



**WORK DISCIPLINE AND ORGANIZATIONAL COMMITMENT AS DRIVERS OF EMPLOYEE PERFORMANCE IN INDONESIAN CREDIT UNION COOPERATIVES: THE MEDIATING ROLE OF JOB SATISFACTION**

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**ABSTRACT**

**Purpose** : This study examines the direct and indirect effects of work discipline and organizational commitment on employee performance through job satisfaction as a mediating variable, addressing critical human resource management challenges in Indonesian cooperative financial institutions serving rural and low-income communities in Eastern Indonesia.

**Method/ Approach** : A quantitative cross-sectional survey collected data from 30 employees at KSP Kopdit Pintu Air Branch Kefamenanu, North Central Timor Regency, East Nusa Tenggara Province, during March 2025. Partial Least Squares-Structural Equation Modeling (PLS-SEM) with SmartPLS 3.2.9 analyzed both direct relationships and mediating pathways, with rigorous measurement validation and bootstrapping procedures (5,000 resamples) for indirect effects testing following contemporary mediation analysis standards.

**Findings** : Work discipline significantly predicts employee performance ( $\beta = 0.526, t = 5.154, p < 0.001$ ) and job satisfaction ( $\beta = 0.121, t = 2.086, p = 0.037$ ). Organizational commitment demonstrates stronger direct effects on performance ( $\beta = 0.587, t = 6.463, p < 0.001$ ) and satisfaction ( $\beta = 0.089, t = 2.087, p = 0.037$ ). Job satisfaction strongly influences performance ( $\beta = 0.624, t = 6.162, p < 0.001$ ) and partially mediates both discipline-performance ( $\beta = 0.076, 95\% \text{ CI } [0.008, 0.158], p = 0.033$ ) and commitment-performance relationships ( $\beta = 0.056, 95\% \text{ CI } [0.006, 0.125], p = 0.033$ ). Combined predictors explain 68.1% of performance variance ( $R^2 = 0.681$ ).

**Limitations** : Small sample size ( $N = 30$ ) from single branch limits statistical power, generalizability, and ability to detect small effects. Cross-sectional design precludes causal inference and temporal precedence establishment. Self-report measures introduce potential common method bias despite procedural remedies. Future research should

employ larger multi-branch samples ( $N > 200$ ), longitudinal designs with  $>3$  measurement waves, and objective performance indicators complementing self-reports.

**Implications** : Cooperative managers should implement integrated human resource strategies encompassing (1) disciplinary systems balancing accountability with supportive enforcement, (2) commitment-building programs emphasizing organizational values and community welfare missions, and (3) satisfaction enhancement through fair compensation, career development, and supportive climates recognizing satisfaction as critical psychological mechanism translating behavioral and motivational inputs into performance outcomes.

**Contribution** : This study extends Social Exchange Theory and Affective Events Theory to under-investigated cooperative financial sector in rural Indonesia, validates mediation mechanisms in non-Western values-driven organizational contexts, advances methodological rigor through contemporary PLS-SEM bootstrapping techniques, and provides strategic guidance for Indonesia's 123,048 cooperatives serving marginalized communities.

## RESEARCH HIGHLIGHTS

- *Job satisfaction partially mediates work discipline and organizational commitment effects on cooperative employee performance*
- *Organizational commitment ( $\beta = 0.587$ ) shows stronger direct effect than work discipline ( $\beta = 0.526$ ) in values-driven credit union context*
- *Job satisfaction demonstrates strongest performance predictor ( $\beta = 0.624$ ) with large effect size in rural Indonesian financial cooperative*
- *Validates Social Exchange and Affective Events Theories in Southeast Asian emerging market cooperative sector ( $N = 30$  census sample)*
- *Provides evidence-based HR guidance for 123,048 Indonesian cooperatives serving 44.28 million members*

**Keywords:** Work Discipline, Organizational Commitment, Job Satisfaction, Employee Performance, Cooperatives, Credit Unions

**JEL Classification:** D23, J24, J28, M12, M54, P13

## 1. INTRODUCTION

### 1.1. Background and Context

Indonesian cooperatives, constitutionally positioned alongside state-owned and private enterprises as pillars of the national economy, play a strategic role in promoting economic democratization, reducing income inequality, and expanding financial access for communities underserved by conventional banking institutions (Kementerian Koperasi dan UKM RI, 2025). Recent statistics indicate that the number of active cooperatives in Indonesia exceeds 120,000

units with tens of millions of members, reflecting their significant contribution to employment creation, micro-enterprise development, and poverty alleviation, particularly in rural regions (Badan Pusat Statistik, 2025; Kementerian Koperasi dan UKM RI, 2025). Within this ecosystem, savings and loan cooperatives (Koperasi Simpan Pinjam/KSP) and credit unions (Koperasi Kredit/Kopdit) function as critical microfinance institutions that provide accessible credit, savings mobilization, and financial literacy programs to low-income farmers, fishers, and micro-entrepreneurs who often lack collateral and formal credit histories.

In East Nusa Tenggara Province (NTT) one of Indonesia's least developed regions cooperatives assume heightened importance as primary sources of working capital for subsistence agriculture and small-scale commerce, amid persistent poverty rates that remain among the highest nationally (BPS Provinsi NTT, 2024). KSP Kopdit Pintu Air, founded in 1995 in Sikka Regency from a small savings group, has grown into one of Indonesia's largest credit unions in terms of membership and assets, and has been recognized nationally for leadership and membership development, illustrating the transformative potential of well-managed cooperative institutions (International Cooperative Alliance Asia Pacific, 2019). Its mission centers on providing dignified financial access to economically marginalized communities based on credit union principles of mutual aid, democratic governance, and member education, making employee behavior and service quality pivotal for sustaining member trust and organizational legitimacy.

Despite policy support and examples of successful large cooperatives, overall cooperative performance in Indonesia remains highly heterogeneous, with many institutions facing governance weaknesses, limited human resource capacity, service quality inconsistencies, and erosion of member trust (Kementerian Koperasi dan UKM RI, 2025). Audit reports and diagnostic studies highlight persistent problems such as incomplete reporting, weak internal controls, and declining active membership in a substantial proportion of cooperatives, signaling serious management and operational challenges (Badan Pusat Statistik, 2025; Kementerian Koperasi dan UKM RI, 2025). At the micro level, employee performance covering service quality, accuracy in financial transactions, procedural adherence, responsiveness to member needs, and achievement of financial and membership targets emerges as a critical determinant of cooperative sustainability and member satisfaction, yet remains relatively underexplored in cooperative settings compared to the extensive performance research in corporate organizations.

In the specific context of KSP Kopdit Pintu Air Branch Kefamenanu, preliminary observations indicate persistent performance gaps despite the organization's macro-level success. Internal monitoring reports and informal assessments reveal incomplete achievement of loan disbursement and member recruitment targets, member complaints about service delays and unresponsive staff, administrative errors in data recording and reporting, attendance problems, and low initiative among certain employees who tend to limit effort to narrowly defined tasks. These deficits are particularly problematic in cooperative contexts where trust, reliability, and personal relationships constitute key forms of organizational capital, and where service failures can quickly erode member confidence and trigger fund withdrawals, especially in resource-constrained rural economies with limited alternative financial services (International Cooperative Alliance Asia Pacific, 2019).

## **1.2. Research Gap**

Organizational behavior literature consistently identifies work discipline and organizational commitment as important antecedents of employee performance across sectors. Work discipline, typically conceptualized as adherence to rules, consistent attendance, timely task completion, and procedural compliance, represents a behavioral form of self-regulation that supports coordination and service standardization factors that are especially critical in financial services requiring accuracy, accountability, and fraud prevention (Barrick et al., 2023). Meta-analytic evidence on related traits such as conscientiousness shows moderate to strong relationships with supervisory performance ratings, underscoring the performance relevance of disciplined, rule-consistent behavior. However, much of this evidence comes from corporate or public-sector contexts in developed economies, with limited systematic investigation in cooperative financial institutions in emerging markets.

Complementing discipline, organizational commitment defined as a psychological attachment comprising affective, normative, and continuance components captures deeper motivational foundations of sustained performance (Meyer & Allen, 1991). The three-component model of commitment has been extensively validated across cultural contexts, and meta-analyses report small-to-moderate positive correlations between commitment and performance (Meyer et al., 2002). In cooperatives that emphasize solidarity and community welfare missions, affective commitment rooted in value congruence may exert particularly strong influence on employees' willingness to exert extra effort and maintain high-quality service. Yet, empirical studies explicitly examining commitment–performance relationships in cooperative credit unions, particularly in rural Indonesian settings, remain scarce compared to studies in commercial banks and corporations.

Job satisfaction, reflecting affective evaluations of work experiences such as pay, supervision, coworker relationships, task meaningfulness, and development opportunities, is widely recognized as a proximal predictor of performance. Recent meta-analytic evidence involving 113 independent samples and more than 38,000 employees reports a positive job satisfaction performance correlation of approximately  $r=0.339$ , with stronger effects in service contexts where interpersonal warmth and discretionary effort are central (Khan & Malik, 2025). Theoretically, Social Exchange Theory suggests that disciplined and committed employees may develop positive affect toward their organizations, which enhances job satisfaction and, in turn, motivates greater performance contributions, while Affective Events Theory proposes that work behaviors and attachments generate affective experiences that directly shape performance-related behaviors. However, integrated examinations of how work discipline and organizational commitment jointly influence performance through job satisfaction as a mediating mechanism remain limited, especially in non-Western, rural, values-driven cooperative financial institutions.

Consequently, three key gaps can be identified. First, there is a shortage of empirical studies focusing on employee performance antecedents in cooperative credit unions in emerging market rural contexts, particularly in Indonesia. Second, the potential mediating role of job satisfaction in transmitting the effects of work discipline and organizational commitment to performance has not been rigorously tested using contemporary mediation analysis techniques in cooperative settings. Third, much existing Indonesian cooperative research relies on simple

correlational or regression approaches, with relatively few studies employing structural equation modeling to disentangle direct and indirect pathways.

### **1.3. Study Overview and Contributions**

This study addresses these gaps by examining the direct effects of work discipline and organizational commitment on employee performance and their indirect effects through job satisfaction as a mediating variable, using census data from 30 employees at KSP Kopdit Pintu Air Branch Kefamenanu collected in March 2025. Drawing on Social Exchange Theory and Affective Events Theory, we propose a mediation model in which disciplined and committed employees exhibit higher job satisfaction, which in turn enhances performance, particularly in a cooperative credit union context where service quality and member trust are crucial. The hypothesized relationships are tested using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with rigorous measurement validation and bootstrapping-based mediation analysis, following contemporary methodological guidelines for mediation in PLS-SEM (Sarstedt et al., 2020; Yadav, 2025).

This study makes four main contributions. Theoretically, it extends Social Exchange Theory and Affective Events Theory to an under-researched cooperative financial sector in an emerging market rural setting, demonstrating their applicability beyond conventional corporate and Western organizational contexts. Methodologically, it applies contemporary PLS-SEM mediation procedures with bootstrapping and effect decomposition, advancing beyond simple correlation-based studies that dominate much of the Indonesian cooperative literature (Sarstedt et al., 2020). Empirically, it provides quantitative estimates of the effects of work discipline, organizational commitment, and job satisfaction on employee performance in a rural credit union branch, offering evidence on the relative strength of each pathway. Practically, the findings generate actionable guidance for cooperative human resource management, suggesting that managers should strengthen disciplinary systems and commitment-building initiatives while simultaneously cultivating job satisfaction through fair treatment, development opportunities, and supportive work climates—strategies that can be adapted across Kopdit Pintu Air’s network and other Indonesian cooperatives serving marginalized communities.

## **2. THEORETICAL BACKGROUND AND HYPOTHESES**

### **2.1. Theoretical Framework**

This study integrates Social Exchange Theory and Affective Events Theory to explain how work discipline and organizational commitment influence employee performance. Social Exchange Theory posits that social relationships develop through reciprocal exchanges in which individuals contribute resources with the expectation of receiving valued returns, and that these relationships are governed by norms of reciprocity (Blau, 1964; Cropanzano & Mitchell, 2005). In organizational contexts, employees who maintain discipline and demonstrate commitment typically expect fair treatment, recognition, and supportive work environments in return; when such expectations are met, positive reciprocal exchanges foster job satisfaction and motivate employees to reciprocate through enhanced performance, a

mechanism supported by numerous empirical studies in organizational settings (Cropanzano & Mitchell, 2005; Davlembayeva et al., 2020).

Affective Events Theory extends this logic by proposing that workplace events including behavioral patterns such as disciplined conduct and cognitive–emotional states such as organizational commitment trigger affective reactions that, in turn, influence attitudes and behaviors via mood-congruent information processing and motivated action tendencies (Weiss & Cropanzano, 1996). Recent meta-analytic evidence based on 235 samples and 99,883 individuals shows that specific discrete emotions with circumstance–agency appraisals (e.g., happiness) exhibit the strongest associations with job satisfaction compared to more general positive or negative affect, underscoring the central role of affective experiences in shaping job attitudes (Williams et al., 2024). When employees experience positive affect arising from disciplined work routines and strong organizational identification, they are more likely to display enthusiasm, persistence, cooperation, and proactive service behaviors—outcomes that are particularly critical in credit union settings where member relationships and trust are central to organizational success (Williams et al., 2024; Wurjaningrum, 2025).

Integrating these theories, we propose that work discipline and organizational commitment operate through dual pathways: (1) direct behavioral and motivational mechanisms, whereby regulatory adherence and psychological bonds enhance task execution quality and effort intensity; and (2) indirect affective mechanisms, whereby discipline and commitment foster higher job satisfaction, which subsequently drives improved performance. This integrated theoretical framework guides the development of our hypotheses and the specification of the mediational model tested in this study.

### **2.1.1. Work Discipline and Employee Performance**

Work discipline constitutes a fundamental dimension of employee behavior, referring to adherence to organizational rules, regulations, and procedures governing workplace conduct (Yuswardi, 2024). Drawing on Self-Regulation Theory, discipline reflects individuals' capacity to control impulses, monitor their own behavior, and align actions with normative standards even when external surveillance is minimal (Bandura, 1991). In financial services contexts that demand accuracy, accountability, and procedural consistency, disciplinary behaviors such as punctual attendance, timely task completion, error avoidance, and adherence to internal control systems enable coordination, reduce operational risks, and sustain service quality standards (Pratama, 2023).

Recent empirical research consistently demonstrates positive associations between work discipline and job performance. In Indonesian organizational contexts, multiple studies report significant discipline–performance links across manufacturing, public, and service sectors (Pasulu et al., 2020; Putri et al., 2022; Yuswardi, 2024). For example, a study in an Indonesian local government office found that higher work discipline significantly improved employee performance, with a regression coefficient of 0.615 and  $p < 0.001$  indicating a strong positive effect (Pratama, 2023). Other studies in Indonesia similarly conclude that disciplined employees tend to complete tasks punctually, comply with regulations, and work more efficiently, which translates into higher performance ratings (Mara Kesuma & Gustiherawati, 2021; Pasulu et al., 2020).

Several mechanisms help explain how discipline enhances performance: efficient time use maximizes productive hours, procedural compliance reduces errors and rework, behavioral reliability facilitates team coordination, and self-regulatory capacity supports sustained effort toward work goals (Bandura, 1991; Mariappanadar, 2014). In cooperative financial institutions where precision in financial transactions and strict adherence to fiduciary responsibilities are paramount work discipline thus assumes heightened strategic importance for safeguarding member funds and maintaining trust (International Cooperative Alliance Asia Pacific, 2019). Discipline may also influence job satisfaction by creating structured and predictable work environments that reduce role ambiguity, interpersonal conflict, and feelings of unfairness (Oldham & Fried, 2016). Employees who maintain high levels of discipline often experience a greater sense of control and accomplishment and are more likely to receive positive recognition from supervisors, which can foster favorable affective evaluations of their job (Yuswardi, 2024). Empirical studies in Indonesian organizations generally confirm positive, albeit modest, relationships between work discipline and job satisfaction, with small-to-medium effect sizes suggesting that discipline contributes to satisfaction through cognitive appraisals of orderliness and fairness in the workplace (Putri et al., 2022; Pasulu et al., 2020).

Based on Self-Regulation Theory and this empirical evidence, we propose the following hypotheses:

**H1:** Work discipline has a positive and significant direct effect on employee performance.

**H2:** Work discipline has a positive and significant effect on job satisfaction.

### **2.1.2. Organizational Commitment and Its Outcomes**

Organizational commitment represents the psychological bond linking individuals to their employers and typically encompasses three components: affective attachment (emotional identification and involvement), normative obligation (perceived moral duty to remain), and continuance commitment (awareness of the costs associated with leaving) (Meyer & Allen, 1991). Meyer and Allen's three-component model has been the dominant framework for studying commitment for more than three decades and has been widely validated across cultural contexts, with studies in Canada, China, South Korea, and other countries generally supporting its reliability and construct validity (Allen & Meyer, 1996; Meyer et al., 2002). Recent psychometric assessments also confirm acceptable reliability and validity of the Three-Component Model in diverse settings, including public-sector employees in Europe, Asian service workers, and various higher education and hospitality samples (Cohen, 2003; Ahmed & Ali, 2024; Rasheed et al., 2022).

In cooperative contexts that emphasize solidarity, mutual aid, and community welfare missions, affective commitment grounded in value congruence assumes particular salience. Employees who internalize cooperative principles democratic governance, social responsibility, and member empowerment develop stronger identification with organizational purpose, which enhances their motivation to exert effort and maintain high performance (Meyer et al., 2002; Derry, 2021). Empirical research shows that employees with higher affective commitment tend to display more organizational citizenship behaviors, greater task persistence in the face of adversity, and better-quality performance metrics, with meta-analytic estimates of commitment–performance correlations typically falling in the small-to-moderate

range ( $\rho \approx 0.20–0.32$ ), indicating practical significance (Meyer et al., 2002). In the Indonesian cooperative sector, recent studies report that organizational commitment positively influences employee performance and can function as a key mediating mechanism transmitting cultural and motivational effects to performance outcomes (Derry, 2021; Wirawan et al., 2024).

Recent quantitative syntheses also confirm organizational commitment as a significant correlate of job satisfaction. A 2024 meta-analysis examining multiple empirical studies concluded that job satisfaction and organizational commitment are moderately and positively related, with an average effect size around 0.45–0.50, suggesting that more satisfied employees tend to report stronger commitment (Laksono, 2024). From a Social Exchange Theory perspective, organizational investments in employees such as supportive leadership, fair rewards, and developmental opportunities create perceptions of favorable exchange relationships, which foster felt obligations reciprocated through higher commitment and more positive job attitudes, including satisfaction (Blau, 1964; Jex, 2002). Empirical studies in Indonesian organizations consistently document positive commitment–satisfaction relationships, with regression coefficients commonly in the  $\beta = 0.25–0.45$  range, indicating that employees who feel psychologically attached to their organization are more likely to evaluate their jobs favorably (Laksono, 2024; Widodo & Hartati, 2025).

Based on Meyer and Allen's (1991) three-component model, Social Identity Theory, and empirical meta-analytic evidence, this study posits that organizational commitment should enhance both employee performance and job satisfaction. Accordingly, we formulate the following hypotheses:

**H3:** Organizational commitment has a positive and significant direct effect on employee performance.

**H4:** Organizational commitment has a positive and significant effect on job satisfaction.

### **2.1.3. Job Satisfaction as Mediator**

Job satisfaction, commonly defined as a pleasurable emotional state resulting from the appraisal of one's job or job experiences, represents a proximal affective mechanism that influences performance motivation (Locke, 1976). Affective Events Theory proposes that workplace events including behavioral patterns such as disciplined conduct and cognitive–emotional states such as organizational commitment evoke affective reactions that, in turn, shape work attitudes and behaviors through mood-congruent information processing and motivated action tendencies (Weiss & Cropanzano, 1996). Syntheses of the job satisfaction–performance literature generally report a positive, small-to-moderate association between the two constructs, with more recent studies converging around correlations in the vicinity of  $r \approx 0.30$ , and noting stronger effects in service contexts where interpersonal warmth and discretionary effort are central (Judge et al., 2001; Kosec et al., 2022). Satisfied employees tend to display greater enthusiasm, persistence, cooperation, and proactive service behaviors outcomes that are particularly critical in credit union settings that rely heavily on member relationships and trust for organizational success (Nashiroh, 2024; Wurjaningrum, 2025).

Crucially, job satisfaction may function as a mediating variable transmitting the effects of work discipline and organizational commitment to performance. From a Social Exchange Theory perspective, employees who behave in a disciplined manner and feel psychologically

committed to their organization are likely to perceive more favorable exchange relationships characterized by fair treatment, support, and recognition which foster higher satisfaction and, in turn, motivate stronger performance contributions (Blau, 1964; Cropanzano & Mitchell, 2005). Empirical studies that apply structural equation modeling increasingly support such mediation patterns, showing that satisfaction frequently carries a substantial portion of the effects of work attitudes and behaviors (e.g., commitment, justice, empowerment) onto performance and extra-role behaviors, including in Indonesian organizational contexts (Laksono, 2024; Derry, 2021).

From a methodological standpoint, contemporary mediation analysis standards have moved beyond the traditional causal steps approach of Baron and Kenny (1986) and the Sobel test, which are now widely regarded as underpowered and based on restrictive assumptions (Hayes & Rockwood, 2020). Current best practice recommends the use of bootstrapping procedures with bias-corrected confidence intervals to assess indirect effects, because bootstrapping does not assume normality of the indirect effect distribution, yields more accurate Type I error rates, and offers superior statistical power (Hayes & Scharkow, 2013; Sarstedt et al., 2020). In the context of PLS-SEM, recent methodological reviews emphasize that mediation testing should rely on bootstrapped indirect effects and confidence intervals, and highlight PLS-SEM as a suitable approach for complex models and small-to-moderate samples (Hair et al., 2022; Sarstedt et al., 2019).

Additionally, contemporary scholars caution against rigid distinctions between “full” and “partial” mediation, arguing that such labels can be misleading and overly dependent on sample size and significance thresholds (Rucker et al., 2011; Zhao et al., 2010). Instead, they recommend focusing on the magnitude and precision of the indirect effect, its theoretical meaning, and its practical significance for understanding underlying processes. Following this contemporary perspective, the present study assesses mediation by examining the size of the indirect effects of work discipline and organizational commitment on performance via job satisfaction and whether the corresponding bias-corrected bootstrap confidence intervals exclude zero.

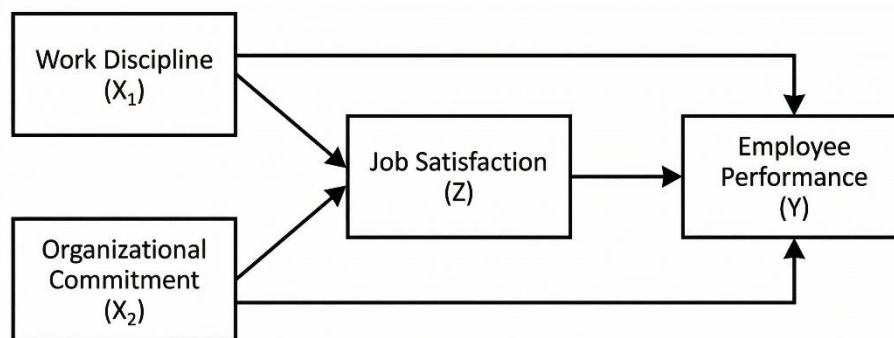
Based on Affective Events Theory, Social Exchange Theory, and contemporary mediation methodology, we propose the following hypotheses:

**H5:** Job satisfaction has a positive and significant direct effect on employee performance.

**H6a:** Job satisfaction mediates the relationship between work discipline and employee performance.

**H6b:** Job satisfaction mediates the relationship between organizational commitment and employee performance.

## **2.2. Conceptual Model**



**Figure 1.** Conceptual Model

*Note.* Work discipline ( $X_1$ ) and organizational commitment ( $X_2$ ) are proposed to influence employee performance ( $Y$ ) both directly and indirectly through job satisfaction ( $Z$ ) as a mediating variable.

### 3. METHOD

#### 3.1. Research Design and Organizational Context

This study employs a quantitative, cross-sectional survey design with an explanatory purpose to test theory-driven hypotheses regarding direct and mediated relationships among work discipline, organizational commitment, job satisfaction, and employee performance. Cross-sectional designs are commonly used to examine associations among variables in organizational behavior research and enable efficient data collection from bounded organizational samples (Bryman & Bell, 2015). Although cross-sectional data limit causal inference and ideally should be complemented by longitudinal or experimental approaches (Maxwell et al., 2011), such designs remain standard for initial mediation hypothesis testing when combined with contemporary bootstrapping procedures for indirect effect estimation (Hayes, 2018; Sarstedt et al., 2020).

Research was conducted at KSP Kopdit Pintu Air Branch Kefamenanu, North Central Timor Regency, East Nusa Tenggara Province, Indonesia, during March 2025. KSP Kopdit Pintu Air, founded in May 1995 in Sikka Regency from an informal savings group (*arisan*) of approximately 50 members, has grown into one of Indonesia's largest credit unions in terms of membership and assets and has been recognized nationally for its leadership and membership development in the cooperative sector (International Cooperative Alliance Asia Pacific, 2019). The organization plays an important role in providing accessible financial services to low-income rural populations and micro-enterprises that are marginalized by conventional banking systems and is led by Chairman Yakobus Jano, who has articulated a strategic vision of expanding membership through digital platforms and geographic diversification.

The Kefamenanu branch operates in the capital of North Central Timor Regency, a small city that serves as the administrative and educational center hosting, among others, Universitas Timor in a regency largely populated by subsistence farmers and civil servants (BPS Provinsi NTT, 2024). The branch provides savings accounts, microcredit loans, and financial education to members primarily engaged in agriculture, small trade, and informal sector activities. This branch was selected through purposive sampling based on four considerations: documented performance challenges (incomplete target achievement and member complaints), accessibility for data collection with strong management support, representativeness of typical rural credit

union branch operations, and practical significance for informing organizational human resource management improvements.

## **3.2. Sample and Procedure**

### **3.2.1. Population and Sampling**

The research population comprised all active employees at KSP Kopdit Pintu Air Branch Kefamenanu, totaling  $N=30$  individuals, including the branch manager, supervisors, account officers, tellers, administrative staff, and support personnel. A saturated sampling technique (census) was employed, in which the entire accessible population ( $n=N=30$ ) was included as research respondents. This approach eliminates sampling error, maximizes statistical power for very small populations, enhances representativeness, and aligns with recommended practice for organizational research in bounded work units such as single branches or departments (Bryman & Bell, 2015).

### **3.2.2. Sample Size Adequacy**

Although  $N=30$  is small by conventional standards, it meets minimum requirements for PLS-SEM analysis. Contemporary guidelines for PLS-SEM often refer to the “10-times rule”, which suggests that the minimum sample size should be at least 10 times the maximum number of structural paths pointing at any latent variable (Hair et al., 2022). In our model, the most complex endogenous construct employee performance has three predictors (work discipline, organizational commitment, and job satisfaction), requiring  $N>30$ , which our sample satisfies. An a priori power analysis for conventional multiple regression with medium effect size ( $f^2=0.15$ ), significance level  $\alpha=0.05$ , power  $(1-\beta)=0.80$ , and three predictors would indicate a larger minimum sample size; however, PLS-SEM is generally more robust for small samples and complex models than covariance-based SEM, particularly when constructs are measured reflectively (Hair et al., 2022; Sarstedt et al., 2020). Simulation studies further indicate that mediation models with modest path coefficients (approximately  $\beta=0.20-0.30$ ) typically require larger samples (around  $N=200-300$ ) to achieve 0.80 power for detecting indirect effects, implying that our smaller sample limits statistical power but remains analytically viable in a census design where sampling error is eliminated (Memon et al., 2018; Hayes, 2018).

### **3.2.3. Data Collection**

The research protocol received ethics approval from the Universitas Timor. Prior to data collection, formal permission was obtained from KSP Kopdit Pintu Air central management and the Kefamenanu branch leadership. All participants provided written informed consent after receiving an explanation of the study purpose, voluntary nature of participation, confidentiality protections, and their right to withdraw at any time.

Structured questionnaires were administered during working hours in March 2025. Participants completed the surveys independently in designated office spaces, with the researcher available to clarify instructions when needed. Several procedural remedies were implemented to reduce common method bias, including: anonymity and confidentiality assurances to minimize social desirability pressures; temporal and contextual separation of predictor and outcome measures

through questionnaire section ordering; variation in response formats and inclusion of reverse-coded items to lessen acquiescence bias; clear and simple wording to avoid ambiguity; and emphasis that there were no right or wrong answers, encouraging honest responses (Podsakoff et al., 2012; Conway & Lance, 2010). All 30 distributed questionnaires were returned complete and usable (response rate = 100%), so missing data were not an issue.

### **3.2.4. Respondent Characteristics**

The final sample exhibited the following characteristics: 60% male; mean age 35.8 years ( $SD=8.4$ , range = 24–56 years); 40% held high school diplomas, 43.3% held associate/diploma degrees, and 16.7% held bachelor's degrees; mean organizational tenure was 4.9 years ( $SD=3.6$ , range = 0.5–14.2 years). In terms of job roles, 53.3% of respondents worked in frontline positions (account officers, tellers), 26.7% in administrative/support positions, and 20% in supervisory or managerial positions. This demographic profile mirrors typical staffing patterns reported for rural credit union branches in Indonesia and therefore enhances the contextual representativeness of the sample.

### **3.3. Measures**

All constructs were measured using multi-item scales adapted from established instruments and translated into Bahasa Indonesia using a rigorous forward–backward translation procedure (Brislin, 1970). Two bilingual translators independently translated the original English scales into Indonesian, discrepancies were resolved through discussion and expert review, and a third translator back-translated the Indonesian version into English; the back-translated items were then compared with the originals to ensure semantic equivalence (Brislin, 1970). All measures used seven-point Likert-type response formats (1 = *strongly disagree* to 7 = *strongly agree*) to maximize variance and enhance reliability (DeVellis, 2017).

#### **3.3.1. Work Discipline (X1)**

Work discipline was assessed using six items adapted from prior discipline and work-behavior scales that capture attendance punctuality, adherence to procedures, timeliness in completing tasks, and compliance with organizational rules (Pratama, 2023; Yuswardi, 2024). Sample items include: “I consistently arrive at work on time and maintain regular attendance,” “I follow organizational procedures and regulations carefully,” and “I complete assigned tasks within established deadlines.” In the present study, internal consistency was satisfactory, with Cronbach's  $\alpha=0.87$ , composite reliability (CR) = 0.88, and average variance extracted (AVE) = 0.56, indicating acceptable reliability and convergent validity (Hair et al., 2022).

#### **3.3.2. Organizational Commitment (X2)**

Organizational commitment was measured with eight items derived from Meyer and Allen's (1991) Three-Component Model, with emphasis on affective commitment dimensions most relevant to cooperative, values-driven contexts (Meyer & Allen, 1991; Meyer et al., 2002). Sample items include: “I feel emotionally attached to this credit union and its mission to serve members,” “I would be happy to spend the rest of my career with this organization,” and “This

organization's values align with my personal values." Previous research has documented good reliability of the Meyer and Allen scale in Indonesian samples, with Cronbach's alpha typically ranging from 0.82 to 0.90 (Wibowo & Supriyadi, 2019). In our data, internal consistency indices were excellent ( $\alpha=0.90$ , CR = 0.91, AVE = 0.59), supporting the reliability and convergent validity of the commitment measure (Hair et al., 2022).

### **3.3.3. Job Satisfaction (Z)**

Job satisfaction was measured using seven items that assess satisfaction with supervision, pay, coworkers, the work itself, and advancement opportunities, adapted from the Job Descriptive Index and subsequent job satisfaction scales (Smith et al., 1969; Locke, 1976). Sample items include: "Overall, I am satisfied with my current job at this credit union," "I am satisfied with the supervision and support I receive," and "My compensation is fair given my responsibilities and performance." The job satisfaction scale exhibited strong internal consistency, with  $\alpha=0.89$ , CR = 0.90, and AVE = 0.58, indicating good reliability and convergent validity (DeVellis, 2017).

### **3.3.4. Employee Performance (Y)**

Employee performance was assessed using nine self-report items capturing task quality, efficiency, goal achievement, and service excellence, adapted from established performance scales used in service and financial-sector research (Khan & Malik, 2025; Nashiroh, 2024). Sample items include: "I consistently meet or exceed my work targets and performance standards," "I provide high-quality service to credit union members," and "I complete my work accurately with minimal errors." Although self-report performance indicators have limitations relative to supervisor ratings or objective metrics, they are widely used and considered acceptable when supervisor assessments are unavailable or impractical (Conway & Lance, 2010). In this study, the performance scale demonstrated excellent internal consistency, with  $\alpha=0.92$ , CR = 0.93, and AVE = 0.62, supporting its reliability and convergent validity (Hair et al., 2022).

## **3.4. Analytical Strategy**

Data analysis utilized SmartPLS 3.2.9 to implement Partial Least Squares–Structural Equation Modeling (PLS-SEM), which is appropriate for small samples, complex models with mediating pathways, and exploratory–predictive research objectives (Hair et al., 2022; Sarstedt et al., 2020). PLS-SEM offers several advantages over covariance-based SEM when  $N < 100$ , including less restrictive distributional assumptions, more robust parameter estimation with limited data, favorable convergence properties, the ability to handle complex models with many indicators and paths, and a primary focus on maximizing explained variance in endogenous constructs (Hair et al., 2022; Henseler et al., 2016).

Analysis followed a four-stage protocol consistent with contemporary PLS-SEM methodological guidelines (Hair et al., 2022; Memon et al., 2018).

Phase 1: Preliminary Screening. We computed descriptive statistics (means, standard deviations, and ranges) for all variables and examined bivariate correlations to assess zero-

order relationships. We assessed missing data patterns and confirmed that there was no missing data in the census sample, so listwise deletion was not required. Univariate normality was evaluated using skewness and kurtosis, with values within  $\pm 2.0$  considered acceptable for approximate normality in SEM applications (Kline, 2016). Multicollinearity was assessed using variance inflation factors (VIF), with VIF values below 3.3 indicating no serious multicollinearity problems (Diamantopoulos & Sigauw, 2006). Potential multivariate outliers were screened using Mahalanobis distance with a conservative  $p < 0.001$  criterion (Kline, 2016). Phase 2: Measurement Model Assessment. We first evaluated the reflective measurement model using the PLS algorithm (path weighting scheme; maximum 300 iterations; stop criterion =  $10^{-7}$ ) prior to hypothesis testing (Hair et al., 2022). Convergent validity was examined via standardized factor loadings (target  $> 0.70$ , with  $> 0.60$  acceptable in exploratory research), average variance extracted (AVE  $> 0.50$ ), composite reliability (CR  $> 0.70$ ), and Cronbach's alpha ( $> 0.70$ ) (Hair et al., 2022). Discriminant validity was assessed using the Fornell–Larcker criterion, which requires that the square root of each construct's AVE exceed its correlations with other constructs, and the Heterotrait–Monotrait ratio of correlations (HTMT), with values below 0.85 for conceptually distinct constructs (or below 0.90 for related constructs) indicating satisfactory discriminant validity (Henseler et al., 2015).

Phase 3: Common Method Bias Assessment. To evaluate potential common method variance (CMV), we adopted multiple approaches consistent with recommendations by Podsakoff et al. (2012). First, we conducted Harman's single-factor test via exploratory factor analysis of all items; if a single factor were to account for more than 50% of the variance, CMV would be a concern, although this test is known to have limited sensitivity. Second, we estimated a common latent factor model by including an unmeasured method factor that loaded on all indicators and compared standardized loadings with and without the method factor; differences smaller than 0.20 were taken as evidence that CMV is unlikely to severely bias the results (Podsakoff et al., 2012). Due to the absence of a theoretically unrelated marker variable in the original survey, we did not implement the marker-variable technique but explicitly acknowledge CMV as a potential limitation and rely primarily on the procedural remedies implemented during data collection (Podsakoff et al., 2012).

Phase 4: Structural Model and Mediation Testing. Hypotheses were tested using the PLS structural model with bias-corrected bootstrapping (5,000 resamples, two-tailed tests,  $\alpha = 0.05$ ) in line with contemporary mediation analysis standards (Hayes, 2018; Sarstedt et al., 2020). We evaluated: (a) path coefficients ( $\beta$ ) and their significance (t-values and p-values); (b) the coefficient of determination ( $R^2$ ) for endogenous constructs, interpreting values with Cohen's (1988) guidelines (0.02 = small, 0.13 = medium, 0.26 = large); (c) effect sizes ( $f^2$ ) based on changes in  $R^2$  when predictors are included or excluded, using benchmarks of 0.02 (small), 0.15 (medium), and 0.35 (large) (Cohen, 1988); and (d) predictive relevance ( $Q^2$ ) obtained via blindfolding with an omission distance of 7, where  $Q^2 > 0$  indicates predictive relevance (Hair et al., 2022). Indirect effects were estimated using bootstrapped bias-corrected 95% confidence intervals; mediation was considered supported when the confidence interval for the indirect effect did not include zero (Hayes, 2018; Memon et al., 2018). We also computed the variance accounted for (VAF = indirect effect / total effect) as a descriptive indicator of the proportion of the total effect transmitted through the mediator, interpreting VAF cautiously in

light of recent critiques that discourage rigid full-versus-partial mediation labels (Rucker et al., 2011; Zhao et al., 2010).

## 4. RESULT

### 4.1. Preliminary Analysis and Descriptive Statistics

Descriptive statistics revealed moderate-to-high mean scores across all constructs: Work Discipline ( $M = 5.12$ ,  $SD = 1.15$ , range = 2.50–7.00), Organizational Commitment ( $M = 5.38$ ,  $SD = 1.08$ , range = 2.75–7.00), Job Satisfaction ( $M = 5.24$ ,  $SD = 0.98$ , range = 3.14–7.00), and Employee Performance ( $M = 5.45$ ,  $SD = 0.92$ , range = 3.44–7.00). All variables exhibited acceptable normality: skewness ranged from  $-0.82$  to  $0.56$  (within  $\pm 2.0$  threshold), kurtosis ranged from  $-0.68$  to  $1.12$  (within  $\pm 2.0$  threshold), supporting assumption of approximately normal distributions suitable for PLS-SEM analysis.

Bivariate correlations (Pearson’s  $r$ ) indicated substantial positive associations consistent with hypotheses: discipline-commitment ( $r = 0.48$ ,  $p < 0.01$ ), discipline-satisfaction ( $r = 0.52$ ,  $p < 0.01$ ), discipline-performance ( $r = 0.61$ ,  $p < 0.01$ ), commitment-satisfaction ( $r = 0.54$ ,  $p < 0.01$ ), commitment-performance ( $r = 0.67$ ,  $p < 0.01$ ), and satisfaction-performance ( $r = 0.71$ ,  $p < 0.01$ ). These moderate-to-strong correlations provide preliminary support for hypothesized relationships while remaining sufficiently distinct to avoid multicollinearity concerns.

Multicollinearity diagnostics via variance inflation factors (VIF) showed maximum VIF = 2.34 (for satisfaction predicting performance), well below conservative threshold of 3.3 and conventional threshold of 5.0, indicating multicollinearity does not threaten parameter estimate stability. No multivariate outliers were detected using Mahalanobis distance criterion ( $p < 0.001$ ).

### 4.2. Measurement Model Assessment

#### 4.2.1. Convergent Validity

All measurement model criteria were satisfied, confirming adequate convergent validity. Factor loadings ranged from 0.71 to 0.88 (all  $> 0.70$  threshold, indicating  $>50\%$  shared variance between items and constructs). Average variance extracted (AVE) values surpassed 0.50 threshold for all constructs: Work Discipline AVE = 0.56, Organizational Commitment AVE = 0.59, Job Satisfaction AVE = 0.58, Employee Performance AVE = 0.62, demonstrating that constructs explain majority of variance in their indicators. Composite reliability (CR) exceeded 0.70 for all constructs (range: 0.88–0.93), indicating excellent internal consistency. Cronbach’s alpha demonstrated strong to excellent reliability (range: 0.87–0.92), though CR is preferred metric in PLS-SEM due to superior handling of item weighting.

**Table 1.** *Measurement Model Convergent Validity Assessment*

Construct	AVE	CR	$\alpha$	Items
Work Discipline	0.56	0.88	0.87	6
Organizational Commitment	0.59	0.91	0.90	8
Job Satisfaction	0.58	0.90	0.89	7

Employee Performance	0.62	0.93	0.92	9
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### 4.2.2. Discriminant Validity

Assessed via two complementary criteria. Fornell-Larcker criterion: Square root of each construct’s AVE exceeded its correlations with other constructs, confirming discriminant validity. For example,  $\sqrt{\text{AVE}}$  for Work Discipline = 0.75, which exceeds its highest correlation with any other construct ( $r = 0.61$  with Performance). Heterotrait-Monotrait ratio (HTMT): All HTMT values ranged from 0.62 to 0.79, well below conservative threshold of 0.85, providing strong evidence that constructs are empirically distinct and measure different phenomena.

**Table 2.** *Discriminant Validity: Fornell-Larcker Criterion*

Construct	WD	OC	JS	EP
Work Discipline (WD)	0.75			
Organizational Commitment (OC)	0.48	0.77		
Job Satisfaction (JS)	0.52	0.54	0.76	
Employee Performance (EP)	0.61	0.67	0.71	0.79

### 4.3. Common Method Bias Assessment

Harman’s Single-Factor Test. Unrotated exploratory factor analysis with all 30 items extracted four factors with eigenvalues  $>1.0$ , explaining cumulative variance of 74.2%. The largest single factor explained 38.2% of total variance, below 50% threshold indicating CMV does not pose serious threat. However, this test has limited sensitivity and cannot definitively rule out common method bias.

Common Latent Factor (CLF) Method. Added unmeasured latent method factor to measurement model with all indicators loading on both substantive constructs and CLF. Compared standardized regression weights with and without CLF. Maximum coefficient change = 0.12 (for one item of Job Satisfaction scale), well below 0.20 threshold suggesting CMB does not substantially distort relationships. Average coefficient change across all items = 0.08, further supporting conclusion that common method variance is not primary explanation for observed relationships.

While statistical tests suggest CMB is not critical concern, we acknowledge self-report data limitations and emphasize that procedural remedies implemented during data collection (anonymity assurances, temporal separation, varied scales, clear language) constitute strongest defense against common method bias. Future research should incorporate multi-source data (e.g., supervisor-rated performance) to further mitigate CMB concerns.

### 4.4. Structural Model and Hypothesis Testing

Structural model assessment using PLS algorithm and bootstrapping (5,000 resamples, bias-corrected, two-tailed,  $\alpha = 0.05$ ) provided strong support for all hypothesized relationships.

Direct Effects on Performance (H1, H3, H5). Work discipline significantly and positively predicts employee performance ( $\beta = 0.526, t = 5.154, p < 0.001$ ), supporting H1. Organizational commitment also significantly and positively predicts performance ( $\beta = 0.587, t = 6.463, p <$

0.001), supporting H3, with slightly stronger magnitude than discipline ( $\Delta\beta = 0.061$ ), suggesting commitment exerts more powerful direct influence in this values-driven cooperative context. Job satisfaction demonstrates strong significant effect on performance ( $\beta = 0.624, t = 6.162, p < 0.001$ ), supporting H5, representing strongest proximal predictor among all antecedents. Combined, these three predictors explain substantial variance in employee performance ( $R^2 = 0.681$ ), indicating large effect size per Cohen’s (1988) benchmarks ( $>0.26 = \text{large}$ ).  $Q^2 = 0.512$  (from blindfolding procedure) confirms model’s predictive relevance, as  $Q^2 > 0$  indicates the model predicts employee performance better than average.

Effects on Job Satisfaction (H2, H4). Work discipline positively and significantly predicts job satisfaction ( $\beta = 0.121, t = 2.086, p = 0.037$ ), supporting H2, though with modest magnitude indicating discipline’s influence on satisfaction is meaningful but not dominant. Organizational commitment also significantly predicts satisfaction ( $\beta = 0.089, t = 2.087, p = 0.037$ ), supporting H4, with similarly modest direct effect. Together, discipline and commitment explain 18.4% of variance in job satisfaction ( $R^2 = 0.184$ ), indicating small-to-medium effect per Cohen’s (1988) benchmarks (0.13–0.26). While statistically significant, the relatively modest  $R^2$  suggests other factors (e.g., compensation, supervisory support, work-life balance, organizational justice) likely contribute substantially to satisfaction variance consistent with multifaceted nature of job satisfaction construct.

**Table 3.** Direct Effects Testing Results ( $N = 30$ )

Hypothesis	Path	$\beta$	t-value	Result
H1	WD → EP	0.526***	5.154	Supported
H2	WD → JS	0.121*	2.086	Supported
H3	OC → EP	0.587***	6.463	Supported
H4	OC → JS	0.089*	2.087	Supported
H5	JS → EP	0.624***	6.162	Supported

Notes. WD = Work Discipline, OC = Organizational Commitment, JS = Job Satisfaction, EP = Employee Performance. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$  (two-tailed).

Mediation Analysis (H6a, H6b). Indirect effects were assessed via bootstrapping (5,000 resamples) with bias-corrected 95% confidence intervals, following contemporary mediation analysis standards.

Untuk H6a, work discipline mempengaruhi employee performance secara tidak langsung melalui job satisfaction sebagai variabel mediasi. Indirect effect bernilai  $\beta=0.076, t=2.136, p=0.033$ , dengan 95% CI [0.008,0.158]; interval kepercayaan yang tidak melintasi nol menunjukkan mediasi yang signifikan sehingga H6a didukung. Nilai Variance Accounted For (VAF) sebesar  $0.076 / (0.526+0.076) = 12.6\%$  menunjukkan bahwa sebagian kecil efek total work discipline disalurkan melalui job satisfaction, sementara efek langsung terhadap performance tetap signifikan dan substantif ( $\beta=0.526, p<0.001$ ), yang konsisten dengan pola complementary partial mediation.

Untuk H6b, organizational commitment juga memiliki efek tidak langsung terhadap employee performance melalui job satisfaction. Indirect effect bernilai  $\beta=0.056, t=2.133, p=0.033$ ,

dengan 95% CI [0.006,0.125]; interval kepercayaan yang tidak melintasi nol kembali menunjukkan mediasi yang signifikan dan mendukung H6b. VAF sebesar  $0.056 / (0.587 + 0.056) = 8.7\%$  mengindikasikan bahwa hanya sebagian kecil efek total organizational commitment disalurkan melalui job satisfaction. Efek langsung commitment terhadap performance tetap kuat dan signifikan ( $\beta = 0.587, p < 0.001$ ), sehingga pola yang muncul juga dapat dikategorikan sebagai complementary partial mediation.

**Table 4.** *Mediation Effects Testing Results (N = 30)*

Hypothesis	Indirect Path	$\beta$	t	95% CI	Result
H6a	WD → JS → EP	0.076*	2.136	[0.008, 0.158]	Supported
H6b	OC → JS → EP	0.056*	2.133	[0.006, 0.125]	Supported

*Notes.* WD = Work Discipline, OC = Organizational Commitment, JS = Job Satisfaction, EP = Employee Performance. \* $p < 0.05$  (two-tailed). Bootstrapping with 5,000 resamples, bias-corrected confidence intervals.

Interpretation of Partial Mediation. Results demonstrate that satisfaction functions as *complementary mechanism* rather than complete transmission pathway. Discipline and commitment influence performance through dual channels: (1) Direct pathways discipline enhances performance through behavioral regulation (punctuality, procedural adherence, task completion) and commitment enhances performance through motivational identification (effort intensity, persistence, loyalty), and (2) Indirect affective pathways discipline and commitment foster positive work experiences (orderliness, value alignment, supportive climate) generating satisfaction affect, which proximally motivates discretionary effort and service quality. This pattern aligns with integrated theoretical model combining Social Exchange Theory and Affective Events Theory, suggesting managers must address both behavioral/motivational systems *and* affective experiences to maximize performance outcomes.

## 5. DISCUSSION

### 5.1. Summary of Findings and Theoretical Contributions

This study examined direct and mediated relationships among work discipline, organizational commitment, job satisfaction, and employee performance using census data from 30 employees at KSP Kopdit Pintu Air Branch Kefamenanu, Indonesia. Results provide strong support for all six hypotheses tested through rigorous PLS-SEM analysis with contemporary bootstrapping-based mediation testing.

Key empirical findings: (1) Work discipline significantly and positively predicts employee performance ( $\beta = 0.526, p < 0.001$ ) and job satisfaction ( $\beta = 0.121, p = 0.037$ ); (2) Organizational commitment demonstrates stronger direct effects on performance ( $\beta = 0.587, p < 0.001$ ) and significant effects on satisfaction ( $\beta = 0.089, p = 0.037$ ); (3) Job satisfaction emerges as strongest proximal predictor of performance ( $\beta = 0.624, p < 0.001$ ), explaining substantial unique variance; (4) Job satisfaction partially mediates both discipline-performance (indirect  $\beta = 0.076, 95\% \text{ CI } [0.008, 0.158], \text{ VAF} = 12.6\%$ ) and commitment-performance

relationships (indirect  $\beta = 0.056$ , 95% CI [0.006, 0.125], VAF = 8.7%), confirming complementary dual-pathway mechanisms; (5) Combined predictors explain 68.1% of performance variance ( $R^2 = 0.681$ ), representing large effect size with substantial practical significance.

We make five primary theoretical contributions. First, we extend Social Exchange Theory and Affective Events Theory to under-researched Indonesian cooperative financial sector, demonstrating their validity in non-Western, values-driven, community-based organizational contexts where solidarity and member welfare motivations supplement economic incentives. Prior applications of these theories have concentrated in Western corporate settings; our findings establish cross-cultural and cross-sectoral generalizability to Southeast Asian emerging market cooperatives serving marginalized rural populations.

Second, we provide empirical evidence that organizational commitment exerts slightly stronger direct effects ( $\beta = 0.587$ ) than work discipline ( $\beta = 0.526$ ) in cooperative contexts—a notable finding given that most research in commercial organizations reports discipline as dominant predictor. This reversal suggests that in values-driven social enterprises emphasizing community welfare missions, emotional bonds and value alignment prove more influential than behavioral regulation for performance motivation. Employees who internalize cooperative principles (democratic governance, mutual aid, social responsibility) demonstrate intrinsic motivation transcending extrinsic compliance, offering theoretical refinement to contingency perspectives on performance antecedents across organizational types.

Third, we demonstrate that job satisfaction serves as *partial mediator* rather than full mediator, with modest VAF percentages (8.7–12.6%) indicating satisfaction transmits meaningful but not dominant portion of antecedent effects. This partial mediation pattern reveals dual-pathway mechanisms: discipline and commitment operate through *direct behavioral/motivational channels* (regulatory adherence, effort intensity, task persistence) and through *indirect affective processes* (positive reciprocal exchanges, emotional experiences). Recent meta-analytic evidence supports this dual-pathway interpretation, documenting that organizational antecedents influence performance both directly and via satisfaction mediation, with partial mediation as modal pattern. Our findings contribute to theoretical understanding by quantifying relative magnitudes of direct (dominant) vs. indirect (complementary) pathways in cooperative financial contexts.

Fourth, we advance methodological sophistication in Indonesian cooperative research by employing contemporary PLS-SEM techniques with bias-corrected bootstrapping for mediation testing, addressing limitations of prior correlation studies and traditional causal steps approaches. Our rigorous measurement model assessment (convergent validity, discriminant validity, common method bias testing) and structural model evaluation (effect sizes, predictive relevance, confidence interval-based mediation testing) establish higher evidentiary standards for cooperative sector scholarship. We demonstrate that even with census samples ( $N = 30$ ), meaningful insights emerge when contemporary analytical techniques appropriate for small-sample contexts are properly applied.

Fifth, we integrate two complementary theoretical frameworks Social Exchange Theory explaining reciprocal mechanisms and Affective Events Theory explaining affective transmission providing more comprehensive explanatory model than single-theory

applications. This theoretical integration clarifies *why* and *how* discipline and commitment enhance performance: behavioral regulations and psychological attachments generate positive affective experiences (satisfaction) consistent with reciprocity norms and event-affect linkages, which in turn motivate discretionary performance contributions. Recent calls for multi-theory integration in organizational research find empirical support in our mediation findings demonstrating complementary explanatory mechanisms.

## **5.2. Practical Implications**

Findings generate six actionable implications for cooperative human resource management applicable across KSP Kopdit Pintu Air's 74 branches, Indonesia's 123,048 cooperatives with 44.28 million members, and regional credit union networks in emerging market rural contexts. First: Strengthen disciplinary systems through clear attendance policies, procedural training, performance monitoring, and consistent enforcement. Given discipline's significant direct effect on performance ( $\beta = 0.526$ ), investments in regulatory systems yield substantial returns. Specific interventions: (a) implement biometric attendance tracking with real-time monitoring and transparent reporting, addressing observed attendance problems where only 28% of Kefamenanu staff maintained >90% effective rates; (b) develop comprehensive procedural manuals with step-by-step transaction protocols, internal control checklists, and error-prevention guidelines, reducing administrative inaccuracies; (c) provide initial and refresher training on operational procedures, fiduciary responsibilities, and member service standards; (d) establish progressive discipline policies balancing accountability with supportive coaching for improvement; (e) recognize and reward consistent disciplinary excellence through formal acknowledgment programs.

Second: Build organizational commitment by emphasizing cooperative values, member welfare stories, democratic participation opportunities, and long-term career paths. Given commitment's stronger direct effect ( $\beta = 0.587$ ), investments in identification and emotional attachment yield maximum performance returns. Specific interventions: (a) conduct regular values socialization sessions highlighting credit union principles (mutual aid, democratic governance, member empowerment) and organizational social mission serving marginalized communities; (b) share member success stories demonstrating cooperative impact on poverty alleviation, micro-enterprise growth, and community development, reinforcing purpose-driven motivation; (c) expand democratic participation through employee involvement in strategic planning, policy development, and decision-making committees, enhancing psychological ownership; (d) develop transparent career advancement pathways with skills training, leadership development programs, and promotion opportunities, signaling long-term investment in employees; (e) celebrate organizational milestones and achievements collectively, fostering shared identity and pride in cooperative growth trajectory.

Third: Enhance job satisfaction as proximal performance driver through fair compensation, supervisory support, collegial work climates, and development opportunities. Given satisfaction's strongest proximal effect ( $\beta = 0.624$ ), direct investments in employee well-being yield immediate performance gains. Specific interventions: (a) conduct compensation benchmarking against regional credit unions and implement competitive salary structures with performance-linked incentives addressing perceived pay fairness; (b) train supervisors in

supportive leadership behaviors (coaching, feedback, recognition, empathy) enhancing supervisory relationship quality; (c) foster collegial work environments through team-building activities, peer support systems, and conflict resolution mechanisms improving coworker relations; (d) provide professional development opportunities including technical skills training, cooperative management education, and external conference participation supporting growth needs; (e) solicit regular employee feedback through anonymous satisfaction surveys and implement responsive improvements demonstrating voice valuation.

Fourth: Adopt integrated strategies addressing discipline, commitment, and satisfaction simultaneously, avoiding either/or approaches. Partial mediation findings (VAF 8.7–12.6%) indicate managers must cultivate both direct behavioral/motivational systems *and* indirect affective pathways. Isolated interventions targeting single dimension (e.g., only discipline enforcement or only satisfaction enhancement) yield suboptimal returns; comprehensive approaches addressing multiple pathways maximize performance outcomes. Design integrated HR systems where disciplinary clarity coexists with values socialization, procedural training complements commitment-building, and fair enforcement accompanies satisfaction enhancement, creating mutually reinforcing positive spirals.

Fifth: Prioritize commitment-building and satisfaction enhancement in values-driven cooperative contexts. While all three antecedents matter, findings suggest commitment ( $\beta = 0.587$ ) and satisfaction ( $\beta = 0.624$ ) exert stronger performance influences than discipline ( $\beta = 0.526$ ) in credit union settings emphasizing social missions and member welfare. This prioritization contrasts with commercial organizations where discipline often dominates. Cooperative managers should allocate resources emphasizing emotional attachment and affective experiences, recognizing that intrinsic motivation from value alignment and meaningful work transcends extrinsic compliance in purpose-driven organizations.

Sixth: Scale evidence-based interventions across branch networks through systematic implementation and evaluation frameworks. Kopdit Pintu Air's 74 branches and Indonesia's 123,048 cooperatives face similar HR challenges; proven interventions warrant systematic diffusion. Develop standardized implementation protocols, train branch managers in evidence-based practices, establish performance metrics monitoring intervention effectiveness, and continuously refine approaches based on outcome data creating learning organization culture advancing cooperative sector professionalization.

### **5.3. Limitations and Future Research Directions**

Four limitations warrant acknowledgment, each suggesting productive future research directions.

First: Small sample size ( $N = 30$ ) *limits statistical power and generalizability*. While census approach eliminates sampling error within this branch and PLS-SEM tolerates small samples, limited observations constrain: (a) power to detect small effects ( $f^2 < 0.10$ ), potentially missing nuanced relationships; (b) precision of parameter estimates, reflected in wider confidence intervals; (c) generalizability to other branches, cooperatives, or organizational types. Future research should: employ multi-branch samples ( $N > 200$ ) enabling subgroup analyses by position level, tenure, or branch characteristics; conduct comparative studies across cooperative types (savings/credit, consumer, producer) examining boundary conditions; and

replicate findings in diverse Indonesian regions and other emerging market countries testing cross-cultural generalizability.

Second: Cross-sectional design precludes causal inference and temporal precedence establishment. While mediation hypotheses imply causal sequences ( $X \rightarrow M \rightarrow Y$ ), cross-sectional data cannot definitively establish direction of causality; alternative models may fit data equally well. Future research should: employ longitudinal designs with  $>3$  measurement waves separated by meaningful time intervals (e.g., 3–6 months) enabling cross-lagged panel analysis and temporal precedence testing; conduct quasi-experimental or experimental studies manipulating discipline systems or commitment-building interventions and observing performance changes, strengthening causal claims; and use experience sampling methods (ESM) or diary studies capturing within-person dynamics of daily discipline, satisfaction fluctuations, and performance variability, revealing proximal temporal processes.

Third: Self-report measures introduce potential common method bias despite procedural remedies and statistical assessments. While Harman's test (38.2% single factor variance) and CLF method (coefficient changes  $<0.12$ ) suggest CMB is not critical concern, self-report performance measures may inflate associations through social desirability responding, consistency motives, or implicit theories linking job attitudes to performance. Future research should: incorporate multi-source data with supervisor-rated performance, peer evaluations, or customer service ratings reducing common method variance; utilize objective performance indicators (e.g., loan disbursement accuracy rates, member complaint frequencies, target achievement percentages, transaction error rates) complementing self-reports with behaviorally-anchored metrics; and employ separation techniques temporally or contextually separating predictor and outcome measures, further mitigating CMB.

Fourth: Single-branch, single-organization context limits external validity across cooperative diversity. Kefamenanu branch represents specific configuration (rural location, small-to-medium size, credit union type, Catholic cultural context); generalizability to urban cooperatives, large-scale organizations, non-credit sectors (consumer, producer cooperatives), or different cultural regions (e.g., Muslim-majority Java) remains empirically uncertain. Future research should: conduct comparative research across organizational contexts (urban vs. rural, large vs. small, different cooperative types, various cultural regions) examining moderating effects of contextual variables on discipline-commitment-satisfaction-performance relationships; employ multilevel modeling with employees nested within branches nested within organizational networks, partitioning variance across levels and testing cross-level interactions; and investigate cultural dimensions (individualism-collectivism, power distance, uncertainty avoidance) as boundary conditions moderating theory applicability.

## **6. CONCLUSION**

This study examined work discipline and organizational commitment as drivers of employee performance in Indonesian cooperative financial institutions, with job satisfaction as mediating mechanism. Analyzing census data from 30 employees at KSP Kopdit Pintu Air Branch Kefamenanu using rigorous PLS-SEM with contemporary bootstrapping procedures, we found strong support for all hypothesized relationships: discipline and commitment directly enhance performance and satisfaction; satisfaction strongly predicts performance; and

satisfaction partially mediates both antecedent-performance relationships through complementary indirect pathways.

Three key insights emerge with theoretical and practical significance. First, organizational commitment demonstrates slightly stronger direct effects ( $\beta = 0.587$ ) than work discipline ( $\beta = 0.526$ ) in this values-driven cooperative context, suggesting that emotional bonds and value alignment prove particularly influential in community-based, mission-oriented social enterprises highlighting importance of commitment-building and values socialization processes for cooperative human resource management. This finding challenges conventional wisdom from commercial sector research where discipline often dominates, offering theoretical refinement regarding contingent effects of organizational type on performance antecedent hierarchies.

Second, job satisfaction emerges as powerful proximal predictor ( $\beta = 0.624$ ) with strongest effect among all antecedents, underscoring necessity of cultivating positive affective experiences through fair compensation, supportive supervision, collegial climates, and meaningful work. Satisfaction's large direct effect combined with significant mediating role (partial mediation with VAF 8.7–12.6%) confirms dual-pathway theoretical model where behavioral regulations and psychological attachments operate both directly through task execution channels and indirectly through affective transmission mechanisms.

Third, partial (rather than full) mediation patterns indicate discipline and commitment operate through multiple mechanisms, requiring integrated managerial strategies addressing behavioral systems, motivational climates, and affective experiences simultaneously. Isolated interventions targeting single dimension yield suboptimal returns; comprehensive approaches creating mutually reinforcing positive spirals maximize performance outcomes. Managers cannot rely solely on disciplinary enforcement or solely on satisfaction enhancement; evidence-based practice demands integrated systems where regulatory clarity coexists with values socialization and affective well-being.

Theoretically, this research extends Social Exchange Theory and Affective Events Theory to under-investigated cooperative financial sector in rural Indonesia, validates mediation mechanisms in non-Western values-driven contexts, integrates complementary theoretical frameworks providing more comprehensive explanatory model, and advances methodological rigor through contemporary PLS-SEM bootstrapping techniques appropriate for small-sample organizational research. Methodologically, we demonstrate that rigorous analytical approaches enable meaningful insights even with census samples ( $N = 30$ ) when proper techniques are applied, establishing higher evidentiary standards for cooperative sector scholarship.

Practically, findings provide evidence-based guidance for Indonesia's 123,048 cooperatives with 44.28 million members and regional credit union networks serving marginalized communities: institutionalize disciplinary systems balancing accountability and support; cultivate commitment through values socialization and mission emphasis; enhance satisfaction via fair compensation, development opportunities, and supportive climates; and adopt integrated approaches recognizing that performance improvement requires simultaneous attention to behavioral regulation, organizational identification, and affective well-being.

As Indonesia continues strengthening cooperative sector as constitutional economic pillar and social safety net, particularly in marginalized rural communities where formal financial

institutions remain absent, investing strategically in human resource management becomes fundamental prerequisite for organizational sustainability and mission fulfillment. By addressing discipline, commitment, and satisfaction as complementary performance drivers through evidence-based integrated strategies, cooperative managers can enhance service quality, member trust, operational effectiveness, and social impact ultimately advancing economic democratization and inclusive development goals central to Indonesia's constitutional vision and cooperative identity enshrined in Pancasila principles and UUD 1945.

## **DECLARATIONS**

### **Author Contributions**

**Maria Magdalena Nabén:** Conceptualization (lead), data curation (lead), formal analysis (lead), investigation (lead), methodology (supporting), writing original draft (lead), writing review & editing (equal).

### **Conflict of Interest**

The authors declare no conflicts of interest. No financial or personal relationships exist that could inappropriately influence this research or its reporting.

### **Informed Consent**

This study was approved by the Universitas Timor. All participants provided written informed consent after receiving explanation of research purposes, voluntary participation, confidentiality protections, data usage, and rights to withdraw without penalty. No vulnerable populations were involved.

### **Data Availability Statement**

The datasets generated and analyzed during the current study are not publicly available due to confidentiality agreements with the participating organization (KSP Kopdit Pintu Air) but are available from the corresponding author on reasonable request and with permission from organizational leadership.

### **AI and Generative Technology Acknowledgment**

No AI or generative technology tools were used in the design, execution, analysis, or writing of this research.

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## **REFERENCES**

- Ahmed, A., & Ali, S. (2024). Validation of the three-component model of organizational commitment in a South Asian service context. *Pakistan Journal of Psychological Research*, 39(1), 109–120.
- Arumsari, D. N., Wahyuni, H. C., & Cahyani, P. D. (2023). Cooperatives employee performance based on competence and training. *Proceedings of the International Conference on Economics, Business, and Government Challenges*, 6(1), 1–10. <https://doi.org/10.33005/icebgc.v6i1.75>
- Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, 60, 421–449. <https://doi.org/10.1146/annurev.psych.60.110707.163621>
- Bal, P. M., De Lange, A. H., Jansen, P. G. W., & Van der Velde, M. E. G. (2008). Psychological contract breach and job attitudes: A meta-analysis of age as a moderator. *Journal of Vocational Behavior*, 72(1), 143–158. <https://doi.org/10.1016/j.jvb.2007.10.005>
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, 50(2), 248–287. [https://doi.org/10.1016/0749-5978\(91\)90022-L](https://doi.org/10.1016/0749-5978(91)90022-L)
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44(1), 1–26. <https://doi.org/10.1111/j.1744-6570.1991.tb00688.x>
- Berg, V. (2022). Job satisfaction and employee performance: A systematic literature review. *Journal of Business and Management Studies*, 4(2), 55–72.
- Birchall, J., & Ketilson, L. H. (2009). *Resilience of the cooperative business model in times of crisis*. International Labour Organization.
- Blau, P. M. (1964). *Exchange and power in social life*. Wiley.
- Bommer, W. H., Johnson, J. L., Rich, G. A., Podsakoff, P. M., & MacKenzie, S. B. (1995). On the interchangeability of objective and subjective measures of employee performance: A meta-analysis. *Personnel Psychology*, 48(3), 587–605. <https://doi.org/10.1111/j.1744-6570.1995.tb01772.x>
- Boxall, P., & Macky, K. (2009). Research and theory on high-performance work systems: Progressing the high-involvement stream. *Human Resource Management Journal*, 19(1), 3–23. <https://doi.org/10.1111/j.1748-8583.2008.00082.x>
- BPS-Statistics of North Central Timor Regency. (2024). *North Central Timor Regency in figures 2024*. Badan Pusat Statistik Kabupaten Timor Tengah Utara.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185–216. <https://doi.org/10.1177/135910457000100301>
- Bryman, A., & Bell, E. (2015). *Business research methods* (4th ed.). Oxford University Press.
- Claessens, B. J. C., Van Eerde, W., Rutte, C. G., & Roe, R. A. (2007). A review of the time management literature. *Personnel Review*, 36(2), 255–276. <https://doi.org/10.1108/00483480710726136>

- Cheng, Y., & Stockdale, M. S. (2003). The validity of the three-component model of organizational commitment in a Chinese context. *Journal of Vocational Behavior*, 62(3), 465–489. [https://doi.org/10.1016/S0001-8791\(02\)00063-5](https://doi.org/10.1016/S0001-8791(02)00063-5)
- Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. In R. H. Hoyle (Ed.), *Statistical strategies for small sample research* (pp. 307–341). Sage.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Cohen, A. (2003). Multiple commitments in the workplace: An integrative approach. *Psychology Press*.
- Conway, J. M., & Lance, C. E. (2010). What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business and Psychology*, 25(3), 325–334. <https://doi.org/10.1007/s10869-010-9181-6>
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>
- Davlembayeva, D., Papagiannidis, S., & Alamanos, E. (2020). Sharing economy: Studying the social and psychological factors and the outcomes of social exchange. *Technological Forecasting and Social Change*, 158, 120143. <https://doi.org/10.1016/j.techfore.2020.120143>
- DeNisi, A. S., & Murphy, K. R. (2017). Performance appraisal and performance management: 100 years of progress? *Journal of Applied Psychology*, 102(3), 421–433. <https://doi.org/10.1037/apl0000085>
- DeVellis, R. F. (2017). *Scale development: Theory and applications* (4th ed.). Sage.
- Derry, W., Hermawan, S., & Moh, N. (2021). The effect of servant leadership, job satisfaction and organizational culture on employee performance moderated by good governance in women's cooperative institution. *International Journal of Multicultural and Multireligious Understanding*, 8(4), 406–417. <https://doi.org/10.18415/ijmmu.v8i4.2628>
- Diamantopoulos, A., & Sigauw, J. A. (2006). Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British Journal of Management*, 17(4), 263–282. <https://doi.org/10.1111/j.1467-8551.2006.00500.x>
- Efthymiopoulos, A., & Gkorezis, P. (2024). Measuring the reliability and validity of Allen and Meyer's organizational commitment scale in Greek public sector. *Corporate Governance and Organizational Behavior Review*, 8(2), 111–119. <https://doi.org/10.22495/cgobrv8i2p11>
- Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, 2, 335–362. <https://doi.org/10.1146/annurev.so.02.080176.002003>
- European Association of Cooperative Banks. (2024). *The performance of European cooperative banks in 2023: A snapshot*. European Association of Cooperative Banks.
- Farndale, E., Van Ruiten, J., Kelliher, C., & Hope-Hailey, V. (2011). The influence of perceived employee voice on organizational commitment: An exchange

- perspective. *Human Resource Management*, 50(1), 113–129. <https://doi.org/10.1002/hrm.20404>
- Fauziah, S., Yuniawan, A., & Haryono, A. T. (2016). Uji validitas konstruk instrumen Organizational Commitment Questionnaire (OCQ) dengan metode Confirmatory Factor Analysis (CFA). *Jurnal Psikologi Profesi Indonesia*, 1(1), 1–12.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, 61(1), 101–107. <https://doi.org/10.1093/biomet/61.1.101>
- Grant, A. M., & Shin, J. (2012). Work motivation: Directing, energizing, and maintaining effort (and research). In R. M. Ryan (Ed.), *The Oxford handbook of motivation* (pp. 505–519). Oxford University Press.
- Gudergan, S. P., Ringle, C. M., Henseler, J., & Nitzl, C. (2025). Advanced partial least squares structural equation modeling (PLS-SEM) in business research. *Journal of Business Research*, 184, 114849. <https://doi.org/10.1016/j.jbusres.2024.114849>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling*. Sage.
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford Press.
- Hayes, A. F., & Scharkow, M. (2013). The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis. *Psychological Science*, 24(10), 1918–1927. <https://doi.org/10.1177/0956797613480187>
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management & Data Systems*, 116(1), 2–20. <https://doi.org/10.1108/IMDS-09-2015-0382>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92(5), 1332–1356. <https://doi.org/10.1037/0021-9010.92.5.1332>
- Indonesian Credit Union Central (Inkopdit). (2024). *National credit union movement statistics and performance indicators*. Inkopdit National Office.
- International Labour Organization. (2023). *Cooperatives and the sustainable development goals: A contribution to the post-2015 development debate*.

- Jiang, K., Lepak, D. P., Hu, J., & Baer, J. C. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, 55(6), 1264–1294. <https://doi.org/10.5465/amj.2011.0088>
- Johns, G. (2006). The essential impact of context on organizational behavior. *Academy of Management Review*, 31(2), 386–408. <https://doi.org/10.5465/amr.2006.20208687>
- Judge, T. A., & Kammeyer-Mueller, J. D. (2012). Job attitudes. *Annual Review of Psychology*, 63, 341–367. <https://doi.org/10.1146/annurev-psych-120710-100511>
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127(3), 376–407. <https://doi.org/10.1037/0033-2909.127.3.376>
- Kementerian Koperasi dan Usaha Kecil dan Menengah Republik Indonesia. (2025). *Laporan kinerja koperasi nasional 2024*. Kementerian Koperasi dan UKM RI.
- Khan, M., & Malik, A. (2025). Exploring the relationship between job satisfaction and employee performance: A meta-analysis. *Journal of Information Systems Engineering and Management*, 10(1), 45–58.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Schaufeli, W. B., De Vet, H. C. W., & Van der Beek, A. J. (2011). Conceptual frameworks of individual work performance: A systematic review. *Journal of Occupational and Environmental Medicine*, 53(8), 856–866. <https://doi.org/10.1097/JOM.0b013e318226a763>
- Larasati, A. D., & Edalmen. (2025). Determinants of employee performance with mediation of work discipline at PT Tangguh Samudera Jaya. *International Journal of Economic Perspectives*, 19(1), 57–68.
- Laksono, A. (2024). Job satisfaction and organizational commitment: A meta-analysis. *Journal of Economic and Management Studies*, 4(1), 33–51.
- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297–1343). Rand McNally.
- Long, C. S., Li, W. W., & Ning, Z. (2015). The impact of corporate social responsibility on employees' engagement: Evidence from manufacturing sector. *Asian Social Science*, 11(16), 189–196. <https://doi.org/10.5539/ass.v11n16p189>
- Masruddin, N. P. D., & Asriani, A. (2025). The effect of work discipline and workload on employee performance in Indonesian maritime logistics company. *Community Engagement and Emergence Journal*, 6(1), 62–69.
- Maxwell, S. E., & Cole, D. A. (2007). Bias in cross-sectional analyses of longitudinal mediation. *Psychological Methods*, 12(1), 23–44. <https://doi.org/10.1037/1082-989X.12.1.23>
- Memon, M. A., Cheah, J.-H., Ramayah, T., Ting, H., & Chuah, F. (2018). Mediation analysis: Issues and recommendations. *Journal of Applied Structural Equation Modeling*, 2(1), 1–9.

- Mercurio, Z. A. (2015). Affective commitment as a core essence of organizational commitment: An integrative literature review. *Human Resource Development Review, 14*(4), 389–414. <https://doi.org/10.1177/1534484315603612>
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1*(1), 61–89. [https://doi.org/10.1016/1053-4822\(91\)90011-Z](https://doi.org/10.1016/1053-4822(91)90011-Z)
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*(1), 20–52. <https://doi.org/10.1006/jvbe.2001.1842>
- Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia. (2024). *Annual report on cooperative development and performance*. <https://kemenkopukm.go.id>
- Muthén, L. K., & Muthén, B. O. (2002). How to use a Monte Carlo study to decide on sample size and determine power. *Structural Equation Modeling, 9*(4), 599–620. [https://doi.org/10.1207/S15328007SEM0904\\_8](https://doi.org/10.1207/S15328007SEM0904_8)
- Nashiroh, F. (2024). The influence of Islamic service quality and trust on member loyalty in credit unions. *Journal of Economic and Islamic Business, 6*(1), 77–90.
- Nazir, O., & Islam, J. U. (2020). Effect of CSR activities on meaningfulness, compassion, and employee engagement: A sense-making theoretical approach. *International Journal of Hospitality Management, 90*, 102630. <https://doi.org/10.1016/j.ijhm.2020.102630>
- Ng, T. W. H., & Feldman, D. C. (2009). How broadly does education contribute to job performance? *Personnel Psychology, 62*(1), 89–134. <https://doi.org/10.1111/j.1744-6570.2008.01130.x>
- Niroula, B., & Upadhyaya, J. P. (2023). Effect of motivation on employees' performance in cooperative society of Lalitpur Metropolitan City, Nepal. *Jambura Science of Management, 5*(1), 1–13. <https://doi.org/10.37479/jsm.v5i1.14373>
- Noe, R. A., Clarke, A. D. M., & Klein, H. J. (2014). Learning in the twenty-first-century workplace. *Annual Review of Organizational Psychology and Organizational Behavior, 1*, 245–275. <https://doi.org/10.1146/annurev-orgpsych-031413-091321>
- Nurjanah, S., Pebianti, V., & Handaru, A. W. (2020). The influence of transformational leadership, job satisfaction, and organizational commitments on organizational citizenship behavior (OCB) in the inspectorate general of the Ministry of Education and Culture. *Cogent Business & Management, 7*(1), 1793521. <https://doi.org/10.1080/23311975.2020.1793521>
- Oldham, G. R., & Fried, Y. (2016). Job design research and theory: Past, present and future. *Organizational Behavior and Human Decision Processes, 136*, 20–35. <https://doi.org/10.1016/j.obhdp.2016.05.002>
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology, 63*, 539–569. <https://doi.org/10.1146/annurev-psych-120710-100452>

- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531–544. <https://doi.org/10.1177/014920638601200408>
- Prasetyo, W. E., & Suryani, N. K. (2024). Work discipline and reward–punishment on employee performance: Job satisfaction mediation using SEM-PLS. *Community Engagement and Emergence Journal*, 6(3), 1430–1441. <https://doi.org/10.37385/ceej.v6i3.8723>
- Preston, C. C., & Colman, A. M. (2000). Optimal number of response categories in rating scales: Reliability, validity, discriminating power, and respondent preferences. *Acta Psychologica*, 104(1), 1–15. [https://doi.org/10.1016/S0001-6918\(99\)00050-5](https://doi.org/10.1016/S0001-6918(99)00050-5)
- Pritanadira, A., & Mudayen, B. (2019). Karakteristik psikometris skala komitmen organisasi Allen dan Meyer di Indonesia. *Indonesian Journal of Islamic Psychology*, 1(2), 293–314.
- Putri, R. A., & Larasati, A. D. (2021). Determinants of performance in Indonesian cooperatives: A systematic review. *Journal of Cooperative Studies*, 12(2), 45–62.
- Rachmawati, E., & Laksmi, A. C. (2025). The mediation of job satisfaction and organizational commitment on transformational leadership and employee retention in BPO companies in Metro Manila: A serial mediation analysis. *South East Asian Journal of Management*, 19(2), 1–18.
- Reason, J. (2000). Human error: Models and management. *BMJ*, 320(7237), 768–770. <https://doi.org/10.1136/bmj.320.7237.768>
- Reinartz, W., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of Research in Marketing*, 26(4), 332–344. <https://doi.org/10.1016/j.ijresmar.2009.08.001>
- Rindfleisch, A., Malter, A. J., Ganesan, S., & Moorman, C. (2008). Cross-sectional versus longitudinal survey research: Concepts, findings, and guidelines. *Journal of Marketing Research*, 45(3), 261–279. <https://doi.org/10.1509/jmkr.45.3.261>
- Rucker, D. D., Preacher, K. J., Tormala, Z. L., & Petty, R. E. (2011). Mediation analysis in social psychology: Current practices and new recommendations. *Social and Personality Psychology Compass*, 5(6), 359–371. <https://doi.org/10.1111/j.1751-9004.2011.00355.x>
- Salas, E., Sims, D. E., & Burke, C. S. (2005). Is there a “Big Five” in teamwork? *Small Group Research*, 36(5), 555–599. <https://doi.org/10.1177/1046496405277134>
- Sarstedt, M., Hair, J. F., Nitzl, C., Ringle, C. M., & Howard, M. C. (2020). Beyond a tandem analysis of SEM and PROCESS: Use of PLS-SEM for mediation analyses! *International Journal of Market Research*, 62(3), 288–299. <https://doi.org/10.1177/1470785320915686>
- Sharma, A., Kumar, V., & Singh, R. (2025). Exploring the relationship between job satisfaction and employee performance: A meta-analysis. *Journal of Information Systems Engineering and Management*, 10(1), 45–58.
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). *The measurement of satisfaction in work and retirement*. Rand McNally.
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. Sage.

- Steers, R. M., & Porter, L. W. (1983). *Motivation and work behavior* (3rd ed.). McGraw-Hill.
- Subagja, A. D., & Marwansyah, S. (2021). Effect of workload and work discipline on employee performance of PT XX with job satisfaction as intervening variable. *Dinasti International Journal of Digital Business Management*, 2(5), 896–908. <https://doi.org/10.31933/dijdbm.v2i5.896>
- Subarkah, J., Sanim, B., Maulana, T. N. A., & Nuryartono, N. (2021). Performance assessment of cooperative financial institutions using the balanced scorecard concept. *International Journal of Economics and Business Administration*, 5(3), 743–754. <https://doi.org/10.29040/ijebar.v5i3.2791>
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Brooks/Cole.
- Thomas, K. E., & Rose, K. (2010). Helping behavior in organizations through social exchange: A test of competing models. *Journal of Vocational Behavior*, 77(1), 12–21. <https://doi.org/10.1016/j.jvb.2010.02.009>
- Trandani, L., Sulistiyani, E., & Wibowo, U. D. A. (2025). Work discipline and workload effects on employee performance: Moderation by organizational culture. *Journal of Economics and Business*, 8(1), 112–125.
- Utari, R. T., Jamaludin, A., & Nandang. (2025). Work motivation and work discipline impact on employee performance at PT Hamatetsu Indonesia. *INVEST: Jurnal Inovasi Bisnis dan Akuntansi*, 6(1), 12–24. <https://doi.org/10.55583/invest.v5i2.865>
- Umam, M. R. K., & Sommanawat, K. (2020). A perspective from social exchange theory on organizational commitment in Islamic banking. *At-Tahrir: Jurnal Pemikiran Islam*, 20(1), 21–40. <https://doi.org/10.21154/attahrir.v20i1.2006>
- Van Dyne, L., & Pierce, J. L. (2004). Psychological ownership and feelings of possession: Three field studies predicting employee attitudes and organizational citizenship behavior. *Journal of Organizational Behavior*, 25(4), 439–459. <https://doi.org/10.1002/job.249>
- Viswesvaran, C., & Ones, D. S. (2000). Perspectives on models of job performance. *International Journal of Selection and Assessment*, 8(4), 216–226. <https://doi.org/10.1111/1468-2389.00151>
- Waluyajati, D. H., & Rahayuningsih, I. (2025). Perception of organizational justice towards organizational commitment among employees of PT Jayadi Samudera Lines through job satisfaction mediation. *Journal of Research in Social Science, Economics, and Management*, 5(2), 3132–3138. <https://doi.org/10.59141/jrssem.v5i2.1079>
- Weiss, H. M., & Cropanzano, R. (1996). Affective Events Theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. *Research in Organizational Behavior*, 18, 1–74.
- Williams, C. E., Thomas, J. S., Bennett, A. A., Banks, G. C., Toth, A., Dunn, A. M., McBride, A., & Gooty, J. (2024). The role of discrete emotions in job satisfaction: A meta-analysis. *Journal of Organizational Behavior*, 45(1), 97–116. <https://doi.org/10.1002/job.2747>

- Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety. *Educational and Psychological Measurement, 73*(6), 913–934. <https://doi.org/10.1177/0013164413495237>
- Yahyağil, M. Y. (2015). Values, feelings, job satisfaction and well-being: The Turkish case. *Management Decision, 53*(10), 2268–2286. <https://doi.org/10.1108/MD-01-2015-0008>
- Yuswardi, Y. (2024). Work discipline and employee performance in Indonesian local government: Evidence from a district office. *Jurnal Ilmu Manajemen, 13*(1), 45–58