

# The Effect of Performance Measurement Systems. Trust to Manager, and Job Satisfaction on Employee Performance

Maryani Maryani<sup>1\*</sup>, Rindu Rika Gamayuni<sup>2</sup>, Fajar Gustiawaty Dewi<sup>3</sup>

Universitas Lampung, Lampung, Indonesia<sup>1,2,3</sup>

[maryani@polinela.ac.id](mailto:maryani@polinela.ac.id)<sup>1</sup>, [rindu.gamayuni@gmail.com](mailto:rindu.gamayuni@gmail.com)<sup>2</sup>, [fajar.gustiawaty@feb.unila.ac.id](mailto:fajar.gustiawaty@feb.unila.ac.id)<sup>3</sup>



## Article History:

Received on 27 March 2026

1<sup>st</sup> Revision on 04 April 2026

2<sup>nd</sup> Revision on 09 April 2026

3<sup>rd</sup> Revision on 14 April 2026

Accepted on 28 April 2026

## Abstract

**Purpose:** This study investigates how Performance Measurement Systems (PMS) influence employee performance in public sector organizations, focusing on the mediating roles of trust in managers and job satisfaction.

**Methodology/approach:** A quantitative survey was conducted among employees of state-owned banks across eight provinces on Sumatra Island in Indonesia. The study used 200 valid responses and tested the hypothesized relationships through Partial Least Squares Structural Equation Modelling (PLS-SEM) using SmartPLS.

**Results/findings:** The results show that PMS significantly and positively impacted employee performance. Trust in managers and job satisfaction partially mediated this relationship, suggesting that PMS enhances performance through both formal controls and strengthens relational trust and work attitudes.

**Conclusions:** The study concludes that PMS improves employee performance not only by providing formal control mechanisms but also by fostering trust and job satisfaction.

**Limitations:** The cross-sectional design and sector-specific focus may limit the generalizability of these findings. Future studies could adopt longitudinal approaches or extend the model to other public sector contexts and emerging economies.

**Contributions:** This study contributes to the public sector management literature by integrating control, trust, and attitudinal perspectives. It provides empirical evidence from an emerging economy and offers insights for public-sector managers on designing PMS that enhance both accountability and employee well-being.

**Keywords:** *Emerging Economies, Employee Performance, Job Satisfaction, Performance Measurement Systems, Trust in Managers*

**How to Cite:** Maryani, M., Gamayuni, R. R., Dewi, F. G. (2026). The Effect of Performance Measurement Systems. Trust to Manager, and Job Satisfaction on Employee Performance. *Studi Akuntansi, Keuangan, dan Manajemen*, 5(4), 467-487.

## 1. Introduction

Performance Measurement Systems (PMS) are no longer viewed merely as evaluation tools; rather, they function as strategic instruments that can motivate employees, enhance productivity, and shape work behaviors aligned with organizational objectives. Prior studies have demonstrated that well-designed PMS are positively associated with employee performance (Li, Naz, Khan, Kusi, & Murad, 2019). Li et al. (2019) further argue that practitioners should develop performance measurement strategies that foster positive work attitudes and strengthen perceptions of organizational support in order to achieve superior performance outcomes. Similarly, Zhang and Yu (2020) showed that the interactive use of PMS has a significant and direct effect on employee performance. By emphasizing

continuous dialogue and two-way communication across managerial levels, an interactive PMS facilitates employee learning and knowledge sharing, which improves individual performance.

However, PMS designed solely from an organizational or top-management perspective are often perceived as ineffective by employees ([Sharma, Sharma, & Agarwal, 2016](#)). In practice, organizations frequently replace existing PMS with new systems without adequately diagnosing the underlying causes of their prior failures. Consequently, insufficient attention has been paid to understanding the role of PMS and the mechanisms through which these systems influence employee performance. This gap highlights the need for more empirical research that examines not only the outcomes of PMS but also the behavioral and relational processes through which PMS affects employee-level performance.

While a growing body of literature has examined the impact of strategic performance measurement on organizational performance ([J.-F. Henri, 2006](#); [J. F. Henri, 2004](#); [Hoque & James, 2000](#); [Ittner, Larcker, & Randall, 2003](#)), relatively limited attention has been devoted to how specific characteristics of PMS influence competitive outcomes, particularly within the banking sector. Research on the attributes of strategic performance measurement and its organizational consequences has been well established in manufacturing contexts ([Robert H Chenhall, 2005](#)); however, empirical evidence from the banking industry remains scarce. Nevertheless, the use of PMS has become increasingly important in the banking sector, which operates under stringent regulatory frameworks aimed at enhancing performance and safeguarding financial stability ([Barbe, Yang, & Narayan, 2023](#)).

This study focuses on state-owned banks in Indonesia for several reasons. First, the banking sector plays a critical role in economic development and growth ([Talpur, 2023](#)). Second, state-owned banks operate under relatively homogeneous regulatory regimes, providing a consistent institutional setting for the analysis. Third, performance measurement in banking has emerged as a major research focus in the past two decades ([Azzabi & Lahrichi, 2023](#)). Despite this growing interest, most empirical studies have been conducted in European contexts, with limited evidence from emerging economies such as Indonesia ([Azzabi & Lahrichi, 2023](#)). Moreover, this study concentrates on frontline employees, consistent with [Robert H. Chenhall and Langfield-Smith \(2003\)](#), who argue that operational-level employees represent the frontline of the organization's strategy execution. In the banking industry, frontline employees play a pivotal role in service delivery and customer interaction, making their attitudes and performance critical to organizational success ([Al-Hawary & Al-Abbadi, 2018](#)).

Although mainstream PMS research has produced robust evidence of the effects of evaluation systems on employee outcomes, this body of work has been developed predominantly in Western, low-power-distance, private-sector settings. The theoretical mechanisms rely on agency-based monitoring, classic management-control logics, and rational reciprocity, which implicitly assume well-functioning institutional environments in which formal rules are enforced symmetrically and managerial discretion is bounded by professional norms. These assumptions do not transfer cleanly to emerging-market public organizations such as Indonesian state-owned banks, where bureaucratic rigidity, politically salient accountability, and heavy regulatory intensity coexist with informal practices and a high-power distance. Consequently, the same PMS architecture may produce qualitatively different employee responses across institutional settings: vertical (manager-directed) trust gains disproportionate weight; relational signals embedded in evaluation processes are filtered through hierarchical norms; and compliance pressures may generate performance effects that are not captured by relational mediators alone. These contextual conditions motivate empirical investigations grounded in, rather than imported into, the emerging-economy banking context.

Geographically, this study draws its sample from nine provinces across Sumatra Island, which together host substantial state-owned banking operations and exhibit considerable socioeconomic and institutional heterogeneity. Sumatra is one of the largest contributors to Indonesia's national economy; however, the provincial economic performance varies markedly. Industrialized provinces such as North Sumatra, Riau, and South Sumatra anchor commodity, manufacturing, and service value chains, while provinces such as Bengkulu and the Bangka Belitung Islands rely more heavily on agriculture,

fisheries, and small-scale mining. This heterogeneity creates within-region variation in (i) local labor markets and the corresponding wage and turnover pressures faced by bank branches; (ii) customer composition, ranging from urban formal-sector clients to rural agricultural and SME segments, which shapes branch-level performance targets; and (iii) regional administrative practices that influence how performance evaluations are interpreted and enacted on the ground. Notwithstanding these differences, all four state-owned banks operate under a unified national PMS architecture set by the head office policy. This combination of a single national PMS being experienced across heterogeneous regional environments makes Sumatra a particularly informative setting in which to examine how institutional context shapes the operation of PMS in emerging-market public banking ([Rahman, Andrasari, & Sirojuzilam, 2023](#)). This heterogeneity provides a rich setting for examining PMS effectiveness within a dynamic regional economy.

This study makes several important contributions to the literature. First, it addresses the limited empirical evidence on the relationship between PMS and employee performance ([Verburg et al., 2018](#)). Existing PMS research has predominantly focused on organizational-level outcomes ([Robert H. Chenhall, 2005](#); [Robert H. Chenhall, Kallunki, & Silvola, 2011](#); [Frederico, Garza-Reyes, Kumar, & Kumar, 2021](#); [Severgnini, Vieira, & Cardoza Galdamez, 2018](#); [Yuliansyah & Jermias, 2018](#)) and managerial perspectives ([Bone, 2017](#); [Chong & Law, 2016](#); [Mone, London, & Mone, 2018](#); [Nguyen, Mia, Winata, & Chong, 2017](#)). In contrast, the role of frontline employees, who are central to the successful implementation of organizational strategies, has received comparatively little attention. [Kaplan and Norton \(2006\)](#) emphasize that although strategy is formulated by top management, its successful execution depends critically on employees' understanding and engagement at the operational level. When employees lack clarity regarding strategic objectives, their motivation to contribute to strategic outcomes diminishes, potentially undermining the implementation of the strategy. Consequently, effective PMS are particularly important at the frontline level, where most service activities and operational processes occur ([Dahlan et al., 2020](#)).

Second, this study contributes to the development of Social Exchange Theory (SET) as a theoretical lens for understanding the behavioral consequences of PMS. SET is one of the most influential paradigms for explaining workplace behaviors ([Cropanzano, Anthony, Daniels, & Hall, 2017](#)). According to [Cropanzano and Mitchell \(2005\)](#), employee–organization relationships can be understood as social exchanges in which employees' perceptions of organizational support shape their attitudes and behaviors. Such perceptions may be viewed as forms of “social rewards” that motivate employees to reciprocate with positive attitudes and behaviors, including enhanced performance, increased loyalty, and higher job satisfaction. In this study, social exchange relationships are conceptualized as key mediating mechanisms through which PMS influences employees performance.

## 2. Literature Review

### 2.1 Performance measurement system

Recent studies emphasize that Performance Measurement Systems (PMS) play a central role in enabling organizations to assess the effectiveness of their strategies and operations. [Saroja, Garg, and Luthra \(2022\)](#) conceptualized PMS as a strategic framework that provides decision-makers with critical information for evaluating current practices while guiding future strategic directions. Building on the Balanced Scorecard (BSC) framework introduced by Kaplan and Norton, PMS translates organizational vision and strategy into systematically measurable performance indicators. PMS extends beyond traditional financial metrics by incorporating non-financial dimensions essential for long-term sustainability.

While the traditional BSC is structured around four perspectives: financial, customer, internal processes, and learning and growth, [Saroja et al. \(2022\)](#) argue that this configuration is insufficient to address the complexity of circular supply chains. Accordingly, they propose the integration of three additional perspectives: environmental, social, and cost. This expanded seven-perspective framework positions PMS as a comprehensive strategic instrument that not only evaluates organizational

performance but also ensures alignment with long-term objectives related to resource efficiency, environmental protection, and social responsibility.

Similarly, [Wu \(2024\)](#) defined PMS as a structured and continuous process for collecting, monitoring, and evaluating information on organizational activities to achieve strategic objectives. This definition highlights PMS as both a systematic framework and an ongoing management process. Wu further emphasizes that contemporary PMS must be multidimensional, combining financial indicators with non-financial measures such as customer satisfaction, innovation, process efficiency, and job satisfaction. The core functions of PMS include assessing organizational progress toward targets, communicating performance outcomes to stakeholders, reinforcing strategic priorities, and facilitating continuous improvement. Thus, PMS serves not only as a retrospective evaluation tool but also as a dynamic strategic mechanism that supports sustained competitive advantage and organizational resilience.

Beyond its technical and strategic functions, PMS has been increasingly linked to psychological and behavioral outcomes within organizations. PMS enables organizations to assess their ability to achieve strategic goals [Purbey, Mukherjee, and Bhar \(2007\)](#), while also shaping employee perceptions and attitudes. One critical psychosocial outcome associated with PMS is trust, which is widely recognized as a foundational element of effective workplace relationships and a central construct in contemporary organizational research ([De Jong, Dirks, & Gillespie, 2016](#)). The use of transparent, formalized performance evaluation systems has been shown to foster trust in managers by signalling fairness, consistency, and accountability.

Trust in managers, in turn, constitutes the cornerstone of a healthy organizational culture ([Kane-Urrabazo, 2006](#)). When employees trust their leaders, they are more likely to feel psychologically safe, speak up, innovate, and proactively contribute to organizational goals ([Cho & Lee, 2012](#)). High levels of trust have also been consistently associated with increased job satisfaction ([Roberts & David, 2020](#)). Which is a key attitudinal outcome in organizational settings. Job satisfaction has been widely recognized as an important antecedent of individual performance and positive work behavior ([Phuong & Tran, 2020](#)).

Taken together, the literature suggests a sequential mechanism whereby performance measurement systems enhance managers' trust, which subsequently increases job satisfaction and ultimately contributes to improved employee performance. This integrated perspective underscores the dual role of PMS as both a strategic control system and a social mechanism that shapes employee attitudes and behavior. Based on this theoretical synthesis, the conceptual framework of the present study was developed, as illustrated below.

Although trust in managers and job satisfaction has been treated as parallel mediators in earlier studies, the theoretical logic developed above suggests that they operate in sequence rather than independently. PMS first functions as a relational signal: fair, transparent, and reliable evaluation practices generate trust in managers as the proximate relational outcome ( $H_1$ ). Trust then provides psychological safety and procedural assurance under which employees update their attitudinal evaluation of the job, raising overall job satisfaction ( $H_2$ ). Job satisfaction subsequently shapes the discretionary effort and behavioral commitment that translates into observable performance ( $H_4$ ). PMS may also exert direct effects on satisfaction ( $H_3$ ) and performance ( $H_6$ ), reflecting cognitive clarity and compliance-monitoring channels that operate alongside the relational pathway. Taken together, these arguments imply a sequential mediation chain (PMS → Trust in Managers → Job Satisfaction → Employee Performance) embedded within a broader model that allows for direct PMS effects on employee performance, the following can be seen in the Figure 1.

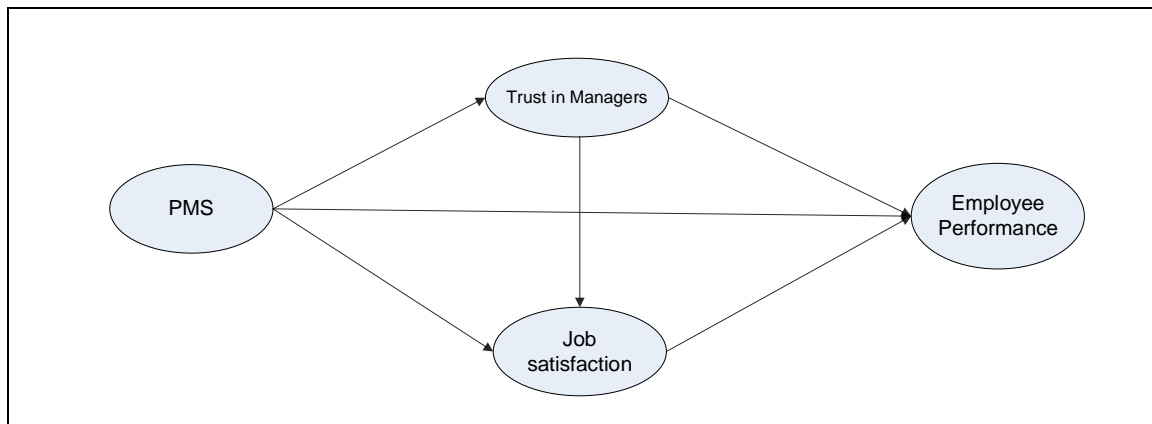


Figure 1. Research framework of the study

### 2.1.1 SET in Comparison with Goal-Setting Theory and Self-Determination Theory

Three theoretical perspectives have been used most extensively to explain how performance measurement systems shape motivation and performance: Social Exchange Theory, Goal-Setting Theory, and Self-Determination Theory. Each perspective highlights a distinct mechanism through which PMS may operate. Goal-Setting Theory emphasizes a cognitive–motivational pathway. Specific, challenging, and accepted goals, along with timely feedback, enhance task focus, persistence, and strategy development, thereby improving task performance. Within this framework, PMS matters because it generates clear performance targets and regular feedback. Goal-Setting Theory is therefore particularly suitable for explaining how the structural design of indicators (specificity, difficulty, feedback frequency) translates into goal-directed behavior.

Self-Determination Theory emphasizes the need for satisfaction. PMS influences motivation by supporting or undermining the satisfaction of three basic psychological needs: competence (the sense of being effective), autonomy (the sense of acting volitionally), and relatedness (the sense of being connected to others). Highly controlling or surveillance-oriented PMS may undermine autonomous motivation, whereas informational and developmental PMS may enhance it. SDT is well suited to explaining the variation in intrinsic motivation and engagement that PMS designs produce. Social Exchange Theory emphasizes a relational–reciprocal pathway. Employees interpret organizational systems, including PMS, as signals of how the organization values and treats them. Fair, transparent, and consistent PMS function as positive initiating actions that build trust in managers, which employees reciprocate through positive attitudes (e.g., job satisfaction) and discretionary effort. SET is particularly suitable when the focal mechanism is interpersonal trust, perceived organizational support, and attitudinal reciprocation.

These three perspectives are complementary rather than competing perspectives. However, the present study theoretically centres on the relational mechanism by which PMS shapes trust in managers, which in turn shapes job satisfaction and ultimately employee performance. Because trust and satisfaction are intrinsically relational and attitudinal constructs, SET provides the most direct theoretical lens for our research question. Goal-Setting Theory would be more appropriate if the focal mediator were goal commitment or task strategy, and SDT would be more appropriate if the focal mediator were autonomous motivation or basic-need satisfaction. Therefore, we retain SET as the primary integrating lens while acknowledging the value of an integrative future agenda that explicitly combines all three perspectives.

## 2.2. Hypothesis Development

### 2.2.1 Performance Measurement System and Trust in managers

Performance Measurement Systems (PMS) are a central managerial mechanism through which organizations communicate expectations, allocate rewards, and evaluate employee contributions in pursuit of strategic objectives (Bone, 2017; Robert H Chenhall, 2005; Dahlan et al., 2020). When PMS

are designed and implemented in a manner that emphasizes fairness, reliability, and transparency, they function not only as evaluative tools but also as social signals that convey managerial intentions and organizational support to employees.

Social Exchange Theory (SET) posits that workplace relationships are governed by reciprocal exchanges, whereby employees form attitudes and behaviors based on their perceptions of how they are treated by the organization and its representatives ([Cropanzano & Mitchell, 2005](#)). From an SET perspective, employees interpret managerial practices that demonstrate consistency, procedural justice, and respect as forms of social investment, which generate an obligation to reciprocate with positive attitudes, including trust. In this context, PMS serves as a salient mechanism through which employees assess the quality of their exchange relationship with their managers.

Fair and transparent PMS reduces uncertainty and information asymmetry, thereby limiting perceptions of managerial opportunism and enhancing employees' confidence in decision-making. By clearly articulating performance expectations and consistently applying evaluation criteria, PMS signals managerial integrity and benevolence, two foundational dimensions of trust within social exchange relationships. Consequently, employees are more likely to perceive their managers as trustworthy exchange partners, thereby reinforcing trust-based relationships.

Empirical evidence supports this hypothesis. [Hartmann and Slapničar \(2009\)](#) show that fairness-oriented PMS strengthen subordinates' trust in supervisors by enhancing perceptions of integrity and procedural justice. Similarly, [Sholihin and Pike \(2010\)](#) found that PMS implementation in the Indonesian public sector significantly influenced trust in managers. Studies conducted in diverse organizational contexts further confirm that effective PMS enhances employees' perceptions of justice and managerial credibility, thereby fostering trust in managers ([Cho & Lee, 2012](#); [Chong & Law, 2016](#); [Verburg et al., 2018](#)). More recent evidence from [Monteiro, Lunkes, and Rosa \(2023\)](#) demonstrates a significant positive relationship between PMS and trust in managers among middle managers in Brazilian listed firms, reinforcing the generalizability of this relationship across institutional settings. In line with the Social Exchange Theory, these findings suggest that PMS represents a key organizational practice through which managers initiate positive social exchanges. When employees perceive PMS as fair and transparent, they are more likely to reciprocate by developing trust in their managers. Accordingly, this study proposes the following hypothesis:

*H<sub>1</sub>*: Performance measurement systems are positively associated with trust in the managers

### 2.2.2 Trust in managers and Job Satisfaction

Employee satisfaction refers to an individual's positive evaluation and emotional response to their job and work experiences. Within organizational research, employee satisfaction has been widely acknowledged as a critical construct because of its implications for employee well-being and organizational effectiveness ([Sironi, 2019](#)). Employees who experience higher levels of satisfaction tend to exhibit stronger motivation, enhanced life satisfaction, better mental health, and superior job performance ([Judge, Thoresen, Bono, & Patton, 2001](#)). Prior literature identifies several key determinants of employee satisfaction, including total compensation, job responsibility, opportunities to utilize and develop skills, promotion prospects, relationships with supervisors and co-workers, and job security ([Renee Baptiste, 2008](#)). These factors represent both extrinsic and intrinsic aspects of work that shape employees' perceptions of their employment experiences.

In addition to these structural factors, trust, particularly in managers, has been consistently recognized as a crucial antecedent of employee satisfaction. [Dirks and Ferrin \(2001\)](#) demonstrated that trust in supervisors and co-workers facilitates more effective communication, reduces workplace conflict, and enhances perceived social support. Such conditions contribute to a more supportive and psychologically secure work environment conducive to higher levels of job satisfaction. Empirical studies further confirm the positive relationship between trust in managers and employee satisfaction. [Nasra and Heilbrunn \(2016\)](#) and [Jabeen and Isakovic \(2018\)](#) found that employees who trust their leaders report significantly higher levels of job satisfaction, driven by greater perceptions of fairness, support, and manager credibility. More recent evidence provided by [Roberts and David](#)

(2020) reinforces this relationship, indicating that trust in 1 Based on the theoretical arguments and empirical evidence presented above, this study proposes the following hypothesis:

*H<sub>2</sub>*: Trust in managers positively affects employee satisfaction. Leadership is a robust predictor of employee satisfaction across organizational contexts

### 2.2.3 Performance Measurement Systems and Job Satisfaction

Performance Measurement Systems (PMS) constitute a critical human resource management tool that plays a central role in shaping employees' work attitudes, particularly job satisfaction ([Veloso, Sousa, Au-Yong-Oliveira, & Walter, 2021](#)). By systematically evaluating employee performance using predefined and transparent criteria, PMS provides employees with clear signals regarding organizational expectations, performance standards, and opportunities for development. These signals influence employees' perceptions of fairness, recognition, and support within the organization, all of which are key determinants of job satisfaction.

A well-designed PMS contributes to higher job satisfaction by promoting perceptions of procedural justice and clarity. When performance evaluations are conducted objectively and consistently, employees are more likely to view the assessment process as fair, which enhances their sense of recognition and organizational support. Moreover, PMS helps clarify career goals and performance expectations, enabling employees to align their efforts with organizational objectives and experience a sense of accomplishment when targets are achieved.

In addition to evaluation, PMS serves an important developmental function by providing constructive feedback that guides performance improvement. Feedback derived from PMS can inform training and development initiatives, allowing employees to enhance their competencies and prepare for increased responsibility. Empirical evidence supports this perspective. [Franco-Santos, Lucianetti, and Bourne \(2012\)](#) demonstrate that performance measurement systems characterized by effective communication, clearly defined indicators, and explicit organizational objectives are positively associated with job satisfaction.

Based on this theoretical and empirical evidence, this study proposes the following hypothesis:

*H<sub>3</sub>*: Performance measurement systems have a positive effect on employee job satisfaction

### 2.2.4 Job Satisfaction and Employee Performance

Job satisfaction and employee performance are two closely interconnected constructs that play a central role in organizational effectiveness. Job satisfaction has long been recognized as a critical motivational factor that influences employee performance ([Mak & Sockel, 2001](#)). Employees experience job satisfaction when their expectations, such as a supportive work environment, positive interpersonal relationships, career advancement opportunities, and fair compensation, are adequately fulfilled. Satisfied employees tend to develop a stronger sense of belonging and exhibit higher levels of intrinsic motivation ([Abou Elnaga, 2013](#)), which in turn fosters positive work attitudes, pride in one's role, and sustained efforts toward achieving superior performance outcomes ([Linz, 2003](#)).

A substantial body of empirical evidence supports a positive relationship between job satisfaction and employee performance. Prior studies consistently report that higher levels of job satisfaction are associated with improved task execution and overall work effectiveness ([Amin, Aldakhil, Wu, Rezaei, & Cobanoglu, 2017a, 2017b](#); [Eliyana & Ma'arif, 2019](#); [Phuong & Tran, 2020](#); [Torlak & Kuzey, 2019](#)). For example, [Yuen, Loh, Zhou, and Wong \(2018\)](#) provide empirical evidence demonstrating a significant positive association between job satisfaction and employee performance across organizational contexts.

Based on this theoretical rationale and empirical evidence, the following hypothesis is proposed.

*H<sub>4</sub>*: Job satisfaction positively affects employee performance

### 2.2.5 Trust in Manager and Employee Performance

In organizational settings, trust in management is a critical relational asset that shapes employees' attitudes and behaviors. Trust is commonly defined as an individual's willingness to accept vulnerability based on positive expectations regarding the competence, integrity, and benevolence of

another party ([Rousseau, Sitkin, Burt, & Camerer, 1998](#)). Therefore, trust in one's manager reflects employees' beliefs that their supervisor is capable, fair, and genuinely concerned about their well-being and professional success. Grounded in social exchange theory, trust in managers fosters high-quality exchange relationships characterized by mutual obligations and reciprocity. When employees perceive their managers as trustworthy, they are more likely to reciprocate positive work behaviors, including greater effort, commitment, and performance.

Trust reduces uncertainty and psychological risk, enabling employees to focus their cognitive and emotional resources on task execution rather than self-protection. Consequently, trusted managerial relationships enhance motivation, role clarity, and discretionary effort, all of which are central to superior employee performance. Empirical evidence supports this theory. Prior studies demonstrate that trust in supervisors is positively associated with job satisfaction, work engagement, and extra-role behaviors ([Guinot, Chiva, & Roca-Puig, 2014](#); [Matzler & Renzl, 2006](#)), which are well-established antecedents of individual performance. Moreover, in contexts characterized by hierarchical structures and high-power distance, such as public sector organizations in emerging economies, trust in managers becomes even more salient, as employees rely heavily on managerial guidance and support to perform effectively. Based on the above theoretical and empirical arguments, this study proposes the following hypothesis:

*H<sub>5</sub>: Trust in managers positively affects employee performance*

### *2.2.6 Performance Measurement Systems and Employee Performance*

Performance Measurement Systems (PMS) are formal control mechanisms through which organizations translate strategies into measurable targets, indicators, and performance feedback. In state-owned banks, which are characterized by hierarchical structures and stringent regulatory requirements, PMS play a critical role in reducing role ambiguity, clarifying work priorities, and aligning employee behavior with organizational objectives. By specifying expectations and monitoring outcomes, PMS provides direction and discipline that are essential for effective task execution.

Empirical evidence supports the performance-enhancing role of the PMS. [Zhang and Yu \(2020\)](#) demonstrated that the interactive use of PMS has a significant positive effect on employee performance, both directly and indirectly, through enhanced organizational learning. Similarly, a systematic review by [Vuong and Nguyen \(2022\)](#) concluded that PMS improves employee performance by providing timely feedback, clarifying job roles, and supporting continuous learning and improvement, mechanisms that are particularly relevant for service-oriented organizations. Recent studies reinforce the view that PMS directly influences employee performance. In service sectors such as banking, where performance encompasses process accuracy, service quality, and procedural compliance, effective PMS are especially important. By aligning individual activities with strategic priorities and providing actionable feedback, PMS facilitates consistent performance improvement and operational effectiveness. Based on this theoretical rationale and the accumulated empirical evidence, this study proposes the following hypothesis:

*H<sub>6</sub>: Performance measurement systems have a positive effect on employee performance*

## **3. Research Method**

### *3.1 Research Population and Sample*

The population refers to the entire set of elements in a study, including objects and subjects that possess specific characteristics relevant to the research objectives ([Sugiyono, 2015](#)). The population of this study comprises state-owned banks operating on the island of Sumatra, Indonesia. Sumatra was selected because it is a major contributor to Indonesia's national economy and has demonstrated sustained economic growth over time. Nevertheless, the pace of economic growth across provinces within Sumatra varies considerably, making the region relevant for examining organizational and employee-level phenomena ([Rahman et al., 2023](#)). Sumatra consists of ten provinces. In this study, the Nanggroe Aceh Darussalam Province was excluded from the sampling frame, as no conventional state-owned banks operate in the region.

The sample focused on operational-level employees in front- and back-office functions. These employees are directly involved in service delivery, marketing or sales activities, and daily operational processes without holding formal structural or managerial authority. The positions included in this category were customer service officers, tellers, account officers, and operational staff. First, although strategic planning and policy formulation are conducted by top management, the implementation of these strategies is largely carried out by the operational staff. Second, these employees interact directly with customers and play a decisive role in shaping service quality, organizational reputation, and overall bank performance. Their perceptions and behaviors provide a meaningful basis for evaluating organizational systems and managerial practices in state-owned banks.

The respondents in this study were operational-level employees of state-owned banks in Sumatra, encompassing front- and back-office roles. Data were collected through a questionnaire survey administered between January and March 2025, with a minimum target sample size of 134. Using a snowball sampling technique, 209 valid responses were obtained, all of which were suitable for data analysis. Sample size adequacy was assessed using two complementary rules. The 10-times rule (Hair et al., 2017) requires a minimum of 10 times the maximum number of structural paths pointing to any endogenous construct in the model; the resulting minimum was 60. Power rules required  $N \geq 50 + 8m$  ( $= 98$ ) for overall  $R^2$  testing and  $N \geq 104 + m$  ( $= 110$ ) for individual-predictor testing. The binding constraint was therefore 110, which was comfortably exceeded by our  $N = 209$ .

With respect to geographic coverage, we deliberately restricted the sampling frame to Sumatra, rather than the entire Indonesian archipelago. The decision balanced two considerations: focusing on a single island enabled deeper snowball recruitment and stronger control over inter-provincial comparisons across nine provinces while still allowing meaningful institutional variation. The exclusion of Java, particularly Jakarta, as the headquarters environment of all four banks, is a boundary condition of the present study and is acknowledged as a limitation in Section 5.3 and as a future research direction in Section 5.4. The detailed characteristics of the respondents are presented in Table 1.

Table 1. Respondent demographics

Information	Indicators	Frequency	Percentage (%)
Sex	Men	102	48.80
	Women	107	51.20
Total		209	100
Age	< 30 years	58	27.75
	>51 years	11	5.26
	31-40 years	72	34.45
	41-50 years	68	32.54
Total		209	100
Education	High School or Diploma	20	9.57
	Bachelor's Degree	152	72.73
	Master's Degree / Doctoral Degree	37	17.70
Total		209	100
Province	North Sumatera	11	5.26
	West Sumater	5	2.39
	Riau	18	8.61
	Riau Islands	30	14.35
	Jambi	16	7.66
	Bengkulu	17	8.13
	South Sumatera	51	24.40

	Bangka Belitung Islands	16	7.66
	Lampung	45	21.53
Total		209	100
Work Experiences	< 5 years	90	43.06
	> 11 years	70	33.49
	6-10 years	49	23.44
Total		209	100
Company Size	>101 employees	133	63.64
	0-50 employees	45	21.53
	51-100 employees	31	14.83
Total		209	100

### 3.2. Variables Measurement

#### 3.2.1 Performance Measurement System

This study operationalizes the Performance Measurement System (PMS) using the Perceived PMS Effectiveness (PMSE) instrument developed by [Sharma et al. \(2016\)](#). [Sharma et al. \(2016\)](#) originally developed and validated the PMS instrument in the context of service-sector organizations in India, including hospitality, IT-enabled services, banking, and telecommunication. The PMSE scale consists of 12 reflective items, each measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Respondents were asked to indicate the extent to which they agreed that the PMS used in their organization provided accurate, fair, and reliable assessments of their performance. This scale has demonstrated strong psychometric properties in previous studies, including satisfactory internal consistency, convergent validity, and discriminant validity.

#### 3.2.2 Trust in Manager

Interpersonal trust in the workplace was measured using the Interpersonal Trust at Work instrument developed by [Cook and Wall \(1980\)](#). This instrument assesses the extent to which respondents trust their immediate supervisors. Responses were collected using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Participants were asked to indicate the degree to which they agreed with each statement, reflecting their trust in organizational managers.

#### 3.2.3 Employee Satisfaction

The employee satisfaction construct in this study was adapted from the scale developed by [Homburg and Stock \(2005\)](#). This instrument has been widely applied and validated in prior research, including studies by [Matzler and Renzl \(2006\)](#), [Costen and Salazar \(2011\)](#), [Phuong and Tran \(2020\)](#). [Matzler and Renzl \(2006\)](#) examined the relationships among trust, employee satisfaction, and loyalty within the energy sector in Austria using this measurement scale. Employee satisfaction was assessed using a six-item scale that captures overall (global) job satisfaction rather than satisfaction with specific facets, such as pay, working conditions, or promotion opportunities. This holistic approach reflects employees' general evaluative judgments regarding their work experience. Respondents were asked to rate each item on a five-point Likert scale ranging from 1 (far below average) to 5 (above average).

#### 3.2.4 Employee Performance

Employee performance was measured using the scale developed by [Williams and Anderson \(1991\)](#). The instrument consists of seven items that assess respondents' self-reported performance relative to their performance in the previous periods. This comparative approach captures the perceived changes in individual work effectiveness over time. Responses were recorded on a five-point Likert scale ranging from 1 (far below average) to 5 (above average). This scale has been widely applied in empirical research and has demonstrated robust psychometric properties. Bank employees' perceptions of performance measurement system characteristics across 53 bank branches, supporting its relevance and applicability in the banking sector.

### 3.3 Common Method Variance Assessment

Because this study employed a single-source, cross-sectional survey design, Common Method Variance (CMV) represents a potential threat to the validity of the estimates. Procedurally, the questionnaire separated predictor and criterion items, used clearly distinct response anchors across construct blocks, guaranteed respondent anonymity, and emphasized that there were no right or wrong answers to reduce evaluation apprehension and consistency motifs.

Two complementary statistical tests were conducted. First, Harman's single-factor test was applied: an unrotated exploratory factor analysis on all measurement items did not reveal a single dominant factor, and the first unrotated factor accounted for less than 50% of the total variance. Second, a full collinearity Variance Inflation Factor (VIF) assessment was conducted. All inner VIF values fell well below the conservative 3.3 threshold, ranging between 1.000 and 2.837. Collectively, these procedural and statistical results indicate that common method variance is unlikely to have substantially distorted the estimates reported in this study.

## 4. Results and Discussions

Data analysis in this study was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 3.0 software. The analysis followed three sequential stages: (1) evaluation of the measurement (outer) model to assess construct validity and reliability; (2) assessment of the structural (inner) model to examine relationships among latent variables; and (3) hypothesis testing. PLS-SEM was selected because of the complexity of the proposed research model, which includes multiple constructs and indicators, as well as the relatively small sample size. This approach is particularly suitable for predictive analysis and theory development under such conditions ([Hair, Risher, Sarstedt, & Ringle, 2019](#)).

### 4.1. Outer Model

#### 4.1.1 Validity Test

Validity was assessed using two indicators: convergent validity and discriminant validity. Convergent validity was evaluated by examining the Average Variance Extracted (AVE) for each research construct. As presented in Table 5, all constructs exhibited AVE values exceeding the recommended threshold of 0.50; therefore, convergent validity was considered acceptable. Discriminant validity was assessed using three criteria: the Fornell–Larcker criterion (by comparing the square root of the AVE with the inter-construct correlations), cross-loadings, and the Heterotrait–Monotrait Ratio (HTMT).

Table 2. Validitas Fornell-Larcker Criterion

Variables	PMS	TIM	JS	TP	CWB
PMS	<b>0.842</b>				
TIM	0.712	<b>0.923</b>			
JS	0.716	0.745	<b>0.866</b>		
TP	0.716	0.621	0.639	<b>9.822</b>	
CWB	0.073	0.161	0.133	0.002	<b>0.967</b>

Based on the Fornell–Larcker criterion, it can be concluded that the square root of the AVE for each construct is greater than the correlations between that construct and all other constructs. Therefore, the discriminant validity assessment using the Fornell–Larcker criterion was satisfactory. The next step involved evaluating discriminant validity using cross-loadings. As shown in Table 4, each indicator exhibited a higher loading on its associated construct than on any other construct. Accordingly, discriminant validity was assessed through cross-loadings.

Table 3. Cross Loading

	Performance Measurement Systems (PMS)	Trust in Managers (TIM)	Job Satisfaction (JS)	Task Performance (TP)	Counterproductive Work Behavior (CWB)
PMS 1	<b>0.745</b>	0.515	0.485	0.563	0.009
PMS 2	<b>0.778</b>	0.541	0.520	0.630	0.021
PMS 3	<b>0.770</b>	0.578	0.509	0.562	0.084
PMS 4	<b>0.805</b>	0.548	0.506	0.593	0.055
PMS 5	<b>0.835</b>	0.587	0.581	0.554	0.016
PMS 6	<b>0.863</b>	0.715	0.637	0.598	0.086
PMS 7	<b>0.862</b>	0.601	0.620	0.632	0.033
PMS 8	<b>0.899</b>	0.681	0.690	0.664	0.097
PMS 9	<b>0.895</b>	0.705	0.674	0.637	0.057
PMS 10	<b>0.877</b>	0.662	0.611	0.590	0.063
PMS 11	<b>0.859</b>	0.625	0.628	0.557	0.083
PMS 12	<b>0.899</b>	0.724	0.673	0.651	0.113
TIM 1	0.727	<b>0.921</b>	0.689	0.564	0.157
TIM 2	0.693	<b>0.949</b>	0.708	0.567	0.142
TIM 3	0.641	<b>0.898</b>	0.660	0.587	0.144
JS 1	0.696	0.765	<b>0.842</b>	0.646	0.081
JS 2	0.559	0.564	<b>0.829</b>	0.432	0.190
JS 3	0.631	0.656	<b>0.889</b>	0.612	0.079
JS 4	0.632	0.647	<b>0.877</b>	0.606	0.104
JS 5	0.568	0.569	<b>0.879</b>	0.499	0.131
JS 6	0.591	0.636	<b>0.883</b>	0.480	0.122
TP 1	0.651	0.593	0.589	<b>0.922</b>	-0.033
TP 2	0.690	0.608	0.621	<b>0.942</b>	-0.069
TP 3	0.689	0.598	0.620	<b>0.937</b>	0.006
TP 4	0.637	0.491	0.545	<b>0.907</b>	-0.016
TP 5	0.454	0.426	0.403	<b>0.671</b>	0.172
CWB 1	0.068	0.130	0.092	-0.010	<b>0.955</b>
CWB 2	0.073	0.173	0.153	0.009	<b>0.978</b>

Another method to assess discriminant validity is to evaluate the fulfillment of discriminant validity criteria through the Heterotrait–Monotrait Ratio (HTMT) analysis. Beyond establishing discriminant validity, the factor-loading pattern in Table 3 provides substantive insight into which PMS dimensions contribute most to the system’s perceived effectiveness. The highest loading items were PMS8 and PMS12 ( $\lambda = 0.899$ ), PMS9 ( $\lambda = 0.895$ ), PMS10 ( $\lambda = 0.877$ ), and PMS6 ( $\lambda = 0.863$ ).

These items capture the clarity of evaluation criteria, perceived fairness of feedback, and linkage between evaluation outcomes and developmental opportunities facets of PMS that respondents most strongly associate with the construct as a whole. In contrast, items reflecting more procedural or administrative aspects of the system (e.g., PMS1, PMS2, PMS3 with loadings in the 0.745–0.778 range) loaded comparatively less strongly. Substantively, this pattern suggests that, for frontline employees of state-owned banks, PMS is experienced primarily as a vehicle for fair feedback and developmental signaling rather than as a purely administrative scorekeeping device.

Table 4. Validity Heterotrait-Monotrait Ratio (HTMT)

Variables	PMS	TIM	JS	TP	CWB
PMS					
TIM	0.790				
JS	0.741	0.799			
TP	0.756	0.674	0.675		
CWB	0.075	0.170	0.140	0.076	

The Heterotrait–Monotrait Ratio (HTMT) method was used to assess discriminant validity in the factor analysis. Discriminant validity is considered established when the HTMT values are below 0.90, depending on the research model. HTMT values lower than 0.90 indicate that the discriminant validity between the two constructs is adequate. In general, lower HTMT values indicate stronger discriminant validity. Based on Table 4, all constructs exhibit HTMT values below the 0.90 threshold. This indicates that each pair of constructs demonstrated satisfactory discriminant validity. In other words, the constructs measured by these variables are clearly distinguishable from one another and have no significant overlap. These findings support the conclusion that the constructs are unique and can be identified separately within the analysis, and that the model exhibits a low level of multicollinearity.

#### 4.1.2 Reliability Test

Reliability assessment was conducted by examining Cronbach’s Alpha and Composite Reliability, both of which are required to have values of 0.70 or higher (Hair et al., 2019). The Cronbach’s Alpha and Composite Reliability values are presented in Table 5.

Table 5. Composite reliability dan cronbach's alpha dan AVE value

	Cronbach’s Alpha	Composite Reliability	AVE	R <sup>2</sup>
Performance measurement systems	0.962	0.966	0.709	
Trust in managers	0.913	0.945	0.851	0.554
Job satisfaction	0.934	0.948	0.751	0.611
Task performance	0.925	0.945	0.778	0.549
Counterproductive work behavior	0.932	0.966	0.934	0.003

Based on Table 5, both Composite Reliability and Cronbach’s alpha exhibit values exceeding 0.70. Therefore, the reliability assessment of the measurement model was satisfactory.

## 4.2 Inner Model

Structural model assessment is a critical step in statistical data analysis that validates the proposed model, ensures conceptual consistency, and determines the reliability and validity thresholds of the model. This assessment enables a comprehensive understanding of the underlying interactions and facilitates the identification of significant effects by evaluating the relationships between variables. The evaluation process provides valuable insights for decision-making by delivering accurate and relevant results. Overall, structural model evaluation plays a vital role in supporting the interpretation of statistical findings and developing robust conclusions based on empirical data. Structural (inner) model analysis was conducted by examining the Variance Inflation Factor (VIF) values and the coefficient of determination (R<sup>2</sup>). The structural model was further evaluated using a blindfolding procedure. The following section explains each indicator.

### 4.2.1 Coefficient of Determination (R<sup>2</sup>)

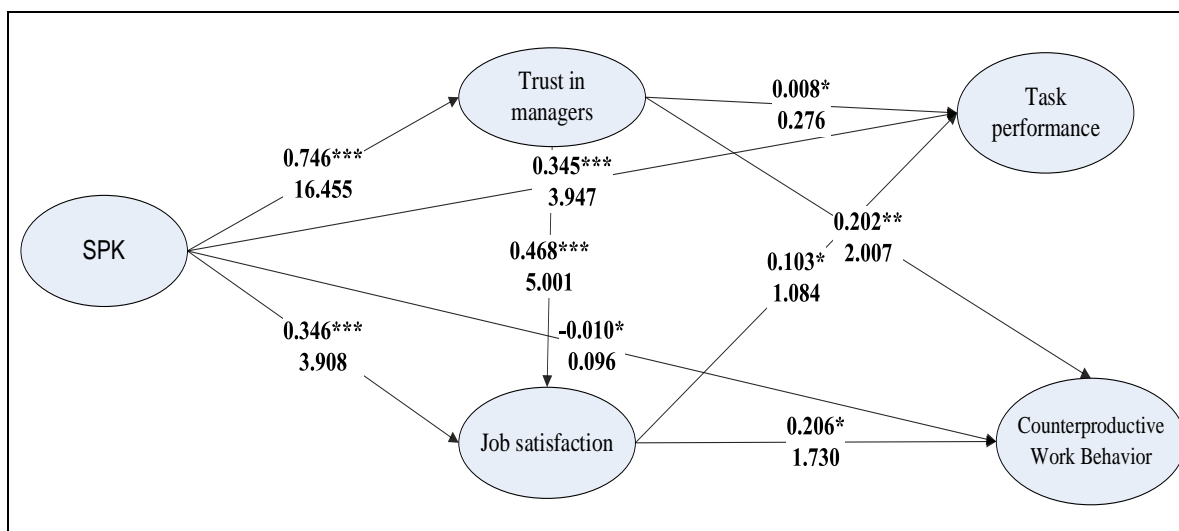
The coefficient of determination (R<sup>2</sup>) indicates the extent to which the variance of the dependent variable is explained by the independent variables included in the regression model. The R<sup>2</sup> values ranged from 0 to 1, with higher values reflecting greater explanatory power. In this study, R<sup>2</sup> was used to assess the predictive accuracy of the model. According to Hair et al. (2019), R<sup>2</sup> values of 0.75, 0.50, and 0.25 indicate substantial, moderate, and weak explanatory power, respectively, while Chin (1998) proposes alternative thresholds of 0.67 (substantial), 0.33 (moderate), and 0.19 (weak). The R<sup>2</sup> values

for endogenous constructs are presented in Table 5. Based on Table 5, the R<sup>2</sup> values for most variables in the research model fall within the moderate range, indicating that the model demonstrates satisfactory explanatory power.

### 4.3 Path Analysis and Hypothesis Testing

#### 4.3.1 Path Analysis

Path analysis was conducted to assess the strength and direction of the causal relationships among the latent constructs in the structural model. According to [Hair et al. \(2019\)](#), path coefficients represent hypothesized relationships between constructs and may capture both direct and indirect (mediated) effects. In this study, path analysis was used to examine the extent to which a Performance Measurement System (PMS) influences psychosocial variables namely, trust in managers, trust in coworkers, job satisfaction, and employee loyalty as well as their implications for employee performance. The estimated path coefficients ( $\beta$ ) indicate both the direction and magnitude of these relationships, with positive values reflecting direct associations and negative values indicating inverse relationships. The results of the structural model estimation, illustrated in Figure 2, present the strength and direction of the relationships among the latent variables in the proposed model.



\*\*\* Significant at 1%

\*\*significant at 5%

\*significant at 10%

Figure 2. PLS model with path coefficients

### 4.4 Hypothesis Testing

#### 4.4.1 Performance Measurement Systems and Trust in Managers

Hypothesis 1 posits that performance measurement systems positively affect trust in managers. As reported in Table 7, the statistical results indicate a strong and significant relationship between the two constructs ( $\beta = 0.746$ ,  $t = 16.159$ ,  $p < 0.01$ ). The p-value is below the 0.05 significance threshold, and the t-statistic exceeds the critical value of 1.96, confirming a highly significant and positive effect. These findings demonstrate that well-designed and clearly implemented performance measurement systems substantially enhance employees' trust in the organization's managers.

Table 7. Hypothesis testing

Independent Variables	Dependent variables			
	Trust in Managers	Job Satisfaction	Task Performance	Counterproductive Work Behavior
Performance measurement systems	0.746 *** (16.159)	0.352 *** (4.060)	0.490 *** (4.755)	-0.131* (1.435)

Trust in managers		0.483 *** (5.180)	0.088* (0.726)	0.202** (2.007)
Employee satisfaction			0.225 ** (2.277)	0.076* (0.781)

\*\*\*Significant at level 1%

\*\* Significant at level 5%

\* Significant at level 10%

#### 4.4.2 Trust in Managers and Employee Satisfaction

Hypothesis 2 proposes that trust in managers positively affects employee satisfaction. The statistical results indicate a strong and significant positive relationship between trust in managers and employee satisfaction ( $\beta = 0.483$ ,  $t = 5.180$ ,  $p < 0.01$ ). The p-value is below the 0.05 threshold, and the t-statistic exceeds the critical value of 1.96, confirming a highly significant effect. Therefore, Hypothesis 2 is supported.

#### 4.4.3 Performance Measurement Systems and Employee Satisfaction

Hypothesis 3 posits that the Performance Measurement System (PMS) has a positive effect on employee satisfaction. The analysis revealed a significant positive relationship between PMS and employee satisfaction ( $\beta = 0.352$ ,  $t = 4.060$ ,  $p < 0.01$ ). These results meet the established criteria for statistical significance, indicating that well-designed performance measurement systems enhance employee satisfaction. Accordingly, Hypothesis 3 is supported.

#### 4.4.4 Employee Satisfaction and Employee Performance

Hypothesis 4 states that employee satisfaction positively influences performance. The results demonstrate a significant positive effect of employee satisfaction on task performance ( $\beta = 0.225$ ,  $t = 2.277$ ,  $p < 0.05$ ). However, employee satisfaction did not show a significant relationship with counterproductive work behavior ( $\beta = 0.076$ ,  $t = 0.781$ ,  $p > 0.10$ ). Thus, Hypothesis 4 is partially supported, as employee satisfaction enhances task performance but does not significantly reduce counterproductive behavior.

#### 4.4.5 Trust in Managers and Employee Performance

Hypothesis 5 proposes that trust in managers positively affects employee performance. The findings indicate that trust in managers has no significant effect on task performance ( $\beta = 0.088$ ,  $t = 0.726$ ,  $p > 0.10$ ). However, trust in managers was positively and significantly related to counterproductive work behavior ( $\beta = 0.202$ ,  $t = 2.007$ ,  $p < 0.05$ ). These mixed results suggest that trust in managers does not directly enhance task performance but is associated with changes in counterproductive behaviors. Therefore, Hypothesis 5 is partially supported.

#### 4.4.6 Performance Measurement Systems and Employee Performance

Hypothesis 6 posits that performance measurement system positively affects employee performance. The results show a strong and highly significant positive relationship between PMS and task performance ( $\beta = 0.490$ ,  $t = 4.755$ ,  $p < 0.01$ ). However, PMS did not have a significant effect on counterproductive work behavior ( $\beta = -0.131$ ,  $t = 1.435$ ,  $p > 0.10$ ). Consequently, Hypothesis 6 was partially supported, indicating that PMS enhances task performance but does not significantly influence counterproductive behavior. The following is a summary of the hypotheses testing on Table 8.

Table 8. Hypothesis Testing Results

	Hypotheses	Conclusions
$H_1$	The performance measurement system has a positive effect on trust in managers	Supported
$H_2$	Trust in managers has a positive effect on job satisfaction	Supported
$H_3$	The performance measurement system has a positive effect on job satisfaction	Supported

<i>H<sub>4</sub></i>	Employee satisfaction has a positive effect on task performance	Supported
	Employee satisfaction has a positive effect on counterproductive work behavior	Not supported
<i>H<sub>5</sub></i>	Trust in managers has a positive effect on task performance	Not supported
	Trust in managers has a positive effect on counterproductive work behavior	Supported
<i>H<sub>6</sub></i>	The performance measurement system has a positive effect on task performance	Supported
	The performance measurement system has a positive effect on counterproductive work behavior	Not supported

As discussed in Section 3.3, Harman's single-factor test indicated that the first unrotated factor accounted for less than 50% of the total variance, and all inner VIFs were below the 3.3 threshold suggested. Therefore, common method variance is unlikely to distort the structural model estimates reported.

## 5. Conclusions

### 5.1 Conclusion

This study examines the effects of Performance Measurement Systems (PMS) on trust in managers, employee satisfaction, and employee performance in state-owned banks in Sumatra, Indonesia. Using a Partial Least Squares Structural Equation Modeling (PLS-SEM) approach, several key findings emerged. First, the results demonstrate that PMS has a strong positive effect on managers' trust. Transparent, objective, and consistently applied performance measurement systems enhance employees' perceptions of fairness in managerial evaluations, thereby reducing uncertainty, subjectivity, and perceived biases. This finding underscores the role of PMS as a governance mechanism that fosters organizational trust.

Second, trust in managers has a significant positive influence on employee satisfaction. Employees who trust their leaders are more likely to perceive managerial decisions, policies, and directives as fair and rational, enhancing their overall job satisfaction. In contrast, trust in co-workers exhibits a comparatively weaker relationship with satisfaction, reflecting the hierarchical and bureaucratic nature of state-owned banking institutions, where managers play a more decisive role in shaping employee attitudes. Third, this study confirms a direct positive relationship between PMS and employee satisfaction. Clear performance indicators, transparent evaluation processes, and constructive feedback contribute to positive employee perceptions, leading them to feel recognized, valued, and aligned with the organization's expectations.

Fourth, the findings indicate that employee satisfaction does not have a statistically significant direct effect on employee performance in terms of task performance or reductions in counterproductive work behavior. This suggests that, within the context of operational-level employees in state-owned banks in Sumatra, job satisfaction does not automatically translate into observable-performance outcomes. Although the direction of the relationship aligns with theoretical expectations, empirical evidence does not support a direct satisfaction-performance link in this setting.

A notable feature of our findings is that PMS continues to exert a strong direct effect on task performance even after accounting for trust in managers and job satisfaction, indicating partial mediation rather than full mediation. Therefore, the model leaves a portion of the PMS performance relationship unexplained by the relational and attitudinal variables we measured. We propose three complementary mechanisms that may plausibly account for this residual direct effect and constitute productive avenues for future research. First, a cognitive-clarity mechanism: Transparent KPIs reduce role ambiguity and provide direct task guidance, allowing employees to allocate effort efficiently regardless of their relationship with their manager.

This logic is consistent with the Goal-Setting Theory's emphasis on goal specificity and feedback. Second, a compliance-monitoring mechanism: In heavily regulated state-owned banking, PMS interlocks with audit, supervisory review, and external regulatory reporting, creating accountability pressures that operate independently of trust or satisfaction. Third, a goal-internalization mechanism: When KPIs are sufficiently visible and salient, employees may convert them directly into individual effort allocations, bypassing the more diffuse relational route. Distinguishing between these mechanisms requires designs and constructs beyond those of the present study; therefore, we identify them in Section 5.4 as priorities for follow-up research.

### **5.2 Research Limitations**

This study has several limitations. First, the design was cross-sectional and relied on single-source self-reported data. Although we addressed common method variance through both procedural remedies and the statistical tests reported in Sections 3.3 and 4, a cross-sectional single-source design cannot fully establish causal direction or detect dynamic changes in employees' perceptions of PMS, trust, or satisfaction. Second, the sampling frame is restricted to Sumatra and excludes Java, including Jakarta, the headquarters environment of all four state-owned banks under study. While focusing on a single island enabled deeper recruitment and meaningful inter-provincial variation, the findings should not be generalized to the central or eastern regions of Indonesia without further empirical validation. Third, the distribution of respondents across provinces was uneven; representation from North Sumatra and West Sumatra was relatively limited, despite the substantial number of state-owned bank branches operating in those provinces. Fourth, data were collected between January and early March 2025, a period coinciding with the start of the fiscal year when performance evaluations and target-setting typically occur; respondents' perceptions of PMS, satisfaction, and trust may be partially conditioned by this timing of data collection. Fifth, the model focuses on a relational pathway (trust in managers → job satisfaction) and does not include competing or complementary mechanisms suggested by Goal-Setting Theory or Self-Determination Theory.

### **5.3 Suggestions and Directions for Future Research**

Based on these limitations, several directions for future research are proposed herein. First, future studies should aim for more proportional respondent representation across strategic provinces, particularly North Sumatra and West Sumatra, to enhance the robustness and generalizability of the findings of this study. Second, longitudinal research designs or extended data collection periods are recommended to capture changes in employee perceptions across different stages of an organizational cycle. Third, given the nonsignificant relationship between employee satisfaction and performance, future research should explore potential mediating or moderating mechanisms, such as motivation, role clarity, managerial style, or reward systems, to better explain how employee attitudes translate into performance outcomes.

### **Author Contribution**

MM contributed to the conceptualization, research design, data collection, data analysis, and manuscript drafting. RRG contributed to supervision, theoretical framework development, methodology refinement, and critical revision of the manuscript. FGD contributed to data validation, interpretation of results, and manuscript editing. All authors have read and approved the final version of the manuscript.

### **Reference**

- Abou Elnaga, A. (2013). Exploring the link between job motivation, work environment and job satisfaction. *Journal Of Business and Management*, 5(24).
- Al-Hawary, S. I. S., & Al-Abbadi, L. H. M. (2018). Impact of Human Resources Management Practices on Organizational Commitment of the Employees of Commercial Banks in Jordan. *Global Journal of Management and Business Research*, 18(A4), 11-21.
- Amin, M., Aldakhil, A. M., Wu, C., Rezaei, S., & Cobanoglu, C. (2017a). The structural relationship between TQM, employee satisfaction and hotel performance. *International Journal of Contemporary Hospitality Management*.

- Amin, M., Aldakhil, A. M., Wu, C., Rezaei, S., & Cobanoglu, C. (2017b). The structural relationship between TQM, employee satisfaction and hotel performance. *International Journal of Contemporary Hospitality Management*, 29(4), 1256-1278. doi:<https://doi.org/10.1108/IJCHM-11-2015-0659>
- Azzabi, A., & Lahrichi, Y. (2023). Bank performance determinants: state of the art and future research avenues. *arXiv preprint arXiv:2311.08617*. doi:<https://doi.org/10.32038/NCAF.2023.09.03>
- Barbe, T. S., Yang, B. K., & Narayan, B. B. (2023). Internal Control Systems And Financial Performance Of Commercial Banks In Perth, Australia. *African Journal of Emerging Issues*, 5(15), 13-24.
- Blau, P. M. (1964). Justice in social exchange. *Sociological inquiry*, 34(2). doi:<https://doi.org/10.1111/j.1475-682X.1964.tb00583.x>
- Bone, H. (2017). The effects of financial and non-financial performances towards the managerial performances with interpersonal trust as a mediation variable. *International Journal of Law and Management*, 59(6), 1190-1202. doi: <https://doi.org/10.1108/IJLMA-08-2016-0072>
- Chenhall, R. H. (2005). Integrative strategic performance measurement systems, strategic alignment of manufacturing, learning and strategic outcomes: an exploratory study. *Accounting, Organizations and Society*, 30(5), 395-422 doi: <https://doi.org/10.1016/j.aos.2004.08.001>.
- Chenhall, R. H., Kallunki, J.-P., & Silvola, H. (2011). Exploring the Relationships between Strategy, Innovation, and Management Control Systems: The Roles of Social Networking, Organic Innovative Culture, and Formal Controls. *Journal of Management Accounting Research*, 23, 99-128 doi: <https://doi.org/10.2308/jmar-10069>.
- Chenhall, R. H., & Langfield-Smith, K. (2003). Performance Measurement and Reward Systems, Trust, and Strategic Change. *Journal of Management Accounting Research*, 15, 117-143 doi: <https://doi.org/10.2308/jmar.2003.15.1.117>.
- Chin, W. W. (1998). Issues and opinion on Structural Equation Modeling. *MIS Quarterly*, 22(1), vii-xvi.
- Cho, Y. J., & Lee, J. W. (2012). Performance management and trust in supervisors. *Review of Public Personnel Administration*, 32(3), 236-259. doi:<https://doi.org/10.1177/0734371X11421496>
- Chong, V. K., & Law, M. B. (2016). The effect of a budget-based incentive compensation scheme on job performance: The mediating role of trust-in-supervisor and organizational commitment. *Journal of Accounting & Organizational Change*, 12(4), 590-613. doi:<https://doi.org/10.1108/JAOC-02-2015-0024>
- Cook, J., & Wall, T. (1980a). New work attitude measures of trust, organizational commitment and personal need non-fulfilment. *Journal of occupational psychology*, 53(1), 39-52. doi:<https://doi.org/10.1111/j.2044-8325.1980.tb00005.x>
- Costen, W. M., & Salazar, J. (2011). The impact of training and development on employee job satisfaction, loyalty, and intent to stay in the lodging industry. *Journal of Human Resources in Hospitality & Tourism*, 10(3), 273-284 doi: <https://doi.org/10.1080/15332845.2011.555734>.
- Cropanzano, R., Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of management annals*, 11(1), 479-516 doi: <https://doi.org/10.5465/annals.2015.0099>.
- Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of management*, 31(6), 874-900. doi:<https://doi.org/10.1177/0149206305279602>
- Dahlan, M., Yuliansyah, Y., Fadhilah, A., Muafi, M., Al Shikhy, A. I., Mohd Sanusi, Z., & Isa, Y. M. (2020). Interactive performance measurement systems, self-profiling, job challenge and individual performance. *International Journal of Ethics and Systems*, 36(1), 87-97. doi: <https://doi.org/10.1108/IJOES-02-2019-0037>
- De Jong, B. A., Dirks, K. T., & Gillespie, N. (2016). Trust and team performance: A meta-analysis of main effects, moderators, and covariates. *Journal of applied psychology*, 101(8), 1134 doi: <https://psycnet.apa.org/doi/10.1037/apl0000110>.
- Dirks, K. T., & Ferrin, D. L. (2001). The Role of Trust in Organizational Settings. *Organization Science*, 12(4), 450-467. doi: <https://doi.org/10.1287/orsc.12.4.450.10640>
- Eliyana, A., & Ma'arif, S. (2019). Job satisfaction and organizational commitment effect in the transformational leadership towards employee performance. *European Research on*

- Management and Business Economics*, 25(3), 144-150 doi: <https://doi.org/10.1016/j.iedeen.2019.05.001>.
- Franco-Santos, M., Lucianetti, L., & Bourne, M. (2012). Contemporary performance measurement systems: A review of their consequences and a framework for research. *Management accounting research*, 23(2), 79-119 doi: <https://doi.org/10.1016/j.mar.2012.04.001>.
- Frederico, G. F., Garza-Reyes, J. A., Kumar, A., & Kumar, V. (2021). Performance measurement for supply chains in the Industry 4.0 era: a balanced scorecard approach. *International Journal of Productivity and Performance Management*, 70(4), 789-807. doi: <https://doi.org/10.1108/IJPPM-08-2019-0400>
- Guinot, J., Chiva, R., & Roca-Puig, V. (2014). Interpersonal trust, stress and satisfaction at work: An empirical study. *Personnel Review*, 43(1), 96-115.
- 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. doi:<https://doi.org/10.1108/EBR-11-2018-0203>
- Hall, M. (2008). The effect of comprehensive performance measurement systems on role clarity, psychological empowerment and managerial performance. *Accounting, Organizations and Society*, 33(2-3), 141-163 doi: <https://doi.org/10.1016/j.aos.2007.02.004>.
- Hartmann, F., & Slapničar, S. (2009). How formal performance evaluation affects trust between superior and subordinate managers. *Accounting, Organizations and Society*, 34(6-7), 722-737 doi: <https://doi.org/10.1016/j.aos.2008.11.004>.
- Henri, J.-F. (2006). Organizational culture and performance measurement systems. *Accounting, Organizations and Society*, 31(1), 77-103 doi: <https://doi.org/10.1016/j.aos.2004.10.003>.
- Henri, J. F. (2004). Performance measurement and organizational effectiveness: bridging the gap. *Management Finance*, 30(6), 93-123 doi: <https://doi.org/10.1108/03074350410769137>.
- Homburg, C., & Stock, R. M. (2005). Exploring the conditions under which salesperson work satisfaction can lead to customer satisfaction. *Psychology & marketing*, 22(5), 393-420.
- Hoque, Z., & James, W. (2000). Linking Balanced Scorecard Measures to Size and Market Factors: Impact on Organizational Performance. (cover story). *Journal of Management Accounting Research*, 12, 1-17 doi: <https://doi.org/10.2308/jmar.2000.12.1.1>.
- Ittner, C. D., Larcker, D. F., & Randall, T. (2003). Performance implications of strategic performance measurement in financial services firms. *Accounting, Organizations & Society*, 28(7/8), 715 doi: [https://doi.org/10.1016/S0361-3682\(03\)00033-3](https://doi.org/10.1016/S0361-3682(03)00033-3).
- Jabeen, F., & Isakovic, A. A. (2018). Examining the impact of organizational culture on trust and career satisfaction in the UAE public sector: A competing values perspective. *Employee Relations*, 40(6), 1036-1053 doi: <https://doi.org/10.1108/ER-02-2017-0038>.
- 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 doi: <https://psycnet.apa.org/doi/10.1037/0033-2909.127.3.376>.
- Kane-Urrabazo, C. (2006). Management's role in shaping organizational culture. *Journal of nursing management*, 14(3), 188-194 doi: <https://doi.org/10.1111/j.1365-2934.2006.00590.x>.
- Kaplan, R. S., & Norton, D. P. (2006). *Alignment – Using the Balanced Scorecard to Create Corporate Strategies*. Boston, Massachusetts: Harvard Business School Press.
- Li, C., Naz, S., Khan, M. A. S., Kusi, B., & Murad, M. (2019). An empirical investigation on the relationship between a high-performance work system and employee performance: measuring a mediation model through partial least squares–structural equation modeling. *Psychology research and behavior management*, 397-416 doi: <https://doi.org/10.2147/PRBM.S195533>.
- Linz, S. J. (2003). Job satisfaction among Russian workers. *International journal of manpower*, 24(6), 626-652.
- Mak, B. L., & Sockel, H. (2001). A confirmatory factor analysis of IS employee motivation and retention. *Information & Management*, 38(5), 265-276. doi:[https://doi.org/10.1016/S0378-7206\(00\)00055-0](https://doi.org/10.1016/S0378-7206(00)00055-0)
- Matzler, K., & Renzl, B. (2006). The Relationship between Interpersonal Trust, Employee Satisfaction, and Employee Loyalty. *Total Quality Management & Business Excellence*, 17(10), 1261-1271. doi: <https://doi.org/10.1080/14783360600753653>

- Mone, E., London, M., & Mone, E. M. (2018). *Employee engagement through effective performance management: A practical guide for managers*: Routledge.
- Monteiro, J. J., Lunkes, R. J., & Rosa, F. (2023). Influence of formal and informal controls on trust and individual creativity. *Journal of Accounting & Organizational Change*, 19(5), 689-705 doi: <https://doi.org/10.1108/JAOC-08-2021-0122>.
- Nasra, M. A., & Heilbrunn, S. (2016). Transformational leadership and organizational citizenship behavior in the Arab educational system in Israel: The impact of trust and job satisfaction. *Educational Management Administration & Leadership*, 44(3), 380-396. doi: <https://doi.org/10.1177/1741143214549975>
- Nguyen, T. T., Mia, L., Winata, L., & Chong, V. K. (2017). Effect of transformational-leadership style and management control system on managerial performance. *Journal of Business Research*, 70, 202-213.
- Phuong, T. T. K., & Tran, T. V. (2020). Job satisfaction, employee loyalty and job performance in the hospitality industry: A moderated model. *Asian Economic and Financial Review*, 10(6), 698.
- Purbey, S., Mukherjee, K., & Bhar, C. (2007). Performance measurement system for healthcare processes. *International Journal of Productivity and Performance Management*, 56(3), 241-251 doi: <https://doi.org/10.1108/17410400710731446>.
- Rahman, A., Andrasari, M., & Sirojuzilam, S. (2023). Economic Development and Convergence In Sumatra Island, Indonesia. *EcceS: Economics Social and Development Studies*, 10(1), 23-47. doi: <https://doi.org/10.24252/ecc.v10i1.37114>
- Renee Baptiste, N. (2008). Tightening the link between employee wellbeing at work and performance: A new dimension for HRM. *Management decision*, 46(2), 284-309. doi: <https://doi.org/10.1108/00251740810854168>
- Roberts, J. A., & David, M. E. (2020). Boss phubbing, trust, job satisfaction and employee performance. *Personality and Individual Differences*, 155, 109702. doi: <https://doi.org/10.1016/j.paid.2019.109702>
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of management review*, 23(3), 393-404.
- Saroaha, M., Garg, D., & Luthra, S. (2022). Analyzing the circular supply chain management performance measurement framework: the modified balanced scorecard technique. *International Journal of System Assurance Engineering and Management*, 13(Suppl 2), 951-960 doi: <https://doi.org/10.1007/s13198-021-01482-4>.
- Severgnini, E., Vieira, V. A., & Cardoza Galdamez, E. V. (2018). The indirect effects of performance measurement system and organizational ambidexterity on performance. *Business Process Management Journal*, 24(5), 1176-1199. doi: <https://doi.org/10.1108/BPMJ-06-2017-0159>
- Sharma, N. P., Sharma, T., & Agarwal, M. N. (2016). Measuring employee perception of performance management system effectiveness: Conceptualization and scale development. *Employee Relations*, 38(2), 224-247 doi: <https://doi.org/10.1108/ER-01-2015-0006>.
- Sholihin, M., & Pike, R. (2010). Organisational Commitment In The Police Service: Exploring The Effects of Performance Measures, Procedural Justice and Interpersonal Trust. *Financial Accountability & Management*, 26(4), 392-421. doi: <https://doi.org/10.1111/j.1468-0408.2010.00507.x>
- Sironi, E. (2019). Job satisfaction as a determinant of employees' optimal well-being in an instrumental variable approach. *Quality & Quantity*, 53(4), 1721-1742 doi: <https://doi.org/10.1007/s11135-019-00835-3>.
- Sugiyono, P. (2015). Metode penelitian kombinasi (mixed methods). *Bandung: Alfabeta*, 28(1), 12.
- Talpur, A. B. (2023). Market power and concentration-performance analysis of the banking sector: A comparative study of Singapore and Pakistan. *Social Sciences & Humanities Open*, 7(1), 100383. doi: <https://doi.org/10.1016/j.ssaho.2022.100383>
- Torlak, N. G., & Kuzey, C. (2019). Leadership, job satisfaction and performance links in private education institutes of Pakistan. *International Journal of Productivity and Performance Management* doi: <https://doi.org/10.1108/IJPPM-05-2018-0182>.
- Veloso, C. M., Sousa, B., Au-Yong-Oliveira, M., & Walter, C. E. (2021). Boosters of satisfaction, performance and employee loyalty: application to a recruitment and outsourcing information

- technology organization. *Journal of Organizational Change Management*, 34(5), 1036-1046. doi: <https://doi.org/10.1108/JOCM-01-2021-0015>
- Verburg, R. M., Nienaber, A.-M., Searle, R. H., Weibel, A., Den Hartog, D. N., & Rupp, D. E. (2018). The role of organizational control systems in employees' organizational trust and performance outcomes. *Group & organization management*, 43(2), 179-206 doi: <https://doi.org/10.1177/1059601117725191>.
- Vuong, T. D. N., & Nguyen, L. T. (2022). The Key Strategies for Measuring Employee Performance in Companies: A Systematic Review. *Sustainability*, 14(21), 14017 doi: <https://doi.org/10.3390/su142114017>.
- Williams, L. J., & Anderson, S. E. (1991). Job Satisfaction and Organizational Commitment as Predictors of Organizational Citizenship and In-Role Behaviors. *Journal of Management*, 17(3), 601-617. doi: <https://doi.org/10.1177/014920639101700305>
- Wu, D. (2024). *Measuring performance in small and medium enterprises in the information and communication technology industries*. RMIT University.
- Yuen, K. F., Loh, H. S., Zhou, Q., & Wong, Y. D. (2018). Determinants of job satisfaction and performance of seafarers. *Transportation research part A: policy and practice*, 110, 1-12 doi: <https://doi.org/10.1016/j.tra.2018.02.006>.
- Yuliansyah, Y., & Jermias, J. (2018). Strategic performance measurement system, organizational learning and service strategic alignment: Impact on performance. *International Journal of Ethics and Systems*, 34(4), 564-592. doi: <https://doi.org/10.1108/IJOES-07-2018-0102>
- Zhang, L., & Yu, W. (2020). Effects of the interactive use of performance measurement systems on job performance: mediation effect of organizational learning. *Frontiers in Psychology*, 10, 3059 doi: <https://doi.org/10.3389/fpsyg.2019.03059>