

Performance appraisal interval and employees' proactive working behavior

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Executive Summary

This study addresses a gap in performance appraisal research by examining how performance appraisal interval (PAI) — the time between successive appraisals — influences employees' proactive work behavior (PWB). The authors argue that PAI exerts dual opposing effects: a time-gain effect, whereby longer intervals increase delay of gratification (DG) and indirectly promote PWB, and a time-loss effect, whereby longer intervals amplify perceived uncertainty (PU) and indirectly suppress PWB. Drawing on psychological momentum (PM) theory and the additive benefit-and-cost principle proposed by Haans et al. (2016), the authors hypothesize an overall inverted U-shaped relationship between PAI and PWB, moderated by supervisor developmental feedback (SDF). A cross-level analysis of 622 employees across 57 teams in high-tech enterprises in Shanghai supported all six hypotheses: PAI had a positive but marginally decreasing effect on DG, a positive and marginally increasing effect on PU, and an overall inverted U-shaped effect on PWB. Higher SDF flattened the inverted U-shape, attenuating the negative consequences of extended PAI. The study concludes that a moderate PAI optimizes proactive behavior, and that developmental feedback functions as a compensatory leadership mechanism.

Key Insights

1. PAI exerts dual competing psychological effects on proactive work behavior: a time-gain effect (via increased delay of gratification) and a time-loss effect (via increased perceived uncertainty), producing an overall inverted U-shaped relationship.
2. The positive effect of PAI on delay of gratification is marginally decreasing — beyond a saturation point, extending appraisal intervals no longer meaningfully enhances future orientation and may become counterproductive.
3. Supervisor developmental feedback moderates the inverted U-shaped relationship between PAI and PWB, producing a flatter curve: higher SDF sustains PWB at longer PAI intervals by reducing perceived uncertainty and reinforcing goal clarity.

Practical Takeaways

- Organizations operating with relatively long appraisal cycles may observe diminishing motivational returns on proactive behavior, as perceived uncertainty increases with interval length and eventually outweighs the benefits of extended time horizons.
- Supervisor developmental feedback — defined as future-oriented, improvement-focused guidance — functions as a boundary condition that partially offsets the negative consequences of long appraisal intervals on employee proactivity.

Frameworks Mentioned

Psychological Momentum (PM) Theory — A theoretical framework proposing that outcome-related stimuli impart individuals with a perceived sense of momentum — positive or negative — which influences subsequent motivation and behavioral engagement.

Critical Analysis

Strengths: The study introduces a theoretically grounded dual-mechanism model to explain previously contradictory findings on appraisal frequency and motivation. The multilevel design (622 employees, 57 teams) with dual-source data collection (employee self-report and supervisor-rated PWB) reduces common method bias. All six hypotheses were supported with appropriate statistical techniques including cross-level regression, Johnson-Neyman plotting, and grand-mean centering. **Limitations:** The sample is restricted to high-tech enterprises in Shanghai, China, raising questions about cultural and industrial generalizability. Cross-sectional data collection precludes causal inference; PWB fluctuation across different stages within a single PAI cycle is not captured. PAI is measured as a single ordinal item, limiting construct depth. Only one boundary condition (SDF) is examined, and individual-level moderators such as goal orientation or future work self are acknowledged but untested. The study's theoretical reliance on PM theory — originally developed in sports psychology contexts — involves inferential stretching when applied to organizational appraisal systems. The geographic and organizational homogeneity of the sample (Chinese high-tech firms supported by a government finance bureau project) introduces potential selection bias.

Organizational Practice

The study examines high-tech enterprises in Shanghai that use pay-for-performance appraisal systems with varying intervals (monthly, bimonthly, quarterly, half-yearly, yearly, or three-yearly). Data were collected from 21 enterprises across digital technology, intelligent manufacturing, communication equipment, biotechnology, and new energy materials sectors. Supervisors evaluated employee proactive work behavior while employees self-reported delay of gratification, perceived uncertainty, and supervisor developmental feedback. The study was supported by the Shanghai Municipal Finance Bureau.

Strategic Implications

The findings indicate that the ongoing organizational trend toward more frequent appraisals does not uniformly increase proactive employee behavior — an inverted U-shape relationship suggests that very short and very long appraisal intervals may both be suboptimal for motivating proactivity. The identification of perceived uncertainty as a growing negative force at longer intervals points to temporal design as an underexplored dimension of PMS architecture. The moderating role of supervisor developmental feedback implies that leadership quality and feedback practices interact with structural appraisal timing in determining behavioral outcomes, suggesting that PMS interval decisions cannot be evaluated independently of the supervisory feedback environment.

