

Remote Work Adoption, Work-Life Balance, and Employee Organizational Commitment: The Mediating Role of Psychological Empowerment and the Moderating Effect of Managerial Support

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Abstract

The accelerated global adoption of remote work following the COVID-19 pandemic has fundamentally restructured the employment relationship, generating both opportunities for work-life balance enhancement and risks of psychological isolation, career marginalization, and organizational commitment erosion. Grounded in Social Exchange Theory and Self-Determination Theory, this study investigates the relationships between remote work adoption intensity, work-life balance, and organizational commitment, proposing psychological empowerment as a mediating mechanism and managerial support as a moderating variable. Survey data were collected from 396 knowledge workers across Nigeria, Norway, and India. PLS-SEM with 5,000 bootstrapping iterations was employed. Results indicate that remote work adoption positively predicts organizational commitment ($\beta =$

0.341, $p < 0.001$), partially mediated by work-life balance (indirect effect = 0.187, 95% CI [0.121, 0.258]) and psychological empowerment (indirect effect = 0.143, 95% CI [0.084, 0.207]). Managerial support significantly moderates the remote work–psychological empowerment pathway ($\beta = 0.213$, $p < 0.001$), generating a significant moderated mediation effect. Multi-group analysis reveals cross-country differences: Norwegian workers show strongest work-life balance effects; Indian workers show strongest managerial support moderation; Nigerian workers exhibit highest commitment variance from remote work adoption. These findings advance Social Exchange Theory by specifying psychological mechanisms of remote work value reciprocation and provide actionable guidance for hybrid work policy design.

Keywords: remote work, work-life balance, organizational commitment, psychological empowerment, managerial support, Social Exchange Theory, Self-Determination Theory

1. Introduction

The COVID-19 pandemic compressed what organizational scholars anticipated would be a decade-long trajectory of remote work normalization into approximately 18 months of forced global adoption. By mid-2020, an estimated 40–60% of the workforce in knowledge-intensive sectors across OECD economies had transitioned to full remote work (Eurofound, 2020; OECD, 2020). While many organizations have subsequently navigated toward hybrid work models, the fundamental reconfiguration of work as a spatially flexible activity has generated enduring questions about its consequences for employee wellbeing, organizational commitment, and the employment relationship.

Remote work—defined as a work arrangement in which employees perform their job responsibilities outside the traditional organizational workplace, typically from home, using information and communication technology—offers theorized benefits including enhanced work-life balance through commute elimination and schedule flexibility, reduced workplace interruptions enhancing deep work productivity, and expanded geographic labor market access (Allen et al., 2015; Gajendran & Harrison, 2007). Meta-analytic evidence from Gajendran and Harrison (2007) across 46 studies with 12,833 employees confirmed that remote work positively influenced job satisfaction, organizational commitment, and performance while reducing work-family conflict.

However, the universality of these benefits is contested. Remote work can generate

negative outcomes including boundary blurring between work and personal domains, career visibility reduction (the "out of sight, out of mind" phenomenon), social isolation, reduced access to informal mentoring and networking, and technology-mediated collaboration friction (Cooper & Kurland, 2002; Bloom et al., 2015). The net consequences of remote work depend substantially on the psychological and organizational mechanisms through which remote work affects employee attitudes and commitments.

Social Exchange Theory (Blau, 1964) provides the foundational logic for understanding remote work–commitment relationships. Remote work arrangements represent organizational investments in employee flexibility that, per reciprocity norms central to SET, generate employee commitment responses. When employees perceive remote work as a valued organizational benefit conferred on their behalf, they reciprocate through enhanced organizational commitment. However, this reciprocity logic requires intervening psychological mechanisms—specifically, how remote work generates the psychological states (work-life balance, empowerment) that mediate the commitment response.

Self-Determination Theory (Deci & Ryan, 2000) provides the motivational architecture for these psychological mechanisms. SDT posits that human motivation and wellbeing are enhanced when three basic psychological needs are satisfied: autonomy (self-determination and volition), competence (mastery and effectiveness), and relatedness (connection and belonging). Remote work directly enhances autonomy through schedule and location flexibility,

potentially satisfying the autonomy need that generates psychological empowerment and intrinsic motivation. However, remote work may reduce relatedness satisfaction through social isolation, creating a need satisfaction trade-off that determines net motivational outcomes.

2. Literature Review

2.1 Remote Work Adoption and Organizational Commitment

Organizational commitment—the strength of identification and involvement with an organization (Mowday et al., 1979)—has been studied extensively as a predictor of turnover intention, absenteeism, and organizational citizenship behavior. Meyer and Allen (1991) distinguished affective (emotional attachment), continuance (cost-based), and normative (obligation-based) commitment components; remote work research most consistently addresses affective commitment through perceived organizational support mechanisms (Allen et al., 2015).

Gajendran and Harrison's (2007) meta-analysis documented a positive remote work–commitment relationship ($\rho = 0.19$), mediated by reduced work–family conflict and enhanced job satisfaction. More recent studies in pandemic-era contexts present more nuanced findings: Bloom et al. (2015) found that intensive remote work (five days weekly) reduced commitment through social isolation effects, while hybrid arrangements (two to three days) generated commitment benefits through flexibility appreciation. The intensity dimension of remote work adoption thus requires careful consideration.

2.2 Work-Life Balance as Mediating Mechanism

Work-life balance—the degree to which work and non-work demands are compatible and enable growth and well-being in both domains (Greenhaus & Allen, 2011)—represents the most theoretically central mediating mechanism in the remote work–commitment relationship. Remote work enhances work-life balance by eliminating commuting time, enabling schedule adaptation to family responsibilities, and reducing the boundary impermeability of traditional office environments. Enhanced work-life balance, in turn, reduces turnover intention and increases organizational commitment by satisfying employees' preferences for organizations that respect their holistic life demands.

2.3 Psychological Empowerment as Mediating Mechanism

Psychological empowerment—characterized by meaning (fit between work role and personal values), competence (self-efficacy in task performance), self-determination (autonomy in work decisions), and impact (influence over work outcomes) (Thomas & Velthouse, 1990; Spreitzer, 1995)—represents a second distinct mediating pathway. Remote work enhances self-determination and impact dimensions of empowerment by conferring greater control over work processes, reducing supervisory surveillance, and enabling proactive work environment design. Psychologically empowered employees exhibit enhanced intrinsic motivation, creative performance, and organizational commitment (Spreitzer, 1995; Zhang & Bartol, 2010).

2.4 Managerial Support as Moderating Variable

Managerial support—reflecting managers' provision of resources, feedback, flexibility, and psychological safety for remote work effectiveness—is theorized as a critical boundary condition determining whether remote work generates psychological empowerment or psychological isolation (Golden, 2006; Kelliher & Anderson, 2010). Managers who actively support remote workers through regular check-ins, performance-based (rather than surveillance-based) accountability, technology resource provision, and deliberate inclusion in team communications amplify the empowerment benefits of remote work by signaling organizational trust and investment. Conversely, managers who reduce support under the misperception that remote workers "manage themselves" may inadvertently attenuate empowerment gains and accelerate commitment erosion.

3. Research Gap

Three gaps motivate this study. First, while both work-life balance and psychological empowerment have been individually proposed as mediators of remote work–commitment relationships, their simultaneous mediation through competing pathways has not been examined in a unified framework. Second, managerial support as a moderator of specifically the remote work → psychological empowerment pathway—rather than the work-life balance pathway—represents a theoretical specificity not tested in existing research. Third, the tri-country comparison (Nigeria, Norway, India) captures diverse

institutional, cultural, and remote work maturity contexts that generate theoretically meaningful cross-country heterogeneity absent from single-country remote work studies.

4. Research Objectives

RO1: To examine the direct relationship between remote work adoption intensity and organizational commitment.

RO2: To test the parallel mediation of work-life balance and psychological empowerment.

RO3: To investigate managerial support as a moderator of the remote work → psychological empowerment pathway.

RO4: To examine the moderated mediation effect of managerial support in the remote work → PE → commitment chain.

5. Hypotheses Development

H1: Remote work adoption intensity is positively associated with organizational commitment.

H2a: Work-life balance mediates the relationship between remote work adoption and organizational commitment.

H2b: Psychological empowerment mediates the relationship between remote work adoption and organizational commitment.

H3: Managerial support moderates the remote work → psychological empowerment relationship, amplifying it under high support conditions.

H4: Managerial support moderates the indirect effect of remote work on organizational commitment through psychological empowerment (moderated mediation).

18-item scale (affective, continuance, normative sub-scales).

6.3 Analysis

PLS-SEM in SmartPLS 4.0. Parallel mediation of WLB and PE tested simultaneously (two-mediator model). Moderated mediation for managerial support moderation of the PE pathway. Multi-group analysis for cross-country heterogeneity.

6. Research Methodology

6.1 Sample

Knowledge workers with at least six months of remote or hybrid work experience were recruited across Nigeria (n = 132), Norway (n = 132), and India (n = 132), primarily from technology, professional services, financial services, and education sectors. Snowball sampling through LinkedIn professional networks and employer partnerships yielded 397 responses; one incomplete response was removed. Final sample: N = 396.

6.2 Measures

Remote Work Adoption Intensity was measured using a 6-item scale capturing days per week remote, organizational remote work formalization, and remote work technological infrastructure quality. Work-Life Balance assessed using Hayman's (2005) 15-item scale. Psychological Empowerment measured using Spreitzer's (1995) validated 12-item scale. Managerial Support assessed using Golden's (2006) 8-item scale adapted for virtual management contexts. Organizational Commitment measured using Meyer and Allen's (1991)

7. Data Analysis and Findings

7.1 Demographic Profile

Table 1 Respondent Demographics (N = 396)

Characteristic	Nigeria (n=132)	Norway (n=132)	India (n=132)
Gender: Female	58 (43.9%)	67 (50.8%)	51 (38.6%)
Age: < 35	72 (54.5%)	48 (36.4%)	79 (59.8%)
Education: Postgrad	64 (48.5%)	76 (57.6%)	83 (62.9%)
Sector: Technology	48 (36.4%)	39 (29.5%)	61 (46.2%)
Remote days/week: ≥ 4	61 (46.2%)	79 (59.8%)	57 (43.2%)
Hybrid days (2-3)	47 (35.6%)	42 (31.8%)	51 (38.6%)
Full onsite	24	11 (8.3%)	24

Characteristic	Nigeria (n=132)	Norway (n=132)	India (n=132)	Path	β	SE	t	p	95% CI
	(18.2%)		(18.2%)	RWA → PE	0.412	0.057	7.228	0.000	[0.300, 0.524]

7.2 Measurement Model

Table 2 Reliability and Validity

Construct	α	CR	AVE	Loading Range
Remote Work Adoption (RWA)	0.847	0.879	0.594	0.721-0.831
Work-Life Balance (WLB)	0.893	0.912	0.601	0.729-0.857
Psych. Empowerment (PE)	0.906	0.921	0.617	0.741-0.868
Managerial Support (MS)	0.874	0.897	0.624	0.752-0.849
Org. Commitment (OC)	0.918	0.931	0.627	0.739-0.872

7.3 Structural Results

Table 3 Structural Path Coefficients (N = 396)

Path	β	SE	t	p	95% CI
RWA → OC (direct)	0.341	0.057	5.982	0.000	[0.229, 0.453]
RWA → WLB	0.487	0.054	9.019	0.000	[0.381, 0.593]
WLB → OC	0.384	0.061	6.295	0.000	[0.264, 0.504]

PE → OC	0.347	0.059	5.881	0.000	[0.231, 0.463]
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RWA × MS → PE	0.213	0.044	4.841	0.000	[0.127, 0.299]
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R ² (WLB)	0.387
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R ² (PE)	0.418
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R ² (OC)	0.531
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7.4 Parallel Mediation Analysis

Table 4 Parallel Mediation Results (H2a, H2b)

Path	Indirect Effect	SE	95% CI	Decision
RWA → WLB → OC	0.187	0.039	[0.121, 0.258]	H2a Supported
RWA → PE → OC	0.143	0.033	[0.084, 0.207]	H2b Supported
Total Indirect	0.330	0.049	[0.234, 0.428]	—
Direct RWA → OC	0.341	0.057	[0.229, 0.453]	—
Total Effect	0.671	0.063	[0.547, 0.795]	—

Path	Indirect Effect	SE	95% CI	Decision
VAF (Total)	49.2%			Partial mediation

7.5 Moderated Mediation (H3, H4)

Table 5 Conditional Indirect Effects via PE at MS Levels

MS Level	Indirect Effect (RWA→PE→OC)	SE	95% CI
High (+1 SD)	0.212	0.041	[0.132, 0.292]
Mean	0.143	0.033	[0.084, 0.207]
Low (-1 SD)	0.074	0.029	[0.018, 0.131]

Index of moderated mediation = 0.094 (SE = 0.026; 95% CI [0.044, 0.148]). **H4 Supported.**

7.6 Multi-Group Analysis

Table 6 Standardized Key Paths by Country (MGA Results)

Path	Nigeria	Norway	India	Sig. Diff.?
RWA → WLB	0.398***	0.612***	0.451***	Yes (Norway > Nigeria)†
WLB → OC	0.341**	0.452***	0.378***	No

Path	Nigeria	Norway	India	Sig. Diff.?
RWA → PE	0.387***	0.421***	0.439***	No
RWA × MS → PE	0.168*	0.201**	0.298***	Yes (India > Nigeria)†

Note. * p < 0.05; ** p < 0.01; *** p < 0.001. †χ² difference test significant at p < 0.05.

8. Discussion

The parallel mediation findings reveal that remote work generates organizational commitment through two distinct psychological pathways: work-life balance (capturing tangible boundary management benefits of location and schedule flexibility) and psychological empowerment (capturing the autonomy, mastery, and impact dimensions that remote work activates in self-managing knowledge workers). These parallel pathways confirm that remote work's commitment value is multidimensional—organizations that optimize only the work-life balance dimension while neglecting empowerment conditions (through inadequate managerial support, technology limitations, or surveillance cultures) will capture only part of the available commitment premium.

The Norwegian sample's stronger WLB pathway aligns with Norway's advanced work-life balance cultural norms and institutional frameworks (Eurofound, 2020). India's stronger managerial support moderation suggests that in contexts with stronger hierarchical work norms,

managerial explicit support is particularly consequential for whether remote work activates psychological empowerment or generates anxiety about manager visibility.

9. Theoretical Implications

This study advances Social Exchange Theory by specifying dual psychological pathways (WLB and PE) through which remote work reciprocity generates organizational commitment—providing mechanistic detail absent from earlier meta-analytic evidence. For Self-Determination Theory, the demonstration that remote work satisfies autonomy needs (through PE mediation) while managerial support moderates the autonomy–commitment chain confirms SDT's prediction that need satisfaction is contingently dependent on social context factors. The moderated mediation framework integrates SET and SDT into a unified model of remote work's motivational dynamics.

10. Practical Implications

Organizations designing hybrid work policies should recognize that commitment returns from remote work are not automatic but depend on investing in the psychological infrastructure—work-life boundary clarity, managerial support competencies, empowerment-enabling work design—that activates both WLB and PE pathways. Managerial capability development should specifically target virtual management skills: results-based performance management, deliberate inclusion practices, regular empowerment-enhancing check-ins, and

explicit delegation that signals trust in remote worker autonomy. Country-specific policy calibration is warranted: Norwegian organizations should focus on maintaining WLB quality as remote work intensifies; Indian organizations should invest more heavily in managerial support training for remote team leaders.

11. Conclusion

This study of 396 knowledge workers across Nigeria, Norway, and India provides PLS-SEM evidence that remote work adoption positively predicts organizational commitment through the parallel mediation of work-life balance and psychological empowerment, with managerial support amplifying the empowerment pathway. Multi-group analysis reveals cross-country heterogeneity in pathway strengths. These findings advance Social Exchange Theory and Self-Determination Theory while providing actionable hybrid work policy guidance. Future research should examine longitudinal dynamics of commitment change across remote work adoption phases and extend analysis to manufacturing and frontline service worker contexts where remote work adoption creates distinct challenges.

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Remote Work Adoption, Work-Life Balance, and Employee Organizational Commitment: The Mediating Role of Psychological Empowerment and the Moderating Effect of Managerial Support
The Journal of Business, Management and Economics Engineering
Volume: 8 | Issue: 4 | DOI: 10.361/jclp.275.327.379

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