

Turnover Intention Predictors in Aviation Maintenance Workforce in India

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Abstract

The aviation industry faces several workforce related challenges as fleet expansion, technological complexity, and rising demand for skilled maintenance professionals outpace supply, particularly in India. Despite its safety-critical nature, turnover intention formation in aviation maintenance workforces remains underexplored. This study addresses that gap by examining how significant predictors in traditional turnover literature influence turnover intention across 661 demographically diverse aviation maintenance professionals, using regression, mediation–moderation modelling, and person-centred segmentation via Proximal Withdrawal States Theory and Latent Profile Analysis. The study introduces a concept of Contextual Conditioning Flux (CCF), a framework proposing that turnover mechanisms are contingent on latent workforce states, with constructs varying in role, effect sign, and mechanistic form across classes. Findings identify distinct profiles, like opportunity-driven leavers, reluctant stayers, and a novel 'escape quitter' substate and demonstrate that aggregate models systematically obscure this heterogeneity, producing suppression effects, competitive mediation, and sign reversals that generate misleading inferences. Traditional predictors such as job satisfaction lose explanatory power in certain states entirely. The CCF advances turnover theory by establishing that predictor roles and effect signs are not universal. It extends Proximal Withdrawal States Theory to accommodate dynamic substates, and provides practitioners with diagnostic tools for targeted, segment-specific retention strategies.

Keywords

Aviation Maintenance Workforce, Turnover Intention, Proximal Withdrawal States Theory, Latent Profile Analysis

1. Introduction

Global aviation is undergoing rapid expansion, driving parallel growth in the MRO ecosystem and intensifying demand for skilled maintenance professionals across civil and military sectors. Global industry reports consistently document a widening technician shortage driven by ageing workforce demographics, constrained training infrastructure, and accelerating fleet growth. In India, these pressures are compounded by the expansion of low-cost carriers, government-led regional connectivity initiatives, and rising domestic MRO investment, all of which have outpaced workforce development, resulting in heightened talent competition, elevated attrition, and growing dependence on external

resourcing. For more than a hundred years, scholars have studied antecedents of turnover (TO) and its proximal indicator, turnover intention (TI). Traditionally significant variables like job satisfaction (JS), organisational commitment (OC), job embeddedness (JE) and perceived job alternatives (JAlt) have been identified from meta-analyses confirming their association with TI, the strongest proxy for TO (Griffeth R. W., 2000); (Hom P. W., 2012); (Rubenstein, Eberly, & Lee, 2017). Yet, large recurring variance, and findings that suffer from a lack of generalisability remain unresolved. Traditional literature attempts to resolve this by considering additional predictors, moderators, and boundary conditions. This study argues that the discipline's generalisability problem arises due to the assumption, that the role a construct plays, and the sign of the effect it carries, are fixed properties of the construct. Once this assumption is relaxed, the anomalies become the means to achieving the solution.

1.1 Objectives

In aviation maintenance, voluntary TO implies operational consequences of disrupted maintenance schedules, redistributed workload, and elevated human error risk. Retaining disengaged employees generates its own costs in productivity loss, compliance degradation, and safety exposure. Existing TO models, centred on attitudinal constructs such as JS and OC, incompletely capture the complexity of interplay between internal motivation and perceived JAlt, and the near-universal assumption of workforce homogeneity obscures the heterogeneity in employee motivations, constraints, and opportunity access that aggregate models systematically conceal. The study pursues five objectives-

- (a) Develop the Contextual Conditioning Flux (CCF) framework, which treats the workforce as a set of internally homogeneous yet mutually heterogeneous latent classes within which the same construct may function as predictor, mediator, or moderator and enhance, mitigate, or remain neutral to the outcome
- (b) Explain 'effect heterogeneity', the phenomenon by which construct effects change their nature across latent classes, and argue that this explanation resolves the oft-lamented lack of generalisability in TO research
- (c) Demonstrate how the linear tradition's core assumptions manufacture unexplained variance
- (d) Formally develop the CCF by building on Proximal Withdrawal States Theory (PWST), the JE and JAlt literature, and person-centred latent profile analysis
- (e) Present and test seven hypotheses on a sample of India's aviation maintenance workforce (AMW), since this population has been hitherto neglected in TO research, thereby yielding insights for theory and practice.

2. Literature Review

Employee TO is a central concern for scholars and practitioners. Since 1917, the field has evolved from simple economic inquiries into a complex study of human behavior, motivation, social context and modern psychological modeling (Hom P. L., 2017) (Bolt E. E., 2022). The fact that replacement cost of a single employee ranges from 90% to 200% of their annual salary, highlights the financial implications of TO on organizational productivity and performance (Li J. J., 2016); (Hom P. L., 2017) This study relies on three pillars, foundational paradigms, contemporary theoretical shifts, and critical gaps identified in the TO literature which are elaborated as follows.

2.1 Foundational paradigms.

- (a) Modern TO research, anchored by March and Simon's (1958) theory of organizational equilibrium, states that employee's decision to 'stay' or 'leave' is a function of the perceived desirability and ease of movement (Greenhaus M. S., 2011); (Jackofsky E. F., 1984); (Felps W. M., 2009).
- (b) Historically, desirability was equated with JS, while ease of movement signified perceived JAlt (Lee T. a., 1994); (Thomas W. Lee T. R., 1999).
- (c) Two dominant research streams 'Process' and 'Content' models exist. 'Process Models' like the 'intermediate linkages' model, map a linear path from dissatisfaction to thoughts of quitting, triggering a search for alternatives, an evaluation of those options, and finally, enactment of TO (Mobley W. , 1977); (Abelson, 1983); (Greenhaus M. S., 2011) The 'Content Models' focus on identifying the structural and environmental antecedents of TO (Price J. L., 1981); (Felps W. M., 2009)
- (d) TI is a proximal and consistent predictor of TO (Price J. L., 1981); (Lance C. E., 1988); (Griffeth, 2000).
- (e) Meta-analyses reveal that traditional predictors like JS and OC rarely explain more than 10% to 12% of the variance in actual TO behavior (Thomas W. Lee T. R., 1999), (Thomas W. Lee T. R., 2004), (Tae Heon Lee, 2008).

2.2 Contemporary Theoretical Shifts

By the early 1990s, the ‘linkages’ models were found incapable of explaining why employees left despite high JS or without JAlt. The Unfolding Model addressed this by introducing ‘shocks’, discrete events that trigger accelerated TO decisions (Lee T. a., 1994); (Holtom B. C., 2008); (Hom P. L., 2017). Concurrently, JE shifted the focus from ‘why employees leave’ to ‘why they stay’ (Mitchell T. H., 2001), demonstrating incremental explanatory power beyond JS and OC. Recent advancements adopt person-centered approaches such as PWST (Hom P. W., 2012) and Latent profile Analysis (LPA) (Spurk, 2020). Individuals are categorized into four distinct profiles based on their preference to stay or leave and volitional control in staying or leaving. (Hom P. L., 2017)); (Li J. J., 2016). The profiles manifest themselves as enthusiastic stayers (ES, those who want to stay and have control over staying), reluctant stayers (RS, those who stay not by volition but through constraints of JAlt or JE), enthusiastic leavers (EL, those who want to leave and exhibit volitional control over leaving) and reluctant leavers (RL, those who do not want to leave but leave due to push factors thus exhibiting lack of volitional control).

2.3 Critical Gaps

Traditional predictors (JS, OC) can effectively predict TO for ES and EL. For RS and RL, TO behavior is driven by external regulation, making attitudinal surveys poor forecasting tools for these groups. Expanding further, TO research asserted that employees whose coworkers are actively searching for other jobs display greater TI as they observe job-seeking behaviors in others that increase the perceived legitimacy and viability of leaving (Felps W. M., 2009) (Hom P. L., 2017) thereby reducing organisational performance by depleting human capital and disrupting social networks (Hom P. L., 2017); (Bolt E. E., 2022). Recent studies in aviation and nursing, highlight how industry-specific stressors like work-life balance, scheduling, and role conflict uniquely drive TI (Kemery, Mossholder, & Bedeian, 1987); (Hom P. L., 2017). Despite substantial advances in TO research, significant theoretical and methodological gaps persist as literature remains constrained by cross-sectional studies and homogeneous modeling (Allen D. G., 2014); (Hom P. L., 2017). Aggregate models assume uniform effects across diverse workforces, leading to distortions such as suppression, competitive mediation, and sign reversals. These limitations underscore the need for longitudinal research that track ‘attitudinal trajectories’ (Hom P. L., 2017); (Holtom B. C., 2020). The continued reliance on traditional variables like JS (Hom P. L., 2017); (Bolt E. E., 2022), coupled with aggregate regression approaches, obscures critical variations in how constructs such as JS, OC, JAlt operate across latent subgroups. This results in statistical distortions, which limit both theoretical clarity and practical applicability and may lead to ineffective retention strategies. (Li J. J., 2016), (Bolt E. E., 2022). Multi-level approaches (PWST, LPA) capture heterogeneity in employee preferences and control, but these are rarely integrated with dynamic modelling of attitudinal, anchoring, and opportunity-based mechanisms to provide precise diagnostic insights. Most TO research has been conducted in developed countries (Hom P. L., 2017) and research samples do not adequately reflect the ethnic and socioeconomic diversity of today’s workforce. Organizations struggle to implement strategies because they do not distinguish between leavers they *should* retain and those whose departure might be beneficial or inevitable (Hom P. W., 2012); (Hom P. L., 2017), (Holtom B. C., 2020); (Bolt E. E., 2022). The dominant flow of TO research is linear and aggregate. Quantitative TO research models predictors as carrying fixed effects. Predictors either mitigate TI (JS, OC) or enhance it (JAlt). These effects are then generalised to the whole workforce. Regression on an undivided sample returns one coefficient per predictor; a single coefficient can carry only one sign and cannot represent a construct that mitigates TI for some employees while enhancing it for others, it reports only the residue. Where the population is heterogeneous, forcing divergent mechanisms through a single linear model produces suppression effects (coefficient meaningfully exceeds its zero-order correlation), competitive mediation (direct and indirect effects carry opposite signs and partly cancel), and sign reversal (JS acquires a positive coefficient despite being universally theorised to reduce TI). This distortion cannot be resolved by larger samples, more variables, or better instruments. This study therefore advances turnover research through multi-level, person-centred profiling via PWST and LPA, moving beyond aggregate assumptions to uncover differential mechanisms of TI formation across distinct employee profiles, providing both theoretical refinement and actionable diagnostic tools for targeted retention strategies in heterogeneous workforces, with the following contributions:

- (a) Demonstrating the possibility of identical predictors exerting divergent, even opposing effects across subgroups.
- (b) Identifying context-specific boundary conditions through mediation–moderation frameworks.

3. Methods

This study examines whether JS, OC, JE, and JAlt operate consistently across the AMW or whether workforce heterogeneity obscures their relationships with TI. Using an explanatory quantitative design with a retrospective

longitudinal approach, data were collected via structured surveys from 661 demographically, socioeconomically, and geographically diverse employees across airlines, MROs, and engineering service providers in India. A 47-item instrument drawn from validated scales measured all constructs. Analytical methods include correlation, regression, conditional process modelling (Hayes SPSS PROCESS models). A dual segmentation strategy compares aggregate models against subgroup-specific analyses. One strategy for segmentation was based on PWST, using absolute values and trends in preference to stay (PS), preference to leave (PL), Internal Perceived Control (IPC), and external perceived control (EPC). The other technique used was probabilistic clustering using LPA via Mclust in R Studio. The first technique yielded four classes and the second yielded five homogeneous classes. Four of the classes extracted by these techniques were common. Robustness was ensured through use of validated instruments, conducting pilot testing, and reliability checks, with acknowledged limitations around retrospective reporting and contextual generalisability. The methodology rests on three foundational pillars, presented as follows.

3.1 Proximal Withdrawal States Theory (PWST) PWST breaks away from the unitary view of the workforce and demonstrates, especially through the RS segment of the workforce, that low observed TO need not signal organisational health. A RS dominated workforce is constrained rather than committed to stay and will show reduced TO similar to a ES workforce whilst concealing an entirely different, and far worse, organisational condition. PWST establishes that the workforce segments differ, forcing us to consider if predictor–outcome mechanisms themselves differ across the segmented population states, or whether the states merely differ in their levels on a common set of mechanisms. The present study will address this issue.

3.2 JE vs JAlt

The construct of JE shifts focus from attitudes to fits, links and sacrifices that bind a person to a job and a community, restraining TO beyond JS and OC. The counterpart to JE is ‘opportunity’ wherein perceived JAlt creates ease of movement, external pull, and the perception that viable alternatives exist. Traditionally, JE and JAlt are treated as opposing forces on a single dimension (JE enticing retention and JAlt encouraging exit) and the net effect decides the TO enaction. This study proposes that this opposition is an artefact of aggregation. We propose that JE and JAlt be thought of as constructs whose *relationship to each other* is class-dependent. The study will demonstrate, that in one class JE neutralises JAlt, whilst in another, JAlt overcomes JE, and, in a third, neither matters because exit is forced on the employee. A framework that crystallises the JE – JAlt relationship will not be able to explain these nuances and will report the residual effect that the sample's mixture of classes produces.

3.3 The person-centric approach

Traditional TO literature focuses on the variable-centred methods that demonstrate how constructs relate to people on average. Forced segmentation techniques based on PWST and extraction of classes based on latent attitudes through LPA bring out homogenous groups of members based on their attitudes that make up the workforce. Unlike PWST based forced segmentation, LPA recovers homogenous classes as distinct configurations of levels and trends rather than imposing classification by fiat. Thus, LPA is able to discover states that PWST does not anticipate. In this study, LPA uncovered the ‘Escape Quitters’ (EQ) class, whose members leave despite constraints and lack of JAlt.

The above foundational pillars give us the means to theorise a CCF and explain why mechanisms are different within classes, why a construct’s behaviour is class dependent and why generalisability of TO mechanisms is impossible.

3.4 Hypotheses

The study considers seven hypotheses divided into three tiers. Tier 1 comprises of three hypotheses (H1–H3) and specifies the nature of CCF. Tier 2 is composed of three hypotheses (H4–H6) and records three findings that the TO literature has debated, but are actually specific instances borne out of conditional mechanisms. Tier 3 has one hypothesis (H7) which functions at the system level and is concerned with the implications of CCF in analysing aggregates. The hypotheses form the basis for conceptualising the CCF which instead of asking which predictor matters most, postulates that the question is contingent on the homogenous classes. The validity of these hypotheses would imply that the very practice of reporting aggregate workforce coefficients as findings needs to be changed and that segmentation, needs to be elevated from being a hygiene factor to a prerequisite for valid findings. The hypotheses are as follows -

Tier 1

H1. *Within a workforce, the functional role played by a construct in TI formation is not a fixed property of the construct but is assigned by the latent withdrawal state category under consideration.*

H2 *The sign and magnitude of a construct's effect on TI are state-contingent.*

H3 *No single mechanism can be generalised as being responsible for defining TI formation mechanism in a workforce.*

Tier 2

H4. *JE and JAlt are not symmetric opposites on a single dimension.*

H5. *JS is a distal antecedent of TI rather than a proximal predictor.*

H6. *The four PWST categories are not exhaustive. Other substates formed by recombining elements of the canonical four classes, can exist.*

Tier 3.

H7. *Modelling the entire workforce as an aggregate distorts state-specific mechanisms of their constituent segments.*

3.5 Methodology Limitations

The retrospective longitudinal design limits causal inference and findings should be interpreted as correlational. Self-report measures remain susceptible to common method bias and social desirability despite procedural safeguards. Generalisability could be enhanced through larger, more diverse samples and by incorporating additional individual (locus of control) and relational (LMX) variables, at some cost to parsimony. Notwithstanding these limitations, the achieved sample (N = 661) provides sufficient statistical power for reliable estimation, and the integration of validated instruments, robust sampling, and multiple analytical techniques ensures methodological rigour.

4. Data Collection

Ethical protocols guaranteed voluntary participation, informed consent, anonymity, and the right to withdraw, with only aggregated data used for research. Data were collected primarily via on-site surveys, supplemented by secure electronic administration for remote respondents. Common method bias was mitigated through anonymity assurances, reverse-coded items, and scale brevity. The 47-item instrument, drawn from validated JS, OC, JE, JAlt, and TI scales added to preference and volition items enabling PWST segmentation, was administered on a 5-point Likert scale to 661 full-time AMW employees across AMW populations in two organisations. A retrospective longitudinal design captured perceptions at three time points (T-12, T-6, T0), enabling trend analysis. Analysis combined descriptive statistics, EFA/CFA, regression, mediation–moderation modelling (PROCESS v5.0), and dual segmentation via PWST and LPA, allowing direct comparison of aggregate and segmented models.

5. Findings

This section presents the empirical findings from a study of 661 AMW examining the mechanism of TI formation and demonstrate how the mechanisms underpinning TI differ when the workforce is segmented into homogenous groups compared to when it is treated as an aggregate. It also demonstrates that the two methods viz PWST based forced segmentation and LPA converge in their substantive interpretations. The predictor variables JS, OC, JE, JAlt were treated as independent variables with TI as the dependent variable. All scales demonstrated excellent psychometric properties (Cronbach's α ranging from .89 to .95), and construct validity was confirmed via principal components analysis with KMO values $\geq .82$ and Bartlett's test $p < .001$ for all measures. Regression analyses, mediation (Hayes' PROCESS Model 4), moderation (PROCESS Model 1), and integrated conditional process models (PROCESS Model 5) were employed.

5.1 PWST-Based Forced Segmentation

The PWST framework proposes four workforce categories as a function of preference (to stay or leave) and perceived volitional control over that preference. Forced segmentation used buffered thresholds (≥ 3.5 for high; ≤ 2.5 for low) on Likert 1–5 scale means to assign each respondent to one of four categories ES (n=207), RS (n=308), EL(n=70), and RL (n=76). Table 1 summarises the defining characteristics and TI mechanisms across the four categories.

Table 1. PWST Category Profiles: Defining Criteria, Key Predictors, and TI Mechanisms

Variable	ES (n=207)	RS (n=308)	EL (n=70)	RL (n=76)
Preference to Stay (PS)	High increasing/stable (≥ 3.5)	Low (< 2.5), decreasing	Low (< 2.5), decreasing	High (≥ 3.5)
Preference to Leave (PL)	Low (< 2.5)	High (≥ 3.5)	High (≥ 3.5), increasing	Low (< 2.5)
IPC (Internal Perceived Control)	High (≥ 3.5)	Low (< 2.5)	High (≥ 3.5)	Low (< 2.5)
EPC (External Perceived Control)	Low (< 2.5)	High (≥ 3.5)	Low (< 2.5)	High (≥ 3.5)
TI Mechanism	Attitudinally driven; OC & JE mediate JAlt→TI (full mediation)	Constraint-driven; JAlt & JE are direct predictors	Opportunity-driven; JAlt & OC are direct additive predictors	Involuntary exit; attitudinal model non-significant
Key Predictors of TI	OC ($\beta = -0.51$), JE ($\beta = -0.29$)	JAlt ($\beta = +0.36$), JE ($\beta = -0.27$)	JAlt ($\beta = +0.37$), OC ($\beta = -0.28$)	None significant ($R^2 = .03$)
Model R²	.603 (F=76.63, $p < .001$)	.188 (F=17.50, $p < .001$)	.240 (F=5.14, $p = .001$)	.030 (F=0.54, $p = .705$, ns)

5.1.1 ES (n=207)

Members of this class are characterised by high PS, high IPC, low EPC, and low PL. Descriptively, means on JS, OC, JE, and PS were all above 3.5, while TI averaged 2.66 with a strong negative trend. Bivariate analysis revealed very strong negative correlations for OC–TI ($r = -.762$, $r^2 = .581$) and JE–TI ($r = -.731$, $r^2 = .534$), while JS showed no significant zero-order association with TI ($r = -.019$). JAlt carried a small positive association ($r = .228$) but contributed negligible unique variance. Multiple regression confirmed OC ($\beta = -0.512$, $p < .001$) and JE ($\beta = -0.288$, $p = .002$) as the only significant predictors, collectively explaining 60.3% of TI variance ($F(4,202) = 76.63$, $p < .001$; Cohen's $f^2 = 1.52$, indicating a large effect). JS and JAlt contributed no independent variance. Critically, PROCESS mediation modelling (Model 4) demonstrated that JAlt does not directly drive TI in this group; instead, JAlt reduces TI indirectly by first eroding OC ($B = -0.234$, $p < .001$) and JE ($B = -0.209$, $p < .001$), which then reduce TI (full parallel mediation; total indirect effect = 0.216, 95% CI [0.104, 0.329]). A second-stage moderation test established that OC significantly moderates the JE–TI relationship ($\Delta R^2 = .015$, $p = .005$), such that JE is effective in attenuating TI only when OC is concurrently high. This confirms that ES retention is autonomy-based rather than constraint-driven. OC thus functions as a mediator for the JAlt – TI linkage and as a moderator that determines when JE mitigates TI. Therefore, a combination of PROCESS Model 4 (for parallel mediation) and PROCESS Model 1 (second-stage moderation) explains the TI mechanism for ES as shown in Figure 1.

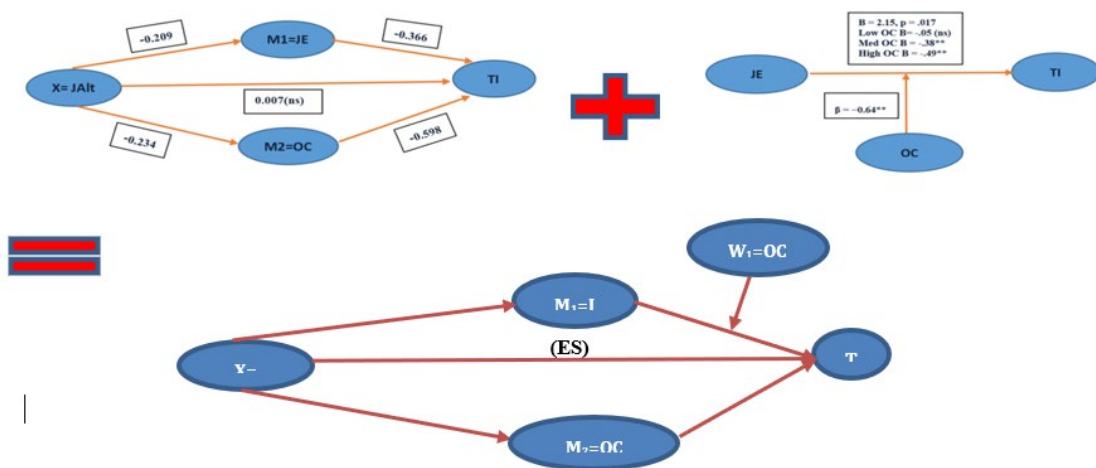


Figure 1 . Mediation Moderation mechanisms – Enthusiastic Stayers

5.1.2 RS (n = 308)

RS, the employees who wish to leave but cannot, is the largest PWST category, characterised by high PL, low IPC, high EPC, and low PS. All construct means fell below the scale midpoint (JS = 2.43, JE = 2.48, OC = 2.52, JAlt = 2.38, TI = 2.44), reflecting a 'stuck but disengaged' retention state in which low job attitudes coexist with suppressed TI. JAlt emerged as the primary correlate of TI ($r = .369$, $r^2 = .136$, $p < .001$), while JS showed no significant association ($r = .078$, ns). The regression model explained 18.8% of TI variance ($F(4,303) = 17.50$, $p < .001$; Cohen's $f^2 = 0.23$), with JAlt as the dominant unique predictor ($\beta = +0.356$, unique $R^2 = 11.6\%$) and JE as the second ($\beta = -0.267$, unique $R^2 = 5.1\%$); OC and JS contributed no independent variance. The preferred model (PROCESS Model 14), shown in Figure 2, demonstrated partial mediation of OC–TI by JE (a-path: $B = 0.501$, $p < .001$; b-path: $B = -1.238$, $p < .001$), with second-stage moderation of the JE–TI link by JAlt (index of moderated mediation = -0.24 , 95% CI [.152, .338]). OC's indirect effect on TI is thus contingent on JAlt. At low JAlt, JE strongly attenuates TI ($B = -0.60$), at medium JAlt the effect is non-significant, at high JAlt it reverses ($B = +0.20$), with JAlt accounting for ~24% of explainable variance in the JE–TI relationship. The OC-based model was preferred over the JS–JE–TI alternative, as OC explained ~36% more variance in JE and produced a ~50% stronger index of moderated mediation. JE therefore functions as a retention anchor only when external alternatives are scarce.

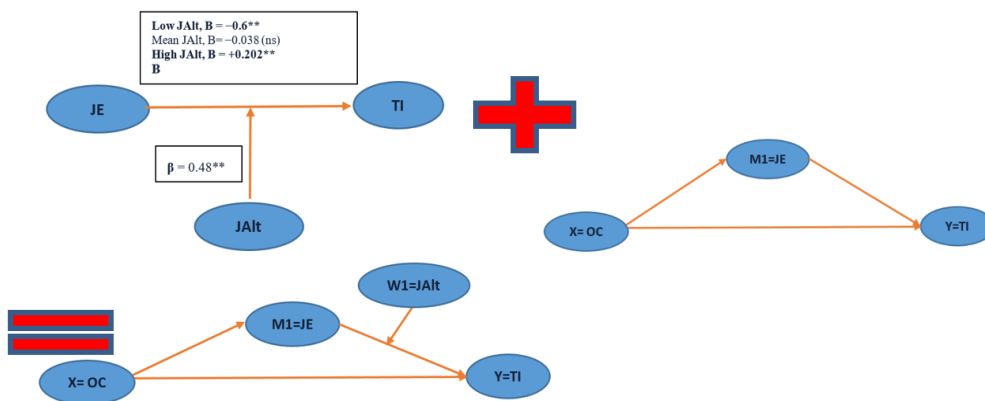


Figure 2. Mediation Moderation mechanisms – Reluctant Stayers (RS)

5.1.3 EL (n = 70)

The members of this category are high-mobility employees with high PL, high IPC, and low PS. Descriptive statistics reveals that TI was high ($M = 3.80$), JAlt was high ($M = 3.71$), while JE was low ($M = 2.75$) and OC moderate-to-low ($M = 2.89$). JAlt emerges as the dominant predictor of TI ($r = .411$, $r^2 = .169$, $p < .001$) and OC as a significant mitigator ($r = -.317$, $p = .008$), while JS ($r = -.047$, ns) and JE ($r = -.041$, ns) were unrelated to TI. Regression confirmed JAlt ($\beta = +0.373$, $p = .001$) and OC ($\beta = -0.277$, $p = .019$) as the sole significant predictors ($R^2 = .240$, Cohen's $f^2 = .316$). A multi-stage analysis using Hayes' PROCESS macro for mediation and moderated mediation testing across six theoretically grounded model configurations including simple mediation (JAlt→OC→TI; OC→JAlt→TI; JE→OC→TI), parallel mediation (JAlt→{OC,JE}→TI), and second-stage moderated mediation (JE→OC→TI moderated by JAlt) failed to yield statistically significant indirect effects as all bootstrap CIs included zero. This convergent pattern of null mediation results indicates that TI among EL is best explained by direct, additive effects of OC and JAlt without indirect or conditional pathways (Figure 3). EL exhibit less responsiveness to indirect psychological processes, suggesting that their withdrawal is primarily opportunity (external pull) activated.

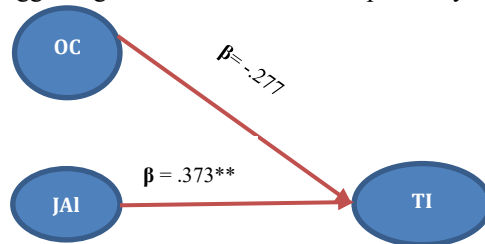


Figure 3. Mediation Moderation mechanisms – Enthusiastic Leavers (EL)

5.1.4 RL (n = 76)

RL are employees who want to stay but face organisation-driven exit pressure, characterised by high PS, low IPC, high EPC, and low PL. Despite maintaining moderate JS (M = 3.32), OC (M = 3.13), and positive inter-attitudinal correlations (JS–OC: $r = .569$, $p < .001$; OC–JE: $r = .307$, $p < .01$), none of the standard predictors demonstrated significant associations with TI. Bivariate correlations for JS–TI, OC–TI, JE–TI, and JAlt–TI all had 95% CIs spanning zero. Regression results were unambiguous: $F(4,71) = 0.54$, $p = .705$, with $R^2 = .030$ and adjusted $R^2 = -0.025$, indicating that the attitudinal model is entirely incapable of explaining TI for this group. VIF values (1.013–1.610) confirmed that null results were not artefacts of multicollinearity. The positive adjusted attitudes (JS, OC) coexist with non-trivial TI (M = 3.02), underscoring that for RL, exit decisions are driven by organisational push rather than individual choice, distinguishing them from RS. It is thus difficult to apply traditional attitudinal models of turnover to RL and therefore we have no defined mechanism for TI formation. The comparative effects that each of the predictors have in the four workforce segments and the variance explained by the regression model is presented in Table 2 below.

Table 2. Standardised Regression Coefficients (β) by PWST Category

Predictor	ES β	RS β	EL β	RL β
JS	−0.050 (ns)	+0.076 (ns)	−0.028 (ns)	+0.034 (ns)
OC	−0.512**	+0.120 (ns)	−0.277*	−0.037 (ns)
JE	−0.288**	−0.267***	+0.046 (ns)	−0.115 (ns)
JAlt	+0.005 (ns)	+0.356***	+0.373***	+0.105 (ns)
R ² / Cohen's f ²	.603 / 1.52 (Large)	.188 / 0.23 (Medium)	.240 / 0.316 (Medium-large)	.030 / 0.031 (Small, ns)

5.2 Latent Profile Analysis: Data-Driven Segmentation

Rather than applying theory-driven criteria, LPA allows homogeneous subgroups to emerge from the data based on latent response patterns. Analysis was conducted using Mclust (R package) employing Gaussian Mixture Models (GMMs). Model selection systematically evaluated five class sizes (K = 2 to 6) and three covariance structures (EEE, VEV, VVV). The optimal solution was K = 5 with a VEV covariance structure as it provided the highest (least negative) BIC (−22,455.14), and indicated non-overlapping classes (ICL $\approx$ BIC), and posterior probabilities $\geq .95$ for all respondents. A normalised entropy of ≈ 0.000703 confirmed reliable classification at the model level. One-way ANOVA confirmed that class membership explained approximately 60% of TI variance ($F(4,656) = 242.6$, $p < .001$, $\eta^2 = .597$), establishing that the extracted classes are meaningfully differentiated by TI. Inter-class separation ratios ranged from 2.56 to 6.48 SD units, with the majority of class pairs showing good-to-excellent separation (≥ 3 SD units). Table 3 summarises the five extracted classes, their demographic characteristics, and TI formation mechanisms.

5.2.1 Class I (n = 116)

Class I mirrors the PWST ES category (TI Risk Index = −3.675; Separation Ratio = 5.43). Members show high positive z-scores for PS ($\approx +1.25$), JE ($\approx +1.18$), OC ($\approx +1.12$), and JS ($\approx +0.86$), with low and decreasing PL. Regression analysis ($R^2 = .574$, adj. $R^2 = .555$) identified JS as the primary predictor with significant direct and indirect effects. Mediation analysis found JS reduces TI through OC (indirect = −0.180) and, as a parallel path, through JE (indirect = +0.016, marginal). Moderation analysis confirmed that the JS×JAlt interaction is negative and significant (coefficient = −0.182, $p = .001$): higher JAlt amplifies JS's mitigating effect on TI. JAlt does not directly enhance TI; rather, in this class, opportunity perception reinforces the power of attitudinal satisfaction to retain employees.

5.2.2 Class II (n = 124)

Class II represents a transitional group with lower staying indicators than Class I and a lower separation ratio (2.34), suggesting some boundary overlap. TI Risk Index = −1.939. Members have above-average JS, OC, and JE but with less pronounced positive trends. Regression results ($R^2 = .423$) identified OC ($\beta = -0.30$, $p = .005$) and JE ($\beta = -0.57$, $p < .001$) as key direct predictors. Full mediation was evidenced: JS reduces TI entirely through OC (indirect = −0.090) and JE (indirect = −0.194; total indirect = −0.283). Additionally, OC×JAlt moderation was significant (coefficient = −0.164, $p = .001$), indicating that OC's TI-mitigating effect is amplified under high JAlt—the opposite pattern from Class III. Members with higher perceived alternatives appear to rely more heavily on their organisational commitment as a psychological anchor.

5.2.3 Class III – Escape Quitters (n = 155)

This is a theoretically important and practically concerning class (TI Risk Index = +1.969; Separation Ratio = 5.42). Members exhibit the second-highest proportion among the five classes and are distinguished by falling IPC ($z \approx -0.93$), declining PS ($z \approx -0.81$), and rising PL ($z \approx +0.77$), alongside declining JS and JE. These are employees who feel that remaining is no longer tenable, and unlike the PWST RS category, they demonstrate willingness to leave despite diminishing alternatives (JAlt trends ≈ -0.12). Regression results ($R^2 = .171$) revealed JAlt as a direct, positive, and significant predictor of TI (coefficient = +0.171, $p < .001$) and JE as the only attitudinal anchor (coefficient = -0.156, $p = .004$). JS, OC, and JP were non-significant. Mediation pathways (JS→OC→TI; JS→JE→TI) were not supported. However, a significant OC×JAlt interaction (coefficient = +0.230, $p = .003$) demonstrated that higher perceived alternatives erode OC's ability to mitigate TI. As JAlt rises, OC's effect on TI turns from neutral to positive. Thus, TI is primarily opportunity-driven rather than attitudinal. Overall, this class responds strongly to external pull factors, with JAlt as the dominant driver of TI. OC and JS do not function as retention levers, while JE serves as a weak but stable anchor. This distinguishes Class III from Class IV, where attitudinal anchors are similarly weak but retention relies on the absence of JAlt (Figure 4).

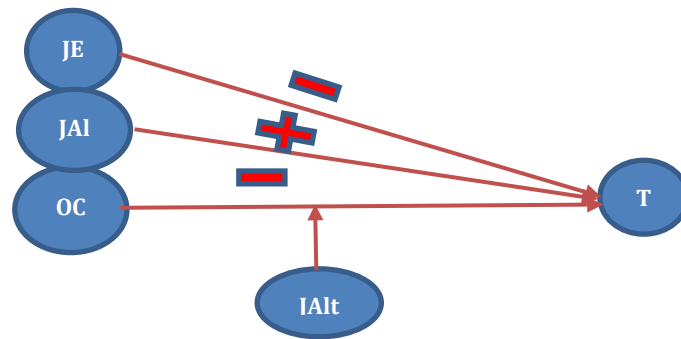


Figure 4 Mediation Moderation mechanisms – Escape Quitters (EQ)

5.2.4 Class IV (n = 198)

This is the largest extracted class (TI Risk Index = +1.759; Separation Ratio = 5.31) and corresponds closely to the PWST RS category. Members show strongly declining JS ($z \approx -0.98$), OC ($z \approx -1.25$), JE ($z \approx -0.96$), and low JAlt ($z \approx -0.74$) with low IPC. Together with Class III they constitute approximately 54% of the workforce, representing a significant organisational health concern. Regression analysis ($R^2 = .135$) identified OC ($\beta = -0.134$, $p = .028$) and JE ($\beta = -0.164$, $p = .002$) as direct mitigators, but JS and JAlt main effects were non-significant. Two strong moderation effects dominated the model: JS×JAlt (coefficient = +0.441, $p < 1e-11$) and OC×JAlt (coefficient = +0.447, $p < 1e-11$). These interactions reveal that as perceived alternatives rise, both JS and OC lose their ability to retain employees—JS→TI slope turns positive at high JAlt, and OC's mitigating effect is neutralised. JE emerges as the sole stable anchor, retaining its negative relationship with TI regardless of JAlt levels. Members of this class are essentially waiting for suitable opportunities to act on their latent dissatisfaction.

5.2.5 Class V – Enthusiastic Leavers (n = 68)

This is the smallest class but carries the highest separation ratio (6.19) and the highest TI Risk Index (+2.915), making it the group with the most immediate flight risk. Members exhibit sharply rising JAlt trends ($z \approx +1.60$), declining PS ($z \approx -0.70$), and high IPC ($z \approx +0.96$). Mean TI was approximately 4.0, standing distinctly apart from the 2.4–2.9 range of the other four classes. Regression results ($R^2 = .407$) showed that JAlt (coefficient = +0.453, $p < .001$) is the dominant direct driver of TI, while OC exerts a direct mitigating effect (coefficient = -0.049, $p < .001$). JS, JE, and JP were non-significant. The moderation of JS→TI and OC→TI by JAlt was not significant in this class, indicating that JAlt operates through a direct, unmediated pathway—unlike Class IV where JAlt works by undermining attitudinal anchors. Notably, OC retains its mitigating power regardless of JAlt level, distinguishing Class V from Class III (where OC collapses at high JAlt). Members will stay if strongly committed but will leave when perceiving favourable alternatives, irrespective of their job satisfaction levels. The characteristics of LPA extracted classes with the different roles that predictors play in each are summarised in Table 3 below.

Table 3. LPA Extracted Class Profiles: Characteristics, Separation, and TI Mechanisms

Class (n, %)	TI Mean	Sep. Ratio	TI Risk Index	Key Predictors	JAlt Role	OC Role	JE Role
Class I – ES (n=116)	Low	5.43	-3.675	JS, OC	Indirect via OC (full mediation)	Primary mediator (JS→OC→TI)	Parallel mediator
Class II – Less Enth. Stayers (n=124)	Low	2.34	-1.939	OC, JE	Moderates OC→TI	Mediator; amplified by high JAlt	Mediator; significant
Class III – Escape Quitters (n=155, 23.5%)	Moderate-high	5.42	+1.969	JAlt (direct), JE	Direct positive; moderates OC→TI	Conditional on high JAlt	Direct anchor; JE→TI significant
Class IV – RS (n=198, 30.0%)	Moderate	5.31	+1.759	OC, JE (direct negative)	Moderates JS→TI and OC→TI	Direct mitigator; undermined at high JAlt	Strongest stable anchor
Class V – EL (n=68, 10.3%)	Highest (~4.0)	6.19	+2.915	JAlt (direct), OC	Direct positive; dominant	Direct mitigator; holds at all JAlt levels	Non-significant

The comparative effects that each of the predictors have in the five LPA extracted classes and the variance explained by the regression model is presented in Table 4 below

Table 4. Regression Coefficients and Moderation Effects Across LPA Classes

Predictor	Class I β	Class II β	Class III β	Class IV β	Class V β
JS	-0.18**	+0.08 (ns)	-0.08 (ns)	-0.001 (ns)	-0.01 (ns)
OC	-1.23*** (a-path)	-0.30**	+0.08 (ns)	-0.13*	-0.05***
JE	-0.17 (ns, parallel)	-0.57***	-0.16**	-0.16**	+0.00 (ns)
JAlt	-0.08 (ns)	+0.05 (ns)	+0.17***	-0.02 (ns)	+0.45***
Moderation (sig.)	JS×JAlt (-0.18)	OC×JAlt (-0.16)	OC×JAlt (+0.23)	JS×JAlt (+0.44); OC×JAlt (+0.45)	None significant
R ² / adj. R ²	.574 / .555	.423 / .405	.171 / .143	.135 / .104	.407 / .359

5.3 Undivided Workforce Analysis

To establish a baseline for comparison, the full sample of 661 respondents was analysed as a single entity. Descriptive statistics indicated moderate values across all constructs: JS (M = 3.12), JE (M = 2.94), OC (M = 3.03), JAlt (M = 2.73), and TI (M = 2.72). Zero-order correlations revealed strong inter-predictor associations. JS–OC ($r = .634$), OC–JE ($r = .827$), JS–JE ($r = .68$)—alongside negative correlations of JAlt with all three attitude measures ($r = -.49$ to $-.56$), foreshadowing the mediating and suppressing roles these relationships play in aggregate models. The regression model (Table 5) explained 34.6% of TI variance ($F(5,655) = 69.39$, $p < .001$, Cohen's $f^2 = 0.748$), with JAlt dominating as the single most important predictor ($\beta = +0.511$, unique $R^2 = 24.8\%$, LMG Shapley dominance = 73.3%). OC and JE were secondary mitigators. JS displayed a positive regression coefficient (+0.204) despite a near-zero zero-order correlation with TI ($r = .011$), a suppression effect as JS's mitigating contribution is channelled through OC and JE, leaving residual positive variance in the direct path (Table 5).

Table 5. Regression Results – Undivided Workforce (n = 661)

Predictor	β	Partial R ²	Semi-partial R ²	Unique % of TI variance	VIF	LMG Shapley Dominance
JAlt	+0.511***	.275	.248	24.8%	1.054	73.28%
OC	-0.251***	.042	.028	2.8%	2.222	12.22%
JE	-0.208***	.026	.017	1.7%	2.530	8.19%
JS	+0.204***	.029	.020	2.0%	2.127	5.07%
Model Fit	R ² =.346					

5.3.1 Mediation and Moderation – Undivided Workforce

Two mediation paths were confirmed. First, JS reduced TI indirectly through OC (indirect = -0.220, 95% CI [-0.270, -0.173]) and through JE (indirect = -0.092, 95% CI [-0.137, -0.050]). The direct JS→TI effect (c') was positive, constituting competitive mediation. Second, JAlt showed a dominant direct positive effect on TI (+0.432), alongside small but significant negative indirect effects via OC (indirect = -0.017) and JE (indirect = -0.016). The net indirect effect was negative (-0.033), suggesting JAlt may marginally bolster OC and JE; however, these indirect effects are far outweighed by its direct TI-enhancing effect. Moderation testing revealed four significant boundary conditions: (a) JS×JAlt: at low JAlt, JS does not significantly alter TI (slope = +0.018, ns); at high JAlt, JS loses its mitigating function and the slope turns strongly positive (+0.408, $p < .001$). (b) OC×JAlt: OC's mitigation doubles from slope = -0.142 at low JAlt to -0.303 at high JAlt, though a larger intercept at high JAlt diminishes the practical gain. (c) JE×JAlt: JE's mitigating slope weakens from -0.291 at low JAlt to non-significance at high JAlt. (d) OC×JE: OC's mitigating effect is amplified when JE is high. The integrated conditional process model (PROCESS Model 5: JS→OC→TI with JS×JAlt moderation on the direct path) was the most parsimonious supported specification, combining a significant indirect path and significant conditional direct effect as shown in Figure 5.

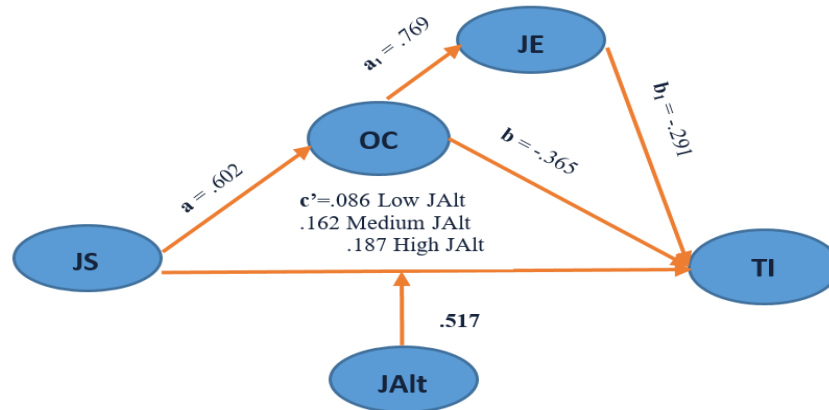


Figure 5. Mediation Moderation mechanisms – Escape Quitters (EQ)

A central finding of this study is that aggregate workforce analyses mask heterogeneous TI formation mechanisms. Table 6 maps the principal mediation and moderation findings across the five LPA classes to make these divergences explicit.

Table 6. Divergence in TI Mechanisms: LPA Classes versus Undivided Workforce

Mechanism	Class I	Class II	Class III	Class IV	Class V
JS×JAlt moderation	JS mitigates TI more at high JAlt	ns	ns	JS loses mitigation power at high JAlt	ns
OC×JAlt moderation	ns	OC mitigates TI at high JAlt	OC loses mitigation at high JAlt	OC undermined at high JAlt	ns
JS→OC→TI mediation	Significant negative	Significant negative	Not supported	Minimal negative	Not significant

Mechanism	Class I	Class II	Class III	Class IV	Class V
JS→JE→TI mediation	Significant (parallel)	Significant negative	Not supported	Modest negative	Not supported
Primary TI driver	OC & JE (attitudinal)	OC & JE (attitudinal)	JAlt (opportunity)	Opportunity constraint	JAlt (direct pull)

5.4 The Cost of Aggregation

Several mechanisms are either distorted or suppressed when the workforce is analysed as a whole. First, the direct positive effect of JAlt on TI observed in Classes III and V appears in the undivided model as a dominant direct effect, but the conditional moderation patterns that distinguish why JAlt is influential (opportunity-pull in Class V; contextual constraint in Class IV; escape motivation in Class III) are lost. Second, the parallel mediation structure (JAlt→OC/JE→TI) observed in ES (PWST) appears in the aggregate as a marginal suppressive mechanism, grossly underestimating its substantive role for the 17–18% of the workforce in Classes I and II. Third, the complete irrelevance of attitudinal predictors for RL (PWST) is entirely obscured in the aggregate results, where all four predictors show significant coefficients. Most critically, the aggregate model suggests JS positively relates to TI—a counterintuitive finding produced by competitive mediation and suppression. Within each class, JS either mitigates TI (Classes I, IV, indirectly) or is simply irrelevant (Classes III, V). The aggregate positive coefficient for JS thus represents a statistical artefact of pooling groups with fundamentally incompatible dynamics.

5.5 Convergence Between PWST and LPA

Despite employing different segmentation logics, the PWST and LPA methods yield substantially aligned substantive conclusions. The attitudinal-mediation model (JAlt→OC/JE→TI) characterising PWST-ES is replicated in LPA Classes I and II. The constraint-driven profile of PWST-RS is mirrored in LPA Class IV. The opportunity-driven additive model of PWST-EL reappears in LPA Class V, and the attitudinal irrelevance of PWST-RL finds a structural parallel in LPA Class III, where push dynamics rather than pull dynamics dominate. LPA adds granularity by separating the 'constrained but staying' (Class IV) from the 'escape quitters' (Class III), a distinction the dichotomous control dimension of PWST cannot capture. Four primary conclusions emerge from the above findings:

- TI is not a unitary process, five distinct mechanisms were identified. It was attitudinal mediation via OC and JE for Classes I–II, opportunity-driven direct effects for Classes III, V, constraint-moderated anchor dynamics for Class IV, and institutionally driven exit with no attitudinal signature (for RL).
- JAlt functions differently across classes, as an indirect attitudinal eroder (ES/Classes I–II), primary proximal trigger (EL/Class V), contingent moderator undermining attitudinal anchors (RS/Class IV), and an activating force eroding OC's protective function (Class III).
- OC and JE are not universally effective retention levers, their protective power is conditional on perceived alternatives and segment motivational profile.
- Aggregate analyses produce misleading inferences. The suppressed positive JS coefficient, collapsed indirect effects, and invisibility of constraint-driven dynamics are three specific distortions that segmentation resolves.

These findings establish that no single mechanism governs TI formation across a heterogeneous workforce, providing the empirical foundation for the CCF. In Table 7, rows represent a latent class and columns record the dominant withdrawal logic, construct role, effect sign, and best-fitting mechanism. aggregate models structurally cannot explain that role, sign, and mechanistic form are all properties of the latent class, not of the construct itself.

Table 7. Effect heterogeneity made visible: the role, sign and mechanistic form of the standard constructs across latent withdrawal states in the aviation maintenance workforce. The same construct changes its functional meaning from one row to the next. Full estimates are reported in the companion empirical study

Latent Class	Dominant Logic	JAlt	JE, OC	JS	Mechanism
Enthusiastic stayers (ES)	Volitional, attitude-driven stay	Inert: no direct effect; pull reinterpreted as optional	Strong mitigators; JE protects when OC is high	Distal; acts via OC & JE	Parallel mediation + 1 st stage moderation
Reluctant stayers (RS)	Constraint-driven stay	Low in level; as a moderator it erodes the anchors as it rises	OC → JE → TI; JE mitigates while JAlt is scarce	Channelled through JE	Moderated mediation (second-stage)

Latent Class	Dominant Logic	JAlt	JE, OC	JS	Mechanism
Enthusiastic leavers (EL)	Opportunity-driven exit	Strong, direct, positive (the dominant driver)	JE inert; OC a weak direct mitigator	Non-significant	Additive direct effects; no mediation survives
Escape quitters (EQ)	Exit despite constraint	Dominant, direct, positive — despite low absolute level	JE a weak mitigator; OC loses power as JAlt rises	Non-significant	Direct effect + OC × JAlt moderation
Reluctant leavers (RL)	Involuntary, organisation-pushed exit	Irrelevant	Irrelevant	Irrelevant	None — the attitudinal model fails entirely
Undivided workforce	Artefact of pooling	Appears dominant and positive	JE strong mitigation; OC overshadowed	Sign-reversed (+)	Competitive mediation, an artefact

The dominant drivers for TI formation vary in each class. The function performed by JAlt, JE, OC and the TI formation mechanism are also distinct amongst classes. Perceived JAlt is inert in one state, the dominant positive driver in two others, a corrosive moderator in a fourth, and irrelevant in a fifth. In the aggregated class, JAlt re – emerges as the workforce's apparently dominant predictor. The juxtaposition of role of variables in TI formation mechanisms in each class against the formulated hypotheses reveals some interesting insights which are presented in the discussion section.

6. Discussion

6.1 Hypothesis

Let us now elaborate on the implications of the above findings on the hypotheses. **H1 is supported.** Figures 1–5 and Table 2 to 7 demonstrate that construct roles as predictor, mediator, or moderator are not fixed properties but are assigned by the latent withdrawal state, with JAlt, JE, OC, and JS each occupying different functional positions across classes. **H2 is supported.** Sign and magnitude are state-contingent. JS is distal in ES and RS, non-significant in EL and EQ, and sign-reversed via suppression in the aggregate. JE protects only when OC is high (ES), mitigates only when JAlt is scarce (RS), and is inert, weak, or irrelevant in EL, EQ, and RL respectively. The same construct may mitigate, enhance, or have no effect on TI. **H3 is supported** as each class exhibits a distinct mechanism, parallel mediation with second-stage moderation (ES), second-stage moderated mediation (RS), additive direct effects, simple mediation, or conditional process combinations in remaining classes. No single mechanism generalises across the workforce. **H4 is supported.** JE and JAlt are not symmetric opposites. JE neutralises JAlt in volitional-stay states, loses protective power as JAlt rises in constrained states, and is inert where JAlt dominates. Their apparent polarity in aggregate models is an artefact of pooling, not a structural property of the constructs. **H5 is supported.** JS is distal in ES, channelled through JE in RS, and non-significant or irrelevant elsewhere. Its positive aggregate coefficient reflects suppression, not dissatisfaction-driven withdrawal and JS is never observed as a direct proximal predictor. **H6 is supported.** LPA uncovered 'EQ', a substate combining RS constraint with EL exit trajectory, in which members enact TO despite limited alternatives because continuance has become untenable. This state is absent from PWST's canonical four and is masked in aggregate models. **H7 is supported.** Suppression effects, competitive mediation, and sign-reversed coefficients in aggregate models are artefacts of pooling heterogeneous states. JAlt's aggregate dominance is a composition effect, inflated by EL and EQ where its effect is genuinely direct, while its inertness in volitional stayers goes unrepresented.

The above discussion provides evidence that 'segmentation' is not an analytic refinement but a precondition for valid inference and that lack of generalisability in TO research is not an anomaly, it is a structural impossibility in heterogeneous workforces modelled as aggregates.

6.2 The Contextual Conditioning Flux (CCF)

The CCF proposes that constructs carry no pre-assigned roles in TI formation. Instead, a framework in flux contains empty functional slots designated for predictors, mediators, and moderators into which JS, OC, JE, and JAlt are assigned by the governing mechanism of the latent class to which an employee belongs. Figure 6 contrasts this with the linear tradition. Panel (a) shows each construct wired to TI by a fixed arrow with a fixed sign. Panel (b) shows a pool of constructs, a state operator assigning them to role slots, and an outcome that feeds back upon the pool. The difference is that Panel (b) represents what Panel (a) cannot, the ability of the same construct to occupy a different slot, with a different sign, in a different class. The CCF thus rests on three features –

- Role indeterminacy** Constructs are tokens placed in different roles by different classes. JAlt functions as both predictor and moderator in ES, moderator in RS, predictor in EL and EQ, and is absent in RL.

- (b) **Sign contingency** Effect polarity is a class property, not a construct property. JAlt strongly enhances TI in opportunity-dominated states but is inert in volitional-stay states.
- (c) **Mechanism contingency** The mechanistic forms, parallel mediation with second-stage moderation, moderated mediation, or additive direct effects are class-assigned, not universal.

The CCF is also dynamic. Enacted withdrawal behaviour feeds back upon the workforce, eroding the attitudes that restrained it. Job-search behaviour, once initiated, corrodes commitment, which in turn disinhibits further search. Classes are therefore not static sorting boxes but attractors toward which individual trajectories bend over time, with class migration offering a further lens on organisational health and workforce evolution.

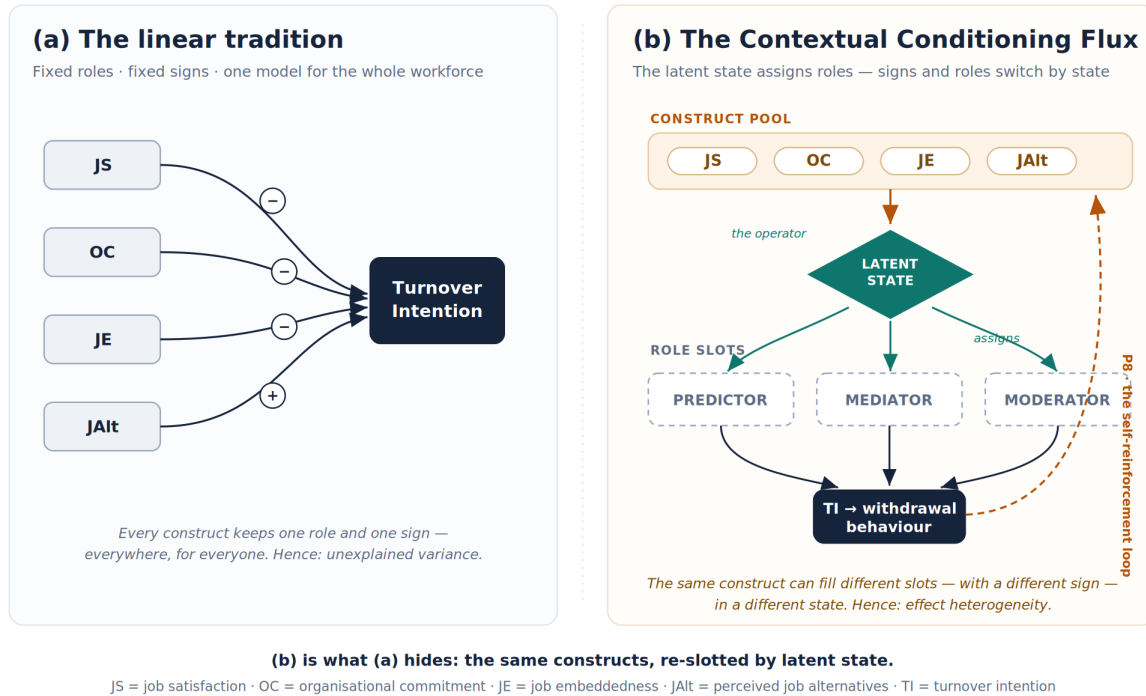


Figure 6. The Contextual Conditioning Flux contrasted with the linear tradition. The state operator assigns pooled constructs to role slots; the self-reinforcement loop (P8) is shown as the dashed return path.

6.3 Implications for Theory

The CCF reframes TO theory. Rather than ranking predictors by average importance, the discipline should identify the mechanisms operating in each class. Three specific implications follow.

- (a) PWST requires repositioning. The canonical four states remain indispensable scaffolding, but LPA's recovery of the EQ substate, combining RS constraint with EL exit trajectory, demonstrates that substates formed by recombining canonical elements can exist and must be accommodated.
- (b) JE and JAlt should be reconciled rather than treated as rivals or a single trade-off; their relationship is itself class-assigned. JE suppresses JAlt in volitional states and collapses under it in escape states. The aggregate-level contradiction between JE and JAlt is an artefact of unsegmented analysis, not a genuine theoretical tension.
- (c) JS must be removed from its role as universal proximal cause of TI. In this study it was found to be distal, mediated, non-significant, or irrelevant across all classes, and its positive aggregate coefficient was a suppression artefact.
- (d)

6.4 Implications for Practice

The CCF exposes the central error of aggregate retention strategy. A single intervention justified by a whole-workforce model and applied uniformly will appear effective only for the dominant class and be counterproductively wrong for the rest. Three guidelines follow:

- (a) Low TO is not healthy retention, a constraint-held RS-dominated workforce produces identical TO statistics to a commitment-held one while carrying far higher latent costs in productivity loss and depressed wellbeing. A stable metric is a warning, not reassurance.
- (b) Interventions must map to states. ES requires preservation of volitional conditions, EQ requires work design remedies and not retention bonuses, RS requires mobility pathways or honest exits, EL requires an internal market that competes with external alternatives.
- (c) Perceived JAlt should be treated as context rather than a force to suppress. In classes where agency and growth are present, rising JAlt flows through OC and JE to mitigate rather than enhance TI, making the choice to stay genuinely worth making.

6.5 Limitations

The retrospective longitudinal design establishes that roles and signs differ across classes but cannot confirm whether classes evolve or whether enacted withdrawal feeds back to erode restraining attitudes. A genuine longitudinal study tracking individuals across two or more years would confirm or refute the feedback loop, model classes as transition probabilities rather than static memberships, and test whether interventions actually move people between classes. Additional limitations include the two-organisation, single-occupational-group sample and the exclusion of locus of control and LMX variables that may themselves exhibit class-assigned roles.

6.6 Future Scope

The CCF's logic requires three conditions. A population of latent subgroups, constructs whose roles and signs are subgroup-assigned, and an analytic convention that pools subgroups into a single coefficient. These conditions hold across most social science disciplines. The same pathology, composition artefacts, suppression, sign reversal, limited generalisability should therefore follow wherever aggregate coefficients are reported. Therefore it is necessary to segment before generalising and treat the population-level coefficient as something to be explained rather than reported.

7. Conclusion

A century of TO research has produced enduring concerns of a lack of consensus on the most significant predictors, and no generalisable TI formation or TO enactment mechanism. These concerns are connected. There is no predictor that matters most because predictor behaviour is class-dependent. Role, sign, and mechanistic form are all conditioned by the latent withdrawal state. The CCF, by allowing constructs to move freely between functional slots, explains both the effect heterogeneity that confounds traditional treatments and the generalisability that has always eluded them. The CCF does not add another predictor to the pile, it explains why the pile was never going to converge.

The practical corollary is unambiguous, segmentation is a precondition of valid inference, not an analytic refinement. In aviation maintenance, where tolerances for error are low and the stakes in capital and human safety are high, mistaking a constraint-held workforce for a committed one is an organisational risk that aggregate metrics are structurally unable to detect.

References

- Abelson, J. E., Cusp Catastrophe Model of Employee Turnover, *The Academy of Management Journal*, vol. 26, no. 3, pp. 418-436, 1983.
- Allen, D. G., Analytical mindsets in turnover research, *Journal of Organizational Behavior*, vol. 35, no. S1, pp. S61–S86, 2014.
- Bolt, E. E., A century of labour turnover research: A systematic literature review, *International Journal of Management Reviews*, vol. 24, no. 4, pp. 555–576, 2022.
- Kemery, E. R. and K. W. (Authorship string truncated as presented), Role Stress, Physical Symptomatology, and Turnover Intentions: A Causal Analysis of Three Alternative Specifications, *Journal of Occupational Behaviour*, vol. 8, no. 1, pp. 11-23, 1987.
- Felps, W. M., Turnover contagion: How coworkers' job embeddedness and job search behaviors influence quitting, *Academy of Management Journal*, vol. 52, no. 3, pp. 545–561, 2009.
- Greenhaus, M. S., Job search and voluntary turnover in a boundaryless world: A control theory perspective, *The Academy of Management Review*, vol. 36, no. 3, pp. 567-589, 2011.
- Griffeth, R. W., A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium, *Journal of Management*, vol. 26, no. 3, pp. 463–488, 2000.

- Holtom, B. C., Turnover and retention research: A glance at the past, a closer review of the present, and a venture into the future, *Academy of Management Annals*, vol. 2, no. 1, pp. 231–274, 2008.
- Holtom, B. C., Reluctant stayers: Constructing a profile and examining the consequences, *Journal of Managerial Issues*, vol. 32, no. 4, pp. 402–435, 2020.
- Hom, P. L., One hundred years of employee turnover theory and research, *Journal of Applied Psychology*, vol. 102, no. 3, pp. 530–545, 2017.
- Hom, P. W., Reviewing employee turnover: Focusing on proximal withdrawal states and an expanded criterion, *Psychological Bulletin*, vol. 138, no. 5, pp. 831–858, 2012.
- Jackofsky, E. F., Turnover and Job Performance: An Integrated Process Model, *The Academy of Management Review*, vol. 9, no. 1, pp. 74–83, 1894.
- Lance, C. E., Job Performance as a Moderator of the Satisfaction-Turnover Intention Relation: An Empirical Contrast of Two Perspectives, *Journal of Organizational Behavior*, vol. 9, no. 3, pp. 271–280, 1988.
- Lee, T. A., An alternative approach: the unfolding model of voluntary employee turnover, *Academy of Management Review*, vol. 19, no. 1, pp. 51–89, 1994.
- Li, J. J., The effects of proximal withdrawal states on job attitudes, job searching, intent to leave, and employee turnover, *Journal of Applied Psychology*, vol. 101, no. 10, pp. 1436–1456, 2016.
- Mitchell, T. H., Why people stay: using job embeddedness to predict voluntary turnover, *Academy of Management Journal*, vol. 44, no. 6, pp. 1102–1121, 2001.
- Mobley, W. H., Intermediate linkages in the relationship between job satisfaction and employee turnover, *Journal of Applied Psychology*, vol. 62, no. 2, pp. 237–240, 1977.
- Price, J. L., A causal model of turnover for nurses, *Academy of Management Journal*, vol. 24, no. 3, pp. 543–565, 1981.
- Rubenstein, A., Eberly, M. B., and Lee, T. W., Surveying the forest: A meta-analysis, moderator investigation, and future-oriented discussion of the antecedents of voluntary employee turnover, *Personnel Psychology*, vol. 71, 2017. 10.1111/peps.12226
- Spurk, D. H., Latent profile analysis: a review and ‘how to’ guide of its application within vocational behavior research, *Journal of Vocational Behavior*, vol. 120, p. 103445, 2020.
- Lee, T. H. and B. G. (Authorship string truncated as presented), Understanding Voluntary Turnover: Path-Specific Job Satisfaction Effects and the Importance of Unsolicited Job Offers, *The Academy of Management Journal*, vol. 51, no. 4, pp. 651–771, 2008.
- Lee, T. W. and T. R. (Authorship string truncated as presented), The Unfolding Model of Voluntary Turnover: A Replication and Extension, *The Academy of Management Journal*, vol. 42, no. 4, pp. 450–462, 1999.
- Lee, T. W. and T. R. (Authorship string truncated as presented), The Effects of Job Embeddedness on Organizational Citizenship, Job Performance, Volitional Absences, and Voluntary Turnover, *The Academy of Management Journal*, vol. 47, no. 5, pp. 711–722, 2004.

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Dr. Pratima Verma is a distinguished academic and researcher specializing in Organizational Behavior and Human Resource Management. She currently serves as a Professor at Alliance School of Business, Alliance University, Bengaluru, where she has been contributing to teaching, research, and academic leadership since 2013. With over a decade of experience in higher education, Dr. Verma brings deep expertise in areas such as HR analytics, business ethics, psychometrics, and research methods. Prior to her current role, she served as a Professor and Research Coordinator at The Oxford College of Engineering, strengthening her foundation in management education. Dr. Verma holds a Ph.D. in Management with a focus on values-based management and has completed her post-doctoral studies at Stockholm University, Sweden. Her academic journey is complemented by an MBA from the University of

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