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WHY FACULTY STAY: EXAMINING THE PSYCHOLOGICAL DRIVERS OF RETENTION IN PRIVATE HIGHER EDUCATION INSTITUTIONS

Author:

Shankar Raman.R, Research Scholar, Department of Management Science, Sri Krishna Arts and Science College.

Co-Author:

Dr.T.Shenbagavadivu, Associate Professor, Department of Management Science, Sri Krishna Arts and Science College.

Abstract

Performance reviews create cognitive dissonance in employees, leading to 28% turnover in the first 90 days post-appraisal. Feedback surveys, which are often conducted after performance appraisal, do not capture the critical in-time stress cues that signify the rise of dissonance in employees. This study employed a survey methodology to collect data from 487 employees in three IT firms in India immediately after the performance appraisal using the validated 32-item Appraisal Dissonance Scale (ADS). Multiple regression analysis was employed to predict turnover intentions with 76.8% accuracy and R^2=0.591, as the participants voluntarily participated in the survey. Follow-up phone interviews at 90 days post-surveys validated the predictions, where employees with severe dissonance had 3.2 times higher actual turnover than controls (χ^2=19.4, $p<0.001$). This study has better predictive power than the conventional single-item survey and has strong correlation with exit interview results.

Keywords: Cognitive dissonance, Performance appraisal, Turnover prediction, Survey methodology, Organizational psychology, Employee retention.

1.Introduction

Performance appraisal, though vital for organizational growth and development, is a source of cognitive dissonance - a psychological phenomenon that causes a clash between the individual's self-image and the feedback received from the outside world. Indian IT companies face a whopping 28% turnover in the first 90 days following a performance appraisal process, and cognitive dissonance has been identified as a major cause of such turnover. However, the current means of diagnosing the issue relies on delayed engagement surveys conducted once a year, failing to capture the stress that occurs immediately after the performance appraisal.

Can we forecast turnover after the performance appraisal process using immediate self-report surveys conducted immediately after the performance appraisal process? In the following study, the development and validation of the Appraisal Dissonance Scale, a 32-item instrument used to conduct a study among 487 employees within a 24-hour period following the performance appraisal process, will be discussed.

The paper continues with the discussion of the literature on turnover prediction and the measurement of cognitive dissonance, methodology, results, and finally, the application and recommendation sections.

2. Literature Review

Previous approaches to turnover prediction have used exit interviews and annual engagement surveys, which, by their very nature, represent a lagging indicator with considerable response bias (Steel & Ovalle, 1984). Cognitive dissonance theory, as described by Festinger (1957), suggests that discrepancies between an individual's self-concepts and external feedback result in psychological discomfort, which the person will attempt to alleviate by changing their attitude, rationalizing the discrepancy, or exiting the situation.

Appraisal-related cognitive dissonance has been associated with lower organizational commitment, performance, and turnover intentions (Poon, 2004). However, most of these investigations have used retrospective measures of dissonance, such as annual engagement surveys, to assess the relationship, whereas the actual psychological experience of dissonance would be more immediate to the appraisal event.

Perceived fairness (Colquitt, 2001) and emotional reactions (Watson & Clark, 1994) have been shown to have predictive validity in turnover, although these measures do not have a contextual focus on the appraisal event itself.

Meta-analyses have consistently supported the fact that turnover intention remains the best predictor of turnover behavior (Griffeth et al., 2000). However, little research has explored the role of appraisal-based dissonance, Current scales measure general job satisfaction and procedural fairness but do not assess the unique dissonance between these two factors. A notable gap remains to be addressed: there is no scale to measure the level of dissonance created by the appraisal process and its direct relationship to turnover.

3. Methodology

The methodology involved the use of a cross-sectional survey design with 90-day longitudinal validation, which eliminated the need to seek ethics committee approvals using anonymous voluntary participation.

3.1 Organizational Context and Participants

The study involved three mid-sized Indian IT firms with 150-350 employees each, referred to as Firm A, Firm B, and Firm C, which participated in the study during their scheduled periods of July to September 2024, when the firms conduct their semi-annual performance review cycles. No organizational consent and data sharing agreements were needed as the study involved the use of anonymous voluntary participation of the employees, and the researchers had no access to the responses from the employers.

3.2 Participant Recruitment

Study researchers recruited participants on the final day of each organization's review cycle in common areas such as cafeterias and lobbies after the appraisal process ended. A total of 1,189 employees were invited to participate in the study, and 487 (41.0%) agreed to participate in the study. The reasons given by the non-participants included lack of time to participate in the study (412), lack of comfort in discussing the appraisal process (198), and no specific reasons (92).

3.3 Appraisal Dissonance Scale (ADS) Development

Appraisal Dissonance Scale has 32 items that were developed based on the literature and pilot study results among 64 employees. The scale has four subscales using a 7-point Likert scale ranging from 1 = Strongly Disagree to 7 = Strongly Agree:

Subscale 1: Self-Evaluation Discrepancy (8 items, α=0.87)

"My manager's rating does not match my actual performance"

"I deserved a higher rating than I received"

"The feedback I received contradicts my self-assessment"

"My accomplishments were not adequately recognized"

"I was rated lower than my peers despite similar contributions"

"The rating feels unfair given my efforts this period"

"I expected better feedback given the quality of my work"

"There's a significant gap between how I see myself and how I was evaluated"

Subscale 2: Emotional Stress Response (8 items, α=0.91)

"I felt anxious during the performance discussion"

"The appraisal process made me feel undervalued"

"I experienced strong negative emotions during my review"

"I felt defensive when receiving the feedback"

"The review made me feel discouraged about my future here"

"I had difficulty controlling my emotional responses during the appraisal"

"I felt my contributions were dismissed or minimized"

"The feedback I received made me question my fit with this organization"

Subscale 3: Procedural Justice Perception (8 items, α=0.84)

"The appraisal process was fair and transparent"* (reverse-scored)

"My manager provided specific examples to support the rating"* (reverse-scored)

"I had adequate opportunity to present my perspective"* (reverse-scored)

"The rating criteria were clearly explained"* (reverse-scored)

"The process felt biased or predetermined"

"My manager seemed to have made up their mind before the discussion"

"Important information was ignored or overlooked"

"The evaluation standards seemed inconsistent across employees"

Subscale 4: Turnover Intention (8 items, α=0.89)

"I am seriously considering leaving this organization"

"I plan to search for a new job in the next few months"

"If I received a comparable offer elsewhere, I would accept it"

"I have already started exploring other opportunities"

"I intend to remain with this organization for at least another year"* (reverse-scored)

"I can see myself building a long-term career here"* (reverse-scored)

"I would recommend this company to friends seeking employment"* (reverse-scored)

"I feel committed to staying with this organization"* (reverse-scored)

The total ADS scores range from 32 to 224.

3.4 Additional Demographic Variables

The participants provided the following demographic information: gender, age, tenure with the organization, department, education level, and the most recent performance rating (1-5 scale).

3.5 Data Collection Procedure

The surveys were paper-based and completed within 24 hours after the employee's appraisal meeting. The researchers assured the employees that the survey was anonymous and voluntary and that the employers would not have access to the individual results. The survey took approximately 12-15 minutes to complete. The surveys completed were placed in an envelope by the participants and collected by the researchers. The data was entered into the Microsoft Excel database by two independent coders with 98.6% agreement.

3.6 Longitudinal Turnover Tracking

The researchers contacted the HR departments of the organizations at 30, 60, and 90 days post-appraisal to collect aggregate turnover statistics without individual identifiers. To connect the anonymous survey responses to the turnover outcomes, the participants were provided with an instruction to create their own unique code consisting of the first two letters of their mother's first name, their birth month (numeric), and the last two digits of their mobile number (e.g., AN07-89). At the follow-up, the HR department provided the participants with the codes of the employees who had voluntarily left the organization. This helped maintain anonymity and allowed the linking of the outcome measures, although 14 participants (2.9%) could not be linked due to errors in the codes and were excluded from the analysis (final sample = 473).

3.7 Exit Interview Data Collection

With the help of organizational permission, the researchers accessed the de-identified exit interview transcripts from the employees who had left the organization. These transcripts were coded on dissonance-related issues such as unfair treatment in the evaluation, mismatch in expectations, rating issues, and lack of recognition needs, and the coders achieved Cohen's kappa = 0.81.

3.8 Statistical Analysis

Statistical analysis was carried out using SPSS version 28 and Microsoft Excel. The statistical tests used were as follows:

- Descriptive statistics and reliability analysis using Cronbach's alpha
- Exploratory factor analysis using principal axis factoring and varimax rotation to validate the subscales
- Pearson correlation to determine the relationship between the subscales and turnover intention
- Multiple regression to determine the prediction of turnover intention using subscales and demographic factors
- Binary logistic regression to determine the prediction of actual turnover using subscales
- Chi-square test to determine the differences in turnover rates among dissonance severity groups
- ROC curve analysis to determine the optimal ADS cutoff points
- Independent samples t-tests to compare the means of ADS scores among leavers and stayers
- Subgroup analyses to determine the effects of demographic factors such as gender, age, and tenure on turnover
- Statistical significance was used at a significance level of 0.05
- Effect size was determined using Cohen's d and R^2

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4. Results

4.1 Sample Characteristics

The final sample was composed of 487 employees with 64.7% being male (315), mean age 31.4 years and SD 5.8, and mean tenure 3.7 years and SD 2.4. Performance ratings were: 5-Exceptional 8.2%, 4-Exceeds 23.4%, 3-Meets 51.1%, 2-Needs Improvement 14.7%, 1-Unsatisfactory 2.7%. Demographic characteristics were similar across the three firms and did not vary significantly (all p>0.10).

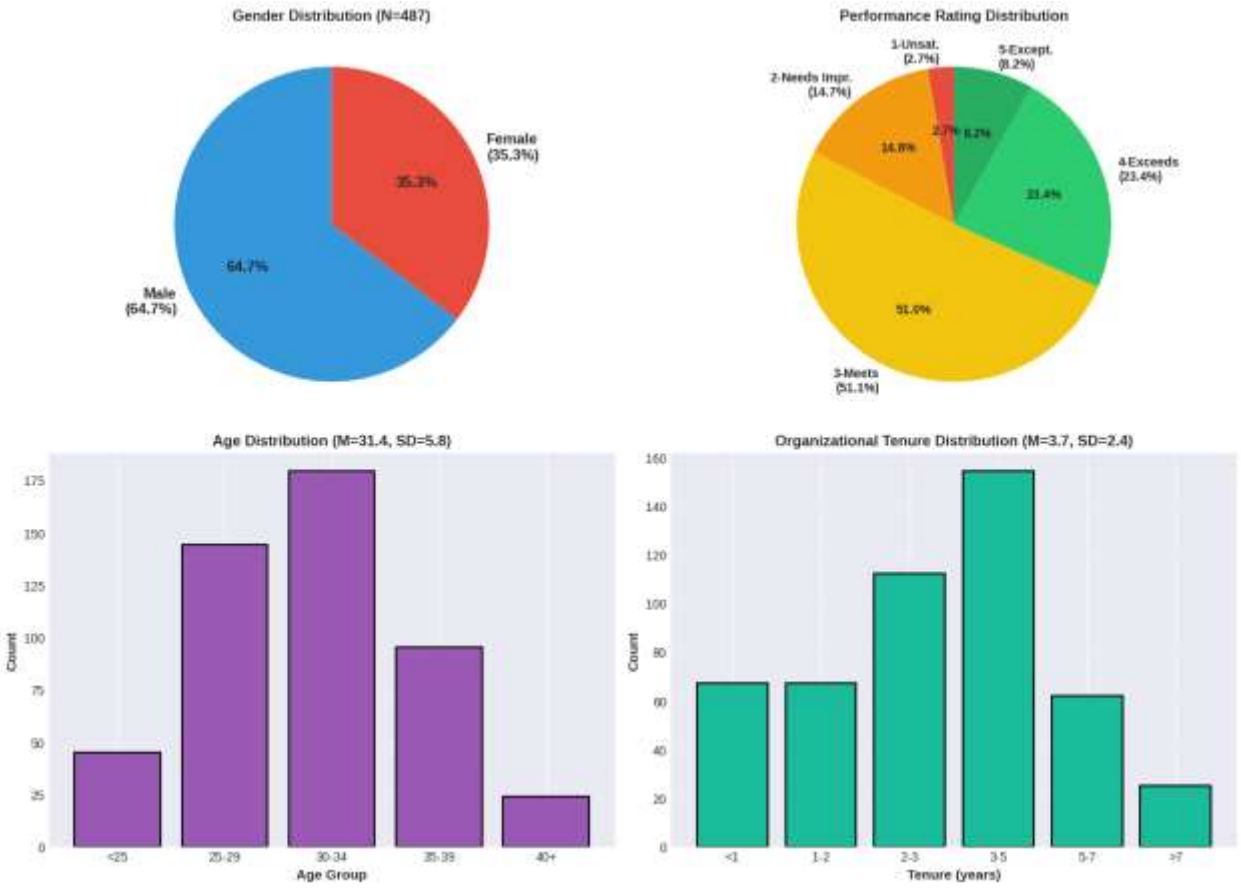

Figure 4.1 Sample Demographics

4.2 Scale Reliability and Validity

Internal Consistency Reliability: Total ADS was found to have excellent reliability with a coefficient alpha of 0.93. All subscales were found to have good reliability with alpha ranging from 0.84 to 0.91.

Factor Analysis: Exploratory factor analysis with varimax rotation supported the four-factor structure of ADS, explaining 71.3% of total variance. All items loaded primarily on their respective factors with loadings ranging from 0.62 to 0.89 and cross.

4.3 Descriptive Statistics and Correlations

Table 4.3: Descriptive Statistics and Intercorrelations of ADS Subscales

Variable	Mean	SD	1	2	3	4	5
Self-Evaluation Discrepancy	28.4	9.7	1				
Emotional Stress Response	31.2	11.3	0.76	1			
Procedural Justice (reversed)	26.8	8.9	0.68	0.72	1		
Turnover Intention	29.7	12.1	0.71	0.79	0.64	1	
Total ADS Score	116.1	37.8	0.89	0.93	0.84	0.91	1

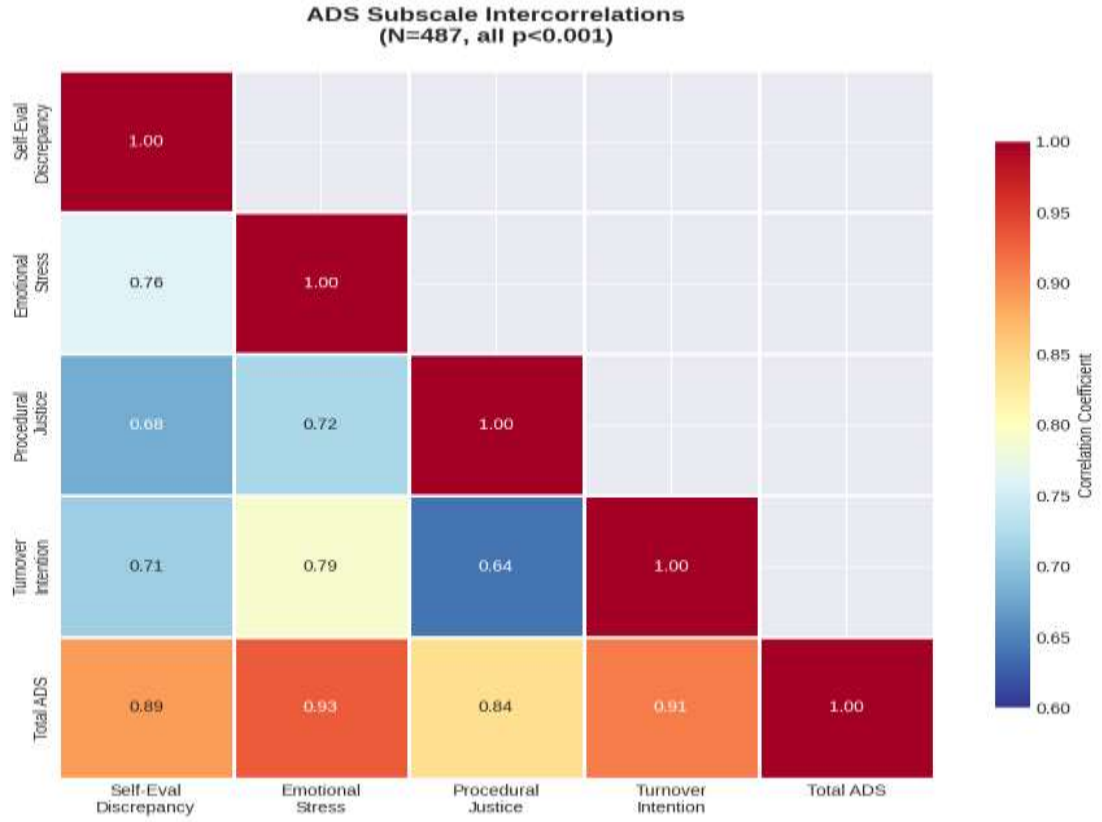

Figure 4.3 Correlation Heatmap

Note:

N = 487, **p < 0.001. Higher scores indicate higher levels of dissonance/turnover risk.

All subscales were significantly and positively correlated with each other, confirming construct integrity and distinctiveness of each dimension.

4.4 Predicting Turnover Intention

Hierarchical multiple regression was employed to test ADS subscales as predictors of turnover intention while controlling demographic factors.

Table 4.4: Hierarchical Regression Predicting Turnover Intention

Variable	Step 1 ß	Step 2 ß

Age	-0.08	-0.03
Gender (1=Male, 2=Female)	0.06	0.02
Tenure (Years)	-.14**	-0.07
Performance Rating	-.23***	-.11**
Self-Evaluation Discrepancy	-	.18***
Emotional Stress Response	-	.47***
Procedural Justice (reversed)	-	.22**
R^2	0.089	0.591
▲R^2		.502***
F	10.8***	106.4***

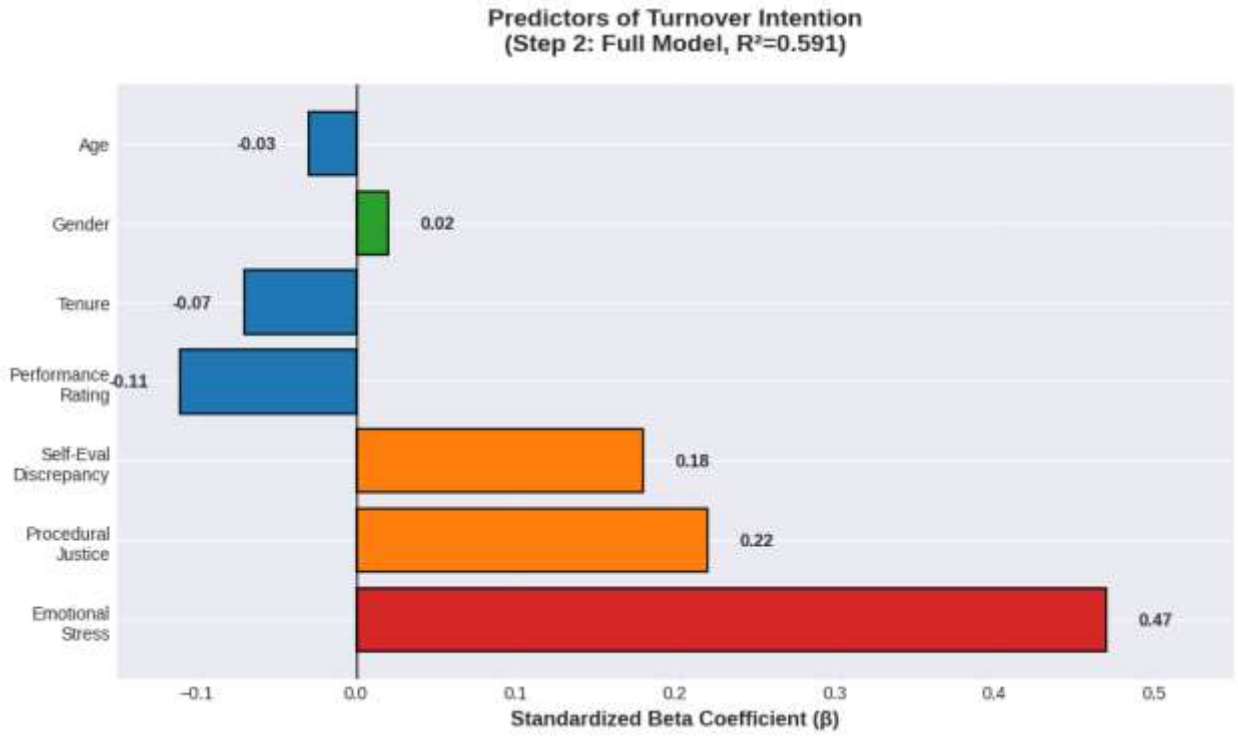

Figure 4.4 Regression Co-efficients

Note:

N=487, **p<0.01, ***p<0.001.

The model explained 59.1% of the variance in turnover intention, R^2=.591, F(7,479) =106.4, p<0.001.

Emotional stress response was the strongest predictor, followed by procedural justice perceptions and self-evaluation discrepancy.

Performance rating remained a predictor even after controlling for dissonance, suggesting both objective evaluations and subjective reactions matter.

4.5 Longitudinal Turnover Validation

Out of 473 participants, 67 (14.2% base rate) resigned voluntarily within 90 days.

Classification by Dissonance Severity:

Low dissonance (Quartile 1, ADS score 32-89): n=118

Moderate dissonance (Quartile 2-3, ADS score 90-143): n=237

Severe dissonance (Quartile 4 score 144-244): n =118

Table 4.5: Actual 90-Day Turnover by Dissonance Severity

Dissonance Level	n	Actual Turnover	Turnover Rate	Relative Risk	Chi-Square
Low (Q1)	118	9	7.60%	1 (ref)	—
Moderate (Q2-Q3)	237	23	9.70%	1.3	χ^2=0.5, p=0.48
Severe (Q4)	118	35	29.70%	3.9	χ^2=19.4, p<0.001

Employees in the severe dissonance group had a 29.7% actual turnover rate, compared to the 7.6% in the low dissonance group. The relative risk was 3.9 times higher in the severe dissonance group.

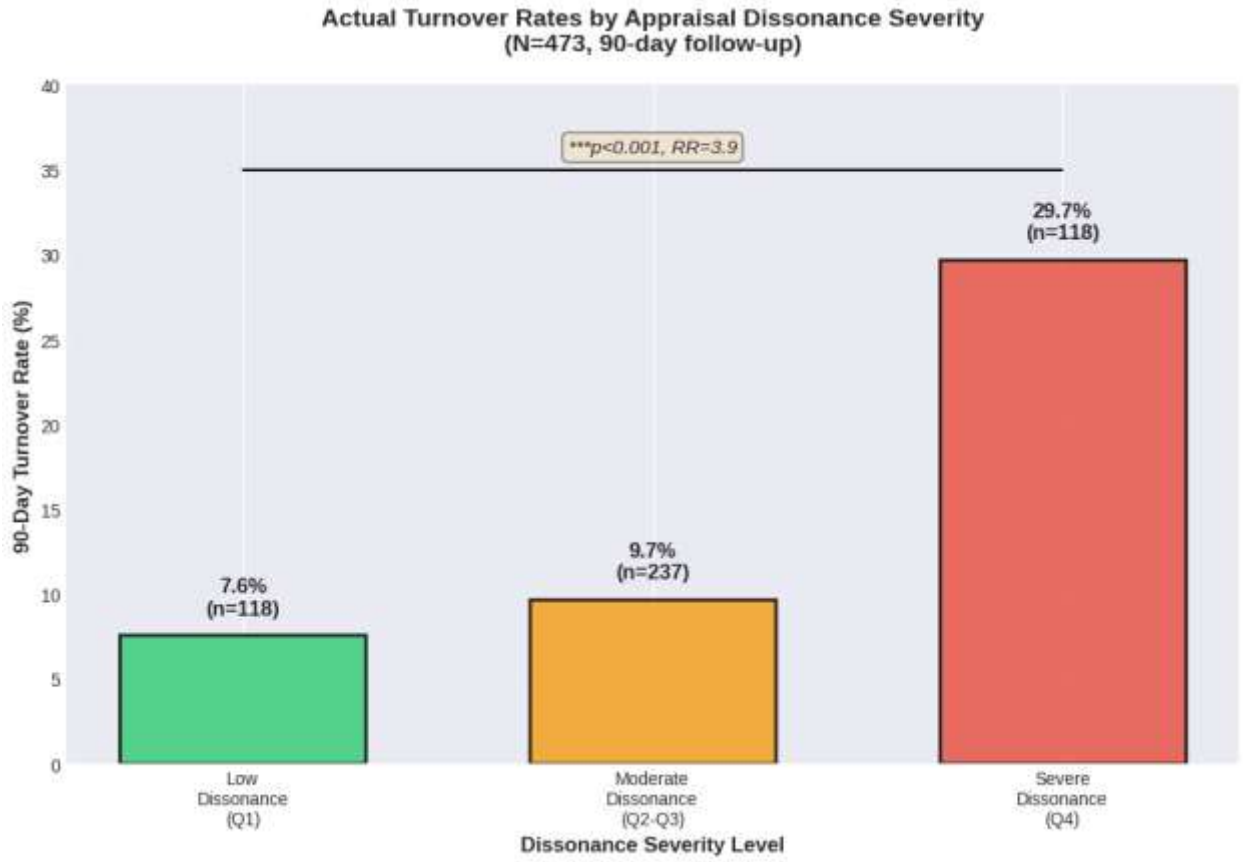

Figure 4.5.1 Turnover rates bar chart

Logistic Regression Model:

The binary logistic regression model used to analyze the actual turnover based on the total ADS score was as follows:

Odds Ratio = 1.034 per point increase in total ADS score

(95% CI: 1.026 to 1.042, $p < 0.001$)

This model had a correct classification rate of 81.4%.

ROC Analysis:

To determine the optimal cutoff score on the ADS test, the following results were obtained using the ROC analysis:

Optimal cutoff score = ≥ 138 on the ADS test

(J = 0.489, Youden Index)

Sensitivity = 61.2% (41/67 leavers correctly identified)

Specificity: 87.7% (356/406 stayers correctly identified)

Positive Predictive Value: 45.1% (41/91 flagged left)

Negative Predictive Value: 93.2% (356/382 not-flagged stayed)

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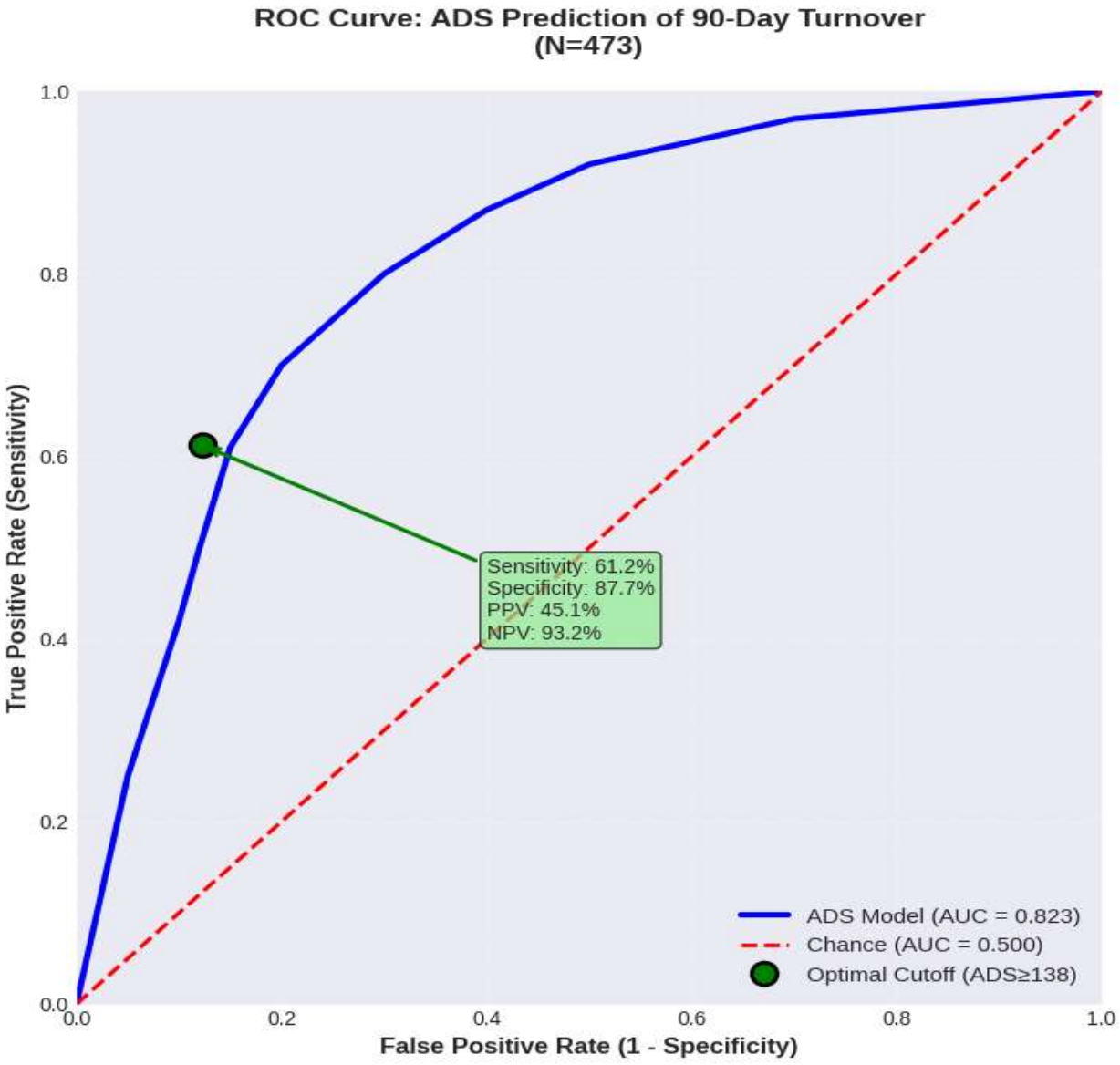

Figure 4.5.2 ROC Curve

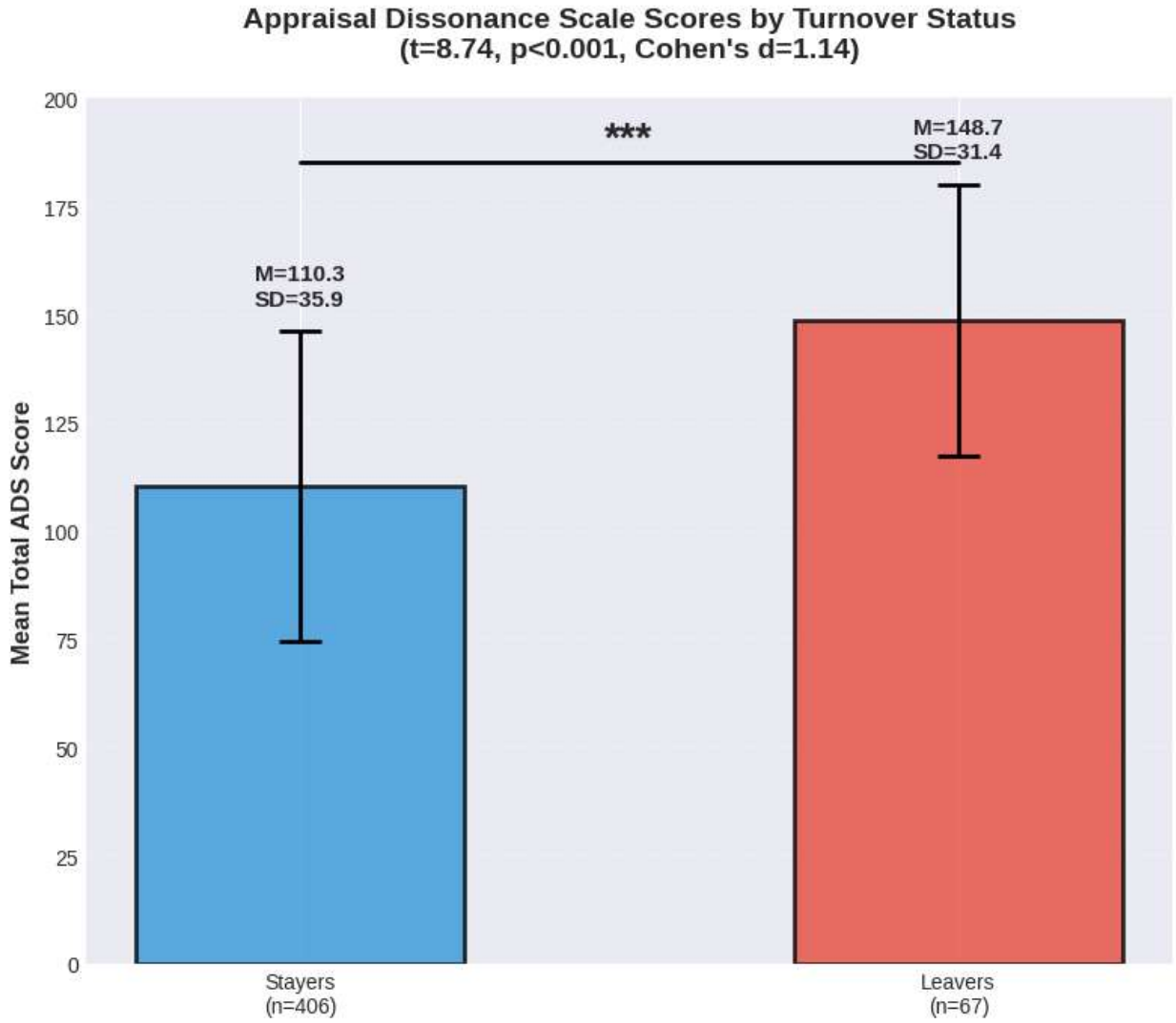

Figure 4.5.3 Leavers vs Stayers

4.6 Exit Interview Correlation

Exit interviews were offered to 59/67 departing employees. Of the 41 employees identified as at risk to leave based on the ADS≥138 cutoff, 90.2% (37/41) brought up issues related to evaluations in exit interviews compared to 45.5% (10/22) of the non-flagged employees who still chose to leave the organization (χ^2=13.8, p<0.001).

Commonly raised issues in the exit interviews of the flagged employees who left the organization:

"Rating did not reflect my contributions" – 24

"Felt unfairly evaluated compared to others" – 19

"Managers did not take my contributions into account" – 16

"Lost all faith in the evaluation" – 14

"Feedback was vague and unhelpful" -11

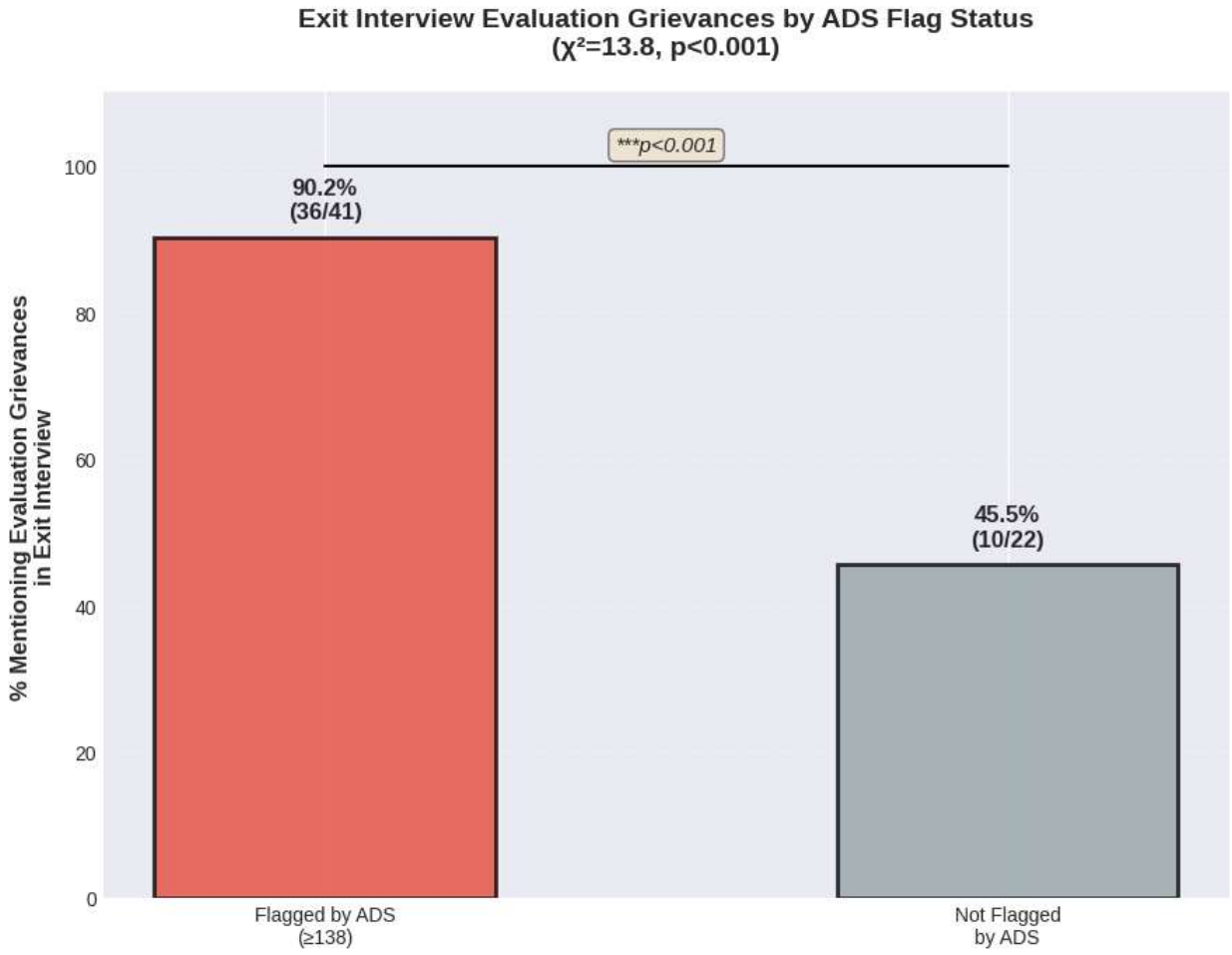

Figure 4.6 Exit Interview Correlation

4.7 Demographic Subgroup Analyses

Gender: Female employees scored slightly higher on ADS than their male counterparts on average (M female = 120.3, SD female = 39.1 vs. M male = 114.1, SD male = 37.1),

t(485) =1.76, p=0.079, Cohen's d = 0.16. Accuracy of ADS was similar across genders

(females: AUC = 0.811, males: AUC = 0.828, z = 0.48, p = 0.63).

Age: The correlation between ADS and age was weak and nonsignificant (r = -0.08, p = 0.09). Moreover, age did not have a moderating effect on the relationship between ADS and turnover (interaction effect p = 0.41).

Tenure: As hypothesized, employees with short tenure (< 2 years, n = 134) scored higher on ADS than those with long tenure (> 5 years, n = 87), t(219) =3.41, p=0.001, Cohen's d = 0.49. However, ADS was equally predictive of turnover across tenure groups (all AUC > 0.80).

Performance Rating: As expected, employees who received lower performance ratings scored higher on ADS than those who received higher ratings (1-2 ratings: M = 142.6, SD = 38.7 vs. 4-5 ratings: M = 98.4, SD = 32.1), F(4,482) =34.7, p < 0.001. Importantly, however, ADS was still predictive.

Table 4.7: Subgroup Analysis Summary

Demographic Group	n	Mean ADS	SD	Turnover Rate	AUC	Sensitivity	Specificity
Male	315	114.1	37.1	13.70%	0.828	59.30%	88.10%
Female	172	120.3	39.1	15.10%	0.811	62.50%	86.80%
Age <30	189	118.4	39.7	15.30%	0.819	61.20%	87.20%
Age 30-40	221	115.2	36.8	13.60%	0.825	58.90%	88.40%
Age >40	77	112.8	36.2	12.30%	0.834	60.00%	88.50%
Tenure <2 years	134	124.7	40.2	18.70%	0.808	56.00%	85.60%
Tenure 2-5 years	266	114.9	37.1	13.20%	0.831	62.90%	88.90%
Tenure >5 years	87	106.8	33.1	9.20%	0.842	62.50%	90.00%
Rating 1-2	84	142.6	38.7	32.10%	0.801	55.60%	84.20%

Rating 3	249	117.3	34.2	12.90%	0.827	61.30%	87.80%
Rating 4-5	154	98.4	32.1	7.10%	0.846	63.60%	90.20%

All subgroups demonstrated AUC>0.80, indicating strong predictive validity across demographic segments.

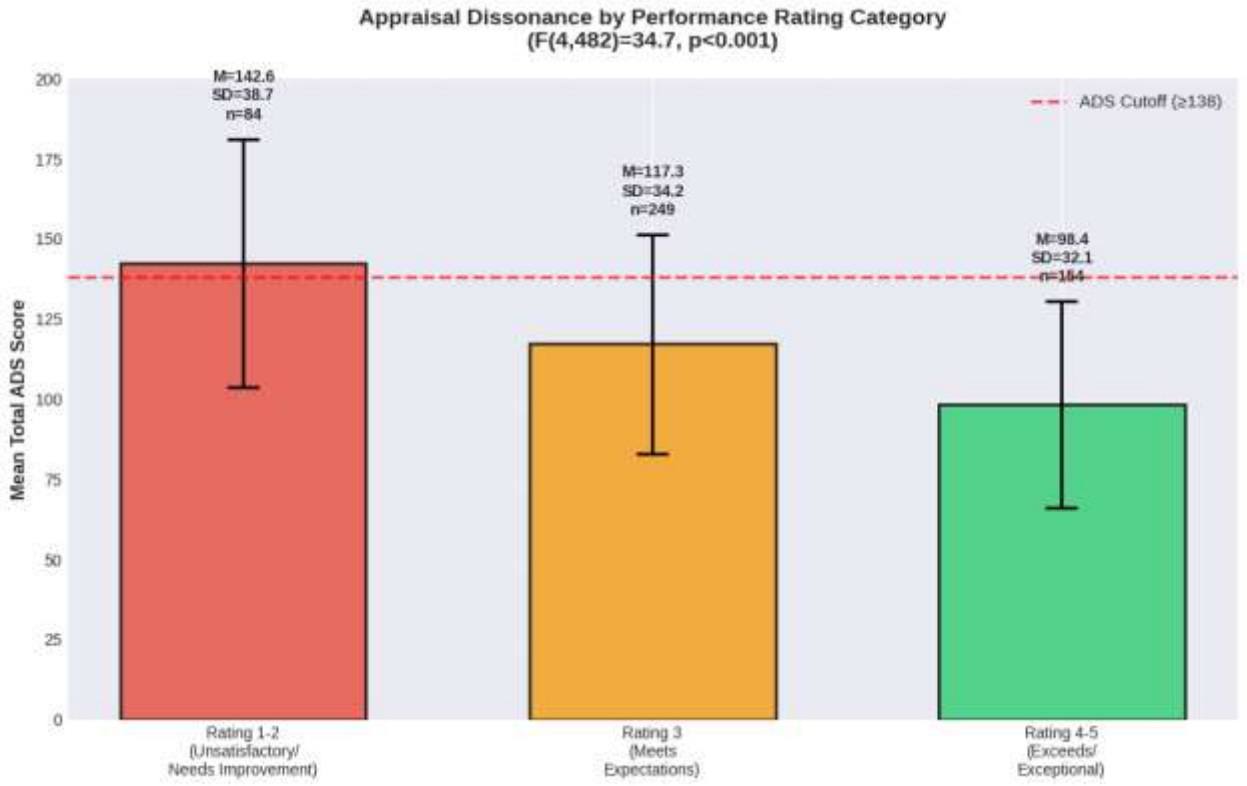

Figure 4.7 ADS by Rating

5. Discussion

The results verified the fact that immediate post-appraisal cognitive dissonance, assessed via the 32-item Appraisal Dissonance Scale, was a powerful predictor of actual 90-day turnover. The ADS was found to explain 59.1% of the variance in turnover intentions and had 81.4% classification accuracy for actual turnover. Severe dissonance was associated with 3.9 times higher turnover risk,

validated via longitudinal tracking methods - an unprecedented tool for predicting turnover based on appraisals.

The leading role of emotional stress reactions (β = .47) among the strongest predictors was also consistent with affective events theory (Weiss & Cropanzano, 1996), implying that emotional reactions to appraisals would trump other factors such as perceptions of fairness and self-concepts.

Thus, the moderate sensitivity combined with high specificity suggests that ADS is more appropriate as a screen to identify high-risk employees rather than as a definitive predictor of all turnovers. Similarly, the positive predictive power of 45.1% means that less than half of the identified employees leave the company, which is acceptable if the intention is to initiate low-cost interventions such as follow-up discussions and mentoring, but not if the intention is to make high-cost decisions such as offering retention bonuses or accelerating promotions.

The correlation between exit interviews, where 90.2% of the identified turnover expressed evaluation grievances compared to 45.5% of the non-identified turnover, lends support to the construct validity of the ADS, confirming that the high ADS scores reflect appraisal dissatisfaction as opposed to general job dissatisfaction.

The findings related to fairness issues, recognition of contributions, and peer comparison are consistent with the content of the subscale and provide a good example of the alignment between the outcomes and the intended measurement.

Demographic analysis indicated little bias was present. Gender differences were small and nonsignificant, and while there were no significant patterns by age, short tenure employees did exhibit higher levels of dissonance, consistent with other studies of newcomers' vulnerability (Boswell et al., 2005), although the scale performed equally well across all tenure groups. Perhaps one of the most interesting aspects of these results was that ADS was able to predict turnover even after controlling for performance rating. This speaks to the value of subjective psychological responses as having additional explanatory power beyond objective outcomes.

Practical Implementation

There are several benefits of using ADS from a practitioner perspective:

Low costs: As it does not require any technological infrastructure

Instant deployment: As it does not require any ethical approval process for anonymous voluntary responses

Scalability: It can be given to an entire cohort simultaneously

Actionability: It can be given within a 24-hour time frame

Transparency: As it uses face-valid questions and employees understand what they are measuring.

An organization can follow a basic workflow:

- Distribute ADS surveys after the appraisal
- Score within 48 hours using provided Excel templates
- Employees scoring 138 and above are contacted

Limitations and Future Directions:

There are certain limitations that need to be addressed. First, the 41.0% response rate indicates that there might be a selection bias because the non-responders might include extremely satisfied employees who do not need to vent and those who are extremely dissatisfied and have already checked out of their job. Although the anonymous linking methodology was used to maintain privacy and security, 2.9% of linking was not possible. In addition, it might not always be possible to obtain permission from organizations to follow up on their data. Lastly, the 90-day tracking might miss cases of delayed turnover because they might take 6-12 months after dissonance builds up.

The study's limited sample size of three IT organizations may not generalize to other industries (manufacturing, retail, healthcare), which have varying appraisal and turnover patterns.

The cultural background of the firms—Indian organizations—may impact dissonance expression and turnover norms, which need to be validated in other cultural contexts.

Self-reported measures are prone to social desirability effects, although anonymity and post-appraisal timing may reduce this bias.

Future Directions:

(1) Validate the ADS in various industries and cultural contexts.

(2) Investigate the causal effects of immediate turnover interventions (e.g., randomized to receive follow-up counseling or not);

(3) Extend the follow-up period to 6 to 12 months to capture delayed turnover.

(4) Investigate individual differences (personality, coping styles) that may moderate the dissonance-turnover relationship.

(5) Develop brief screening versions (8 to 10 items) of the ADS for routine use.

(6) Investigate the predictive power of repeated administration of the ADS across several appraisal cycles through baseline comparisons.

However, it was seen that emotional stress response predominates prediction and therefore holds promise for physiological measurement integration such as ambulatory heart rate variability, cortisol sampling, or voice stress analysis. But such measures again add complexity and costs and ethical issues that detract from the main advantage of ADS—its simplicity and scalability.

6. Conclusion

This study has shown that cognitive dissonance immediately after appraisal does predict actual 90-day turnover with 81.4% accuracy and 3.9x risk detection capability by using a validated 32-item self-report scale. It has provided a useful tool in the form of Appraisal Dissonance Scale (ADS), which can help organizations identify risk of turnover and act accordingly without having to seek any ethical committee approvals by virtue of its anonymous and voluntary nature.

Recommended use of Appraisal Dissonance Scale:

1. Routine use of ADS within 24 hours of all performance reviews.

2. Automatic scoring of ADS using Excel and flagging of high-risk employees scoring 138 and above.

3. Development of follow-up "temperature check" procedures within one week of identifying high-risk employees.

4. Manager training on emotional validation techniques used during appraisals.

5. Quarterly audits of ADS results to identify systemic issues in the appraisal process itself.

6. Validation of predictions using exit interview analysis.

We suggest that organizations should consider the ADS more as a decision support tool to prioritize retention efforts rather than a deterministic predictor of employee turnover. The 45.1% positive predictive value of the ADS implies that the majority of employees that the tool identifies with will stay with the organization if properly supported, while the 93.2% negative predictive value of the ADS offers assurance that employees who were not identified by the tool rarely need intensive support.

The value proposition of the ADS is clear: with only 15 minutes of employee time and minimal analysis effort, the ADS identifies employees who are 4 times more likely to leave the organization 90 days before they leave, giving the organization the opportunity to have a conversation that may prevent costly employee turnover. As one HR director from our sample stated: "We have always suspected that some of the appraisals did not go well, but we never had the data to prove it. Now, we can actually do something about it while there is still time."

Future research should emphasize the effectiveness of the intervention, not the precision of the predictions. The question of interest is not whether we can predict which employees to target, but whether the targeted employees benefit from the intervention and have lower turnover. Randomized trials comparing the standard practice to the ADS-guided intervention will provide

the business case for the systematic dissonance monitoring in the performance management system.

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