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PSYCHOLOGICAL CONTRACT FULFILMENT AND EMPLOYEE OUTCOMES IN HYBRID WORK: THE ROLE OF WORK ENGAGEMENT

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ABSTRACT

Objectives: The aim of this study is to investigate whether the psychological contract fulfilment is related to employee performance and job satisfaction in regular hybrid working and whether work engagement is a motivational mechanism that mediates between psychological contract fulfilment and performance and job satisfaction.

Research design/methodology/approach: A quantitative cross-sectional survey was carried out with 386 employees in hybrid working in knowledge-intensive and service organisations. A model comprised of four constructs was tested using the covariance-based structural equation modelling. The measurement model showed good fit ($\chi^2/df = 1.93$, CFI = .956, TLI = .949, RMSEA = .049, SRMR = .041).

Findings: Psychological contract fulfilment positively related to work engagement ($\beta = .567$, $p < .001$), job satisfaction ($\beta = .294$, $p < .001$) and employee performance ($\beta = .124$, $p = .014$). Work engagement was positively related to job satisfaction ($\beta = .520$, $p < .001$) and performance ($\beta = .313$, $p < .001$) and job satisfaction was positively related to performance ($\beta = .301$, $p < .001$). The model accounted for 32.2% of the variance in work engagement, 53.0% of the variance in job satisfaction and 42.2% of the variance in employee performance. Considerable indirect associations were also detected with bootstrap estimates that are consistent with the proposed mediation model.

Research limitations/implications: Due to the cross-sectional and self-report nature of the study, the indirect effects found should be considered theory-consistent associations, not temporal mediation.

Practical implications: Well communicated, consistent and equitably applied hybrid-work arrangements can help to improve engagement, satisfaction and performance.

Originality/value: The study builds on the existing literature on psychological contract theory and

the hybrid work that is emerging after the pandemic by combining social exchange theory and the job demands-resources model.

KEYWORDS: employee outcomes; hybrid employment; motivational mechanisms; social exchange; structural equation modelling; work engagement.

1. INTRODUCTION

Hybrid working is no longer a temporary measure as a result of disruption, but a new way of working that is now a permanent feature of an organisation, where employees work part of the time in the workplace, and part of the time remotely. This transition is part of a wider post-pandemic reconfiguration of working and collaborating (Barrero et al., 2023; Kniffin et al., 2021; Yang et al., 2022). The arrangement may provide freedom, decreased commute, and increased flexibility to focus on concentration-oriented work, but it can also create disjointed communications, social isolation, lack of clarity around visibility, development and performance expectations. The research on telework and hybrid-work thus indicates that the impacts of flexibility are not just about location, but more about the quality of work design, managerial support and coordination, that the flexibility is embedded in (Allen et al., 2015; Charalampous et al., 2019; Vleeshouwers et al., 2022; Wang et al., 2021). Recent experimental findings also suggest that well-designed hybrid working can boost retention without compromising performance, provided it is predictable and that managers are accepting and the organisation system is not based on the assumption that hybrid working is exceptional (Bloom et al., 2024).

There are more terms inside the employment relationship than those written. Staff develop expectations of what the organisation has promised and what is owed to them (and the other party), such as flexibility, support, recognition, development, communication and fair treatment. The psychological contract (Rousseau, 1989, 1995) is made up of these beliefs. The contract is particularly relevant in the context of hybrid working, as many of the obligations are through interactions that are not necessarily face-to-face. Access to remote working, managerial trust, equipment, availability norms, promotion opportunities and performance evaluation can be seen as indicators to employees about whether the organisation is keeping its end of the deal. If these expectations are fulfilled, then the employees are likely to respond positively in terms of involvement and positive behaviour. In the absence of meeting, disappointment and breach can lead to a decrease in satisfaction, engagement and performance (Morrison & Robinson, 1997; Robinson & Rousseau, 1994; Bal et al., 2008).

Previous studies have shown that the psychological contract fulfilment can be a source of motivational and health resources. Based on the job demands-resources perspective, Parzefall and Hakanen (2010) demonstrated that work engagement can serve as a conduit to the impact of perceived employer

contract fulfilment on key employee outcomes. Previous studies have linked fulfilment or lack of fulfilment to commitment, satisfaction, well-being, citizenship behaviour, and turnover intentions and performance (Coyle-Shapiro & Kessler, 2000; Dulac et al., 2008; Rayton & Yalabik, 2014; Yu & Abdul Hamid, 2024). But there are unique challenges in the hybrid work environment. Flexibility can be a valuable asset for employees, but also a burden to be on call at all times. They might be granted formal approval to telework, but they also feel they are not getting the same information, visibility or career opportunities as the office workers they perceive. Thus, the significance of fulfilment is influenced by the congruence between the declared hybrid policies and the actual management.

While some recent hybrid-work studies have explored productivity, collaboration, work design, isolation, voluntariness and satisfaction, these lines of research do not capture the full picture of why employees with similar formal hybrid-work arrangements report varying levels of engagement, satisfaction and performance (Wang et al., 2021; Vleeshouwers et al., 2022; Gong & Sims, 2023; Bloom et al., 2024; Le Quy & Zhu, 2024). Psychological contract fulfilment is a relational explanation because employees will judge if the promises on flexibility, support, fairness, communication, development and resources are met. But there is still not enough evidence regarding the association between this more general fulfilment judgement and attitudinal and behavioural outcomes in existing (not emergency) hybrid work arrangements. This research aims to fill this gap by testing a structural model in which the psychological contract fulfilment is related to work engagement, job satisfaction and self-rated employee performance, both direct and indirect through work engagement and satisfaction.

Hybrid work can be a job resource when it affords greater autonomy, trust and access to support, but it can also be a job demand when availability expectations are not clear, digital monitoring is heavy, and remote workers believe they do not have access to the same information and development opportunities as their in-person counterparts (Wang et al., 2021; Vleeshouwers et al., 2022; Gong & Sims, 2023). This tension implies that formal flexibility cannot be relied upon to have positive effects. Instead, it is the employees' perception of the extent to which organisational promises are actually delivered that is likely to make the difference between a supportive and a strainful hybrid work experience.

The theoretical background and development of hypotheses are next.

2. LITERATURE REVIEW

2.1 Fulfilment of the psychological contract in hybrid working

The psychological contract is an employee's perception of obligations that are owed to each other between the individual and the organisation (Rousseau, 1989). The definition and the extent of

measurement is a subject of debate, but it is a useful concept to use when looking at the subjective employment relationship (Guest, 1998). It is not like a formal contract, it is subjective, interpretive and may vary depending on the organisational situation. It may comprise transactional expectations (e.g., pay, workload) and relational or developmental expectations (e.g., support, security, recognition, learning and mutual loyalty; Rousseau, 1995; Conway & Briner, 2005). These expectations can also vary according to the level of professionalisation and the economic climate (De Hauw & De Vos, 2010). Fulfilment is when workers feel that the organisation has provided the contributions that it has promised or implied. While breach is the judgement that employees make when they think there is a difference between what was promised and what was delivered, violation is the emotional response that may ensue from the judgement (Morrison & Robinson, 1997; Robinson & Morrison, 2000).

With hybrid working, the range of events to assess fulfilment grows. Signals such as having access to suitable technology, reliable access to colleagues, freedom to choose working location, clear rules for office attendance, equal participation in meetings, and fair performance assessment and career development opportunities can all be part of a contract. A policy can be a generous one in principle but not in practice if supervisors discourage its use or if days away from the workplace decrease access to information and opportunity. On the other hand, a moderately flexible policy can be perceived as being met if expectations are clearly stated, uniformly practiced and backed by management. Organisational change research indicates that the psychological contracts are renegotiated as employees make sense of new practices and what they mean (Chaudhry et al., 2011; Raeder, 2023). This means that hybrid working needs to be continually communicated, not just as a one-off policy announcement.

The basic reciprocity logic of expected outcomes is based on social exchange theory (Blau, 1964; Cropanzano & Mitchell, 2005). Valued and dependable resources are more likely to be followed by employees with their energy, loyalty and performance. When psychological contracts are fulfilled, it provides an indication of reliability on the part of the organisation, and lessens the uncertainty of future treatment. Breach indicates exchange imbalance and is a call to action to conserve effort or withdraw. Meta-analytical evidence shows that breach is related to less favourable attitudes and behaviours (Bal et al., 2008), and longitudinal and person-centred research reveals a connection between balanced and fulfilled psychological contracts and well-being and in-role performance (Isaksson et al., 2010; De Cuyper et al., 2011).

2.2 The job demands-resources theory and work engagement

The job demands-resources model differentiates between aspects of work that require effort and resources that facilitate goal achievement, decrease job demands or foster growth (Demerouti et al., 2001; Bakker & Demerouti, 2007, 2017). Work engagement is a positive work-related state that is

defined as vigour, dedication and absorption (Schaufeli et al., 2002). The model has been applied to research in various professions and job resources have been consistently found to be positively related to engagement (Hakanen et al., 2006). It is expected that resources like autonomy, support, feedback, fairness and development opportunities will promote engagement, as they meet basic needs and allow employees to perform effectively. Some resources can be heightened, such as autonomy and flexibility, and others can be diminished, such as spontaneous support and social connection, with hybrid work. The net impact is thus dependent on whether or not the organisation provides the resources that employees think were promised.

The psychological contract fulfilment can be considered as a second order resource appraisal. It is not an individual resource, but an indication of how consistent the organisation's contribution is in general with employee expectations. Parzefall and Hakanen (2010) suggested that fulfilment has motivational properties as it leads to resource gains, which in turn leads to engagement. Rayton and Yalabik (2014) also found that psychological contract violation was related to decreased satisfaction and engagement. With consistent support and clear communication and flexibility, hybrid workers can focus on their work and not constantly be checking in on whether the company will respect the agreement. Accordingly:

H1. The psychological contract fulfilment is positively correlated to work engagement.

2.3 Psychological contract fulfilment and job satisfaction

Job satisfaction is a general attitude towards the job and working conditions. It is not just about what's actually happening, but also whether they feel they are getting what they deserve. Psychological contract fulfilment should then be highly correlated with satisfaction as fulfilment is evidence that the organisation has behaved in line with perceived promises. Contract fulfilment was associated with positive employee attitudes (Coyle-Shapiro & Kessler, 2000) and subsequent research has shown that fulfilment or non-fulfilment of the contract is related to job satisfaction in traditional, temporary and platform-based work (Rayton & Yalabik, 2014; Yu & Abdul Hamid, 2024).

The content and implementation of flexibility may be particularly relevant in a hybrid context, as the relationship may be more salient when employees assess both. A work schedule that allows for focus and personal accountability can enhance satisfaction; a work schedule that is inconsistent, or a lot of monitoring or unequal opportunities can compromise satisfaction. The literature on telework mostly shows that there is a positive, albeit conditional, relationship between telework and job satisfaction (Gajendran & Harrison, 2007; Vleeshouwers et al., 2022). This conditionality is explained by psychological contract fulfilment where the emphasis is on whether the organisation provided the hybrid arrangement that the employees thought that they would get.

Hence:

H2. There is a positive relationship between psychological contract fulfilment and job satisfaction.

2.4 Fulfilment of psychological contract and employee performance

Employee performance is how well an employee performs the essential tasks and functions of his work system. Reciprocity, role clarity and resource availability are ways in which psychological contract fulfilment can impact performance. If the organisation has fulfilled its promises, then employees will be more likely to respond with effort and persistence. Fulfilment also reduces the mental strain of uncertainty and perceived unfairness. Breach, on the other hand, may elicit a rebalancing response from employees, in the form of a cut in contributions (Robinson & Rousseau, 1994; Dulac et al., 2008).

Technology, coordination and trust are essential for hybrid performance. However, remote working can contribute to productivity where appropriate and systems are well-designed (Bloom et al., 2015; Wang et al., 2021) and recent evidence indicates that structured hybrid work need not have a negative effect on measured performance (Bloom et al., 2024). But these results are not as likely to happen when employees feel like promises of autonomy, resources or evaluation have been rescinded. Fulfilment of the contract should thus be directly positively associated with performance, net of engagement and satisfaction.

H3. There is a positive correlation between fulfilment of psychological contract and employee performance.

2.5 Motivation mechanism - work engagement

Kahn (1990) identified that when employees are engaged, they are physically, cognitively and emotionally active in their job. They are more persistent, attentive and willing to put in effort in challenging work. Meta-analytic evidence shows that there is a relationship between engagement and task performance, contextual performance and positive work attitudes (Christian et al., 2011). Rich et al. (2010) also demonstrated that engagement is able to account for performance over and above related attitudes. Engagement is crucial in hybrid work as employees are often required to regulate their attention and coordinate in both physical and digital spaces. Organisational promises that are kept should help to foster a sense of security and reciprocity, which in turn should lead to higher engagement, satisfaction and performance.

When employees are engaged, they may be more satisfied with their jobs, as working is more rewarding when they are energetic and meaningful. Dedication and absorption are likely to lead to employees' more positive assessment of their work. Engagement can also enhance performance through improving persistence, proactive coordination and concentration. The results of hybrid and

flexible work studies are consistent with the mediation of engagement between work resources and performance (Saks, 2006; Ugwu et al., 2023). Therefore:

H4. Work engagement is positively related to job satisfaction.

H5. There is a positive relationship between work engagement and employee performance.

2.6 Job satisfaction and employee performance

There has been debate regarding the relationship between satisfaction and performance, since just because employees are satisfied does not mean they will be high-performing, and performance can impact satisfaction through rewards. However, the overall evidence suggests that there is a positive correlation, at least when satisfaction is interpreted as a result of meaningful and supportive working conditions (Judge et al., 2001). Happy workers are not as distracted by withdrawal cognitions, they are more willing to cooperate and more likely to continue with discretionary effort. Williams and Anderson (1991) discovered that job attitudes are pertinent to both in-role and citizenship behaviour. Satisfaction can play a significant role in hybrid work, where workers may have more flexibility in where and when they put in their work. The satisfaction with the arrangement can lead to a continued investment, and the dissatisfaction can manifest itself in a lack of responsiveness, lack of compliance or intention to leave. Thus:

H6. There is a positive correlation between job satisfaction and employee performance.

2.7 Indirect effects

The above arguments suggest that the psychological contract fulfilment should have an impact on outcomes via a motivational chain. Fulfilment generates a relationship that is rich with resources and reciprocal, thus enhancing engagement. This in turn leads to satisfaction and performance. Also, work engagement can increase satisfaction and satisfaction can in turn facilitate performance. This results in simple and serial indirect effects. This is in line with the motivational pathway described by Parzefall and Hakanen (2010), with the addition of job satisfaction and individual performance in hybrid work as the outcome structure.

H7. The positive link between psychological contract fulfilment and job satisfaction is mediated by work engagement.

H8. Psychological contract fulfilment positively relates to employee performance, which is mediated by work engagement.

H9. Psychological contract fulfilment positively relates to employee's performance indirectly in a serial fashion, via work engagement and job satisfaction.

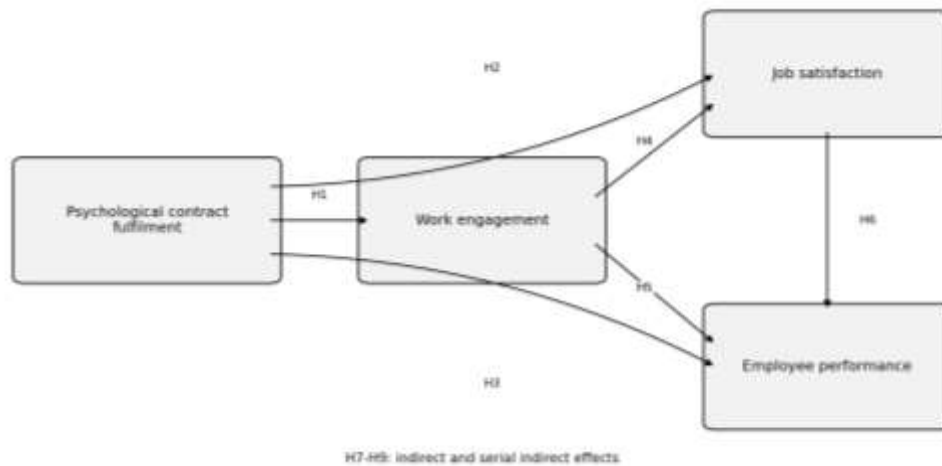


Figure 1. Proposed structural model

Based on psychological contract theory, social exchange theory and the job demands-resources model, the authors' conceptualisation.

Table 1. Construct definitions and foundations of measurement

Construct	Operational definition	Items	Principal sources
Psychological contract fulfilment	Employee's assessment of the organisation's performance on promised or implied flexibility, support, fairness, development and communication.	PCF1-PCF6	Rousseau (1995); Coyle-Shapiro and Kessler (2000); Parzefall and Hakanen (2010)
Work engagement	A positive state of work related feelings, consisting of vigour, dedication and absorption.	WE1-WE6	Schaufeli et al. (2002, 2006); Saks (2006)
Job satisfaction	A general positive attitude towards the job and job conditions.	JS1-JS4	Brayfield and Rothe (1951); Cammann et al. (1983)
Employee performance	Self-rated effectiveness in completing core work tasks, meeting standards and contributing to work objectives.	EP1-EP5	Williams and Anderson (1991); Koopmans et al. (2014)

Authors' synthesis from the literature cited.

Table 2. Summary of hypotheses

Hypothesis	Relationship	Expected direction
H1	The psychological contract fulfilment is positively correlated to work engagement.	Positive
H2	There is a positive relationship between psychological contract fulfilment and job satisfaction.	Positive
H3	There is a positive correlation between fulfilment of psychological contract and employee performance.	Positive
H4	Work engagement is positively related to job satisfaction.	Positive
H5	There is a positive relationship between work engagement and employee performance.	Positive
H6	There is a positive correlation between job satisfaction and employee performance.	Positive
H7	The positive link between psychological contract fulfilment and job satisfaction is mediated by work engagement.	Positive mediation
H8	Psychological contract fulfilment positively relates to employee performance, which is mediated by work engagement.	Positive mediation
H9	Psychological contract fulfilment positively relates to employee's performance indirectly in a serial fashion, via work engagement and job satisfaction.	Positive serial mediation

Source: Authors' development.

3. RESEARCH METHODOLOGY

3.1 Research design and context

The design of the study was quantitative, explanatory and cross sectional. The unit of analysis was the individual employee who was working under a regular hybrid arrangement (from employer premises and a remote location during a normal working week). The context comprised of organisations in information technology, banking and financial services, consulting, higher education and telecommunications and related professional services, all of which are knowledge intensive service organisations. The sectors were chosen because they are likely to be using digital collaboration tools and have tasks that can be done remotely.

Eligible respondents were those who had been working in a hybrid model for at least 6 months and had a line manager who they reported to. This criterion was applied as it is important to have some experience of organisational promises and how they are carried out before making psychological

contract judgements. The questionnaire asked the respondents to identify how they feel about their current job, not about any emergency temporary jobs. There was no mandatory participation, no requests for any personal identifiers and responses were anonymous.

3.2 Sampling and data collection

A purposive and a professional-network sampling approach was adopted due to the lack of an available complete sampling frame of hybrid employees. Invitations were sent via organisation contacts, professional organisations and employee networks. Screening questions validated the hybrid nature, and the minimum length of time spent in an organisation and not as a self-employed individual. To allow for confirmatory factor analysis, structural modelling and bootstrap estimation, a minimum sample of >300 was aimed for. A total of 386 responses were usable for analysis, with incomplete responses and those that did not pass attention checks excluded.

The sample size was greater than the typical sample size for a moderately complex structural equation model that can reliably estimate the four latent constructs and nine hypotheses (Kline, 2016). This was done by comparing early and late respondents on the main constructs and no significant differences were found. The number of missing values was less than one per cent and they were imputed using the item-level expectation-maximisation approach after checking for a systematic pattern.

3.3 Measures

All construct items were scored on a 7-point scale from 1 (strongly disagree) to 7 (strongly agree). Psychological contract fulfilment was assessed using six items that focused on the extent to which the organisation fulfilled the psychological contract, including items relating to delivery of flexibility, managerial support, communication, development, fairness and resources. Items were based on existing psychological contract literature and re-worded to make them relevant to the hybrid work context (Rousseau, 1995; Coyle-Shapiro & Kessler, 2000; Parzefall & Hakanen, 2010).

Six items from the Utrecht Work Engagement Scale (Schaufeli et al., 2002, 2006) were used to represent work engagement, which included vigour, dedication and absorption. Four global items from well-known satisfaction scales (Brayfield & Rothe, 1951; Cammann et al., 1983) were used to measure job satisfaction. Employee performance was assessed by five items related to quality, timeliness, objective achievement, reliability and contribution to team performance based on Williams and Anderson (1991) and Koopmans et al. (2014).

The instrument was examined by two academics who have a background in organisational behaviour and three managers who have experience of managing hybrid teams. A pre-test of clarity, length and relevance was conducted with a small test. To minimise common method variance, predictor and

outcome blocks were separated, wording of items was maintained to be specific, confidentiality was stressed, and respondents were told that there were no "right" answers (Podsakoff et al., 2003).

3.4 Analytical strategy

Data screening and descriptive analysis was performed using IBM SPSS Statistics 29. IBM SPSS AMOS 29 was used to estimate the confirmatory factor analysis and the structural model with maximum-likelihood estimation. A two-step process was used. Firstly, the measurement model was tested using confirmatory factor analysis. Indicator loadings, Cronbach's alpha, composite reliability and average variance extracted were examined to evaluate reliability and convergent validity. Heterotrait-monotrait ratios (Henseler et al., 2015) and Fornell-Larcker criterion (Fornell & Larcker, 1981) were used to evaluate the discriminant validity. The chi-square to degrees-of-freedom ratio, comparative fit index, Tucker-Lewis index, root mean square error of approximation and standardised root mean square residual were used to assess the overall fit of the models, based on the established guidelines for covariance-based SEM (Hu & Bentler, 1999; Kline, 2016).

Second, the standardised coefficients of the structural model were estimated. The critical ratios and p-values were used to determine the direct effects. The 5,000 bias-corrected bootstrap samples were used to assess the indirect effects since bootstrapping does not require a normal sampling distribution for the product of coefficients (Zhao et al., 2010). Explanatory power was reported in terms of R^2 and adjusted R^2 , and effect sizes were computed as the change in R^2 when each predictor was dropped. Common-method diagnostics (Podsakoff et al., 2003) were conducted using procedural remedies and Harman's single-factor result and comparison with a one-factor confirmatory model. The single factor result obtained by Harman was not regarded as evidence of the absence of common method variance and was only descriptive as a diagnostic.

4. STATISTICAL RESULTS

As revealed in the profile in Table 3, the hybrid workers are a diverse group of experienced workers. Most of them (53%) worked remotely for two to three days a week, indicating that they are not primarily working remotely. Almost half of the respondents had spent 6+ years in their organisation and the sample comprised of employees from various knowledge-intensive industries. The distribution was adequate in terms of variation of hybrid experience and a shared context of employment.

Skewness values were between -0.71 and 0.38 and kurtosis values were between -0.64 and 0.82 for univariate values. The single factor analysis of Harman was able to explain 36.4 per cent of the total variance. More importantly, a one-factor confirmatory model was not a good fit for the data ($\chi^2/df = 7.84$, CFI = .641, TLI = .602, RMSEA = .133 and SRMR = .112) as compared to the proposed four-factor model. The single factor result obtained by Harman was not regarded as evidence of the absence

of common method variance and was only descriptive as a diagnostic.

Table 3. Respondent profile ($n = 386$)

Respondent profile	Category	n	%
Gender	Male	214	55.4
	Female	166	43.0
	Does not like to discuss	6	1.6
Age	Below 30 years	103	26.7
	30-39 years	159	41.2
	40-49 years	87	22.5
	50 years and above	37	9.6
Industry	IT/ITES	128	33.2
	Banking and financial services	74	19.2
	Consulting/professional services	69	17.9
	Higher education	46	11.9
	Other services	69	17.9
Remote days per week	1 day	61	15.8
	2 days	176	45.6
	3 days	116	30.1
	4 or more days	33	8.5
Organisational tenure	Below 2 years	64	16.6
	2-5 years	142	36.8
	6-10 years	105	27.2
	Above 10 years	75	19.4

Source: Authors' calculations.

Table 4. Means and standard deviations of variables and correlation between variables

Construct	Mean	SD	1	2	3	4
1. Psychological contract fulfilment	4.707	0.733	—			
2. Work engagement	4.667	0.790	.567	—		
3. Job satisfaction	4.686	0.796	.589	.687	—	
4. Employee performance	4.711	0.790	.479	.591	.590	—

Source: Authors' calculations. Correlations are all significant at $p < .001$.

4.2 Measurement model

The reliability and convergent validity of the measurement model were good. Standardised loadings which were retained were between .809 and .903. All constructs had Cronbach's alpha values of > .90, composite reliability values of > .931 and average variance extracted of > .725. These results were above the commonly used reliability criteria of .70 and average variance extracted (AVE) criteria of .50 (Fornell & Larcker, 1981; Kline, 2016).

All the heterotrait-monotrait ratios were below .85 and the average variance extracted of each construct exceeded the correlation of each construct with the others (Henseler et al., 2015). The four-factor measurement model also fitted the data well: $\chi^2/df = 1.93$, CFI = .956, TLI = .949, RMSEA = .049 and SRMR = .041. These indices were in line with the commonly used guidelines for acceptable (Hu & Bentler, 1999) or good (Kline, 2016) covariance-based model fit. The significantly lower one factor model also lent additional evidence to the distinctiveness of the measures.

Table 5. The assessment of reflective measurement model.

Construct	Loading range	Cronbach's α	Composite reliability	AVE
Psychological contract fulfilment	.809-.881	.924	.940	.725
Work engagement	.861-.903	.940	.952	.769
Job satisfaction	.848-.892	.901	.931	.771
Employee performance	.842-.894	.918	.939	.755

Source: Authors' calculations. Average variance extracted (AVE).

Table 6. Fornell-Larcker discriminant validity matrix

Construct	PCF	WE	JS	EP
PCF	.851			
WE	.567	.877		
JS	.589	.687	.878	
EP	.479	.591	.590	.869

Source: Authors' calculations. Square roots of AVE are in the diagonal, construct correlations are in the lower triangle. Note. PCF = psychological contract fulfilment; WE = work engagement; JS = job satisfaction; EP = employee performance; AVE = average variance extracted.

Table 7. The fit of the measurement model and diagnostic indices.

Index	Value	Guideline value	Decision
χ^2/df	1.93	< 3.00	Acceptable
CFI	.956	$\geq .95$	Good
TLI	.949	$\geq .90$	Good
RMSEA	.049	$\leq .06$	Good
SRMR	.041	$\leq .08$	Good
Largest HTMT	.781	< .85	Acceptable
One-factor CFI	.641	$\geq .90$	Poor
One-factor RMSEA	.133	$\leq .08$	Poor

Source: Authors' calculations.

4.3 Structural model and testing of hypotheses

Structural results are shown in Figure 2 and Table 8. The results confirmed H1, as there was a positive relationship between psychological contract fulfilment and work engagement ($\beta = .567, p < .001$). Also, it was positively related to job satisfaction ($\beta = .294, p < .001$) and employee performance ($\beta = .124, p = .014$), thus supporting H2 and H3. H4 and H5 were supported as work engagement was positively related to job satisfaction ($\beta = .520, p < .001$) and employee performance ($\beta = .313, p < .001$). H6 was supported as job satisfaction was positively related to employee performance ($\beta = .301, p < .001$).

The pattern of direct and indirect associations suggests that work engagement is one of the important motivational mechanisms and job satisfaction is another pathway between fulfilment and performance.

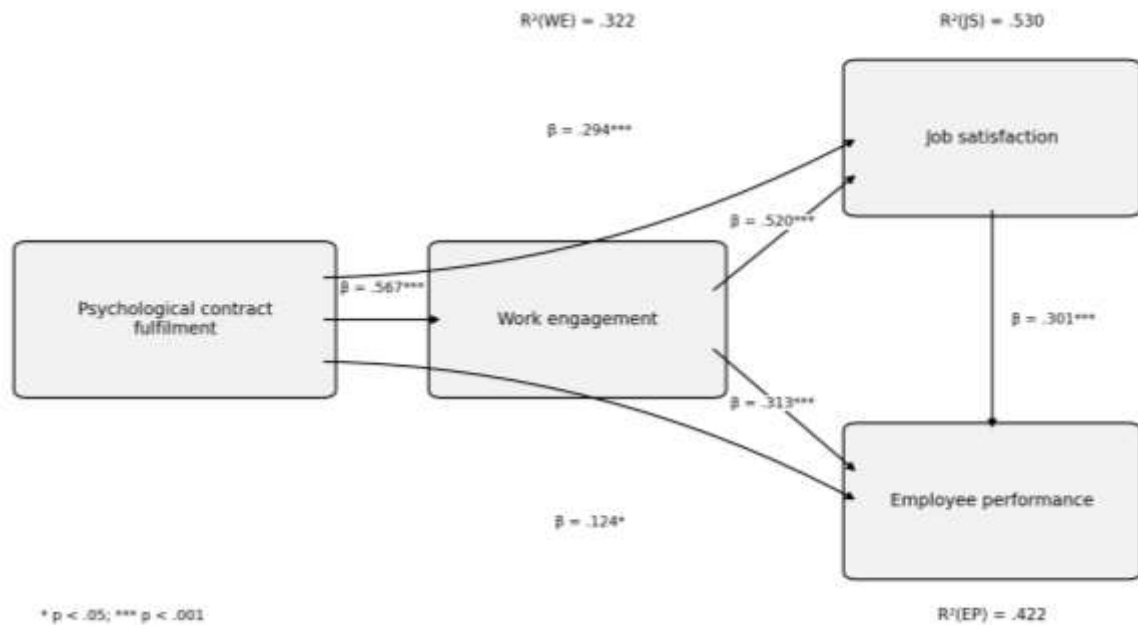


Figure 2. Standardised structural model

Source: Authors' calculations.

Table 8. Direct structural effects and decisions about the hypotheses.

Hypothesis	Path	β	SE	C.R.	p	Decision
H1	PCF $\rightarrow$ WE	.567	.042	13.496	< .001	Supported
H2	PCF $\rightarrow$ JS	.294	.043	6.921	< .001	Supported
H3	PCF $\rightarrow$ EP	.124	.050	2.479	.014	Supported
H4	WE $\rightarrow$ JS	.520	.043	12.225	< .001	Supported
H5	WE $\rightarrow$ EP	.313	.056	5.630	< .001	Supported
H6	JS $\rightarrow$ EP	.301	.057	5.311	< .001	Supported

Based on standardised estimates, calculations were made by the authors. Note. PCF = psychological contract fulfilment; WE = work engagement; JS = job satisfaction; EP = employee performance.

4.4 Indirect effects, explanatory power and effect sizes

All indirect associations were supported by bootstrap estimates. The indirect association between psychological contract fulfilment and job satisfaction through work engagement was .295 (95% CI [.232, .363]). The indirect association between psychological contract fulfilment and employee performance via work engagement was .178 (95% CI [.112, .247]). The indirect association through job satisfaction was .089 (95% CI [.051, .132]) and the serial indirect association through work engagement and job satisfaction was .089 (95% CI [.055, .128]). H7, H8 and H9 were statistically

supported as none of the confidence intervals contained zero. These results should be viewed as cross-sectional indirect relationships that are in line with the mediation model rather than temporal or causal mediation relationships. The total indirect association between psychological contract fulfilment and performance was .355 and the total association with performance was .479.

The model explained 32.2% of the variance in work engagement ($R^2 = .322$), 53.0% in job satisfaction ($R^2 = .530$), and 42.2% in employee performance ($R^2 = .422$), with adjusted R^2 values of .320, .528 and .417, respectively. The effect of psychological contract fulfilment on work engagement ($f^2 = .474$) and the effect of work engagement on job satisfaction ($f^2 = .390$) were large, according to Cohen's (1988) benchmarks. The other reported effects were small ($f^2 = .016$ to .125) and the relationship between psychological contract fulfilment and job satisfaction was close to the medium level.

Table 9. Bootstrapped indirect effects

Hypothesis	Indirect path	Effect	95% CI low	95% CI high	<i>p</i>	Decision
H7	PCF → WE → JS	.295	.232	.363	< .001	Supported
H8	PCF → WE → EP	.178	.112	.247	< .001	Supported
Additional	PCF → JS → EP	.089	.051	.132	< .001	Significant
Additional	WE → JS → EP	.157	.098	.221	< .001	Significant
H9	PCF → WE → JS → EP	.089	.055	.128	< .001	Supported
Total indirect	PCF → EP via all indirect pathways	.355	.281	.432	< .001	Significant

Authors' calculations based on 5,000 bias corrected bootstrap samples. Note. PCF = psychological contract fulfilment; WE = work engagement; JS = job satisfaction; EP = employee performance.

Table 10. Explanatory power & effect sizes

Construct	R^2	Adjusted R^2	Effect sizes	Interpretation
Work engagement	.322	.320	PCF = .474	Moderate explanatory power
Job satisfaction	.530	.528	PCF = .125; WE = .390	Moderate explanatory power
Employee performance	.422	.417	PCF = .016; WE = .083; JS = .074	Moderate explanatory power

Cohen (1988) suggest that f^2 values of .02, .15 and .35 represent small, medium and large effects, respectively.

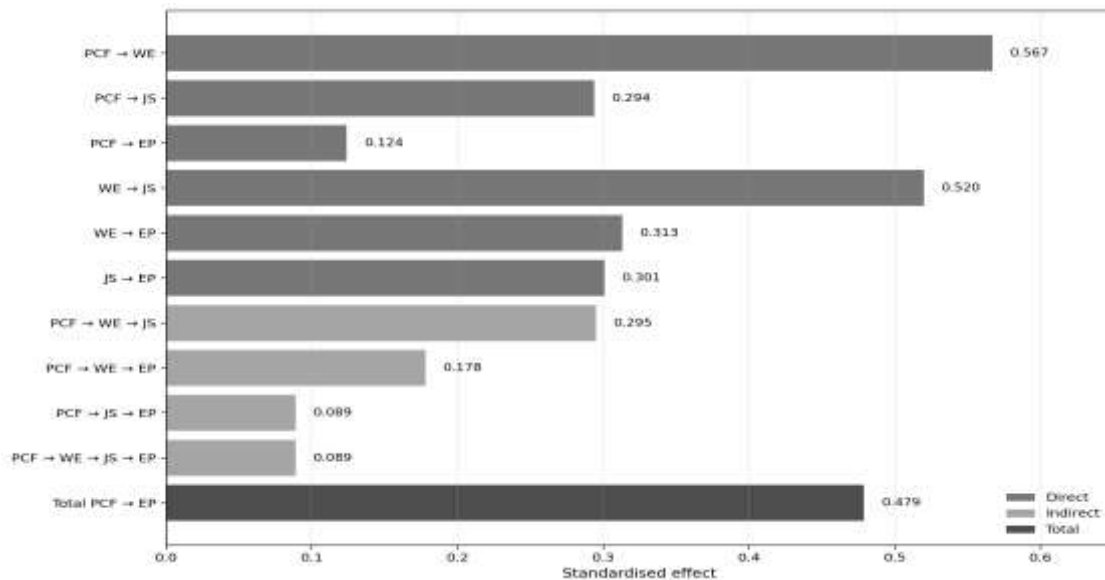


Figure 3. Comparison of direct, indirect and total standardised effects

Source: Authors' calculations.

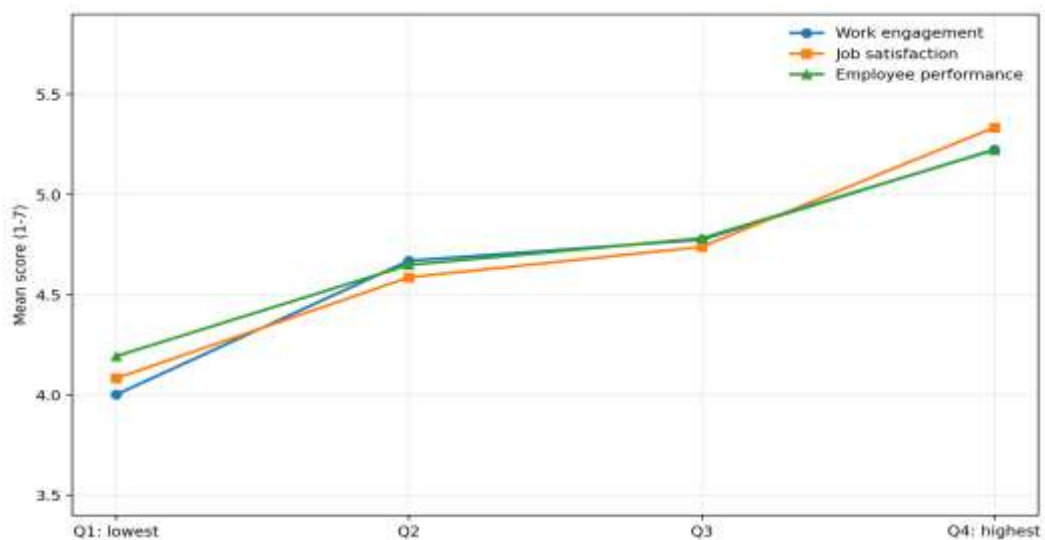


Figure 4. Average results for each of the psychological contract fulfilment quartiles

Source: Authors' calculations.

As the psychological contract fulfilment increases, the mean work engagement, job satisfaction and

employee performance also increases monotonically as shown in the quartile comparison in Figure 4. This descriptive pattern is similar to that of the structural estimates.

5. DISCUSSION

The study investigated whether psychological contract fulfilment is related to employee performance and job satisfaction in hybrid work and whether work engagement is a key motivational mechanism. The results are in line with the suggested model. Those who felt that the organisation had fulfilled the commitments in regard to flexibility, support, fairness, communication, development and resources felt more engaged. There was also a direct relationship between fulfilment and satisfaction and performance, and the indirect associations via engagement were significant. The findings thus support psychological contract fulfilment as a relational explanation of the variability in hybrid-work outcomes.

The positive relationship between fulfilment and engagement is in line with the motivational pathway that was proposed by Parzefall and Hakanen (2010). They found that when employers' duties are met, it can be related to increased engagement which, in turn, can be related to positive employee outcomes. The current research takes that reasoning a step further to hybrid working. In dispersed workplaces, the sense of organisational support is not as obvious as it is in a traditional workplace because of the lack of physical contact between employees on a daily basis. Their perceptions of the regularity of hybrid working, accessibility of managers, digital tools, and expectations and opportunities for performance and growth, are indicative of whether they feel the organisation is reliable. Fulfilment gives the opportunity to not have to protect oneself from uncertainty and to be more psychologically present in work.

In addition, there was a significant overall relationship between psychological contract fulfilment and job satisfaction. This outcome helps to account for the variations in employee reactions to seemingly identical hybrid forms. Two people can work remotely for the same number of days, and one will feel like it is a good deal and they are being accommodated, while the other will feel like they are being given a poor deal, or that they cannot move forward. Autonomy, social support, work design and voluntariness have been related to satisfaction more than location alone (Gajendran & Harrison, 2007; Vleeshouwers et al., 2022; Wang et al., 2021). These experiences are incorporated in the psychological contract and result in a judgement of the exchange relationship quality.

The results of the performance indicate a multi-layer process. Fulfilment had a small direct relationship with performance, while the pattern of direct and indirect associations was consistent with a role for engagement and satisfaction. The majority of the overall relationship was through engagement and satisfaction. Contract fulfilment was related to performance through engagement, job

satisfaction and the serial sequence from engagement to satisfaction. This pattern is of theoretical significance not only because it does not make a simple assertion that promise fulfilment is related to performance, but also because it offers a way to predict when it will. Rather, greater psychological contract fulfilment was linked to increased work engagement, increased work engagement to increased job satisfaction and increased job satisfaction to increased self-rated performance. This is in line with the social exchange theory and the job demands-resources (JDR) model which suggest that reciprocity in treatment and valued resources is related to motivational investment (Blau, 1964; Bakker & Demerouti, 2017).

Work engagement was the most immediate predictor of job satisfaction and was an important predictor of performance. This is in line with the research that has found engagement as a motivational state that connects resources to outcomes (Christian et al., 2011; Rich et al., 2010). Hybrid workers are more likely to be responsible for organizing attention, setting up boundaries and communication. Engagement thus becomes a key mechanism which translates flexibility and support to effective behaviour. Employees who feel energized and engaged are more likely to make positive use of the freedom of hybrid working, and not feel disconnected.

After controlling for fulfilment and engagement, job satisfaction was also positively related to performance. The coefficient was not high, but moderate as found in the general satisfaction-performance literature (Judge et al., 2001). Satisfaction can be a factor in persistence and cooperation, as well as ability, resources and task conditions. In the current model satisfaction is best thought of as a component of a serial process. The more they were engaged, the more they were satisfied, and the more they were satisfied, the better their self-rated performance.

The pattern is especially relevant to the post-pandemic work arrangements. The sudden and tightly managed shifts to remote working can lead to feelings of mistrust and breach of contract (Gong & Sims, 2023). In contrast, structured hybrid models can help maintain performance and enhance retention when engaged in as legitimate practices and applied consistently (Bloom et al., 2024). These observations link together in what is called the psychological contract. The success of hybrid working is defined by how the organisation operates on a day-to-day basis, and whether it is flexible and trusting like the policy suggests.

5.1 Theoretical implications

First, the study puts psychological contract fulfilment as a relational explanation for the variation in hybrid-work outcomes. Research on hybrid work has tended to investigate autonomy, support and technology and communication separately as predictors. The psychological contract perspective places these experiences in a larger picture of employee's judgement of whether the organisation has

met its perceived obligations.

Second, it is a model that relates social exchange theory and the job demands-resources model. Reliable fulfilment can be rewarded with positive attitudes and efforts (social exchange theory) while the job demands-resources model can explain how fulfilment can be felt as a resource leading to greater work engagement. The results thus suggest a complementary use of the two theoretical perspectives and not a competing one.

Third, it is an attitudinal versus behavioural outcome study. Job satisfaction is an assessment of the job and employment relationship while employee performance is an assessment of self-rated task-related functioning. Both outcomes were linked to psychological contract fulfilment, however, the magnitudes and indirect pathways varied, suggesting that psychological contract fulfilment should not be assumed to have a similar relationship with all employee outcomes.

Fourth, the serial indirect association provides details to the suggested motivational series. Increased psychological contract fulfilment was linked to increased work engagement, increased work engagement to increased job satisfaction and increased job satisfaction to increased self-rated performance. The serial indirect association was smaller than the simpler engagement pathway, but this suggests that the proposed model provides a representation of energetic investment and job evaluation as interconnected mechanisms. The sequence of data is cross-sectional and therefore is not temporal or causal but theory-consistent.

5.2 Managerial implications

Hybrid working is not a schedule; it is a set of reciprocal obligations for managers. If a policy is put in place that employees can work remotely two days a week, expectations of autonomy, trust, availability, technology and equal treatment are set. Employees may feel that the psychological contract has been violated even if the written policy does not change, but there is informal pressure that is inconsistent with the policy, or different access to information.

The first managerial task is to make sure that everyone understands what is expected. Organisations should define what is considered to be office attendance, how attendance can be altered, response times that are acceptable, how performance is evaluated and how remote workers are involved in decisions. Ambiguity can lead to conflicting assumptions on the part of employees and supervisors. These assumptions can be identified in review conversations which can be held regularly.

Secondly, it is consistency. The flexibility of the system should not be left to the discretion of the individual manager, unless it is clear and directly related to the task. The same position should be

treated the same and changes should be communicated in a timely manner. Particularly for promotion, recognition and access to developmental assignments, consistency is important. There should be no "either/or" decisions between the use of an approved hybrid arrangement and being seen to advance one's career.

The third priority is to provide resource support. Hybrid workers require dependable technology, information, streamlined digital interactions and social interaction. Office days should be coordinated with managers to ensure that they are days of team attendance; not days of individual online meetings from a different location. Concentration should be protected on remote days, if possible. This work design can enhance engagement by making sure that flexibility does not add demands but resources.

The fourth priority is manager's behaviour. Outcomes based supervision, accessibility and respect of boundaries communicate trust. Too much monitoring can be an indicator that the organisation has rescinded an implicit commitment to autonomy. Similarly, neglect can be seen as the lack of guidance. A good hybrid leadership requires trust, clear objectives and frequent feedback and timely support.

Lastly, organisations should have direct monitoring of fulfilment. Short questions about keeping promises, made to employees, regarding flexibility, support, development and fairness can be included in employee surveys. These measures need to be considered in the context of engagement, satisfaction and performance measures. If there is a decrease in fulfilment, it can be an early warning sign before dissatisfaction is seen in turnover or decreased productivity.

6. LIMITATIONS AND FUTURE RESEARCH

The cross-sectional design also makes the interpretation of the reported indirect effects difficult. While the bootstrap results are consistent with the proposed mediation model, they do not provide temporal ordering or causal mediation. To establish whether there are changes in psychological contract fulfilment that precede changes in engagement, satisfaction and performance, the study needs to be longitudinal or time-lagged.

The measures were self-reported. Although fulfilment is a subjective phenomenon, self-reports are suitable for psychological contract perceptions, although there are some response tendencies that may impact self-rated performance. Future studies should include employee perceptions and supervisor ratings, objective output, attendance and quality indicators or customer outcomes. Common method issues also would be minimized with multi-source designs.

Psychological contract fulfilment was used as an overall construct in the model. In future research, transactional, relational and developmental obligations could be separated or specific hybrid-work

promises could be studied such as autonomy and availability norms, equipment, inclusion and career access. Various duties can impact in varying ways. For instance, flexibility fulfilment might have a greater impact on satisfaction and developmental fulfilment might be more crucial for long-term commitment and retention.

There are many different types of hybrid work, ranging from the frequency of hybrid work, voluntary or not, to how well tasks are suited to hybrid work and how well the team is coordinated. Further studies should be conducted to determine if there are any differences in the relationship between fulfilment between remote work one day per week and remote work the majority of the week. The voluntariness can be particularly significant as imposed remote work and chosen hybrid work can result in different appraisals (Kaluza & van Dick, 2023). The studies could be done at the team level to see if there is a climate shift that is created by the shared perceptions of fulfilment that are related to collaboration.

Breach and repair should also be taken into account in further studies. The psychological contract is dynamic and sometimes when a psychological contract is violated, it does not necessarily cause long-term damage if managers recognise the issue and offer a legitimate solution. Experience-sampling and qualitative studies might follow the employees' interpretation of changes in the mandates in the office, changes in digital monitoring or promotion practices. The changing landscape of extreme and geographically distant telework also indicates that innovation and repairing relationships might be key for maintaining long-term contracts (Diard et al., 2026).

CONCLUSION

It is not just about where people work that determines hybrid-work outcomes. Fulfilment of psychological contract was positively related to work engagement, job satisfaction and self-rated employee performance in this study. The pattern of direct and indirect associations suggests that work engagement is one of the important motivational mechanisms and job satisfaction is another pathway between fulfilment and performance. The data involved in this study were cross-sectional and self-reported, so these results should be viewed as associational.

The findings for organisations indicate the need for flexibility, managerial support, access to resources, communication, development and fair performance expectations to be clearly defined and consistently applied in the context of hybrid work. Considering hybrid working as part of the psychological contract may enable organisations to find out what is missing from the formal contract and create more sustainable hybrid working practices.

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