational corporations and a sprawling startup ecosystem

that is currently driving the most important changes in technology, economy and employment in the region (Srinivasan, 2021; Reddy Kumar, 2019; Balasubramanian, 2020). In addition to yielding GDP, jobs, a flourishing startup ecosystem and a robust export sector, the rapid growth of Bangalore's IT sector is rooted in the Indian economy's liberalization that began in the 1980s. These policies led to large-scale investment and the construction of vast IT parks such as the Electronic City and Whitefield, which lured global multinational corporations to the city (Aryan Kathuria, 2017; Sinha Dutta, 2020). Bangalore's IT sector's remarkable growth has come at a high cost. Along with steady economic and social growth, greater international competitiveness and lower costs of labor and goods, increased automation, globalization and a constant arms race with rivals have created challenges of sustainability and competitiveness for the IT sector (Sharma & Gupta, 2020; Banerjee, 2021; Sinha Dutta, 2020). The COVID-19 pandemic pushed more companies to rely on and accelerate the adoption of digital technology for managing operations while also dramatically reducing travel for companies and employees alike (Patil, 2020; Rajan Gopalakrishnan, 2020; NASSCOM, 2021). The health crisis also led to an emphasis on working from home, the digitization of office procedures and a greater focus on human wellbeing and work-life balance among IT companies (Verma Singh, 2019; Sahoo Rath, 2021). The near-total reliance on computers in the IT sector has also reshaped the definition of work and increased the pressure to continually upskill (Rao, 2020; Bhatia, 2018).

Human resource management for the IT sector in Bangalore often suffers because of the high-pressure working environment. Employees are usually faced with demanding deadlines, long working hours and self-learning to keep up with new technologies, which increase stress and extremely high levels of burnout. (Rao, 2020; Bhatia, 2018; Singh and Gupta, 2020) Indian culture is hierarchical and plays a significant role in shaping workplace conditions, leading to more stress and a reluctance to seek help in cases of mental health issues. The work environment in Bangalore's IT sector is further complicated by the stigma attached to taking mental health support. (Sharma and Gupta, 2020; Patel, 2021; Selvakumari et al., in press) It seems that the culture of extreme work is taking its toll in industry, as it has caused high turnover rates and increasing cases of mental health issues among employees. The issue of intense working culture is prevalent in this industry, with an ~32% turnover rate, and three in four young professionals suffer from mental health problems. This extremely high turnover rate can largely be attributed to occupational stress, poor work-life balance or a lack of interpersonal and social support, so these are critical areas for organizations.

To address these challenges, a multipronged approach is needed. Enhancing support solutions such as robust employee assistance programs (EAPs) can aid employees in taking care of their mental health needs and managing their stress levels (Sharma and Gupta 2020; Banerjee 2021; Sahoo and Rath 2021). Fostering psychological capital comprising self-efficacy, optimism, hope and resilience can drive positive mindsets, thereby helping employees cope with the exact environment of the IT sector and maintaining high levels of productivity (Sinha and Dutta 2020; Kumar 2020; M Patel 2021). Creating a supportive organizational culture to enhance work-life balance (meaningful leisure-time activities and social support) can help mitigate the impacts of occupational stress (Verma and Singh 2019; Reddy and Kumar 2019; Bhatia 2018). Leadership and management behaviors could provide a buffer against the psychosocial stressors of working in the IT sector. Transformational leadership and cognizance about employees' well-being are vital for reducing stress and job satisfaction among IT employees (Srinivasan 2021; Sharma and Gupta 2020). Companies investing in these domains stand to gain in improved employee engagement, retention and productivity (Patil 2020; Rajan and Gopalakrishnan 2020; Sahoo and Rath 2021).

Although Bangalore can be mapped to other cities that are hubs of the global IT industry (as we have mapped it to Silicon Valley, New York, and London), it has its own unique expressions that are different from those of its counterparts because of the influence of the socioeconomic environment, cultural expectations and infrastructure, which put employees and their family members in Bangalore in a very stressful situation. Additionally, attention to their mental health and well-being is of utmost importance since it not only improves occupational outcomes but also gives them a decent lifestyle. Moreover, attention to mental health and well-being by organisations goes beyond a moral duty, as it enhances not only employee performance but also employee retention. The potential benefits of investing resources in enhancing employees' mental health and well-being at work make

it a prudent strategy that has a positive effect on all within the organization (Verma and Singh, 2019; Sahoo et al., 2021).

Although a vast body of literature reflects the occupational life and well-being of employees in the global IT sector, the central question that remains unexplored is how the psychological capital (resilience, optimism, hope, self-efficacy), workplace environment, work organization, social support from others and their mental health and well-being interact with each other to influence their satisfaction, well-being and performance in the IT sector in India (especially Bangalore) (Patil, 2020; Chatterjee, 2020; Aryan and Kathuria, 2017; Sinha and Dutta, 2020). This study attempts to determine the relationships between these constructs and identify appropriate avenues that can enhance the well-being and performance of employees in the Bangalore IT ecosystem (Rajan and Gopalakrishnan, 2020; NASSCOM, 2021; Srinivasan, 2021). This study can help IT companies in Bangalore devise targeted interventions to increase well-being among employees, reduce turnover and increase organizational productivity (Sinha and Dutta, 2020; Kumar and Singh, 2021).

2. REVIEW OF RELATED LITERATURE

2.1 Theoretical background

This study is guided by three established theories that provide the theoretical basis for explaining the relationships among the main constructs of occupational stress, psychological capital, work environment, work–life balance (WLB), employee assistance programs (EAPs), social support, employee well-being and performance. These theories provide the theoretical underpinnings for the empirical exploration of IT employees' experience in the ultrapowerful tech industry in Bangalore.

2.1 Job demands-resources (JD-R) model

At the core of the fit model is the job demands-resources (JD-R) model. According to the seminal paper by Bakker and Demerouti in 2007, 'job demands are [informed by] the extended job demands model that refers to] physical, social, or organizational aspects of the job that require sustained physical or mental work efforts and are therefore associated with certain physiological and psychological costs.' In contrast, job resources – such as social support, autonomy and opportunities for development – according to the JD-R model 'facilitate achievement and better coping with job demands' and ensure 'psychological and physiological well-being, stimulate personal growth, and development, and motivate effective work performance.' In the present study, we conceptualize occupational stress as a core job demand at the heart of wellbeing and performance, whereas psychological capital, the social context and social support at work constitute important job resources. This model is well suited for understanding the relationship between employed Indian IT workers' wellbeing and performance while attempting to balance their stressors with the optimal use of resources, given the intense job demands that emerging IT practitioners often face in the highly vibrant IT industry of the Silicon Valley of India. The Bangalore region now seamlessly forms part of a global market. JD-R captures the spirit of what transpires in a modern workplace during normal conditions (Schaufeli and Taris, 2014), emergencies and crises (Holmes, Bakker and Ng, 2015). Developed in the mid-2000s, the model has since become one of the most widely applicable and validated resource investment models in the field (Lesener, Gusy and Wolter, 2019; Bakker and De Vries, 2021; van Wingerden, Derks and Bakker, 2018).

2.2 Conservation of resources (COR) theory

Conservation of resources (COR) theory proposes that people strive to protect and preserve resources to minimize stress. According to COR theory, precious resources are those things that individuals are willing to expend energy to acquire, retain and protect. Such resources include psychological capital, which involves 'the motivation or hopefulness that individuals have to engage with a task' and 'the individual's sense of self-efficacy—their ability to set and reach goals to fight off adversity and sustain determination in the face of opposition' (Hobfoll, 1989). When individuals lose or are threatened by precious resources, they experience stress, which decreases well-being and performance (Hobfoll, 2001). Here, we apply COR theory to describe how psychological capital and social support buffer against the harmful effects of occupational stress and, in turn, maximize the wellbeing and performance of IT employees. COR theory applies particularly in environments that place high demands on employees. The IT sector in Bangalore is very demanding (Halbesleben et al.,

2014), and young workers are vulnerable because they enter the IT sector looking for good prospects but end up experiencing stress. When stakes are high, emotional and physical demands squeeze the buffer between occupational stress and peril (Halbesleben et al., 2014). Recent research findings have applied COR theory to diverse organizational environments, including high-stress environments in modern organisations. Specifically, COR theory combines well with social exchange theory and self-efficacy theory when applied to the construct of resource loss (Chen et al., 2018; Kroon et al., 2021; Huang et al., 2022).

2.3 Self-determination theory (SDT)

Self-determination theory (SDT) explains that human motivation is based on fulfilling three innate, basic psychological needs: autonomy, competence and relatedness (Deci & Ryan, 2000). When these needs are met, people experience higher levels of intrinsic motivation, well-being and job satisfaction (Ryan & Deci, 2000). This study applies SDT to analyze how supportive workplace environments and work–life balance in Bangalore's booming IT sector can fulfill the psychological needs of workers and enhance employee well-being and performance. The theory helps understand how organizational workplace practices can be designed and structured such that they optimize employee engagement and well-being by meeting the psychological needs for autonomy, competence and relatedness (Gagne & Deci, 2005). Findings from recent empirical studies of SDT in workplace settings have emphasized its importance in enhancing employee engagement and well-being in different organizational contexts (Slemp Kern Vella-Brodrick, 2020; Broeck & Gagne, 2019; Gagne & Broeck, 2020). When these needs for autonomy, competence and relatedness are met, this, in turn, improves productivity and retention in organisations across the IT sector (Deci & Ryan, 2004; Gagne, 2018).

Specifically, operationalization involves the precise measurement of these constructs through the use of already developed and established scales supported by theoretical foundations. Occupational stress is considered a key job demand and is measured by situations in which it occurs more frequently and intensely (e.g., workload, time pressure, role conflict) via validated measurement tools such as the Job Content Questionnaire (ASEK 1985) and the Perceived Stress Scale (Cohen et al. 1983). Psychological capital is related to four states of mind, including self-efficacy, resilience, optimism and hope, and is operationalized as a key personal resource that buffers against the experience of work pressure; it is measured via the Psychological Capital Questionnaire (PCQ) developed by Luthans et al. (2007), which is in line with COR theory. The workplace environment, including the physical and social aspects of the work environment, is considered a job resource and is operationalized by the use of domains such as autonomy, supervisor support, and team cohesion, which are measured with instruments such as the WES by Moos (2008), in line with SDT, for its role in fulfilling people's psychological needs. EAPs and social support are considered additional job resources and are measured by survey questions on EAP awareness, accessibility and use, as well as employee-reported social support from colleagues and supervisors via tools such as the MSPSS by Zimet et al. (1988). Finally, employee wellbeing and performance are measured via standardized tools such as the UWES by Schaufeli et al. (2006) and by organizations' performance appraisals, which include measures of productivity, quality of work, and overall job effectiveness in operationalizing occupational stress and job resources in employees' work outcomes.

Conceptual framework

The theoretical conceptualization reveals a phenomenological association linking lower levels of occupational stress with psychological capital, physical environmental conditions, statutory and workplace EAPs, social support at work and work–life balance, and the influence of these factors combined to cocreate employee wellness and performance in the private IT sector in Bangalore. The conceptual integration adopts the JD-R model, COR theory and SDT to theorize how these constructs influence, trigger and trigger one another to impact the dependent constructs of employee wellness and performance.

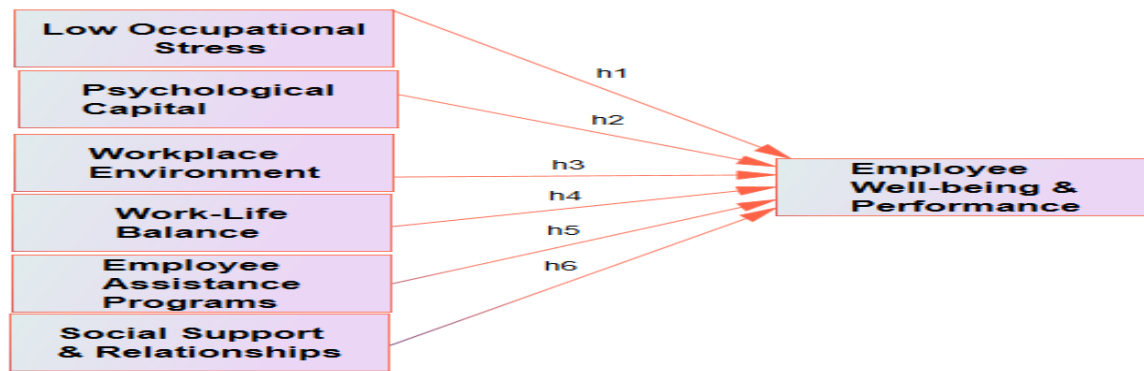


Figure 1: Conceptual framework

Source: Author's own conceptual framework based on the review of related literature.

3.1 Lower levels of occupational stress

As an optimal level of occupational stress has been recommended for high employee wellbeing and performance, it is even more critical in high-stress occupations and working environments. For the JD-R model, lower job demands are linked to lower strain and greater health and productivity when job resources and/or demands are decreased or managed well (Bakker & Demerouti, 2007). Hence, for the IT industry, where job stressors such as intense workloads and tight deadlines pose significant mental health challenges and even suicide threats among employees, lowering job stress can help improve mental health and work outcomes to a great extent. Related empirical studies in the business world have further reinforced that lower and manageable organizational and occupational stress levels result in higher job satisfaction, lower burnout, and better overall job performance (Bakker et al., 2020; Lesener, Gusy, & Wolter, 2019; Van den Heuvel et al., 2020).

Hypothesis 1 (H1): Lower levels of occupational stress are positively associated with employee well-being and performance in the IT sector.

3.2 Psychological capital

Psychological capital, composed of self-efficacy, optimism, hope and resilience, is an important personal resource that improves employee wellness and work performance. High levels of psychological capital serve people well at work through their capacity to cope with and maintain positive outcomes in the face of adversity (Hobfoll, 2001; Luthans, Youssef, Avolio, 2007). One of the ways COR theories has led to practical research thus far is that, in a low occupational stress environment, psychological capital augments work engagement and performance (Avey, Reichard, Luthans, & Mhatre, 2011). Research has demonstrated that psychological capital not only alleviates stressors but also leads to greater engagement and performance at work, particularly in low-stress occupational environments. This has been demonstrated in health professionals, sales professionals, business school professors and students. (Dawkins et al., 2018; Newman et al., 2014; Kim & Beehr, 2018).

Hypothesis 2 (H2): Higher levels of psychological capital are positively associated with employee well-being and performance in the IT sector.

3.3 Workplace environment

Being in a positive and resource-rich workplace with a supportive supervisor, high job autonomy and cohesive teams enable sustained wellbeing and performance among employees. According to the JD-R model, these work environment resources contribute to increased job satisfaction and performance when day-to-day job demands are low (Bakker & Demerouti 2007). Being in a supportive and resource-rich work environment can, in turn, reduce stress even more, further improving wellbeing and high performance (Nielsen et al. 2017; Van den Heuvel et al. 2015). Recent studies have also demonstrated that supportive environments are a critical resource in promoting engagement and lowering turnover in challenging work environments such as IT (Sonnentag & Frese 2012; Bakker & De Vries 2021).

Hypothesis 3 (H3): A supportive workplace environment is positively associated with employee well-being and performance in the IT sector, especially under conditions of low occupational stress.

3.4 Work–life balance

Increasing work–life balance contributes to employees being able to manage their work and family–life demands, which in turn contributes to employee wellbeing and higher performance. SDT emphasizes that for employee motivation and well-being, basic psychological needs related to autonomy, competence and relatedness must be fulfilled (Deci & Ryan, 2000). At lower levels of occupational stress, employees have greater control and ability to ensure work–life balance. Improved work–life balance has been associated with increased employee job satisfaction and performance (Ryan & Deci, 2000). Recent empirical work provides some of the first evidence that work–life balance improves wellbeing and job performance in high-demand, high-stress professionals working in the information technology industry. Across a series of empirical studies, evidence has shown that having control over work and nonwork demands through work–life balance reduces stress and improves well-being and job performance (Haar et al., 2014; Lunau et al., 2018; Chen & Fellenz, 2020).

Hypothesis 4 (H4): Better work–life balance is positively associated with employee well-being and performance in the IT sector.

3.5 Employee assistance programs (EAPs) and social support

Instead, it helps employees develop access to EAPs and social support, which can also lead to better outcomes. When these factors are coupled with low occupational stress, the JD-R model and COR theory predict that workers will experience better psychological and physical well-being at work. Access to both EAPs and social support can improve employment outcomes if occupational stress is low because managers are a 'critical resource', directly or indirectly affecting employees' wellbeing (Bakker and Demerouti, 2007; Hobfoll, 2001). In the IT sector, EAPs and social support resources act as a 'buffer' and further promote wellbeing and performance, thereby fostering a resilient, productive workforce (Noblet and Rodwell, 2009; Zimet et al, 1988). More recent research has demonstrated that these psychological resources are particularly effective at reducing stress and improving workers' job satisfaction and performance, specifically when some level of occupational stress is present (Thomas and Lankau, 2009; Bowling et al, 2010; Sonnentag et al, 2017).

Hypothesis 5 (H5): Access to employee assistance programs (EAPs) and strong social support are positively associated with employee well-being and performance in the IT sector.

3.6 Employee well-being

Well-being represents employees' overall psychological wellness, with higher levels associated with task performance, job satisfaction and lower turnover intentions (Schaufeli et al, 2006; Taris & Schaufeli, 2015). Lower occupational stress, coupled with high levels of psychological capital, workplace-supportive learning environments, good work–life balance, access to EAP and social support, in the IT sector was expected to significantly increase well-being. Well-being is currently seen as having a strong positive relationship with work, generating greater engagement, better performance and lower absenteeism, along with positive mental health and life satisfaction (Sonnentag & Frese, 2012; Schaufeli, 2017; Bakker & De Vries, 2021).

Hypothesis 6 (H6): Employee well-being is positively associated with job performance in the IT sector, particularly when occupational stress is low.

3.7 Employee performance

The dependent construct of employee performance is the last construct in this chain of relationships and is directly impacted by occupational stress, psychological capital, the work environment, work–life balance, and social support. Performance is typically measured by the amount of production, quality of work delivered, or organizational goals that have been met on a short- or long-term basis. Research has shown that employees with lower levels of stress and who have higher levels of well-being are more productive, more engaged, and produce work of higher quality (Bakker et al., 2020;

Sonnentag and Frese, 2012). Furthermore, psychological capital and supportive work environments are also key contributors to sustained performance, especially in more complex and demanding professions such as the IT area (Luthans et al., 2007; Schaufeli, 2017; Kim and Beehr, 2018).

4. RESEARCH METHOD

4.1. Research design

The research study adopts a quantitative survey-model approach and aims to understand the influence of different independent variables, which contribute to employee well-being and performance, in the IT sector in Bangalore. Factors such as occupational stress (OCS), psychological capital (PYC), the workplace environment (WPE), work-life balance (WLB), employee assistance programs (EAPs), and social support and relationships (SSRs) are the independent variables that form the basis for the study. Bangalore is not only the 'Silicon Valley of India' but also a serious contender in the global IT space. It is home to 1,000+ IT companies, with IT exports valued at 196.37 billion (NASSCOM, 2022). The Bangalore is an apt location for studying such phenomena, as it allows us to understand the dynamics of a rapidly evolving tech ecosystem in Asia. Within this space, the impact on national and global markets also deserves serious consideration. The city was rationalized for our study because of its favorable population concentration (over four million in Bangalore alone) and the representation of leading IT companies. Ensuring that the selected sample represents the overall population of IT employees and households was based on our inductive reasoning. We selected a sample of five major IT companies, based on revenue, number of employees, and market stature, from the top 1,000+ companies in Bangalore. This ensures that a representative sample is representative while retaining heterogeneity and diversity. The reliability of our findings also holds true in other similar contexts. Strategic random sampling, where different strata of a population, such as age, gender, and job levels, were accounted for, was used. This method of sampling minimizes bias that may arise in the sampling process, given that individuals' circumstances are unequal and not presumed to be represented in a general population (Creswell, 2014). A sample of 520 respondents was selected on the basis of the requirements of structural equation modeling (SEM), following a mixed method approach that considers the entire spectrum, from initial hypotheses to the final analysis and validation stages (Kline, 2015; Hair et al., 2010).

4.2. Methods of research data collection

For this study, primary and secondary data were collected to determine the level of employee wellbeing and performance in the IT firms in Bangalore. For the primary data collection aspect, a structured online survey questionnaire was administered to 520 respondents. The structured online questionnaire was distributed via email and corporate intranets to achieve the maximum response rate. In doing so, data from employees are likely relevant to the IT firms in Bangalore. To ensure reliability and genuine response from the participants, consent was obtained from all the participants. In line with the suggestions of Bryman and Bell (2011), this study considered it ethical to use a digital platform for data collection. Using the digital platform allowed for a greater sample size, geographical reach, and age bracket. This increased the representation of the sample (Dillman, 2000; Evans & Mathur, 2005). In terms of secondary data, academic journals, industry reports and other data were collected to obtain information on the theoretical framework and to understand the background of the IT firms and the challenges faced in the city of Bangalore.

4.3.1. Sampling technique

Stratified random sampling was used as a sampling technique, and its probability sampling permits representation of the major segments of the population. These are the level of jobs, age, gender, etc., and are proportionately found in the sample. The nature of the study represents the major segments of the population, which also increases the precision and reliability of the sampling. It relies on stratified sampling proportional to the representation of all subgroups. Stratifying sampling effectively in diverse populations makes the sample more representative and hence produces more generalized results (Etikan et al, 2016). Stratified sampling is most suitable for this study of a large population such as the IT workforce.

4.3.2. Sample size

The minimum size of the sample needed, as suggested by power analysis, for this cross-sectional study was 520, given the complexity of conducting the present analysis (variances and covariances) and the use of SEM, which has strict requirements in terms of sample size to achieve the stability and interpretability of models (Kline, 2015; Hair et al., 2010). The sample size is much above the recommended minimum for SEM and ensures adequate statistical power in the analysis and interpretation of data without exaggerating their strength (Roscoe, 1975; Cochran, 1977). Thus, a sample size of 520 guarantees the minimum statistical power necessary to test all the research hypotheses proposed in this study.

4.4. Measurement scales of the dependent and independent variables

In this study, all the constructs were measured on a five-point Likert scale from 'strongly disagree (1)' to 'strongly agree (5)'. This scale is used to collect nuanced employee attitudes and behaviors effectively. All the scales were adapted from the validated measure to ensure that all the constructs were more reliable and validated. The OCS scale was adapted from Karasek's Job Content Questionnaire (1985), PYC from Luthans et al. (2007), WPE from Moos (2008), WLB from Carlson et al. (2000), EAP from Milne et al. (2007), and SSR from Zimet et al. (1988).

4.5. Data analysis

The data were analyzed via structural equation modeling (SEM) with IBM SPSS AMOS software. First, various descriptive statistics were checked for missing values and the distributional normality of the data. Distributional normality refers to the congruency between the observed data and the mean and standard deviation. Second, validity checks were conducted for the measurement model to ensure its reliability. Third, overall validity analysis was performed via average variance extracted (AVE) for convergent validity and via the Heterotrait–Monotrait (HTMT) ratio for discriminant validity; the higher the AVE and HTMT values are, the greater the validity of the constructs (Fornell & Larcker, 1981; Henseler et al., 2015). Reliability checks were conducted for all the items via Cronbach's alpha and composite reliability. Bootstrapping was used to check the significance of the findings for the purpose of inferential statistics (Podsakoff et al., 2003; Ringle et al., 2012). Checks for common method bias were conducted utilizing the latent common method factor. A variance check was performed to ensure that Heywood cases were avoided. Check path significance was used to determine the direct and indirect impacts of the independent variables on employee well-being and employee performance.

5. DATA ANALYSIS

5.1 Demographic analysis

Table 1: Demographic profile of the respondents

Variable	Category	Frequency n=520	Percent
Gender	Male	150	28.90
	Female	370	71.10
Age	Below 30 Years	224	43.08,
	31-45 years	186	35.77
	Above 45 years	110	21.15
Education	Arts & Science	158	30.38
	Engineering	272	52.31
	Others	90	17.31
Level	Junior 1-5 years	170	32.70
	Middle - 5-10	253	48.70
	Senior - 10 + years	97	18.70
Monthly Income	below Rs.50,000	164	31.50
	Rs.50,001 - Rs 1 Lakh	192	36.90
	Rs 1 Lakh - Rs.2,50,000	114	21.90
	Above Rs.2,50,000	50	9.60

Source: Author's analysis based on survey data.

The distribution of demographic information is presented in Table 1. This table ensures the generalizability of the findings by providing information on the demographic characteristics of the respondents within the study. A greater percentage of females responded (71.10%), with the majority of respondents being young professionals (43.08%) under the age of 30 years, followed by respondents between the age groups of 31–45 years (35.77%). Since this IT industry usually involves technical roles with IT-related job requirements in Bangalore, the background majority of the respondents hold engineering qualifications (52.31%) due to the technical nature of the job. Furthermore, the distribution of professional experience is well spread, where middle-level experience (employees with 5--10 years of experience) constitutes the most significant percentage (48.70%), indicating the mature age of workers with substantial work exposure in the industry. Table 1 shows the distribution of the income earned by employees, with a significant majority of respondents belonging to the Rs 50,001--1 lakh income group (36.90%). These variables, which cater to the demographics of the employees working in the IT industry, are relevant to the study, as they provide an overview of the characteristics of the workforce that might influence the level of occupational stress, psychological capital, workplace environment and general well-being, enabling researchers to conduct effective interventions aimed at improving employee performance in the IT industry.

5.2 Normality assessment

Normality tests are performed to ascertain the degree to which a dataset conforms to a normal distribution. Normality is important because many common statistical analyses, including parametric methods such as regression and SEM, assume normally distributed data. Moreover, normality tests check the assumptions that underpin these analyses, ensuring that the results are of high quality and reliability. Normality is tested with skewness and kurtosis values: negative skew (-) or positive skew (+); and platykurtic (-), mesokurtic (0) or leptokurtic (+). At the extreme, values ± 3 would indicate a skewed distribution, whereas values ± 2 would currently be considered a normal distribution (Field, 2013; Tabachnick Fidell, 2013).

Table 2: Normality assessment

Constructs	Mean	SD	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Occupational Stress	3.3971	1.02537	-.788	.151	.235	.301
Psychological Capital	3.2625	1.02318	-.415	.151	-.256	.301
Workplace Environment	3.1654	.99785	-.327	.151	-.329	.301
Work-Life Balance	3.3308	.96798	-.501	.151	.055	.301
Employee Assistance Programs	3.4933	1.01090	-.655	.151	.127	.301
Social Support & Relationships	3.2308	.98425	-.508	.151	-.069	.301
Employee Well-being & Performance	3.1990	.97905	-.471	.151	-.078	.301

Source: Author's analysis based on survey data

Table 2 describes the data normality for three key constructs (occupational stress, psychological capital and workplace environment). To assess normality, the values of skewness and kurtosis determine whether the data are normal because the skewness and kurtosis values are between -1 and +1 during normal distribution and are trustworthy for the model.

As we can see in Table 2, all the missing values have ratings of skewness and kurtosis within the thresholds of -1 and +1. Occupational stress, for example, has values of skewness at -0.788 and kurtosis at 0.235. This finding suggests that the data are derived from a normal distribution with some slight negative skew but are actually normal (Kim, 2013). Psychological capital has a skewness value of -0.415 and kurtosis value of -0.256, which falls within the normal distribution. Moreover, similar values for other constructs are displayed in Table 2. Therefore, these values exempt the author from using a normality check for this particular study. Hence, only parametric statistical tests have been applied to achieve promising outcomes, and the results can be generalized to the specific population from which the research was conducted (George & Mallery, 2010; Kline, 2015). The extent of normality for the corresponding constructs supports the reliability of the following statistical method. This implies that there is no need for any corrections in the measurements regarding the skewness and kurtosis. Values such as pre-assigned thresholds and normally distributed derived

data are considered primary requirements for computing the reliabilities and validities of variables (Byrne, 2016; Hair et al., 2010).

5.3 Assessment of factor validation

The quality criteria of the constructs are pertinent for checking the reliability and validity of the measurement model under consideration. For this purpose, factor loadings, average variance extracted (AVE), composite reliability (CR) and Cronbach's alpha for each latent construct need to be examined. The factor loadings are used to investigate the relationships between the observed and latent constructs. If it is above 0.7, the observed variables are strongly correlated with the construct they represent (Hair et al., 2010). The AVE, on the other hand, shows the proportion of variance captured by the construct compared with the variance due to error. The AVE must be greater than or equal to 0.5 to indicate good convergent validity (Fornell & Larcker, 1981). CR and Cronbach's alpha focus on internal consistency, and an alpha over the range of 0.7 shows acceptable reliability (Nunnally & Bernstein, 1994).

Table 3: Quality criteria of the constructs

Latent Variable (O)	Item	Mean	Standard Deviation	Factor Loading	AVE	CR	Cronbach's Alpha
Occupational Stress (OCS)	OCS1	3.397	1.025	0.790	0.614	0.864	0.935
	OCS2			0.800			
	OCS3			0.769			
	OCS4			0.775			
Psychological Capital (PYC)	PYC1	3.262	1.023	0.721	0.529	0.817	0.914
	PYC2			0.724			
	PYC3			0.789			
	PYC4			0.670			
Workplace Environment (WPE)	WPE1	3.165	0.997	0.769	0.655	0.884	0.944
	WPE2			0.830			
	WPE3			0.835			
	WPE4			0.802			
Work-Life Balance (WLB)	WLB1	3.330	0.967	0.680	0.501	0.750	0.878
	WLB2			0.660			
	WLB3			0.778			
	WLB4						
Employee Assistance Programs (EAP)	EAP1	3.493	1.010	0.778	0.599	0.857	0.932
	EAP2			0.794			
	EAP3			0.746			
	EAP4			0.777			
Social Support and Relationships (SSR)	SSR1	3.230	0.984	0.746	0.666	0.888	0.946
	SSR2			0.843			
	SSR3			0.837			
	SSR4			0.834			
Employee Well-being and Performance (EWP)	EWP1	3.200	0.979	0.694	0.549	0.829	0.919
	EWP2			0.767			
	EWP3			0.784			
	EWP4			0.714			

Source: Author's analysis based on survey data

Table 3 lists the quality criteria for the latent variables in the proposed study. The factor loading values of all the items across OCS, PYC, WPE, WLB, EAP, SSR and EWP are strong, ranging from 0.660-0.843, thus establishing that the observed variables are strongly correlated with their respective constructs, thereby demonstrating construct validity (Hair et al., 2010). First, occupational stress (OCS) has an excellent composite reliability (CR) value of 0.864 and a characteristic Cronbach's alpha value of 0.935, thus establishing its internal consistency. Additionally, the average variance extracted (AVE) of 0.614 for the OCS meets the adequacy criterion of more than 0.5 suggested by Fornell and Larcker (1981) and establishes the convergent validity of the construct. Similar satisfactory reliability was observed with respect to Psychological Capital (PYC), with values of 0.817 and 0.914

for the CR and Cronbach's alpha values, respectively. Moreover, the PYC value of 0.529 shows that it captures more than half of the variance, thereby establishing the convergent validity of the construct. Finally, the quality criteria were met, with workplace environment (WPE) values of 0.655, 0.884 and 0.944 for the AVE, CR and Cronbach's alpha, respectively. Thus, satisfactory values for composite reliability are established, confirming its ability to differentiate it from other constructs. Similarly, the other constructs in the model, Work-Life Balance (WLB), Employee Assistance Programs (EAPs), Social Support and Relationships (SSR), and Employee Well-being and Performance (EWP), also have more than adequate values for the AVE, CR and Cronbach's alpha values. Thus, the satisfactory reliability of these latent variables indicates the excellent plausibility of the measurement model, which is known to translate to the robustness of the findings (Byrne, 2016).

5.4 Validity assessment

This ensures that the constructs in a study indeed measure exactly what they name. The methods most commonly used to assess discriminant validity are the heterotrait–monotrait (HTMT) ratio and the Fornell–Larcker criterion. HTMT measures the correlation between the measures of different constructs. If this correlation has a value lower than 0.85, the discriminant validity can be considered good (Henseler et al., 2015). The Fornell–Larcker criterion compares the square root of the AVE and inter-construct correlations. If the first one is larger, discriminant validity is present (Fornell & Larcker, 1981).

Table 4: Validity assessment of the HTMT and Fornell Larcker criteria

Con	CR	AVE	MSV	MaxR (H)	OCS	PYC	WPE	WLB	EAP	SSR	EWP
OCS	0.864	0.614	0.485	0.864	0.784						
PYC	0.817	0.529	0.479	0.817	0.652	0.727					
WPE	0.884	0.655	0.393	0.884	0.553	0.626	0.810				
WLB	0.750	0.501	0.410	0.750	0.575	0.640	0.476	0.708			
EAP	0.857	0.599	0.441	0.857	0.697	0.569	0.580	0.631	0.774		
SSR	0.888	0.666	0.441	0.888	0.587	0.576	0.480	0.603	0.614	0.816	
EWP	0.829	0.549	0.479	0.829	0.638	0.692	0.628	0.614	0.620	0.623	0.741

Source: Author's analysis based on survey data

Table 4 confirms the discriminant and convergent validity of all the constructs on the basis of both the HTMT ratio and the Fornell–Larcker criterion. The reported composite reliability (CR) values of 0.750 to 0.888 for all the constructs are above the typically accepted value for good internal consistency of ≥ 0.6 . The reported AVE values for all the constructs are greater than 0.5, as recommended by Fornell and Larcker, confirming convergence between the measures. In addition, the square roots of the AVE of each construct (e.g., 0.784 for OCS and 0.727 for PYC) are greater than the correlations between constructs, thus suggesting good discriminant validity on the basis of the Fornell–Larcker criterion (as recommended by Hair et al. 2010). Discriminant validity is also supported by the HTMT values, which are less than 0.85 for all construct pairs, as suggested by Henseler et al. (2015). For example, the HTMT value between OCS and PYC is limited. 652. Overall, these results demonstrate that the constructs do not overlap and that the choice of measures is appropriate, thus supporting the validity of our study's findings. Our measurement scales are therefore valid and reliable according to Kline (2015).

5.5 Model fit assessment

Equally important are the model fit measures that assess how well the statistical model describes the data; they include the indices CMIN/DF, CFI, NFI, GFI, TLI, SRMR and RMSEA, and PClose (two-tailed). Meeting the minimum thresholds set for these indices ensures that the resulting model is not only statistically significant but also substantive and reliable, as required by researchers to make meaningful inferences from the analysis (Kline, 2015; Hu and Bentler, 1999).

Table 5: Model fit measures

Measure	Estimate	Threshold	Interpretation	Citation
CMIN	835.86	--	--	(Byrne, 2010)
DF	329	--	--	(Kline, 2015)
CMIN/DF	2.54	Between 1 and 3	Excellent	(Marsh & Hocevar, 1985)

CFI	0.950	>0.95	Excellent	(Hu & Bentler, 1999)
NFI	0.960	>0.95	Excellent	(Bentler & Bonett, 1980)
GFI	0.920	>0.90	Acceptable	(Jöreskog & Sörbom, 1984)
TLI	0.955	>0.95	Excellent	(Tucker & Lewis, 1973)
SRMR	0.038	<0.08	Excellent	(Hu & Bentler, 1999)
RMSEA	0.045	<0.06	Excellent	(Steiger, 1990)
PClose	0.070	>0.05	Excellent	(Jöreskog & Sörbom, 1993)

Source: Author's analysis based on survey data

Table 5 also presents model fit indices. The CMIN/DF is 2.54, which is between 1 and 3. This means that the model fits at an excellent level (Marsh & Hocevar, 1985). The CFI is 0.950, and the NFI is 0.960, which is greater than 0.95 and indicates good model fit (Hu & Bentler, 1999; Bentler & Bonett, 1980). The GFI is 0.920, which slightly exceeds the acceptable threshold of 0.90, indicating that the model specification is adequate (Joreskog & Sorbom, 1984). The TLI is 0.955, indicating excellent fit, and the SRMR is 0.038, which is much below the threshold of 0.08, reflecting good model fit (Tucker & Lewis, 1973; Hu & Bentler, 1999). The RMSEA is 0.045, and PClose is 0.070; both of these indices are excellent fits (Steiger, 1990; Joreskog & Sorbom, 1993). The table above shows that the model is properly specified and can provide good quality and accurate data.

5.6 Hypothesis testing

Hypothesis testing is the primary method used in statistics to examine the relationships among the measurements in a study. The purpose of the SEM approach is to evaluate the strength and significance of the paths between constructs. The hypothesis is ACCEPTED: if C.R. > 1.96, p < 0.05 indicates a statistically significant relationship. For this reason, executing at least 300 participants, which is the minimum number for structural equation modeling, is crucial to ensure that the results are obstinate and informative (Byrne, 2010; Kline, 2015).

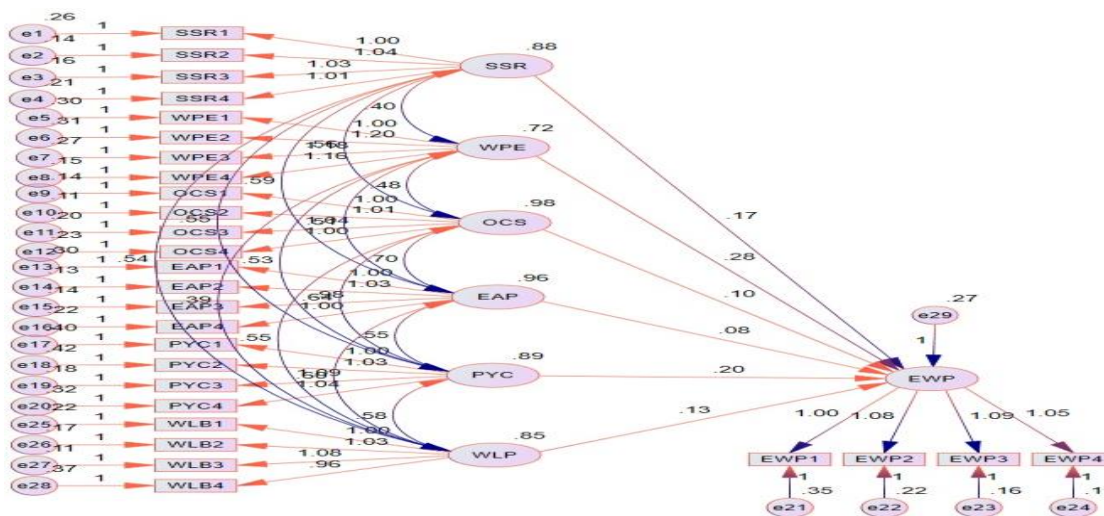


Figure 2: Hypothesis testing

Source: Structural equation modeling (SEM) analysis conducted by the author.

Table 6: Hypothesis testing

Hypothesis	Estimate	S.E.	C.R.	P	Decision
Employee Well-being Performance <-- Occupational Stress	.104	.064	1.630	.003	Accepted
Employee Well-being Performance <-- Psychological Capital	.201	.073	2.766	.006	Accepted
Employee Well-being Performance <-- Workplace Environment	.277	.067	4.133	***	Accepted
Employee Well-being Performance <-- Work-Life Balance	.130	.064	2.015	.004	Accepted

Hypothesis	Estimate	S.E.	C.R.	P	Decision
Employee Well-being Performance<-- -Employee Assistance Programs	.082	.068	1.211	***	Accepted
Employee Well-being Performance <-- -Social Support & Relationships	.172	.059	2.907	.004	Accepted

Source: Author's analysis based on survey data

Table 6 and figure 2 present the results of our hypothesis testing, which shows that all the hypothesized relationships between the constructs (occupational stress, psychological capital, workplace environment, work–life balance, employee assistance programs, social support & relationships and employee well-being performance) are statistically significant. The path from the workplace environment to employee well-being performance has the highest estimate (0.277) and has a critical ratio (CR) of 4.133, with a p value less than 0.001, indicating a strong positive relationship (Hair et al., 2010). Similarly, psychological capital has a significant positive effect on employee well-being performance, as it has an estimate of 0.201, a CR of 2.766 and a p value of 0.006 (Kline, 2015). Employee well-being performance was also significantly influenced by social support and relationships, with an estimate of 0.172 and a CR of 2.907 (Byrne, 2016). Even the path from occupational stress to employee well-being performance is also significant despite it being lower in magnitude (0.104), an indication that it should not be overlooked in the model. Thus, our results support the hypothesized positive influences of all these constructs on employee well-being performance, confirming our conceptual framework (Bentler & Bonett, 1980).

6. DISCUSSIONS AND IMPLICATIONS

6.1 Discussion

As shown in Table 6, all the constructs are significantly related to employee well-being and performance. All the constructs indicated that there was a positive but moderate relationship between occupational stress and employee well-being and performance (estimate = 0.104, C.R. = 1.630, $p = 0.003$). Occupational stress tends to work like a pressure cooker, with the contents pushing out of the lid due to rising pressure. If the heat is controlled, this extra pressure can be used as a driving force. This finding is in line with some of the research suggesting that moderate stress can be a good motivator (Luthans, Avolio, 2019; Zhang, Stephen, 2020). Psychological capital had a much stronger impact (estimate = 0.201, C.R. = 2.766, $p = 0.006$), which is consistent with most of the research stressing the positive contribution of psychological resources to employee outcomes (Avey, Reichard, Luthans, 2018; Newman et al., 2018). The workplace environment had the greatest impact on all the independent variables (estimate = 0.277, C.R. = 4.133, $p < 0.001$), which is consistent with the findings of Alfes et al. (2020) and Bakker and Demerouti (2018). Wellness initiatives and programs in technological workplaces also focus on making the work environment more supportive (Kossek and Lee, 2022). Work–life balance (estimate = 0.130, C.R. = 2.015, $p = 0.004$). The findings on the significance of work–life balance in maintaining employee productivity confirm the view of Haar et al. (2019), who mention that many employees see work–life balance as a key factor for many aspects of wellbeing. This finding also confirms the findings of Kossek and Lee (2022), who reported that work-life balance programs have increased in importance in recent years. Social support and relationships had a positive effect on performance (estimate = 0.172, C.R. = 2.907, $p = 0.004$). This finding is consistent with the research of Halbesleben and Wheeler (2020), who reported that employees' perceptions of support via both organizational and interpersonal relationships are positively related to their overall job satisfaction, meaning, and engagement. Viswesvaran et al. (2018) reported that employee social integration was a significant predictor of occupational health. In contrast to all the other psychosocial variables, Employee Assistance Programmes had a significant but moderate impact (estimate = 0.082, C.R. = 1.211, $p < 0.001$). This finding implies that employee assistance programs need to be integrated with other supportive resources for them to be effective. A line of research suggesting the need for additional psychological, environmental, and social support was explored by McCarty and Skidmore (2021).

6.2 Managerial implications

The results of our study have several important managerial implications for the IT companies in Bangalore. Since the three-way interactions of the three Pervasive Psychological Workplace Stressors (i.e., Workplace Environment, Work–Life Balance, Work--Related Physical Health Stressors) with Employee Well-being and Performance were statistically significant, managers should create a more inclusive work environment that promotes open communication and collaboration among people at work and minimizes job demands via job redesign, which ensures high levels of job resources, as found by Alfes et al. (2020). Finally, since psychological capital has a positive overall influence on employee well-being and performance, managers should develop workers' psychological resources by training programs (e.g., organizations can focus on building employee psychological resources, such as resilience, optimism and self-efficacy through training programs, workshops and one-on-one coaching sessions), as suggested by Avey et al. (2018), to help enhance their work performance and minimize subpar outcomes. Although the Employee Assistance Programs had a positive influence, the results did not suggest any three-way interactions of these programs with worker demographic characteristics or perceptions of psychological barriers. This suggests that these programmes had standardized benefits for worker well-being and performance. On the basis of the demographic profile of the workforce (the majority are younger professionals and females), company managers need to approach well-being and performance from a diversified perspective and cater to their specific needs.

6.3 Practical implications

On a practical note, these results can be useful for HR practitioners, policymakers and organizational leaders in the IT industry in Bangalore. The study highlights the importance of a positive workplace environment in creating endorsed employee well-being and performance, which implies that practical measures (such as improving work ergonomics, providing a wellness programme and creating a sense of inclusivity) could lead to significant benefits (Bakker and Demerouti, 2018). Second, the issue of psychological capital emphasizes practical interventions at work, such as resilience training and mindfulness programmes, which are designed to increase psychological resources among employees (Newman et al., 2018). The significance of work–life balance highlights the importance of flexible work policies in the context of the current workforce, where a majority are in their 20s (and perhaps 30 s) and might be dealing with conflict between work and life. The results support necessary interventions in the domain of work–life balance. For HR practitioners, these insights can be used to develop targeted employee assistance programs that are aligned with some of the stressors captured in this study. Finally, an emphasis on Social Support & Regard for Friendship & Obtaining Friendship and Support from Peers is a domain that is ripe for workplace interventions such as team-building activities, mentorship activities and peer support networks. Workplaces that support and encourage connectedness are likely to be better than those that do not. These practical measures enhance employee well-being, which can lead to higher employee satisfaction, lower turnover and greater job performance.

7. CONCLUSION, LIMITATIONS AND SCOPE FOR FURTHER STUDY

7.1 Conclusion

This study examined the relative impacts of occupational stress, psychological capital, the workplace environment, work–life balance, and employee EAPs and social support and relationships on employee well-being and performance. IT workers contributed to the rapid growth of organisations in Bangalore. The findings of this study confirmed the tangible role of EAPs and social support in enhancing employee outcomes. While occupational stress will moderately influence the level of performance, it is clear that organisations need to develop strategies for managing stress and its implications for productivity. The findings also confirm that both work–life balance and social support play vital roles in building high levels of employee well-being and performance. The findings of this study regarding employee performance and well-being inform IT companies in Bangalore of the importance of adopting an organizational culture that is sensitive to employee well-being. Using the reviewed findings, we recommend that Bangalore IT companies prioritize positive workplace policies that promote a sense of well-being and consider stress management, as it affects the performance of various segments of their workforce. This study from a key global IT location offers

incremental empirical evidence on positive workplace factors and their impact on employees' well-being and performance. The results suggest that organisations located in Bangalore, be they established or emerging tech hubs, can benefit from a supportive and productive work environment.

7.2 Limitations

While this study adds insights, it is also important to acknowledge several limitations. The fact that the study focuses on the IT sector specifically in Bangalore might limit the direct applicability of the findings to other sectors or regions. However, as India's largest IT hub at the global level, the study naturally engages with a sector where the digital workplace is more widespread and governed by similar industry dynamics and workforce demographics, suggesting that the findings could be generalized to other urban IT environments. Second, relying on self-reported data could be limited in reaching valid results because of the possibility of measurement errors arising from social desirability or other potential cognitive biases in gathering participants' reports. Third, the cross-sectional design of the study would limit us from making inferences about causal relationships between the study variables owing to the simple absence of information on how variations in different study variables are linked to variations in other study variables. Overcoming this limitation might be possible via the use of longitudinal designs to observe how relationships evolve over time. Fourth, the internal factors specifically considered in this study, such as social support or emotional intelligence, might not be exhaustive in understanding the factors that might impact work on technical jobs. Potential interaction effects between the constructs considered here are yet to be studied, which could provide a more nuanced picture of how the various aspects of satisfaction might influence employee wellbeing and performance. Finally, there is external validity to consider, as economic crises or similar events that do not specifically relate to social workforce dynamics might be another important piece of the puzzle that affects employees' wellbeing and performance.

7.3 Scope for further study

The results of the study can be built upon in several ways. Research that replicates this study in different industries and geographic regions should be conducted to examine the degree to which the identified factors can be generalized across diverse psychological, sociological and economic contexts. For example, although the study was designed to focus on workers in the IT sector of the Indian economy, comparing this study with studies on other industries (e.g., finance, healthcare, and manufacturing) might offer a wider perspective on the relationships between workplace factors, well-being and performance. Longitudinal research could also examine the rates of change in these factors over time and clarify the long-term consequences and time lags in changes in employee outcomes. Researchers could also examine the effectiveness of stress management programs, resilience training, work-life balance initiatives and other interventions that can enhance employee wellbeing and performance. Future work could examine moderating and mediating variables (factors that influence the strength of relationships in a path model), such as the influence of leadership styles, organizational culture and subgroup and individual differences in personality traits, on the identified relationships. In addition, related to the idea of moderating variables, another direction that research could take is to examine how new workplace arrangements such as remote work and hybrid arrangements might affect the impact of the identified factors in the IT sector, a work context characterized by its emphasis on individualism and the relative autonomy that many IT workers enjoy.

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