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Remote Work and Productivity: Analyzing the Mediating Effect of Work-Life Balance

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Abstract

This study explores the relationship between remote work, employee productivity, and work-life balance, with a specific focus on the mediating role of work-life balance. Given the rise of remote work in various sectors, particularly in the IT industry, it becomes crucial to understand how remote work influences employee productivity and how work-life balance may play a central role in this relationship. A quantitative, cross-sectional design was used, surveying 110 IT professionals from Kathmandu Valley, Nepal. A pre-tested Likert scale questionnaire collected data, measuring variables such as work-life balance, employee productivity, and remote work. Descriptive analysis revealed that most respondents worked remotely (42.7%) or in a hybrid setup (37.3%). While the mean score for work-life balance (3.45) suggested a generally positive perception of remote work's role in balancing personal and professional lives, challenges like difficulty disconnecting and burnout were noted. Employee productivity ratings highlighted that work-life balance positively impacted productivity (mean = 3.83). The remote work factor demonstrated moderate satisfaction with tools, communication, and goal clarity but indicated areas for improvement, especially in technical support

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(mean for remote work = 3.55). Correlation analysis showed strong positive relationships between work-life balance, remote work, and employee productivity ($p < 0.01$). The study concludes that work-life balance acts as a key mediator between remote work and productivity, underscoring its importance in fostering an efficient remote working environment. Though employees report a generally positive view of remote work's ability to provide flexibility, issues with communication and technical support may hinder overall productivity. Thus, improving these areas could maximize remote work's benefits.

Keywords: Work Life Balance; Remote Work; Employee Productivity; IT; Remote Work Challenges

INTRODUCTION

The pandemic pushed many office-based jobs to remote positions, as a result working from home became a new norm and people had to adapt to it. Remote work means employees work from outside the office or company's conventional setting. Employees use digital technologies and other tools to communicate and collaborate with the team (Felstead & Henseke, 2017). Remote work, also referred to as telecommuting or telework, involves completing professional tasks and responsibilities from a location outside traditional office environments, often enabled by information and communication technologies (ICT). According to the International Labour Organization (ILO), remote work allows for flexibility in location, which can improve employee autonomy and efficiency while reducing operational costs for employers. However, the blurred boundaries between professional and personal life often introduce unique challenges, such as the difficulty of detaching from work obligations (ILO, 2021).

Even though such a model provides flexibility, it also tends to blend work-life with personal life. This presents concerns over its erroneous impact on productivity and work-life balance (Purushothaman, 2024). Work-life balance is defined as the ability to equally prioritize and manage work and personal responsibilities without allowing one to detrimentally affect the other (Greenhaus & Beutell, 1985; Rai, et al., 2024). It plays a critical role in maintaining mental health, fostering job satisfaction, and enhancing productivity. Studies have shown that the absence of a healthy work-life balance can lead to employee burnout, decreased motivation, and diminished workplace morale (Toniolo-

Barrios & Pitt, 2020). The difficulty of maintaining a work-life balance leads to anxiety, stress, frustration, and a decrease in confidence. This creates poor productivity. It is important for employees to carve out a zone for themselves away from the pressures of the professional world. How individuals accomplish their designated work objectives reveals the efficiency of employees. Many factors influence the productivity of employees. Work environment, job satisfaction and technological structure are some of them (Bal & Bulgur, 2023; Acharya et al., 2024).

In addition to these, communication efficiency, task clarity, and leadership support are pivotal in determining employee productivity, particularly in remote work settings. A study by Bloom et al. (2015) highlighted that remote workers experienced a 13% performance increase compared to their office counterparts when provided with the necessary infrastructure and clear expectations. Conversely, a lack of access to collaborative tools and frequent interruptions often hinders productivity in remote settings. In other countries of the world remote working has been there for a long time because of the advanced technology. These tools allow people to easily work together from far away places, according to (Felstead & Henseke, 2017). Nonetheless, there are still challenges like maintaining work-life boundaries, defeating social isolation, and achieving productivity (Rañeses et al., 2022; Parajuli et al., 2022). Developed nations have mostly succeeded with these challenges using strategic policies and workplace adaptations as work-life balance is the effective mediator for sustainable productivity during remote work (T & Patil, 2024).

As opposed to that, developing countries like Nepal face several challenges in remote working practices that include poor internet connectivity, poor electricity supply and weak digital infrastructure (Dr. Pushpa R. Joshi, 2023). Even with these troubles, the IT community of Nepal, which includes developers, SEO engineers, and graphic designers, was able to use remote working tools before the pandemic. COVID-19 promoted remote work which allowed professionals to be productive despite working with less resources and psychological strain (Rañeses et al., 2022; Karki, et al., 2024). According to the 2023 Remote Work Index, Nepal ranks 89th out of 108 countries. This means that the country is facing challenges in the area but has potential for improvement. The report was released as part of the NordLayer Report, 2023.

In cities like Kathmandu, where transport cannot be used due to traffic congestion and over-crowded public transport, working remotely helps a lot (Shrestha et al., 2025). IT

professionals and some other remote workers of the city are taking advantage of this flexibility to enhance their work-life balance, spending more time on personal activities without jeopardising professional output (Bal & Bulgur, 2023; Mahat & Aithal, 2022). For them, it is a key mediator allowing people to handle their work while ensuring their well-being. The urban context, particularly in Kathmandu, provides a unique case study for assessing the impact of remote work on work-life balance and productivity. For instance, IT professionals report that flexible schedules allow them to better align work commitments with personal priorities, reducing stress and improving job satisfaction. However, recurring power outages and unstable internet connections remain significant barriers, highlighting the need for sustainable infrastructure improvements in the region (NordLayer Report, 2023).

This study aims to assess work-life balance as a mediating variable of remote work and productivity of the employee's perception and IT personnel's perception in Nepal. This post will help you do your project and understand impact of remote work on productivity and employee well-being. Let's start by defining remote work.

Research Objectives

1. To assess the perception of IT personnel on remote work, employee productivity, and work-life balance.
2. To examine the relationship among work-life balance and remote work and employee productivity
3. To analyze the Mediating role of work-life balance between remote work and employee productivity.

Research Hypothesis

H_0. There is a significant relationship between remote work and employee productivity.

H_1. There is a significant relationship between work-life balance and remote work.

H_2. There is a significant relationship between work-life balance and employee productivity.

Conceptual Framework

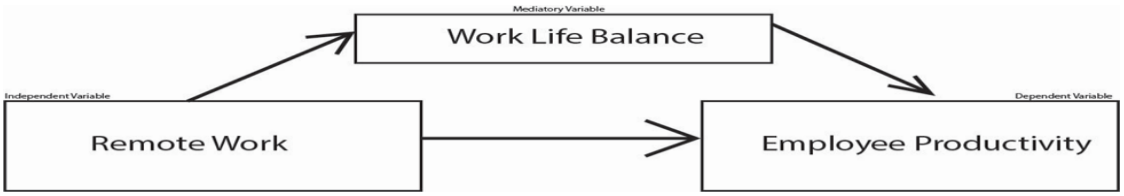

Figure 1: Conceptual Framework

The conceptual framework illustrates the relationship between Remote Work, Work-Life Balance, and Employee Productivity, identifying their respective roles as independent, mediating, and dependent variables.

Remote work can have both positive and negative impacts on work-life balance (Orešković, et al., 2023). On the positive side, it provides flexibility, reduces commute times, and allows individuals to better manage their personal and professional responsibilities (Marzec & Szczudlińska-Kanoś, 2023). However, it can also blur the boundaries between work and personal life, potentially leading to stress and dissatisfaction if not managed effectively. Work-life balance plays a critical role in influencing employee productivity. Employees who maintain a healthy balance are often more motivated, focused, and engaged, which enhances productivity (Nagaprakash, Patil, J, Narasuraman, & Kumar, 2024). Conversely, poor work-life balance can result in burnout, fatigue, and decreased efficiency. The relationship between remote work and productivity is mediated by work-life balance, meaning that remote work's impact on productivity depends significantly on how well employees can balance their professional and personal lives (Ivasciuc, Epuran, Daniela Roxana Vut, & Bianca Tescas, 2022). Understanding this dynamic is essential for organizations aiming to design effective remote work policies that promote work-life balance, ultimately driving higher employee productivity

The framework highlights the central role of work-life balance in shaping the relationship between remote work and employee productivity. By understanding these dynamics, organizations can design remote work policies and strategies that promote work-life balance, ultimately boosting employee productivity.

Literature Review

Purushothaman (2024) researched that Flexibility and autonomy offered by remote work were found to increase productivity among employees, though struggles with work-

life boundaries persisted, as revealed in. Surveying 230 IT professionals, the study underscores that technology infrastructure, communication practices, and organizational culture significantly impact remote work effectiveness. Recommendations for improvement include flexible schedules, virtual interactions, and enhanced communication strategies.

T & Patil (2024) explains the complex effects of remote work on the employees' professional and personal lives. The research found that while remote work enhances work-life balance by offering flexibility, it leads to difficulties in setting boundaries, contributing to stress for some workers. In terms of productivity, the findings were mixed as significant portion of employees reported increased productivity while others showed decline in performance due to distractions at home and lack of social interactions with colleagues.

Bal & Bulgur (2023) explores the rapid shift to remote work triggered by COVID-19 Pandemic. The study emphasizes that organizational readiness, including the technological infrastructure, plays a key role in the success of the remote work adaption. Bal and Bulgur concludes that despite its advantages, remote work requires effective management to overcome its negative impacts and ensure productivity and employee well being.

Felstead & Henseke (2017) found that while the growth of remote work cannot be fully explained by factors life rise of knowledge, economy or flexible employment, it is significant trend driven by technological advancements.The study highlights gaps in research, particularly the focus on home-based work rather than mobile work and notes that the casual impact of remote work on outomes remains unclear.

Rañeses et al. (2022) analyzed the effects of remote work on productivity and work-life balance. Quantitative findings revealed that remote work significantly enhances productivity by allowing better workload management but does not notably impact work-life balance, as employees often prioritize work over personal needs.The emergence of digitalization and globalization has transformed traditional work practices, with the COVID-19 pandemic further accelerating the shift to alternative work setups. Remote work, telework, hot desking, hoteling, and work-from-home arrangements allow employees to operate outside conventional office spaces.

Kurdy, Al-Malkawi, & Rizwan (2023) indentified entrepreneurship aimed at sustainability is critical to achieving environmental, social, and economic objectives,

particularly in emerging economies. Business people are seen as innovators who manage local resources and knowledge to solve sustainability problems at a profit (Pensar & Rousi, 2023; Parajuli et al., 2023). The results highlight the necessary entrepreneurial ecosystem to integrate sustainability within the venture which includes institutional support, access to resources and market conditions. Also, getting better support and incentives, policymakers and financial systems will play a major role in promoting sustainable entrepreneurship (Gorjifard & Crawford, 2021). Many companies face the challenge of being profitable while being good corporate citizens that contribute to sustainable development. That is, a lot of businesses are trying to balance the two. It shows how businesses can help the community and the environment while still making money.

Research Gap

While existing research explores the individual and interrelated effects of remote work, work-life balance, and employee productivity, there is limited focus on work-life balance as a mediating factor in the relationship between remote work and productivity, particularly in the context of IT professionals in developing countries like Nepal. Previous studies highlight productivity and well-being impacts of remote work, while others emphasize the challenges of maintaining work-life balance. However, the mediating role of work-life balance in shaping how remote work influences productivity remains underexplored, especially with regional nuances such as Nepal's unique technological limitations and IT sector dynamics. This study seeks to fill this gap by investigating work-life balance as a mediator, providing valuable insights for organizations seeking to optimize.

METHODS

This study adopts a quantitative approach, utilizing a cross-sectional research design to investigate the relationships among work-life balance, employee productivity, and remote work. A total of 110 respondents, primarily IT professionals from the Kathmandu Valley in Nepal, participated in the study. Data were collected using a pre-tested Likert scale questionnaire with five-point response options to assess the relevant variables. The study then employed SPSS PROCESS 4 for data analysis. Throughout the research, strict measures were taken to maintain confidentiality, ensuring that all participant data remained anonymous and secure. Additionally, the study adhered to ethical principles by upholding

voluntary participation, making sure that respondents were free to participate without coercion and could withdraw from the study at any time without facing any consequences.

To ensure the validity and consistency of the measures used, reliability statistics were calculated, focusing on the Cronbach's alpha values for the three key variables. The Cronbach's alpha for work-life balance was 0.688, which, while slightly below the commonly accepted threshold of 0.7, suggests an acceptable level of reliability. Employee productivity showed a Cronbach's alpha of 0.776, indicating good internal consistency. Lastly, the remote work construct had the highest Cronbach's alpha of 0.886, demonstrating excellent reliability. These results suggest that the data used in the study are sufficiently reliable for further analysis, which enhances the credibility of the findings regarding the relationships between the variables under investigation.

Table 1: Reliability Statistics

Factors	Cronbach's Alpha	N of Items
Work life Balance	.688	7
Employee Producitivity	.776	7
Remote Work	.886	7

RESULTS

Demographic Information

Table 2: Demographic Information

Current work					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fully Remote	47	42.7	42.7	42.7
	Hybrid	41	37.3	37.3	80.0
	Fully Onsite	22	20.0	20.0	100.0
	Total	110	100.0	100.0	

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	69	62.7	62.7	62.7

	Female	40	36.4	36.4	99.1
	Other	1	.9	.9	100.0
	Total	110	100.0	100.0	

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School	11	10.0	10.0	10.0
	Bachelor's	65	59.1	59.1	69.1
	Master's	28	25.5	25.5	94.5
	Doctorate	6	5.5	5.5	100.0
	Total	110	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
age	110	19.00	51.00	27.6909	6.24389
workexperience	110	1.00	25.00	5.1636	4.53433

The demographic information of the 110 respondents reveals key characteristics about their work environment, gender, education levels, and age. Regarding the current work setup, 42.7% of the participants work in fully remote positions, while 37.3% follow a hybrid model, and 20% work in fully onsite roles. This suggests a strong inclination towards flexible working arrangements. In terms of gender, the majority of respondents are male (62.7%), followed by females at 36.4%, and a very small percentage (0.9%) identify as other. Education-wise, most participants hold a bachelor's degree (59.1%), with master's degree holders accounting for 25.5%, and a smaller group having high school (10.0%) or doctoral qualifications (5.5%). The respondents' ages range from 19 to 51, with a mean age of 27.69 years, and their work experience spans from 1 to 25 years, averaging 5.16 years. These demographic factors provide a comprehensive background to the study sample, highlighting the trends in modern work environments and the educational profile of the workforce.

Perception of IT personnel on remote work, employee productivity, and work-life balance

Table 3: Worklife balance

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Wl1	110	1.00	5.00	3.4455	1.39847
Wl2	110	1.00	5.00	2.8364	1.16152
Wl3	110	1.00	5.00	3.3818	1.25604
Wl4	110	1.00	5.00	3.0182	1.19619
Wl5	110	1.00	5.00	3.3545	1.16198
Wl6	110	1.00	5.00	3.7000	1.18515
Wl7	110	1.00	5.00	3.1364	1.16112

The descriptive statistics for the worklife balance-related variables (Wl1 to Wl7) provide insights into the respondents' perceptions about balancing work and personal life while engaging in remote work. The ratings were measured on a scale from 1 (strongly disagree) to 5 (strongly agree).

For Wl1, which evaluates the perception of remote work helping maintain work-life balance, the mean is 3.45 with a standard deviation of 1.40, indicating a generally positive view that remote work can assist in achieving a balance, though variability in responses exists. Wl2, assessing whether personal life suffers due to work, has a mean of 2.84 and a standard deviation of 1.16, suggesting respondents are somewhat neutral to mildly disagreeing that work negatively impacts their personal life. Wl3, regarding the tendency to work beyond regular hours while working remotely, has a mean of 3.38 with a standard deviation of 1.26, signifying that respondents occasionally find themselves working longer hours during remote work. On Wl4, which assesses whether respondents struggle to disconnect from work when working remotely, the mean is 3.02 with a standard deviation of 1.20, indicating a moderate level of difficulty in drawing boundaries between work and personal life. Wl5, which measures employer support for initiatives maintaining work-life balance, has a mean of 3.35 with a standard deviation of 1.16, suggesting that respondents recognize some level of support but not strongly. Wl6, concerning remote work's effectiveness in balancing personal and professional responsibilities, scored relatively higher, with a mean of 3.70 and a standard deviation of 1.19. This reflects a generally positive view that remote work provides effective balance between the two domains.

Lastly, Wl7, regarding the feeling of burnout due to work-life imbalance caused by remote work, scored a mean of 3.14 with a standard deviation of 1.16, indicating a moderate perception of work-related burnout. Overall, respondents tend to see remote work as offering balance to some degree but also report challenges, such as working beyond regular hours or difficulty disconnecting, which might impact personal well-being over time.

Table 4: Employee Producitivity

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Ep1	110	1.00	5.00	3.5818	1.18385
Ep2	110	1.00	5.00	3.3364	1.20608
Ep3	110	1.00	5.00	3.3909	1.11779
Ep4	110	1.00	5.00	3.8273	1.07395
Ep5	110	1.00	5.00	3.4455	1.29633
Ep6	110	1.00	5.00	3.3636	1.11477
Ep7	110	1.00	5.00	3.5091	1.16324

The descriptive statistics for the employee productivity variables (Ep1 to Ep7) reveal how respondents perceive their productivity while working remotely. These variables were rated on a scale from 1 (strongly disagree) to 5 (strongly agree), providing insights into different factors influencing productivity.

For Ep1, which evaluates motivation to perform tasks while working remotely, the mean score is 3.58 with a standard deviation of 1.18. This suggests a generally positive but varied perception regarding motivation levels during remote work. Ep2, measuring distractions at home, has a mean of 3.34 and a standard deviation of 1.21, indicating that respondents generally agree that distractions at home somewhat hinder their productivity, although there is some variability in the responses. Ep3, which addresses the perception of receiving timely feedback from employers, scored a mean of 3.39 and a standard deviation of 1.12, indicating a moderate level of satisfaction regarding feedback. Ep4, measuring the influence of work-life balance on productivity, scored the highest among the variables, with a mean of 3.83 and a standard deviation of 1.07, suggesting that work-life balance has a significantly positive influence on productivity. Ep5, which focuses on the impact of technical issues during remote work, shows a mean of 3.45 and a standard deviation of 1.30, suggesting that while technical issues affect productivity, the impact is moderate. Ep6,

regarding the provision of necessary resources by the employer to enhance productivity, has a mean of 3.36 and a standard deviation of 1.11, indicating that respondents generally feel that their employer provides sufficient resources but with some variation in responses. Finally, Ep7, assessing whether employees feel their performance remains consistently good while working remotely, scores a mean of 3.51 with a standard deviation of 1.16, reflecting a moderately positive view on overall performance during remote work.

Overall, respondents view motivation and work-life balance as key factors in promoting productivity, though technical issues, home distractions, and the timeliness of feedback from employers could impede performance.

Table 5: Remote work

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Rw1	110	1.00	5.00	3.5545	1.14609
Rw2	110	1.00	5.00	3.5455	1.17806
Rw3	110	1.00	5.00	3.5909	1.13570
Rw4	110	1.00	5.00	3.2364	1.11641
Rw5	110	1.00	5.00	3.4727	1.14707
Rw6	110	1.00	5.00	3.4909	1.14736
Rw7	110	1.00	5.00	3.1545	1.30057

The descriptive statistics for the remote work variables (Rw1 to Rw7) provide an overview of how employees perceive various aspects of their remote work experiences. The responses were measured on a scale from 1 (strongly disagree) to 5 (strongly agree), and the results show varying levels of agreement with the statements.

For Rw1, which assesses productivity while working from home, the mean score is 3.55, with a standard deviation of 1.15, indicating a moderate level of agreement that employees feel productive while working remotely. Similarly, Rw2, which focuses on whether remote work enhances the quality of output, has a mean of 3.55 and a standard deviation of 1.18, suggesting that respondents generally agree with this statement but with some variation in opinions. Rw3, concerning the sufficiency of tools and resources for remote work, shows a mean of 3.59 and a standard deviation of 1.14, implying a generally positive view on the availability of tools and resources for remote work. Rw4, which examines the seamlessness of communication with colleagues during remote work, has a

mean of 3.24 and a standard deviation of 1.12, suggesting that communication during remote work is perceived as somewhat effective but still has room for improvement. For Rw5, which evaluates whether employees have clear goals and targets when working remotely, the mean is 3.47, with a standard deviation of 1.15, suggesting moderate agreement that clear goals and targets are provided during remote work. Rw6, addressing the flexibility provided by remote work to enhance performance, shows a mean of 3.49 and a standard deviation of 1.15, indicating that flexibility is generally seen as beneficial to employees' performance during remote work. Finally, Rw7, which assesses whether the employer offers technical support during remote work, has a mean score of 3.15 and a standard deviation of 1.30. This suggests that while employees somewhat agree with the availability of technical support, there is more significant variation in their opinions, pointing to a possible area of improvement for employers. Overall, the results indicate that employees generally feel productive while working remotely, with moderate satisfaction regarding resources, flexibility, and goal clarity. However, communication with colleagues and technical support are areas where employees may have mixed feelings, potentially reflecting a need for improvement in these aspects of remote work.

Relationship among work-life balance and remote work and employee productivity

Table 6: Correlations

Factors		**WLB**	**RW**	**EP**
Worklife balance (WLB)	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	110		
Remote work (RW)	Pearson Correlation	.723**	1	
	Sig. (2-tailed)	.000		
	N	110	110	
Employee productivity (EP)	Pearson Correlation	.780**	.748**	1
	Sig. (2-tailed)	.000	.000	
	N	110	110	110

****. Correlation is significant at the 0.01 level (2-tailed).**

The correlation analysis reveals strong and significant relationships among work-life balance, remote work, and employee productivity. A positive Pearson correlation of 0.723 ($p < 0.001$) between work-life balance and remote work indicates that employees who

maintain a good balance between their work and personal lives are more likely to report positive experiences with remote work. Additionally, the correlation between work-life balance and employee productivity is 0.780 ($p < 0.001$), suggesting that a better work-life balance is strongly associated with higher employee productivity. This implies that employees who successfully balance their professional and personal responsibilities tend to perform better in their roles. Furthermore, the correlation between remote work and employee productivity is 0.748 ($p < 0.001$), showing that remote work positively influences productivity, as employees working remotely often feel more productive. Overall, these findings highlight the interconnectedness between work-life balance, remote work, and employee productivity, underscoring the importance of fostering a healthy work-life balance to improve both job performance and the remote work experience.

Mediating role of work-life balance between remote work and employee Productivity

Table 7: Results from Process Procedure (Model 4)

Outcome Variable	Model Summary	Predictor	Coeff	SE	t	p	LLCI	ULCI
WLB	R=0.7226,R^2=0.5222,p=0.000	Constant	1.2969	0.1876	6.9143	0.0000	0.9251	1.6686
		RW	0.5753	0.0530	10.8635	0.0000	0.4703	0.6802
EP	R=0.8247,R^2=0.6801,p=0.000	Constant	0.6426	0.1962	3.2751	0.0014	0.2536	1.0315
		RW	0.3258	0.0667	4.8832	0.0000	0.1935	0.4580
		WLB	0.5309	0.0838	6.3354	0.0000	0.3648	0.6971

The results from the PROCESS Procedure (Model 4) show the relationships among remote work (Remwork), work-life balance, and employee productivity. The first model examines work-life balance as the outcome variable, with remote work as the predictor. The model summary reveals a strong relationship (R=0.7226, R^2=0.5222, p=0.000), indicating that remote work explains 52.22% of the variance in work-life balance. The coefficient for remote work (β=0.5753, SE=0.0530, t=10.8635, p=0.0000) signifies a

positive and significant impact, with confidence intervals (LLCI=0.4703, ULCI=0.6802) further supporting the reliability of this effect.

The second model evaluates employee productivity as the outcome variable, using both remote work and work-life balance as predictors. This model also demonstrates a strong relationship (R=0.8247, R^2=0.6801, p=0.000), with the predictors explaining 68.01% of the variance in employee productivity. The constant term (β=0.6426, SE=0.1962, t=3.2751, p=0.0014) is statistically significant. Remote work (β=0.3258, SE=0.0667, t=4.8832, p=0.0000) and work-life balance (β=0.5309, SE=0.0838, t=6.3354, p=0.0000) both exhibit significant positive impacts on employee productivity, with confidence intervals for their effects (LLCI=0.1935, ULCI=0.4580; LLCI=0.3648, ULCI=0.6971, respectively).

In summary, remote work positively affects both work-life balance and employee productivity. Additionally, work-life balance mediates the relationship between remote work and employee productivity, as shown by its significant contribution to the productivity model. These findings highlight the critical role of balancing personal and professional demands in enhancing overall productivity.

Table 8: Direct and Indirect Effects

Effect	Effect	SE	LLCI	ULCI
Direct Effect (Remote work → Employee productivity)	0.3258	0.0667	0.1935	0.4580
Indirect Effect via Worklife balance	0.3054	0.0740	0.1678	0.4552

The analysis of direct and indirect effects provides deeper insights into the relationship between remote work, work-life balance, and employee productivity.

The direct effect of remote work on employee productivity (β=0.3258, SE=0.0667, p=0.0000) is statistically significant, as indicated by the 95% confidence interval (LLCI=0.1935, ULCI=0.4580), which does not include zero. This suggests that remote work directly enhances employee productivity.

The indirect effect of remote work on employee productivity through work-life balance (β=0.3054, SE=0.0740) is also significant, with a confidence interval (LLCI=0.1678, ULCI=0.4552) that excludes zero. This result confirms that work-life

balance acts as a mediating variable, positively channeling the influence of remote work toward improving employee productivity.

In summary, both the direct and indirect effects are substantial and significant, underscoring the dual pathways through which remote work impacts employee productivity. Notably, the mediation by work-life balance highlights its importance as an intermediary factor, reinforcing the necessity of fostering a balanced work-life dynamic to maximize productivity in remote working arrangements.

Table 9: Bootstrap Results for Regression Model Parameters

Outcome	Predictor	BootMean	BootSE	BootLLCI	BootULCI
WLB	Constant	1.3067	0.2277	0.8705	1.7587
	RW	0.5727	0.0618	0.4476	0.6899
EP	Constant	0.6524	0.1799	0.3341	1.0374
	RW	0.3228	0.0846	0.1616	0.4942
	WLB	0.5319	0.1020	0.3287	0.7270

The bootstrap results for the regression model parameters confirm the robustness of the estimates for both the work-life balance and employee productivity outcome variables.

For work-life balance, the bootstrapped mean of the constant is 1.3067 with a bootstrapped standard error (BootSE) of 0.2277, and the confidence interval (BootLLCI=0.8705, BootULCI=1.7587) does not include zero, indicating a significant constant. Similarly, the bootstrapped mean for the effect of remote work on work-life balance is 0.5727, with a BootSE of 0.0618. The confidence interval (BootLLCI=0.4476, BootULCI=0.6899) confirms that this effect is also significant, reinforcing the positive influence of remote work on work-life balance.

For employee productivity, the bootstrapped mean of the constant is 0.6524 with a BootSE of 0.1799, and the confidence interval (BootLLCI=0.3341, BootULCI=1.0374) indicates significance. The effect of remote work on employee productivity has a bootstrapped mean of 0.3228, with a BootSE of 0.0846 and a confidence interval (BootLLCI=0.1616, BootULCI=0.4942), confirming its significance. Additionally, the bootstrapped mean of work-life balance as a mediator for employee productivity is 0.5319, with a BootSE of 0.1020. The confidence interval (BootLLCI=0.3287, BootULCI=0.7270)

verifies its significance, highlighting the importance of work-life balance as a key mediator in the relationship between remote work and employee productivity.

These bootstrap results demonstrate consistent and significant effects, supporting the reliability of the direct and mediated pathways in the model.

DISCUSSION

The study's objective was to assess the perception of IT personnel on remote work, employee productivity, and work-life balance, as well as to explore the relationships among these variables and examine the mediating role of work-life balance between remote work and employee productivity. By analyzing the results in conjunction with existing literature, several key insights can be drawn.

The correlation analysis supports a positive and significant relationship among all three variables. There is a strong positive relationship between work-life balance and both remote work ($r = 0.723$) and employee productivity ($r = 0.780$). These results align closely with the findings of Purushothaman (2024), whose study highlighted how flexibility and autonomy afforded by remote work significantly influenced both work-life balance and productivity. The high correlation between work-life balance and productivity underscores the critical role of balancing personal and professional responsibilities in achieving higher performance. This finding is also supported by Rañeses et al. (2022), who reported that although productivity improved with remote work, maintaining work-life balance often required additional effort, which may vary depending on personal circumstances. Interestingly, the relationship between remote work and employee productivity was also notably strong ($r = 0.748$), suggesting that for employees who can effectively manage remote work dynamics (such as flexibility and adequate resources), productivity tends to be higher. This aligns with Bal & Bulgur (2023) and Felstead & Henseke (2017), both of whom argued that technological infrastructure and organizational readiness play a significant role in sustaining productivity in remote work settings. While these authors noted the overall benefits of remote work, they also acknowledged that its success relies heavily on supporting structures within organizations.

In examining the mediating role of work-life balance between remote work and employee productivity, the strong relationships observed in the correlation analysis suggest that work-life balance might act as a key mediator in this relationship. Remote work's effect

on employee productivity seems to be contingent upon the employee's ability to maintain a balanced life, consistent with findings from Purushothaman (2024) and T & Patil (2024). When employees are able to effectively balance personal and professional duties, they tend to report higher productivity levels, making work-life balance a crucial factor in leveraging remote work for positive outcomes. This was emphasized in the study's high correlation values between work-life balance and both remote work and productivity. Additionally, the results from Kurdy, Al-Malkawi, & Rizwan (2023) suggest that when employees feel adequately supported in balancing work and home responsibilities, the beneficial effects on productivity are more pronounced. In this study, respondents perceived that remote work could enhance their productivity when work-life balance was actively managed, but they also noted challenges related to sustaining that balance, highlighting the importance of organizational support structures.

CONCLUSION

This study examines the perceptions of IT personnel on remote work, employee productivity, and work-life balance, and investigates the interrelationship between these factors. The results reveal key insights regarding the influence of remote work on employees' ability to balance work and personal life and the subsequent impact on productivity. The descriptive statistics show that employees generally perceive remote work as beneficial in maintaining a work-life balance, although challenges such as working beyond regular hours and struggling to disconnect from work exist. There is significant variation in how respondents rate employer support and the prevention of burnout, reflecting the need for more consistent efforts in these areas. Employee productivity was found to be positively influenced by factors like work-life balance, motivation, and the availability of tools and resources. However, distractions at home and technical issues during remote work moderately affect overall productivity. The correlation analysis underscores the importance of work-life balance, with strong positive relationships between work-life balance, remote work, and productivity. These findings support the idea that maintaining a healthy work-life balance not only enhances the remote work experience but also boosts productivity levels. The PROCESS Procedure results highlight the role of remote work and work-life balance in explaining variations in both employee productivity and work-life balance itself. The findings suggest that fostering a supportive remote work

environment and work-life balance policies will significantly contribute to both improved employee productivity and a more favorable remote work experience. Finnaly, IT personnel's perceptions on remote work emphasize the significance of a well-balanced relationship between work and life, which ultimately improves their productivity. Employers should focus on offering better support structures to mitigate the challenges employees face while working remotely, which will, in turn, enhance performance outcomes in the long run.

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