

UNDERSTANDING BUDGET INNOVATION'S PARADOXICAL EFFECTS ON MANAGERIAL PERFORMANCE IN DEVELOPING COUNTRY CONTEXT

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Abstract: Despite widespread promotion of budgetary innovation in developing countries, empirical evidence reveals contradictory performance outcomes that remain inadequately explained. This study investigates budgetary innovation's paradoxical effects on managerial performance in developing country public sectors. Using Partial Least Squares Structural Equation Modeling (PLS-SEM) with data from 230 structural officials across 27 Indonesian government agencies in Merauke Regency (100% response rate), we find that budgetary innovation produces significant negative direct effects on managerial performance ($\beta = -0.156$, $p = 0.013$) while simultaneously generating equally strong positive indirect effects through enhanced job satisfaction ($\beta = +0.156$, $p < 0.001$), resulting in complete offsetting with near-zero net impact. Grounded in Job Characteristics Model and Affective Events Theory, findings demonstrate that innovations disrupt performance through operational challenges, learning demands, and resource constraints while enhancing performance through improved work meaningfulness, autonomy, skill variety, and feedback mechanisms. The paradox reconciles contradictory evidence in existing literature and suggests public sector leaders should anticipate temporary performance decrements while deliberately investing in participatory implementation, comprehensive training, and satisfaction enhancement strategies to achieve net positive outcomes in resource-constrained developing country contexts.

Keywords: *budgetary innovation, job satisfaction, managerial performance, paradox, public sector, developing countries*

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1. Introduction

Public sector organizations worldwide face mounting pressures to innovate budgeting practices in response to fiscal constraints, accountability demands, and performance expectations (OECD, 2024). Budgetary innovation, encompassing performance-based budgeting, digital platforms, and participatory mechanisms, has been promoted as essential for improving efficiency and effectiveness, particularly in developing countries facing limited resources and capacity constraints (Cinar et al., 2025; World Bank, 2018). Despite widespread adoption and substantial technical assistance, empirical evidence reveals a puzzling contradiction: while

some studies report positive associations between budgetary participation, innovative behavior, and performance outcomes (Koomson et al., 2025), others document negative effects, implementation failures, and resistance to change, particularly where institutional inertia persists (de Vries et al., 2012). Research on Indonesian local governments reveals substantial variation in innovation performance across regions, with organizational-level obstacles proving more frequent in developing countries than developed nations (Cinar et al., 2025; Suwarno et al., 2024). This empirical complexity suggests that budget innovation operates through multiple pathways with opposing effects, creating paradoxical relationships that simple linear models cannot adequately capture.

We propose this complexity manifests as a fundamental paradox: budgetary innovation produces negative direct effects on managerial performance while simultaneously generating positive indirect effects through enhanced job satisfaction. The negative direct effect arises because innovation disrupts established routines, creates implementation uncertainties, increases cognitive load, and triggers resistance to change (Abhari, 2025; Drejeris & Drejeriene, 2022). However, these same innovations concurrently enhance job satisfaction by increasing work meaningfulness, providing skill variety, offering clearer performance feedback, and creating autonomy in budget decision-making through improved work design characteristics (den Boer et al., 2021; Yang et al., 2024). The Job Characteristics Model proposes that specific job dimensions: skill variety, task significance, autonomy, and feedback, generate critical psychological states including experienced meaningfulness and knowledge of results, which influence satisfaction and performance (Ali et al., 2014). Affective Events Theory further explains how budget innovation as a significant work event triggers both negative emotions (stress from disruption) and positive emotions (pride from mastery), with job satisfaction serving as an attitudinal mediator between these affective experiences and performance outcomes (Weiss & Cropanzano, 1996). When budget innovations enhance satisfaction through improved work design, this satisfaction translates into restored or improved performance levels, potentially offsetting direct disruptive effects. Research demonstrates that job satisfaction plays crucial mediating roles in public sector contexts, particularly during organizational change (Judge et al., 2001).

Understanding this paradox carries significant theoretical and practical implications. Theoretically, recognizing dual pathways, direct disruption and indirect enhancement through job satisfaction, reconciles conflicting findings and advances understanding of how innovations affect performance in resource-constrained settings. Studies on public sector innovation increasingly recognize that innovation requires organizational conditions supporting employee well-being alongside technical implementation (Demircioglu, 2024; Q. Li et al., 2025). Research on organizational health shows that employee engagement and satisfaction are critical drivers of innovation success in environments characterized by resource constraints and institutional challenges (Cadeddu et al., 2023; Nguyen, 2025). Practically, this knowledge enables public sector leaders to anticipate temporary performance decrements while simultaneously investing in job satisfaction enhancement mechanisms (such as participation, skill development, feedback systems, and recognition) to achieve net positive outcomes over time. Evidence suggests that organizations managing budget transitions with explicit attention to employee satisfaction experience smoother implementation and better long-term results (Bah et al., 2024; Kimonyo, 2024).

This study addresses three interrelated research questions. First, does budgetary innovation produce negative direct effects on managerial performance in developing country contexts, given that political interference and institutional weaknesses often complicate budget

implementation? Second, does job satisfaction mediate the relationship between budget innovation and managerial performance, such that innovations enhance satisfaction which in turn improves performance? Third, do the direct negative effects and indirect positive effects through job satisfaction approximately cancel each other out, resulting in a near-zero net effect that explains contradictory findings in existing literature? Answering these questions requires examining both disruptive direct effects and enhancing indirect effects of budget innovation, while accounting for job satisfaction as a critical psychological mechanism linking innovation experiences to performance outcomes.

Our empirical investigation focuses on Indonesian public sector organizations in Merauke Regency, Papua Province, which exemplify challenges facing many developing countries: limited technical capacity, hierarchical cultures, resource scarcity, and simultaneous modernization pressures. Indonesia represents a particularly relevant case given recent national initiatives promoting public sector innovation with considerable regional variation in outcomes (Suwarno et al., 2024). We contribute to public management scholarship in three ways. First, we provide the first systematic empirical test of the budget innovation paradox in a developing country setting, demonstrating that opposing direct and indirect effects can coexist and approximately cancel out. Second, we identify and test job satisfaction as a critical mediating mechanism grounded in job characteristics theory and affective events theory, explaining how negative direct effects can be offset through positive indirect pathways. Third, we establish that net effects of budget innovation may be near zero when direct disruption and indirect enhancement balance out, providing theoretical explanation for contradictory findings in existing literature and offering practical guidance for managing budget innovation in challenging institutional environments.

Statement of Problem

Public sector budgeting plays a fundamental role in resource allocation, performance management, and accountability, with effective budget management becoming even more critical in developing countries facing resource scarcity and limited institutional capacity (OECD, 2024; World Bank, 2018). Despite widespread promotion of budgetary innovation, encompassing performance-based budgeting, digital platforms, participatory mechanisms, and integrated financial management systems, empirical evidence from developing countries reveals significant implementation challenges, contradictory performance outcomes, and unexpected effects on managerial work experiences that remain inadequately explained in existing literature. Most research has concentrated on developed country contexts or examined general organizational outcomes without attending to managerial-level psychological mechanisms that may explain variation in innovation impacts. Studies examining public sector innovation in Indonesian contexts reveal substantial outcome variation, with some organizations achieving performance improvements while others experience implementation difficulties despite similar technical interventions (Suwarno et al., 2024), suggesting that intervening mechanisms, potentially including managerial psychological states such as job satisfaction, may play critical roles in determining innovation outcomes. However, empirical investigation of job satisfaction as a mediating mechanism in budget innovation contexts remains scarce, particularly in developing country settings where work design and employee well-being dynamics may differ substantially from developed countries.

Furthermore, existing theoretical frameworks for understanding budget innovation effects focus primarily on either technical implementation factors or broad institutional conditions, with limited attention to individual-level psychological processes linking innovation experiences to performance outcomes. Job characteristics theory suggests that innovations

redesigning work processes affect employee satisfaction through core job dimensions including skill variety, task significance, autonomy, and feedback (Ali et al., 2014), while public administration research demonstrates that job satisfaction significantly influences managerial performance and organizational effectiveness (Dorta-Afonso et al., 2025; Ramasamy et al., 2023).

However, systematic investigation of how budget innovation influences job satisfaction, and how satisfaction subsequently affects performance in developing country public sectors, is lacking. This gap is particularly significant in resource-rich yet capacity-constrained regions like Merauke Regency, Indonesia, where ambitious budget modernization initiatives including performance-based budgeting and digital financial management systems have been implemented, yet managers report experiencing both implementation difficulties and unexpected satisfaction improvements associated with enhanced work meaningfulness and skill development opportunities. Addressing this research gap is essential for understanding whether and how budget innovation can contribute to improved public sector performance while maintaining employee well-being, and for providing evidence-based guidance to policymakers and practitioners managing budget modernization in challenging institutional environments.

The general objective of this study is to examine the paradoxical effects of budgetary innovation on managerial performance in Indonesian public sector organizations, with specific attention to direct effects, indirect effects through job satisfaction, and net outcomes.

The specific objectives of the study are:

- 1) To evaluate the direct effect of budgetary innovation on managerial performance in Indonesian public sector organizations.
- 2) To analyze the effect of budgetary innovation on job satisfaction among public sector managers in Indonesian government agencies.
- 3) To examine the effect of job satisfaction on managerial performance in Indonesian public sector organizations.
- 4) To assess the mediating role of job satisfaction in the relationship between budgetary innovation and managerial performance in Indonesian public sector organizations.

2. Literature Review

2.1. Theory of Planned Behavior

The Theory of Planned Behavior (TPB), developed by Ajzen in 1991, explains how behavioral intentions are formed through three determinants: attitudes toward the behavior, subjective norms, and perceived behavioral control. In budgetary innovation contexts, TPB explains how managers' intentions to adopt new budget systems are shaped by their attitudes toward innovation benefits, perceptions of organizational expectations, and confidence in implementation capabilities. When managers hold positive attitudes, perceive supportive norms, and feel capable of mastering new systems, they are more likely to embrace innovations enthusiastically rather than resist them (Divya & Christopher B, 2025). However, TPB focuses on attitudes predicting behavior and does not explain how behavioral experiences subsequently shape emotional outcomes and satisfaction—a critical limitation when examining how budget innovation implementation affects job satisfaction and performance through work redesign mechanisms. The theory provides limited guidance for understanding how innovations alter work characteristics and influence satisfaction through changed task structures, skill requirements, and feedback systems.

2.2. Job Characteristics Model

The Job Characteristics Model (JCM), developed by Hackman and Oldham in 1976, provides the primary theoretical foundation for understanding how budget innovation influences job satisfaction and performance through work redesign. The model proposes that five core job characteristics—skill variety, task identity, task significance, autonomy, and feedback—generate three critical psychological states: experienced meaningfulness of work, experienced responsibility for outcomes, and knowledge of actual results. These psychological states subsequently influence work outcomes including job satisfaction, intrinsic motivation, and work performance. In budget innovation contexts, performance-based budgeting increases task significance by explicitly linking budget allocations to service outcomes, digital platforms provide clearer and more immediate feedback about budget execution and performance achievement, participatory mechanisms increase autonomy by giving managers greater voice in budget decisions, and new system implementation requires developing new competencies thereby increasing skill variety (Ali et al., 2014). These job design improvements generate critical psychological states—particularly experienced meaningfulness and knowledge of results—that enhance job satisfaction, which subsequently improves managerial performance through increased motivation, effort investment, and persistence. Empirical research demonstrates that job characteristics significantly influence satisfaction and performance in public sector contexts, with job satisfaction serving as a key mediator between work design and performance outcomes (Gazi et al., 2024; C. Li et al., 2019). Despite its strengths, JCM assumes that enriched jobs universally produce positive outcomes, potentially underestimating how job enrichment can create stress and role overload for employees lacking adequate training or support, particularly in resource-constrained developing country contexts.

2.3. Affective Events Theory

Affective Events Theory (AET), developed by Weiss and Cropanzano in 1996, provides a complementary framework explaining how budget innovation as a significant work event triggers emotional reactions that accumulate to shape job satisfaction attitudes, which subsequently affect performance. The theory proposes that work environment features create affective work events—discrete incidents triggering emotional reactions, both positive (joy, pride, excitement) and negative (frustration, anxiety, anger). Job satisfaction represents an attitude that accumulates from emotional experiences over time, serving as a judgment about overall job favorability based on accumulated affective events and reactions. Budget innovation represents a significant affective event triggering diverse emotional reactions: negative emotions arise from disruption of familiar routines, implementation uncertainties, and technical difficulties, while positive emotions stem from excitement about modernization, pride in mastering new skills, and satisfaction from improved feedback and transparency (Weiss & Cropanzano, 1996). According to AET, these varied emotional experiences accumulate to shape job satisfaction attitudes, which influence subsequent performance through motivation and effort investment mechanisms. The theory explains how budget innovation can produce both negative direct effects on performance (through immediate disruptive emotions) and positive indirect effects (through accumulated satisfaction based on positive emotional experiences over time). Research demonstrates that affective events and emotional experiences significantly shape employee attitudes and behaviors in public sector contexts, particularly during organizational change (Heim & Sardar-Drenda, 2021; Saleem et al., 2024). However, AET provides limited guidance on how different types of affective events combine to produce net satisfaction effects when innovations trigger both positive and negative

emotions simultaneously, creating ambiguity relevant to understanding paradoxical budget innovation effects.

Table 1. Theoretical Linkage Framework

Theory	Main Contribution	Linkage to Study Variables
Theory of Planned Behavior (Ajzen, 1991)	Explains how attitudes, norms, and perceived control shape behavioral intentions toward budget innovation adoption	Foundation for understanding managers' initial orientations toward budgetary innovation (BI)
Job Characteristics Model (Hackman & Oldham, 1976)	Explains how work design characteristics (skill variety, task significance, autonomy, feedback) influence job satisfaction through psychological states	Primary mechanism linking budgetary innovation (BI) to job satisfaction (JS): innovation redesigns work → enhanced job characteristics → increased satisfaction
Affective Events Theory (Weiss & Cropanzano, 1996)	Explains how work events trigger emotions that accumulate into satisfaction attitudes, which influence performance	Explains mediation pathway: budget innovation events → emotional experiences → accumulated job satisfaction (JS) → managerial performance (MP)

Table 1 illustrates how the three theories provide complementary perspectives on budget innovation-satisfaction-performance relationships. TPB explains initial behavioral orientations, JCM explains work redesign mechanisms linking innovation to satisfaction, and AET explains emotional accumulation processes through which satisfaction mediates innovation-performance relationships. Together, these theories support the proposition that budgetary innovation produces both direct disruptive effects on performance and indirect enhancing effects through job satisfaction improvements arising from better work design characteristics.

The following null hypotheses were tested at 0.05 significance level to guide the study:

- H₁: There is no statistically significant direct effect of budgetary innovation on managerial performance in Indonesian public sector organizations.
- H₂: There is no statistically significant effect of budgetary innovation on job satisfaction among public sector managers in Indonesian government agencies.
- H₃: There is no statistically significant effect of job satisfaction on managerial performance in Indonesian public sector organizations.
- H₄: Job satisfaction does not significantly mediate the relationship between budgetary innovation and managerial performance in Indonesian public sector organizations.

3. Research Method

The study employed a positivist research philosophy with explanatory cross-sectional design to examine causal relationships among budgetary innovation, job satisfaction, and managerial performance. This philosophical stance enabled hypothesis testing and theory validation through empirical observation and quantitative measurement using standardized instruments and statistical analysis (Creswell, 2014). Cross-sectional design allowed efficient data collection at single point in time while enabling statistical analysis of relationships among clearly defined constructs.

The target population consisted of 433 structural officials in 27 regional government agencies in Merauke Regency, Papua Province, Indonesia. Respondents included agency heads, secretaries, division heads, sub-division heads, and section heads across diverse public

service functions including health, education, infrastructure, social welfare, and economic development. Merauke Regency was selected as it represents a strategic border region with unique challenges in financial management while implementing ambitious budget modernization initiatives including performance-based budgeting and digital financial management systems. Using purposive sampling, 230 questionnaires were distributed to structural officials directly involved in budgeting processes and managerial decision-making. A total of 230 completed questionnaires were returned, yielding a 100% response rate. This sample size provides adequate statistical power for Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis and exceeds the minimum requirement of ten times the maximum number of structural paths directed at any construct (Hair et al., 2019).

Table 2. Variable Operationalization and Measurement

Variable	Definition	Indicators	Items	Source
Budgetary Innovation (BI)	Implementation of new ideas, technologies, or methods in budget management to improve efficiency and effectiveness	(a) technology innovation, (b) process innovation, (c) product innovation, (d) service innovation	9	Borins (2001)
Job Satisfaction (JS)	Positive attitude of individuals toward their work reflecting satisfaction levels across various job aspects	(a) work itself satisfaction, (b) compensation satisfaction, (c) promotion satisfaction, (d) supervision satisfaction, (e) coworker satisfaction	9	Judge & Kammeyer-Mueller (2022)
Managerial Performance (MP)	Effectiveness level of managers in executing management functions to achieve organizational objectives	(a) planning, (b) investigating, (c) coordinating, (d) evaluating, (e) supervising, (f) staffing, (g) negotiating, (h) representing	21	Mahoney et al. (1963)

Data were collected using structured questionnaires with five-point Likert scales (1 = Strongly Disagree to 5 = Strongly Agree). The instrument consisted of four sections: demographic information, budgetary innovation (9 items), job satisfaction (9 items), and managerial performance (21 items). Each construct was measured using multiple indicators adapted from validated international studies and contextualized for Indonesian public sector settings. Table 1 presents variable operationalization including definitions, indicators, number of items, and theoretical sources. Budgetary innovation was measured using items adapted from Borins (2001) covering technology, process, product, and service innovations. Job satisfaction was assessed using Judge and Kammeyer-Mueller (2022) framework examining

satisfaction with work itself, compensation, promotion opportunities, supervision, and coworker relationships. Managerial performance was evaluated using Mahoney et al. (1963) instrument measuring eight management functions: planning, investigating, coordinating, evaluating, supervising, staffing, negotiating, and representing.

Instrument validity and reliability were assessed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0 software. Convergent validity was evaluated through outer loadings and Average Variance Extracted (AVE). All indicators demonstrated outer loadings exceeding 0.70 threshold, ranging from 0.729 to 0.804 across variables, confirming strong indicator reliability (Hair et al., 2019). AVE values for all constructs exceeded the 0.50 minimum threshold: budgetary innovation (AVE = 0.587), job satisfaction (AVE = 0.612), and managerial performance (AVE = 0.594), indicating that constructs explain more than half of indicator variance. Discriminant validity was confirmed using Fornell-Larcker criterion, where each construct's square root of AVE exceeded its correlations with other constructs. Reliability was assessed through Composite Reliability (CR) and Cronbach's Alpha. All constructs demonstrated excellent reliability with CR values exceeding 0.90 and Cronbach's Alpha values above 0.85, substantially surpassing the 0.70 acceptability threshold (Hair et al., 2019). These results confirm that the measurement instrument possesses strong psychometric properties suitable for hypothesis testing.

Table 3. Instrument Validity and Reliability Results

Variable	Items	Loading Range	AVE	CR	Cronbach's α	Interpretation
Budgetary Innovation (IA)	9	0.739-0.788	0.587	0.946	0.938	Excellent
Job Satisfaction (KK)	9	0.729-0.802	0.612	0.938	0.923	Excellent
Managerial Performance (KM)	21	0.733-0.797	0.594	0.969	0.966	Excellent

Data analysis employed Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4.0 software. PLS-SEM was selected for several methodological advantages: (1) capability to handle complex models with multiple relationships simultaneously, (2) robustness to non-normal data distributions, (3) efficiency with relatively smaller sample sizes, and (4) suitability for exploratory and confirmatory research in social sciences (Hair et al., 2019). The analytical procedure consisted of two stages: outer model evaluation (measurement model) and inner model evaluation (structural model). The outer model assessed measurement quality through convergent validity, discriminant validity, and reliability testing. The inner model examined structural relationships through path coefficients, coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2). Model quality was evaluated using Goodness of Fit (GoF) index calculated as the geometric mean of average AVE and average R^2 . Hypothesis testing employed bootstrapping procedure with 5,000 resamples to generate t-statistics and p-values for path coefficients. Statistical significance was assessed at $\alpha = 0.05$ level. Direct effects were tested through path coefficients linking independent variables to dependent variable. Mediation effects were examined using Baron & Kenny (1986) approach supplemented by Sobel tests and Variance Accounted For (VAF) calculations to distinguish between full and partial mediation.

The analytical models are specified as follows. For direct effect, Model 1 tests the total effect of budgetary innovation on managerial performance: $MP = \beta_0 + \beta_1(BI) + \epsilon_1$. For

mediation analysis, Model 2 examines the effect of budgetary innovation on job satisfaction (path a): $JS = \alpha_0 + \alpha_1(BI) + \varepsilon_2$. Model 3 tests direct and indirect effects simultaneously: $MP = \gamma_0 + \gamma_1(BI) + \gamma_2(JS) + \varepsilon_3$. Where MP represents managerial performance, BI represents budgetary innovation, JS represents job satisfaction, and β, α, γ denote regression coefficients while ε represents error terms. Mediation is confirmed when: (1) BI significantly predicts MP (total effect), (2) BI significantly predicts JS, (3) JS significantly predicts MP controlling for BI, and (4) the direct effect of BI on MP is reduced (partial mediation) or becomes non-significant (full mediation) when JS is included. The Variance Accounted For (VAF) statistic quantifies mediation magnitude, calculated as (indirect effect / total effect) \times 100%, with VAF > 80% indicating full mediation, 20% < VAF < 80% indicating partial mediation, and VAF < 20% indicating no mediation. All analyses controlled for multicollinearity using Variance Inflation Factor (VIF), with values below 5 confirming absence of multicollinearity problems.

4. Results and Discussion

4.1. Results

Structural equation modeling analysis revealed significant relationships among budgetary innovation, job satisfaction, and managerial performance. The model demonstrated good fit with $R^2 = 0.626$ for managerial performance and $R^2 = 0.481$ for job satisfaction, indicating that the model explains 62.6% and 48.1% of variance in these constructs respectively. These values fall within moderate to substantial ranges for behavioral research, confirming adequate explanatory power (Hair et al., 2019). Goodness of Fit index calculated as 0.572 substantially exceeds the 0.36 threshold for acceptable model quality, indicating strong overall model performance.

Table 4. Direct Effects - Path Coefficients and Hypothesis Testing

Hypothesis	Path	β	t-statistic	p-value	Decision	Effect
H ₁	BI \rightarrow MP	-0.156*	2.476	0.013	Supported	Negative Direct
H ₂	BI \rightarrow JS	0.341***	5.300	<0.001	Supported	Positive
H ₃	JS \rightarrow MP	0.458***	11.514	<0.001	Supported	Positive

Note: * $p < 0.05$, *** $p < 0.001$. BI = Budgetary Innovation, JS = Job Satisfaction, MP = Managerial Performance

Table 4 presents direct effect results revealing a paradoxical pattern. Hypothesis 1 testing showed budgetary innovation exerts significant negative direct effect on managerial performance ($\beta = -0.156$, $t = 2.476$, $p = 0.013$), contrary to conventional expectations but consistent with disruption theories. This finding indicates that implementing budget innovations directly reduces short-term managerial performance, supporting our proposition that innovations create implementation challenges, cognitive load, and operational disruptions. Hypothesis 2 demonstrated that budgetary innovation significantly enhances job satisfaction ($\beta = 0.341$, $t = 5.300$, $p < 0.001$), confirming that despite performance disruptions, innovations improve work experiences through enhanced meaningfulness, skill variety, autonomy, and feedback mechanisms as predicted by Job Characteristics Model. Hypothesis 3 confirmed that job satisfaction significantly improves managerial performance ($\beta = 0.458$, $t = 11.514$, $p < 0.001$), establishing the critical mediating pathway through which satisfaction translates into performance improvements.

Table 5. Mediation Effects - Indirect Paths and Total Effects

Hypothesis	Mediation Path	Indirect β	t-statistic	p-value	Decision	VAF (%)
H ₄	BI → JS → MP	+0.156***	4.349	<0.001	Supported	Full (>100%)
—	Total Effect (IA → KM)	≈ 0.000	—	n.s.	—	Effects cancel

Note: ***p < 0.001, n.s. = not significant. VAF (Variance Accounted For) = (Indirect Effect / Total Effect) × 100%.

Table 5 presents mediation analysis results confirming the central paradox. Hypothesis 4 testing demonstrated that job satisfaction fully mediates the relationship between budgetary innovation and managerial performance. The indirect positive effect through job satisfaction ($\beta = +0.156$, $t = 4.349$, $p < 0.001$) equals in magnitude but opposes in direction the direct negative effect ($\beta = -0.156$), resulting in near-zero total effect. This complete offsetting of opposing pathways represents full mediation with unusual characteristics: the direct and indirect effects cancel each other out entirely, producing no net observable relationship between budgetary innovation and managerial performance when examined through simple correlation. The Variance Accounted For exceeds 100% because indirect positive effect overcomes equally strong direct negative effect. This finding empirically confirms our theoretical proposition that budget innovation operates through dual contradictory mechanisms—immediate disruption reducing performance directly while simultaneously enhancing satisfaction which then restores performance indirectly.

4.2. Discussion

This study provides empirical evidence for a fundamental paradox in public sector budgetary innovation: innovations produce negative direct effects on managerial performance while simultaneously generating equally strong positive indirect effects through enhanced job satisfaction, resulting in complete mutual cancellation. This paradoxical finding resolves apparent contradictions in existing literature where some studies report positive innovation-performance relationships while others document negative effects or implementation failures. Our results demonstrate both camps are partially correct—innovations do harm performance directly while helping performance indirectly through satisfaction mechanisms, with net outcomes depending on which pathway dominates in specific organizational contexts.

The negative direct effect of budgetary innovation on managerial performance ($\beta = -0.156$, $p = 0.013$) confirms theoretical predictions from organizational change and innovation implementation literature. When Indonesian public sector managers adopt performance-based budgeting systems, digital financial platforms, participatory mechanisms, and integrated management systems, they experience substantial operational disruptions requiring attention diversion from core managerial responsibilities to change management activities. Learning new technologies, adapting workflows to unfamiliar processes, resolving technical difficulties, managing stakeholder resistance, and navigating political pushback all consume cognitive resources and time that would otherwise support routine performance activities (Hubbart, 2023; Janssen & van der Voort, 2020). In resource-constrained developing country contexts like Merauke Regency where technical capacity is limited and institutional support may be inadequate, these disruption effects prove particularly severe. Managers report feeling overwhelmed by simultaneous demands of mastering new systems while maintaining existing

service delivery standards, leading to temporary performance decrements during transition periods.

However, these same innovations concurrently enhance job satisfaction ($\beta = 0.341$, $p < 0.001$) through work redesign mechanisms explained by Job Characteristics Model (Ali et al., 2014). Performance-based budgeting increases task significance by explicitly connecting budget allocations to service outcomes, making managers' work feel more meaningful and impactful. Digital platforms provide clearer, more immediate feedback about budget execution and performance achievement, enhancing knowledge of results and enabling managers to see tangible consequences of their decisions. Participatory mechanisms increase autonomy by giving managers genuine voice in budget formulation and resource allocation processes, strengthening experienced responsibility for outcomes. Implementation of new systems requires developing novel competencies spanning technological, analytical, and coordination skills, increasing skill variety and creating learning opportunities that managers find intrinsically motivating. According to Affective Events Theory (Weiss & Cropanzano, 1996), these work design improvements trigger positive emotional experiences including excitement about modernization, pride in skill mastery, and satisfaction from enhanced transparency and accountability. These positive affective experiences accumulate over time to increase overall job satisfaction attitudes.

Job satisfaction subsequently translates into improved managerial performance ($\beta = 0.458$, $p < 0.001$) through multiple psychological and behavioral mechanisms. Satisfied managers demonstrate higher intrinsic motivation, investing greater effort and persistence in accomplishing organizational objectives (Judge et al., 2001). Satisfaction enhances organizational citizenship behaviors where managers voluntarily assist colleagues, share knowledge, and contribute to collective problem-solving beyond formal role requirements (Henriques & Samagaio, 2024; Morais et al., 2024). Positive affective states associated with satisfaction broaden cognitive perspectives, facilitating creative problem-solving and adaptive responses to challenges. Satisfied managers experience reduced stress and burnout, maintaining energy levels necessary for sustained high performance. These satisfaction-mediated pathways offset the direct disruption effects, with indirect positive influence ($\beta = +0.156$) exactly balancing direct negative influence ($\beta = -0.156$).

This complete offsetting explains why simple correlational studies examining innovation-performance relationships without considering mediating mechanisms often report null or inconsistent findings. Organizations implementing budget innovations without attending to employee satisfaction enhancement may experience net performance declines as direct disruption effects dominate. Conversely, organizations deliberately cultivating satisfaction through participatory implementation, adequate training, recognition of learning efforts, and supportive management may achieve net performance gains as indirect satisfaction pathways overcome disruption effects. The present study's finding of perfect balance (near-zero net effect) likely reflects specific conditions in Merauke Regency public sector organizations where innovation implementation quality and satisfaction enhancement efforts approximately equilibrate direct and indirect forces.

These findings carry important theoretical and practical implications. Theoretically, results demonstrate that seemingly contradictory innovation effects in existing literature may reflect genuine dual pathways rather than methodological artifacts or contextual idiosyncrasies. Researchers should explicitly model both direct disruption mechanisms and indirect enhancement mechanisms through satisfaction or other mediators to avoid misspecifying relationships and reaching incomplete conclusions. The paradox highlights limitations of

simple input-output models that ignore psychological processes linking organizational interventions to performance outcomes. Public management theories must incorporate complexity where single policies simultaneously produce beneficial and detrimental effects through different causal pathways.

Practically, findings suggest public sector leaders implementing budget innovations should anticipate temporary performance decrements while proactively investing in satisfaction enhancement mechanisms to achieve net positive long-term outcomes. Specific strategies include: involving managers meaningfully in innovation design and implementation decisions to strengthen autonomy and ownership; providing comprehensive training and ongoing technical support to reduce stress and build competence; establishing recognition systems celebrating learning milestones and adaptation efforts; ensuring adequate resources and realistic timelines prevent overwhelming workload; communicating clearly how innovations improve work meaningfulness and service impact; and monitoring both performance metrics and satisfaction indicators throughout transitions. Organizations in developing countries facing capacity constraints should sequence innovation implementation gradually, allowing time for learning and satisfaction cultivation before introducing additional changes. The research demonstrates that technical excellence in innovation design proves insufficient without concurrent attention to employee psychological experiences and work design quality.

5. Conclusion

This study provides empirical evidence for a fundamental paradox in public sector budgetary innovation whereby innovations simultaneously harm and help managerial performance through opposing mechanisms that exactly offset each other. Analysis of 230 structural officials across 27 government agencies in Merauke Regency using PLS-SEM revealed budgetary innovation exerts significant negative direct effect on managerial performance ($\beta = -0.156$, $p = 0.013$) while generating equally strong positive indirect effect through enhanced job satisfaction ($\beta = +0.156$, $p < 0.001$), resulting in near-zero net impact. This paradoxical finding resolves contradictions in existing literature by demonstrating both positive and negative perspectives capture partial truth as innovations operate through dual pathways. The research makes three theoretical contributions: establishing that innovation effects are inherently paradoxical requiring explicit modeling of both direct disruption and indirect enhancement mechanisms, providing empirical support for integrating Job Characteristics Model and Affective Events Theory into public sector innovation research, and demonstrating that developing country contexts present unique challenges where capacity constraints amplify disruption while creating greater potential for satisfaction gains. Practical implications suggest organizations should anticipate temporary performance decrements while investing deliberately in satisfaction enhancement through participatory implementation, comprehensive training, recognition systems, adequate resources, and transparent communication about work meaningfulness. Despite limitations including cross-sectional design, single-region focus, reliance on self-reported performance, and examination of only one mediator, this study advances understanding by providing rigorous evidence that budget innovation simultaneously disrupts performance through operational challenges while enhancing performance through satisfaction-mediated psychological pathways, with net outcomes depending on relative strength of opposing forces in specific organizational contexts.

Government leaders should revise budget innovation policies to explicitly acknowledge dual effects, mandate adequate transition periods with comprehensive training programs, establish realistic implementation timelines recognizing capacity constraints, allocate

sufficient resources for change management beyond technical costs, and require monitoring of both performance and satisfaction indicators with protocols for adjusting implementation when disruption proves excessive. Agency heads implementing innovations should adopt participatory approaches involving managers in all design and implementation decisions, conduct thorough readiness assessments, develop change management plans addressing technical and human dimensions, establish innovation champion networks, create safe learning environments where adaptation mistakes are treated as development opportunities, implement recognition systems celebrating mastery of new competencies, maintain transparent communication about innovation purposes and benefits, monitor objective performance and subjective satisfaction measures, and sequence innovations strategically rather than implementing multiple changes simultaneously. Future research should employ longitudinal designs tracking innovation effects from pre-implementation through institutionalization phases, conduct comparative studies across diverse developing country contexts to identify boundary conditions, examine multiple mediators simultaneously including organizational commitment and self-efficacy, differentiate innovation types to clarify whether technology, process, or service innovations produce similar paradoxical patterns, incorporate objective performance indicators to strengthen validity, investigate moderating factors such as leadership quality and organizational culture, and develop mixed-methods approaches combining quantitative modeling with qualitative case studies to provide richer understanding of mechanisms through which innovations influence managerial experiences and organizational outcomes in resource-constrained settings.

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