

## RESEARCH ARTICLE

# Modeling the social-psychological mechanisms of employee turnover: An integrated environmental and organizational approach

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## ABSTRACT

Employee turnover poses a growing challenge for organizations facing increasing environmental complexity and uncertainty. Prior research has largely examined turnover from isolated organizational or individual perspectives, overlooking the integrated role of environmental and organizational factors in shaping employees' social-psychological mechanisms. To address this gap, this study develops an integrated environmental–organizational framework to model the social-psychological drivers of employee turnover. Grounded in social exchange theory and conservation of resources theory, the model explains how external environmental pressures and internal organizational conditions jointly influence employees' psychological states. Job satisfaction, organizational commitment, and psychological stress are examined as key mediating mechanisms linking environmental and organizational factors to turnover intention. Using survey data and structural equation modeling, the results indicate that environmental pressures increase turnover intention by intensifying psychological stress, while supportive organizational practices reduce turnover intention by enhancing job satisfaction and organizational commitment. Organizational support further buffers the negative psychological effects of environmental uncertainty. This study advances turnover research by clarifying its underlying social-psychological mechanisms and offers practical insights for turnover management.

**Keywords:** Employee Turnover; Social-Psychological Mechanism; Organizational Support

## 1. Introduction

Employee turnover has long been recognized as a central concern in organizational research and human resource management, owing to its substantial economic costs, operational disruptions, and adverse consequences for organizational performance and knowledge continuity<sup>[1,2]</sup>. In contemporary organizational contexts, characterized by rapid technological change, intensified market competition, and heightened environmental uncertainty, employee turnover has become not only more prevalent but also more complex in its underlying causes<sup>[3,4]</sup>. As organizations operate under increasingly volatile, uncertain, complex, and ambiguous (VUCA) environments, understanding why employees choose to leave has become a critical theoretical and practical challenge.

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Early research on employee turnover primarily focused on individual attitudes and job-related factors, such as job satisfaction and organizational commitment <sup>[5,6]</sup>. These foundational models conceptualized turnover as a rational decision-making process driven by employees' evaluations of job alternatives and affective attachment to the organization. Subsequent extensions incorporated social exchange perspectives, emphasizing the reciprocal relationship between employees and organizations, in which perceived organizational support, fairness, and trust shape employees' willingness to remain <sup>[7-9]</sup>. While these models have significantly advanced the understanding of turnover, they largely treat the organizational environment as a stable backdrop rather than a dynamic and influential force. In parallel, a growing body of research has highlighted the role of external environmental factors—such as labor market conditions, industry competition, and technological disruption—in shaping employee mobility and turnover behavior <sup>[10,11]</sup>. From this perspective, employee turnover is not merely an internal organizational phenomenon but is embedded within broader environmental contexts that alter employees' perceived opportunities, risks, and resource constraints. For instance, favorable labor market conditions may enhance perceived employability and reduce employees' dependence on their current organizations, thereby increasing turnover intention <sup>[12]</sup>. However, much of this research examines environmental factors in isolation, without systematically integrating them with internal organizational mechanisms.

More importantly, existing turnover research often under-theorizes the social-psychological mechanisms through which environmental and organizational conditions jointly influence employees' turnover decisions. Conservation of resources (COR) theory suggests that individuals strive to acquire, retain, and protect valued resources, and experience stress when these resources are threatened or depleted.<sup>[13]</sup> In uncertain environments, employees may perceive heightened threats to job security, career development, or psychological well-being, leading to increased stress and withdrawal tendencies. At the same time, organizational practices such as supportive leadership, fair human resource systems, and inclusive climates can function as critical resources that buffer environmental stressors and stabilize employees' psychological states.<sup>[14]</sup> Yet, empirical research rarely models these resource-based psychological processes explicitly within an integrated framework.

Recent advances in turnover theory increasingly emphasize multilevel and process-oriented approaches, calling for models that bridge macro-level environmental forces and micro-level psychological mechanisms.<sup>[15,16]</sup> Job embeddedness theory, for example, broadens the focus beyond attitudes to include social and contextual ties that bind employees to organizations (Mitchell et al., 2001). While valuable, such approaches still provide limited insight into how environmental uncertainty interacts with organizational conditions to shape employees' internal psychological responses, such as stress, satisfaction, and commitment, which ultimately drive turnover intention. Against this backdrop, this study proposes an integrated environmental–organizational approach to modeling employee turnover, with a particular focus on the social-psychological mechanisms underlying turnover intention. Drawing on social exchange theory,<sup>[17]</sup> conservation of resources theory,<sup>[18]</sup> and organizational support theory,<sup>[19]</sup> this research conceptualizes employee turnover as the outcome of a dynamic process in which external environmental pressures and internal organizational conditions jointly influence employees' psychological states. Specifically, job satisfaction, organizational commitment, and psychological stress are modeled as key mediating mechanisms linking environmental and organizational factors to turnover intention.

This integrated perspective makes several contributions to the existing literature. First, it advances turnover theory by explicitly incorporating environmental uncertainty into the psychological process of turnover decision-making, thereby moving beyond organization-centric explanations. Second, by modeling multiple psychological mediators simultaneously, the study clarifies the mechanisms through which

environmental and organizational factors exert their influence, addressing long-standing calls for more process-oriented turnover research.<sup>[20,21]</sup> Third, the proposed framework offers practical insights for organizations seeking to manage turnover in uncertain environments, emphasizing the importance of organizational support and resource-enhancing practices in mitigating the negative psychological effects of environmental pressure.

In sum, this study seeks to deepen the understanding of employee turnover by integrating environmental and organizational perspectives and by foregrounding the social-psychological mechanisms that translate contextual conditions into individual turnover intentions. By doing so, it responds to contemporary organizational challenges and contributes to the development of more comprehensive and context-sensitive turnover models.

## **2.Theoretical foundations**

The theoretical foundation of this study is grounded in a multidisciplinary integration of organizational behavior, social psychology, and human resource management theories. Employee turnover is widely recognized as a complex behavioral outcome that cannot be adequately explained by a single theoretical lens. Instead, it emerges from the interaction between contextual conditions and individual psychological processes. To capture this complexity, the present study draws primarily on social exchange theory, conservation of resources theory, organizational support theory, and classic turnover decision models, thereby establishing a comprehensive framework for understanding the social-psychological mechanisms underlying employee turnover.

Social exchange theory provides a fundamental basis for explaining employee–organization relationships and their influence on turnover behavior. Originating from the work of Blau (1964)<sup>[22]</sup>, social exchange theory posits that social behavior is the result of an exchange process in which individuals seek to maximize benefits and minimize costs within ongoing relationships. In organizational contexts, employees evaluate the quality of their relationship with the organization based on perceived reciprocity, fairness, and mutual obligation. When employees perceive that the organization provides adequate support, recognition, and opportunities, they are more likely to reciprocate with positive attitudes and continued membership. Conversely, when the exchange relationship is perceived as imbalanced or exploitative, withdrawal behaviors such as turnover become more likely. Extensive empirical research has confirmed that social exchange mechanisms play a central role in shaping job satisfaction, organizational commitment, and turnover intention.<sup>[23,24]</sup>

Building on social exchange theory, organizational support theory further elaborates how employees interpret organizational actions and form generalized beliefs about the organization’s intentions. Eisenberger et al. (1986) <sup>[25]</sup>introduced the concept of perceived organizational support, emphasizing that employees develop global perceptions regarding the extent to which the organization values their contributions and cares about their well-being. According to organizational support theory, high levels of perceived organizational support strengthen employees’ affective attachment and sense of obligation, thereby reducing turnover intention. Meta-analytic evidence consistently demonstrates that perceived organizational support is negatively associated with turnover intention and actual turnover, while positively related to job satisfaction and organizational commitment.<sup>[26,27]</sup> Within the present study, organizational support is conceptualized as a critical internal resource that shapes employees’ psychological responses to both organizational demands and external environmental pressures.

While social exchange-based theories focus primarily on relational processes within organizations, conservation of resources (COR) theory offers a complementary perspective by emphasizing the role of stress and resource dynamics in turnover behavior. Proposed by Hobfoll (1989),<sup>[27]</sup> COR theory posits that individuals are motivated to acquire, protect, and retain valued resources, including material assets, social support, self-esteem, and psychological well-being. Stress arises when these resources are threatened, lost, or insufficient to meet environmental demands. In uncertain or highly competitive environments, employees may perceive increased threats to job security, career development, and work-life balance, leading to heightened psychological stress and withdrawal tendencies. Empirical studies grounded in COR theory demonstrate that resource loss and chronic stress significantly predict turnover intention, particularly when employees lack sufficient organizational resources to buffer environmental demands.<sup>[28,29]</sup> In this study, psychological stress is treated as a key mediating mechanism through which environmental pressure translates into turnover intention. Classic turnover decision models also provide essential theoretical grounding for this research. March and Simon (1958)<sup>[30]</sup> conceptualized turnover as a function of perceived desirability of movement and perceived ease of movement, highlighting the importance of both internal satisfaction and external opportunities. Mobley (1977)<sup>[31]</sup> further refined this approach by proposing a cognitive process model in which job dissatisfaction leads to thoughts of quitting, job search behavior, and eventual turnover. Although these models remain influential, subsequent research has noted their limitations in addressing contemporary organizational environments characterized by rapid change and uncertainty.<sup>[32]</sup> In particular, traditional turnover models often treat environmental factors as static background conditions rather than dynamic forces shaping employees' psychological states.

Recent theoretical developments advocate for more integrative and multilevel approaches to turnover research. Job embeddedness theory, proposed by Mitchell et al. (2001),<sup>[33]</sup> expands the focus beyond attitudes by incorporating social and contextual ties that connect employees to their organizations and communities. Similarly, Holtom et al. (2008)<sup>[34]</sup> argue that turnover should be understood as a complex process influenced by shocks, contextual changes, and psychological interpretations rather than solely by gradual attitudinal shifts. These perspectives underscore the importance of examining how environmental uncertainty interacts with organizational conditions to shape employees' internal evaluations and emotional responses.

Synthesizing these theoretical traditions, the present study conceptualizes employee turnover as the outcome of an integrated environmental-organizational process mediated by social-psychological mechanisms. Environmental pressure influences employees' perceptions of resource availability and risk, while organizational support and management practices shape the quality of social exchange and resource replenishment. Job satisfaction and organizational commitment reflect positive evaluative and affective responses to favorable exchange relationships, whereas psychological stress captures the strain associated with perceived resource threats. Together, these psychological mechanisms provide a theoretically grounded explanation of how contextual conditions are translated into turnover intention. By integrating social exchange theory, organizational support theory, conservation of resources theory, and classic turnover models, this study establishes a robust theoretical foundation for examining employee turnover in contemporary organizational environments. This integrative approach not only addresses long-standing theoretical fragmentation in turnover research but also responds to recent calls for models that explicitly connect environmental dynamics with individual psychological processes.<sup>[35,36]</sup> As such, it provides a coherent theoretical basis for the empirical analysis that follows.



**Figure 1.** An integrated theoretical framework of employee turnover.

Building on the foregoing theoretical discussion, the conceptual framework developed in this study integrates environmental and organizational perspectives to explain employee turnover intention through a set of social-psychological mechanisms. As illustrated in the model, employee turnover is not treated as a direct reaction to contextual conditions, but rather as the outcome of a mediated psychological process in which external pressures and internal organizational resources jointly shape employees' internal evaluations and stress responses. Specifically, environmental pressure represents the external contextual force that heightens uncertainty and resource threat perceptions, thereby influencing employees' job satisfaction, organizational commitment, and psychological stress. At the same time, perceived organizational support reflects the quality of the employee–organization exchange relationship and functions as a critical internal resource that shapes employees' affective attachment and buffers stress-related responses. These two contextual forces operate in parallel and converge on employees' social-psychological states, highlighting the dual influence of environment-driven strain and organization-driven support. The three mediating variables—job satisfaction, organizational commitment, and psychological stress—capture distinct yet complementary psychological mechanisms through which contextual conditions are translated into turnover intention. Job satisfaction reflects employees' overall evaluative judgment of their work experience, organizational commitment represents their affective attachment to the organization, and psychological stress captures strain arising from perceived resource loss and uncertainty. Together, these mechanisms provide a process-oriented explanation of how employees cognitively and emotionally respond to their work context before forming intentions to leave.

By positioning turnover intention as the final outcome of these psychological processes, the model extends traditional turnover theories by explicitly integrating environmental dynamics with internal organizational conditions. This framework thus offers a theoretically grounded and analytically coherent basis for the subsequent hypothesis development and empirical testing, enabling a systematic examination of how and why employees decide to remain in or exit their organizations under conditions of environmental uncertainty.

### 3. Materials and methods

This study adopts a quantitative research design to empirically examine the social-psychological mechanisms through which environmental and organizational factors influence employee turnover intention. Given the theoretical emphasis on latent psychological constructs and mediated relationships, a survey-based methodology combined with structural equation modeling (SEM) was employed. SEM is particularly appropriate for the present research because it allows for the simultaneous estimation of measurement

models and structural paths, enabling a rigorous test of complex theoretical relationships while accounting for measurement error.

Data were collected through a structured questionnaire administered to full-time employees across a range of industries, including manufacturing, services, information technology, and healthcare. To ensure that respondents had sufficient exposure to both organizational practices and environmental conditions, participation was restricted to employees with a minimum organizational tenure of six months. The survey was distributed using a combination of online platforms and on-site administration, and respondents were informed of the academic purpose of the study, assured of anonymity and confidentiality, and advised that participation was voluntary. After screening for incomplete or invalid responses, the final dataset met the recommended sample size requirements for SEM analysis, ensuring adequate statistical power.

All constructs in the study were measured using established multi-item scales that have been widely validated in prior organizational and psychological research. Environmental pressure was assessed through employees' perceptions of external uncertainty and competitive intensity, reflecting labor market volatility, technological change, and industry competition. This perceptual approach is consistent with prior research suggesting that employees' subjective interpretations of environmental conditions are more proximal predictors of psychological responses than objective indicators. Perceived organizational support was measured using items capturing employees' beliefs regarding the extent to which the organization values their contributions and cares about their well-being, reflecting the quality of the social exchange relationship between employees and the organization. Job satisfaction was operationalized as a global evaluative assessment of one's job experience, encompassing both affective and cognitive components. Organizational commitment was measured in terms of affective commitment, reflecting employees' emotional attachment to and identification with the organization. Psychological stress was assessed by items capturing perceived strain and tension arising from work demands and environmental uncertainty. Turnover intention, the focal dependent variable, was measured by items reflecting employees' conscious and deliberate willingness to leave their current organization, which has been consistently identified as the most immediate predictor of actual turnover behavior.

All measurement items were rated on Likert-type scales and were adapted to the research context following established translation and back-translation procedures where necessary to ensure semantic equivalence. Prior to the main data collection, a pilot study was conducted to assess item clarity and reliability, resulting in minor wording refinements. Demographic variables, including gender, age, education level, organizational tenure, and job position, were collected and included as control variables, given their established associations with turnover intention in previous studies. Data analysis proceeded in several stages. First, descriptive statistics and correlation analyses were conducted to examine the distributional properties of the data and preliminary relationships among variables. Reliability and validity were assessed through confirmatory factor analysis, examining factor loadings, composite reliability, and average variance extracted to establish convergent and discriminant validity. Second, the hypothesized structural model was estimated using SEM with maximum likelihood estimation. Model fit was evaluated using multiple indices, including the comparative fit index, Tucker–Lewis index, root mean square error of approximation, and standardized root mean square residual, following commonly accepted thresholds in the literature.

To test the mediating effects of job satisfaction, organizational commitment, and psychological stress, bootstrapping procedures were employed to generate bias-corrected confidence intervals for indirect effects. This approach provides a robust test of mediation without relying on normality assumptions. Additional analyses were conducted to assess the robustness of the findings, including alternative model specifications

and statistical tests for common method variance. Collectively, these procedures ensure that the empirical results provide a reliable and valid test of the proposed theoretical framework..

## 4. Empirical results

To empirically test the proposed integrated environmental–organizational model of turnover intention, this study relied on a cross-sectional survey of full-time employees from multiple industries. A total of 512 questionnaires were returned. After excluding responses with excessive missing values, failed attention checks, or evident response patterns (e.g., straight-lining), 462 valid observations were retained for analysis. The final sample structure reflects a diverse organizational context and enhances external validity for examining turnover intention as a broadly relevant behavioral outcome.

In terms of demographics, respondents reported an average age of 31.6 years ( $SD = 6.4$ ) and an average organizational tenure of 3.4 years ( $SD = 2.7$ ). Female participants accounted for 51.3% of the sample. With respect to education, 18.4% held a high school or vocational degree, 58.9% held a bachelor's degree, and 22.7% held a graduate degree. In terms of position, 64.1% were non-managerial employees, 26.8% were frontline supervisors, and 9.1% were middle-level managers. This distribution is appropriate for turnover-intention research because leaving decisions are often most salient among employees in early- and mid-career stages. To reduce potential confounding effects, gender, age, education, tenure, and position were included as control variables in the structural model, consistent with prior turnover studies.

**Table 1** reports the descriptive statistics and Cronbach's alpha for each construct. The mean for Environmental Pressure (EP) is relatively high ( $M = 3.58$ ), suggesting that employees perceive notable external uncertainty and competitive intensity. At the same time, Psychological Stress (PS) also presents a high mean ( $M = 3.51$ ), which is theoretically consistent with the assumption that heightened environmental demands are translated into employees' strain experiences. In contrast, Perceived Organizational Support (POS) remains at a moderate level ( $M = 3.39$ ), indicating that employees' perceptions of organizational care and value recognition vary across organizations, which provides sufficient variance to test the buffering/resource mechanism proposed in the model. From a measurement standpoint, Cronbach's alpha values range from 0.86 to 0.92, exceeding the conventional threshold of 0.70, indicating satisfactory internal consistency. These reliability results suggest that the measurement items capture coherent latent constructs and provide a solid basis for the subsequent confirmatory factor analysis and structural model estimation.

**Table 1.** Descriptive statistics and reliability

Construct	Items	Mean	SD	Cronbach's $\alpha$
Environmental Pressure (EP)	4	3.58	0.77	0.86
Perceived Organizational Support (POS)	6	3.39	0.82	0.92
Job Satisfaction (JS)	4	3.30	0.83	0.88
Organizational Commitment (OC)	5	3.26	0.80	0.90
Psychological Stress (PS)	5	3.51	0.85	0.91
Turnover Intention (TI)	3	3.08	0.93	0.87

Before testing structural relationships, a confirmatory factor analysis (CFA) was conducted to establish the measurement quality of the latent constructs. CFA is necessary in SEM-based studies because it verifies whether the observed indicators load onto their intended latent variables and whether the constructs are empirically distinguishable. In this study, all standardized factor loadings were statistically significant and ranged between 0.71 and 0.90, indicating that each indicator contributed meaningfully to its construct and

that the measurement model demonstrates adequate indicator reliability. Convergent validity was evaluated using composite reliability (CR) and average variance extracted (AVE). As shown in **Table 2**, CR values exceed 0.88 and AVE values exceed 0.60 for most constructs, surpassing recommended cutoffs and supporting the conclusion that each construct explains a substantial proportion of variance in its indicators. Together, these results indicate that the measurement instrument reliably captures employees' perceptions of environmental pressure and organizational support, their psychological states (job satisfaction, commitment, and stress), and their turnover intention.

**Table 2.** Convergent validity

Construct	CR	AVE	Loading range
EP	0.88	0.60	0.72–0.85
POS	0.93	0.67	0.75–0.90
JS	0.90	0.69	0.78–0.87
OC	0.91	0.62	0.71–0.86
PS	0.92	0.64	0.73–0.89
TI	0.88	0.71	0.80–0.88

Discriminant validity was assessed using the Fornell–Larcker criterion. **Table 3** presents correlations among constructs, with the square root of AVE on the diagonal. The diagonal values are greater than the corresponding off-diagonal correlations, indicating that constructs are empirically distinct. This is particularly important for conceptually adjacent constructs in turnover research, such as job satisfaction and organizational commitment, which often exhibit high correlations. The results demonstrate that while JS and OC are strongly related ( $r = 0.63$ ), they remain statistically distinguishable, supporting the model's conceptualization of them as separate attitudinal mechanisms leading to turnover intention.

**Table 3.** Correlations and  $\sqrt{\text{AVE}}$

	EP	POS	JS	OC	PS	TI
EP	<b>0.775</b>					
POS	-0.27**	<b>0.819</b>				
JS	-0.23**	0.57**	<b>0.831</b>			
OC	-0.18**	0.53**	0.63**	<b>0.787</b>		
PS	0.50**	-0.35**	-0.42**	-0.39**	<b>0.800</b>	
TI	0.32**	-0.45**	-0.56**	-0.52**	0.58**	<b>0.843</b>

Note. Diagonal values are  $\sqrt{\text{AVE}}$ . \*\* $p < .01$ . To further establish construct distinctiveness and reduce concerns about common method variance, the hypothesized six-factor measurement model was compared with theoretically plausible alternative models. As shown in **Table 4**, the six-factor model achieves good fit (CFI = 0.960; TLI = 0.951; RMSEA = 0.050; SRMR = 0.041). When job satisfaction and organizational commitment were artificially combined into a single factor, model fit deteriorated notably, and the same pattern was observed when additional constructs were collapsed. The poor fit of the single-factor model provides additional evidence that the measurement structure is not driven by a single common factor and that respondents differentiate meaningfully among the study constructs.



**Table 4.** Model fit indices

Model	$\chi^2/df$	CFI	TLI	RMSEA	SRMR
Six-factor (EP, POS, JS, OC, PS, TI)	2.18	0.960	0.951	0.050	0.041
Five-factor (JS+OC combined)	3.02	0.927	0.915	0.066	0.057
Four-factor (JS+OC+TI combined)	4.08	0.874	0.856	0.084	0.075
Single-factor (all items)	6.21	0.712	0.676	0.120	0.110

After establishing the adequacy of the measurement model, the structural model was estimated to test the hypothesized mechanism linking contextual conditions to turnover intention through employees' social-psychological states. The structural results align closely with the logic of the proposed environmental–organizational approach.

First, Environmental Pressure exhibits a statistically significant negative relationship with both Job Satisfaction ( $\beta = -0.17$ ,  $p < .01$ ) and Organizational Commitment ( $\beta = -0.12$ ,  $p < .05$ ), while demonstrating a strong positive association with Psychological Stress ( $\beta = 0.47$ ,  $p < .01$ ). This pattern indicates that external environmental strain does not merely increase turnover intention directly; rather, it influences employees' attitudinal and emotional states. When employees perceive heightened uncertainty or competition, they tend to feel more strained, less satisfied with their jobs, and less affectively attached to their organizations—conditions that are widely recognized as proximal predictors of withdrawal intentions. Second, Perceived Organizational Support significantly strengthens Job Satisfaction ( $\beta = 0.50$ ,  $p < .01$ ) and Organizational Commitment ( $\beta = 0.43$ ,  $p < .01$ ), and simultaneously reduces Psychological Stress ( $\beta = -0.30$ ,  $p < .01$ ). These results support the idea that organizational support functions as a resource-enhancing condition: employees who believe their organization values them and cares for their well-being are more likely to report positive work attitudes and lower strain. Importantly, this finding complements the environmental-pressure results by showing that internal organizational resources can offset or weaken the psychologically harmful consequences of external uncertainty. Third, the three mediators each display significant predictive power for turnover intention in directions consistent with turnover theory. Job Satisfaction negatively predicts Turnover Intention ( $\beta = -0.34$ ,  $p < .01$ ), and Organizational Commitment also negatively predicts turnover intention ( $\beta = -0.23$ ,  $p < .01$ ), confirming that positive attitudes and affective attachment reduce employees' willingness to leave. In contrast, Psychological Stress positively predicts turnover intention ( $\beta = 0.42$ ,  $p < .01$ ), indicating that strain-based mechanisms represent an important pathway to withdrawal. Together, these results confirm that turnover intention emerges from both an attitudinal route (satisfaction and commitment) and a strain route (stress), which strengthens the explanatory completeness of the proposed model.

Overall, the structural model explains 54% of the variance in turnover intention ( $R^2 = 0.54$ ), which represents substantial explanatory power for behavioral intention outcomes in organizational research. This suggests that integrating environmental pressure and organizational support with social-psychological mechanisms provides a robust explanation of turnover intention.

**Table 5.** Structural paths (standardized estimates)

Path	$\beta$	SE	t	Result
EP → JS	-0.17	0.05	-3.40**	Supported
EP → OC	-0.12	0.05	-2.40*	Supported
EP → PS	0.47	0.06	7.83**	Supported
POS → JS	0.50	0.05	10.00**	Supported

Path	$\beta$	SE	t	Result
POS $\rightarrow$ OC	0.43	0.05	8.60**	Supported
POS $\rightarrow$ PS	-0.30	0.06	-5.00**	Supported
JS $\rightarrow$ TI	-0.34	0.06	-5.67**	Supported
OC $\rightarrow$ TI	-0.23	0.06	-3.83**	Supported
PS $\rightarrow$ TI	0.42	0.06	7.00**	Supported

To directly test whether job satisfaction, organizational commitment, and psychological stress transmit the effects of environmental pressure and perceived organizational support to turnover intention, mediation analysis was conducted using bootstrapping with 5,000 resamples. Bootstrapping is recommended for mediation testing because the sampling distribution of indirect effects is often non-normal, and bias-corrected confidence intervals provide a robust inference. As shown in **Table 6**, Environmental Pressure demonstrates significant positive indirect effects on turnover intention through all three mediators. In particular, the indirect effect via Psychological Stress is the strongest ( $EP \rightarrow PS \rightarrow TI = 0.197$ ), implying that the strain mechanism is the primary pathway through which external uncertainty accelerates withdrawal intention. The indirect effects via job satisfaction and organizational commitment are smaller but significant, suggesting that environmental pressure also undermines turnover-related attitudes, thereby increasing turnover intention through an attitudinal route.

In contrast, Perceived Organizational Support shows significant negative indirect effects on turnover intention through each mediator. The strongest attitudinal route appears via job satisfaction ( $POS \rightarrow JS \rightarrow TI = -0.170$ ), indicating that support primarily stabilizes turnover intention by enhancing employees' positive evaluation of their job experience. The support-to-stress route is also significant ( $POS \rightarrow PS \rightarrow TI = -0.126$ ), indicating that organizational support reduces turnover intention by alleviating stress and strain. Taken together, these results provide consistent evidence that turnover intention is shaped by a mediated process in which organizational resources and environmental demands are translated into psychological states before influencing withdrawal intention.

**Table 6.** Bootstrapped indirect effects

Indirect path	Effect	95% CI (LL, UL)	Significant
EP $\rightarrow$ JS $\rightarrow$ TI	0.058	(0.021, 0.103)	Yes
EP $\rightarrow$ OC $\rightarrow$ TI	0.028	(0.006, 0.061)	Yes
EP $\rightarrow$ PS $\rightarrow$ TI	0.197	(0.130, 0.280)	Yes
POS $\rightarrow$ JS $\rightarrow$ TI	-0.170	(-0.244, -0.108)	Yes
POS $\rightarrow$ OC $\rightarrow$ TI	-0.099	(-0.162, -0.049)	Yes
POS $\rightarrow$ PS $\rightarrow$ TI	-0.126	(-0.194, -0.074)	Yes

The empirical results provide coherent support for the integrated environmental–organizational approach proposed in this study. Environmental pressure operates primarily as a contextual stressor that triggers resource-threat perceptions and psychological strain, thereby elevating turnover intention. At the same time, perceived organizational support functions as a stable internal resource that strengthens positive work attitudes and simultaneously reduces stress, thereby lowering turnover intention. Importantly, the mediating role of psychological stress appears particularly salient, highlighting that turnover intention is not only shaped by attitudinal evaluations (satisfaction and commitment) but also by strain-based responses that reflect employees' capacity to cope with uncertainty and demand.

From a mechanism perspective, the results suggest that turnover intention is best understood as the final outcome of a dual-route psychological process. The attitudinal route emphasizes employees' evaluative and

affective judgments of their work relationship, while the strain route emphasizes resource depletion and stress reactions. The fact that both routes are significant provides a more comprehensive explanation than models relying solely on satisfaction or commitment. In practical terms, the findings imply that managing turnover in uncertain environments requires not only improving employee attitudes through supportive management practices but also reducing stress exposure and strengthening coping resources in order to interrupt the stress-to-withdrawal pathway.

## **5. Discussion**

The findings provide coherent support for the integrated environmental–organizational framework proposed in this study and clarify how contextual forces translate into employee turnover intention through social-psychological mechanisms. Consistent with the model logic, environmental pressure functions primarily as a strain-inducing factor that elevates psychological stress while simultaneously eroding positive work attitudes, including job satisfaction and organizational commitment. This pattern suggests that uncertainty and competition in the external environment are not merely background conditions but salient contextual inputs that shape employees’ internal resource appraisals and emotional states, thereby increasing withdrawal tendencies. In contrast, perceived organizational support emerges as a central organizational resource that strengthens satisfaction and affective commitment and reduces stress, ultimately suppressing turnover intention. Taken together, the results highlight a dual-route mechanism in which turnover intention is driven by both an attitudinal pathway (reduced satisfaction and commitment) and a strain pathway (heightened stress), with the latter appearing particularly consequential under conditions of environmental pressure.

These results extend existing turnover research by explicitly integrating environmental dynamics with organizational resource conditions in a single process model, offering a more context-sensitive explanation of why employees intend to leave. The evidence also reinforces the view that supportive organizational practices are not only beneficial in general but especially meaningful when employees face external uncertainty, because they replenish psychological resources and stabilize the employee–organization exchange relationship. Practically, the findings imply that turnover management should move beyond isolated retention tactics and adopt a coordinated strategy that monitors environmental turbulence while strengthening internal support systems. Organizations can reduce turnover risk by enhancing perceived support, improving job conditions that sustain satisfaction and commitment, and proactively mitigating stress through workload design, communication transparency, and accessible well-being resources. At the same time, the study’s cross-sectional design and reliance on self-reported measures limit causal inference; future research could employ longitudinal or multi-source designs and incorporate objective environmental indicators to further validate the proposed mechanisms and examine boundary conditions across industries and labor market contexts.

## **6. Conclusion**

This study advances understanding of employee turnover by modeling its underlying social-psychological mechanisms through an integrated environmental and organizational perspective. The findings demonstrate that employee turnover intention is not merely a response to organizational conditions, but the result of a multilevel process in which environmental pressures and organizational practices jointly shape employees’ psychological states. Psychological stress, job satisfaction, and organizational commitment emerge as key mechanisms translating external and internal influences into turnover intention. Importantly, supportive organizational practices are shown to buffer the adverse psychological effects of environmental

uncertainty, thereby reducing turnover risk. By bridging environmental and organizational explanations, this study contributes to a more comprehensive theoretical framework for employee turnover and provides practical insights for organizations seeking to enhance workforce stability in dynamic environments.

The findings of this study offer several important implications for management practice. First, managers should recognize that employee turnover is shaped not only by internal organizational practices but also by broader environmental pressures. Accordingly, turnover management should move beyond isolated human resource interventions toward more adaptive and environment-sensitive strategies. Second, organizations should prioritize supportive management practices—such as fair procedures, transparent communication, and leadership support—to mitigate employees’ psychological stress and strengthen job satisfaction and organizational commitment, particularly under conditions of environmental uncertainty. Finally, by actively monitoring employees’ psychological states and responding proactively to external changes, organizations can reduce turnover risk and enhance workforce stability in dynamic and competitive environments.

## **Author contributions**

Z.G. was responsible for conceptualization, theoretical framework development, research design, data analysis, and manuscript drafting. G.J. and N.D. provided academic guidance throughout the research process, offering critical feedback on the theoretical development, methodological design, and manuscript revision. All authors reviewed and approved the final manuscript.

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## **Conflict of interest**

The authors declare no conflict of interest

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