

## THE EFFECT OF PERCEIVED PENSION FUND BENEFITS ON WORK MOTIVATION AND EMPLOYEE PERFORMANCE AMONG EMPLOYEES APPROACHING RETIREMENT AT PT XYZ USING THE SEM-PLS METHOD



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### Abstract

This research aims to examine the relationship between pension fund benefits and employee performance and employee motivation to work as they approach retirement among PT XYZ employees. This study employs a quantitative approach utilizing a cross-sectional survey design. The data analysis method is the Structural Equation Model with Partial Least Squares (SEM-PLS), supported by SmartPLS software version 4. This study involved 410 employees aged 40 to 55 years, and 100 of them were selected purposively. The study utilizes one independent variable, perception of pension fund benefits (X), which is measured by four indicators; then two dependent variables, namely employee performance (Y1), which is measured by five indicators, and work motivation (Y2), which is measured by three indicators, after elimination. Data were collected through a questionnaire that has a 5-point Likert scale. The results indicate that perceived pension fund benefits have a significant positive impact on employee performance ( $\beta = 0.273$ ,  $p < 0.001$ ). Conversely, perceived pension fund benefits have a significant negative impact on work motivation ( $\beta = -0.257$ ,  $p < 0.001$ ). The R-squared value for employee performance is 0.074, and the R-squared value for work motivation is 0.066, indicating that both variables are related. To improve employee punctuality, this study suggests the development of a more efficient time management program and monitoring system. In addition, job development programs can revitalize job design by offering challenging and meaningful work challenges for retired employees to maintain their work enthusiasm.

**Keywords:** Pension Fund Benefits, Employee Performance, Retirement Preparation, Quantitative Research, SmartPLS

## INTRODUCTION

The phenomenon of an aging workforce has become a global concern, including in human resource management in Indonesia. Increased life expectancy and demographic changes have led to a significant increase in the number of workers approaching retirement age. This situation poses challenges for companies, especially state-owned enterprises (SOEs), in maintaining employee performance and motivation as they approach retirement (Indurasmi et al., 2023). Employees approaching retirement age often experience changes in work behavior, decreased enthusiasm, and changes in their perception of post-retirement welfare. One factor that plays a major role in these changes is their perception of the pension benefits they will receive (Mas'ud & Prastiwi, 2004).

Pension funds serve to provide welfare security in old age through five main roles, namely guaranteeing income certainty, managing investments safely, protecting against financial risks, managing wealth in a planned manner, and reducing dependence on family (Yunus, 2025). In addition, the Financial Institution Pension Fund (DPLK) also offers three main benefits: availability of funds during retirement, safe and optimal investment returns, and tax incentives when benefits are paid. Thus, pension funds play an important role in creating financial security for employees.

The perception of pension fund benefits can be understood as employees' belief that the program can meet their future financial needs (Purba & Siregar, 2022). This perception covers four aspects: ease in meeting living needs in old age, speed in obtaining financial security, additional benefits such as investments and taxes, and financial management efficiency. A positive perception is expected to foster a sense of security and encourage employees to remain productive until retirement.

Employee performance is the result of an individual's work based on established standards, which include quality, quantity, timeliness, effectiveness, and commitment (Robbins & Judge, 2003; Silaen et al., 2021). Meanwhile, work motivation includes internal and external drives that make a person strive to achieve organizational goals. According to Sagir in Siswanto (2005), indicators of work motivation include rewards, responsibility, challenges, development, involvement, and opportunities. These two variables, performance and work motivation, are greatly influenced by how employees assess the benefits they will receive from the pension program.

Ideally, a good pension program provides financial security while increasing work motivation. Mardiyanto & Chalid (2023) explain that pension funds not only provide income security in old age but also enhance the company's image and employee productivity. Additionally, a well-managed pension program can serve as an employee retention strategy, fostering loyalty and reducing turnover rates (Mas'ud & Prastiwi, 2004). Previous research by Kuncorowati & Dewi (2009) shows a significant positive influence between pension fund programs and work motivation, with a determination coefficient of 93%, indicating that this program is a strong predictor of work motivation.

The context of this study focuses on PT XYZ, a state-owned enterprise in the field of social insurance. Of the total 1,674 employees, 410 employees (24.5%) are between 40 and 55 years old, which means that nearly a quarter of the workforce is approaching retirement. This condition highlights the importance of strategies for managing the motivation and performance of employees who are in the final phase of their careers.

The results of the preliminary interviews revealed a gap between ideal expectations

and actual conditions in the field. Three main problems were identified:

1. There is a decline in the quality and quantity of work, where employees feel that the pension benefits they will receive are still far below their active income, leading to a decline in effectiveness and productivity.
2. Declining work commitment, where employees approaching retirement age tend to lose career ambition and become less disciplined with their time.
3. Barriers to career development and work challenges, where some employees find it difficult to meet promotion criteria, causing them to lose motivation to develop.

These issues indicate a relationship between perceptions of pension fund benefits and employee work behavior. When pension benefits are considered inadequate, pessimism and decreased performance arise. Conversely, for some employees who view the pension program as an opportunity to improve their welfare, there is an incentive to work better and pursue promotions. These differences in perception create interesting variability for scientific study.

Previous findings from Indurasmi et al. (2023) show that the higher the pension fund benefits, the lower the work participation of older adults. However, these results are contrary to the conditions at PT XYZ, where some employees remain active in their work because they are motivated to increase their pension benefits. This contextual difference indicates an important research gap that warrants further investigation, particularly regarding the relationship between perceptions of pension fund benefits and two key aspects of work behavior: employee performance (Y1) and work motivation (Y2).

To address this gap, this study uses the Structural Equation Modeling-Partial Least Squares (SEM-PLS) method. This method can analyze complex relationships between variables, including direct and indirect effects (Sukmayanti et al., 2025). The analysis was conducted using SmartPLS version 4 software, through two stages of evaluation: the outer model to test validity and reliability, and the inner model to assess the relationship between constructs through path coefficients and significance values (Awalludin & Heikal, 2024). This approach allows for a comprehensive analysis of the factors that influence employee performance and motivation.

The uniqueness of this study lies in three main aspects. First, this study specifically examines SOE employees aged 40–55 years, a group that has been relatively understudied in Indonesia. Second, this study highlights not only one aspect of work behavior but two important variables performance and motivation which provide a comprehensive picture of the impact of perceived pension fund benefits. Third, the application of the SEM-PLS method enables the identification of the most influential indicators of perceived benefits, so that the results can be applied practically by company management.

The purpose of this study is to analyze the effect of perceived pension fund benefits on the performance and work motivation of employees approaching retirement at PT XYZ. Specifically, this study aims to:

1. Analyze the effect of perceived pension fund benefits on the performance of employees approaching retirement.
2. Analyze the effect of perceived pension fund benefits on employee work motivation.
3. Identify the most dominant indicators of perceived pension fund benefits that affect performance and work motivation.

This research is of high urgency because nearly a quarter of PT XYZ's workforce will

be entering retirement. An accurate understanding of the factors that influence their productivity and motivation will have a direct impact on the overall performance of the organization. In addition to its theoretical contribution to the development of human resource management science, the results of this study also provide practical benefits for companies. PT XYZ and other state-owned enterprises can use these findings as a basis for developing pension fund programs that not only guarantee financial security but also maintain employee morale and performance until retirement.

Thus, this research is expected to answer key questions regarding how perceptions of pension fund benefits influence employee work behavior as they approach retirement, as well as provide strategic recommendations for companies to manage human resources sustainably amid the phenomenon of an aging workforce in Indonesia.

## REVIEW OF LITERATURE

### Structural Equation Modeling (SEM-PLS)

Structural Equation Modeling (SEM) is a multivariate analysis method that employs a structural approach to address complex problems, first developed in the 1950s in social sciences, psychology, and other disciplines with significant advancement in 1969 (Heikal et al., 2022). SEM-PLS is a contemporary approach that enables researchers to simultaneously model and estimate complex relationships between multiple dependent and independent variables (Awalludin & Heikal, 2024). This method is selected because it can test structural relationships among variables with high complexity, including direct and indirect effects, without requiring normality assumptions in data distribution (Sukmayanti et al., 2025). Model evaluation is conducted through two main stages: outer model assessment to test construct validity and reliability using convergent validity with outer loading  $\geq 0.4$  and Average Variance Extracted (AVE)  $\geq 0.5$ , followed by discriminant validity testing using Heterotrait-Monotrait Ratio (HTMT)  $< 0.90$  and Fornell-Larcker Criterion (Ibrahim & Heikal, 2024); and inner model evaluation to test relationships among constructs through path coefficient, R-square, and statistical significance at 5% level (Sukmayanti et al., 2025). Data analysis employs SmartPLS software version 3.2.9, which facilitates path analysis visualization and produces loading weights and p-values critical for determining the significance of inter-variable relationships (Irawan & Heikal, 2024), with applications across various contexts including customer satisfaction and loyalty analysis (Ibrahim & Heikal, 2024), customer segmentation (Chow et al., 2025; Putri et al., 2025), and studies in diverse industries such as banking, retail, real estate, agriculture, and aviation (Fajri & Heikal, 2022; Ramadani et al., 2025).

### Perceived Benefits of Pension Funds

Perceived benefit refers to an individual's belief regarding the advantages or benefits that will be received from the use of a particular product or service. According to research by Purba & Siregar (2022), perceived benefit comprises four main indicator dimensions that measure individual perception toward pension funds: facilitating transactions through simplified administrative and contribution payment processes, accelerating transactions through time efficiency in pension benefit administration, providing additional advantages upon transaction completion through return on investment and received benefits, and increasing efficiency in conducting transactions through optimal utilization of financial resources for retirement preparation. In the context of Pension Funds Lembaga Keuangan

(DPLK), positive perceived benefit by employees toward the pension program will influence their decision to participate and commit to the program (Yunus, 2025), with higher perception expected to increase motivation to remain actively employed until the designated retirement age.

### **Work Motivation**

Work motivation is a driving factor that moves employees to conduct certain activities or tasks to achieve organizational goals wholeheartedly. Bahri & Nisa (2017) define motivation as the internal force that drives individuals to take action, identifying seven main indicators of employee work motivation according to Sagir in (Siswanto, 2005): motivation itself (enhancing performance), recognition (appreciation for work achievement), challenge (opportunity to develop and face challenging tasks), responsibility (involvement in decision-making), development (opportunity to improve skills and competencies), participation (active involvement in organizational activities), and opportunity (access to promotion and career opportunities). In the context of employees approaching retirement, high work motivation will encourage them to continue contributing productively and maintain optimal performance until retirement, with the influence of perceived pension fund benefits on work motivation being important as employees who understand and experience real benefits from the pension program will have stronger motivation to remain committed and active in their work.

### **Employee Performance**

Employee performance refers to work results achieved by employees in executing their tasks and responsibilities in accordance with standards and criteria established by the organization. Silaen et al. (2021) and Robbins & Judge (2003) identify six main indicators to measure employee performance comprehensively: work quality reflecting task perfection based on employee skills and abilities; work quantity referring to output produced in units and activity cycles completed; timeliness demonstrating employee ability to complete tasks on time and maximize available time; effectiveness relating to improved results per unit by optimizing organizational resources; commitment representing the level of employee compliance in executing work functions and responsibilities toward the institution; and motivation reflecting the driving force for productivity. High work motivation, influenced by positive perception toward pension fund benefits, is expected to enhance all performance dimensions, particularly for employees approaching retirement, enabling them to remain productive and contribute optimally until the end of their working life.

## **RESEARCH METHOD**

This study employs a quantitative approach with cross-sectional survey design to analyze the effect of perceived pension fund benefits on employee performance and work motivation. The research uses a positivist paradigm that views cause-and-effect relationships as predictable (Rehman & Alharthi, 2016). Data analysis was performed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) through SmartPLS version 4 software, as this method allows testing of latent relationships between variables, both direct and indirect, with a relatively small sample size without requiring normality assumptions (West & Turner, 2019).

The research population consisted of all employees of PT XYZ aged 40–55 years approaching retirement, totaling 410 people. Using purposive sampling with inclusion

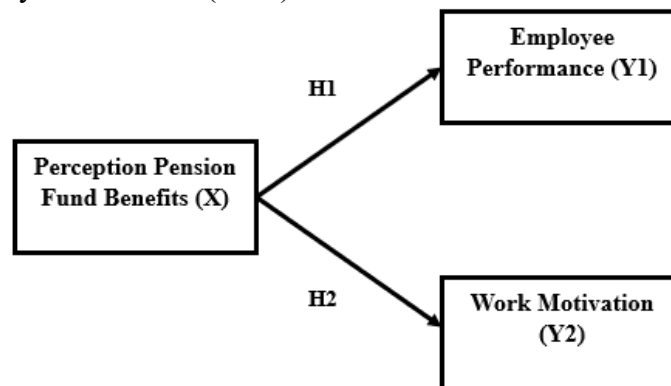
criteria of at least 10 years of service and active pension fund program participation, 100 respondents were selected for analysis (Sudaryono, 2019). The inclusion criteria for sample selection were as follows: (1) active employees of PT XYZ, (2) aged 40–55 years, (3) employees with grades B through K, (4) at least 10 years of service with the company, and (5) registered as active participants in the company's pension fund program. This sample size meets the SEM-PLS requirement of 10 times the number of indicators or 100 respondents, whichever is greater (Hair et al., 2017).

The study examined three variables measured using a 5-point Likert scale through a 16-item questionnaire. Perceived pension fund benefits (X) served as the independent variable with four indicators measuring facilitating transactions, accelerating transactions, providing advantages, and increasing efficiency. Employee performance (Y1) was the first dependent variable with five indicators: work quality, work quantity, timeliness, effectiveness, and commitment. Work motivation (Y2) was the second dependent variable with seven indicators: motivation, recognition, challenge, responsibility, development, participation, and opportunity. Questionnaires were distributed directly to respondents with support from the Human Resources Development division of PT XYZ.

**Tabel 1**  
**Operationalization of Research Variables**

Variable	Indicators	Items
Perceived Pension Fund Benefits (X)	Facilitating transactions, accelerating transactions, providing advantages, increasing efficiency	4
Employee Performance (Y1)	Work quality, work quantity, timeliness, effectiveness, commitment	5
Work Motivation (Y2)	Motivation, recognition, challenge, responsibility, development, participation, opportunity	7

Source: Processed by Researchers (2025)



**Figure 1**  
**Conceptual Framework**  
 Source: Created by the Researcher (2025)

This study proposed two research hypotheses: H1 states that perceived pension fund benefits have a significant effect on employee performance, and H2 states that perceived pension fund benefits have a significant effect on work motivation.

For data analysis, the outer model assessed construct validity and reliability through convergent validity (factor loading  $\geq 0.60$ , Average Variance Extracted  $\geq 0.50$ ), discriminant validity (Heterotrait-Monotrait ratio  $< 0.85$ ), and reliability testing (Cronbach's Alpha and Composite Reliability  $\geq 0.70$ ). The inner model evaluated relationships among constructs through path coefficients, R-squared values, and effect sizes. Significance testing employed two-tailed bootstrapping at 5% significance level ( $\alpha = 0.05$ ). Hypotheses were accepted if the p-value  $< 0.05$  with coefficient direction consistent with the hypothesized direction, and rejected if p-value  $\geq 0.05$  (Hair et al., 2017).

## RESULTS AND DISCUSSION

### Descriptive Analysis of Respondent Characteristics

This section presents a comprehensive demographic and socioeconomic profile of 100 employees from PT XYZ who participated in this research. The analysis encompasses key personal and professional attributes, including gender composition, age distribution, educational background, marital status, organizational position, and tenure history. These characteristics provide essential context for understanding the sample population and their relevance to the research objectives.

**Tabel 2**  
**Respondent Characteristics**

<b>Demographics</b>	<b>Count (%)</b>
<b>Gender</b>	
Male	82
Female	18
<b>Total</b>	<b>100</b>
<b>Age Group</b>	
< 45 years	43
45 - 48 years	20
49 - 52 years	22
53 - 55 years	15
<b>Total</b>	<b>100</b>
<b>Educational Level</b>	
Diploma (D3)	4
Bachelor (S1)	62
Master (S2)	31
High School or Equivalent	3
<b>Total</b>	<b>100</b>
<b>Marital Status</b>	
Single	9
Divorced/Widowed	1
Married	90
<b>Total</b>	<b>100</b>
<b>Position/Grade Level</b>	

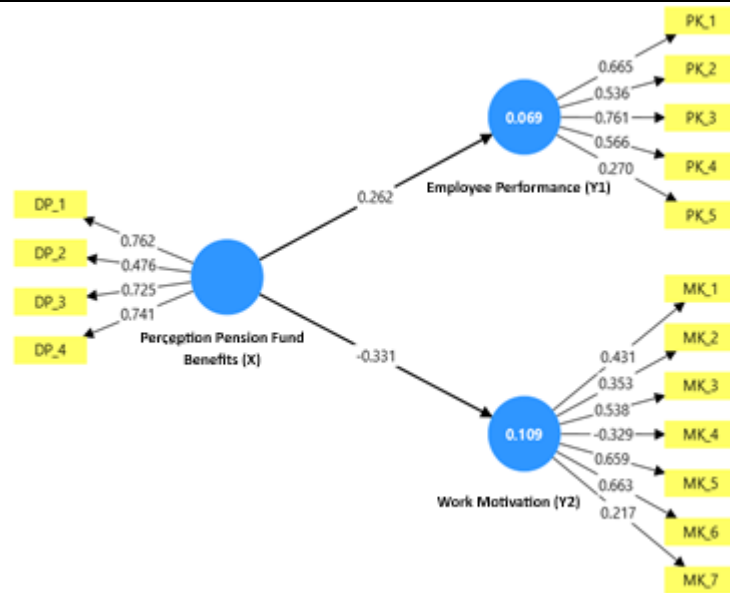
Grade B	3
Grade C	6
Grade D	7
Grade E	8
Grade F	11
Grade G	16
Grade H	9
Grade I	14
Grade K	26
<b>Total</b>	<b>100</b>
<b>Tenure</b>	
< 20 years	45
20 - 24 years	23
25 - 29 years	27
≥ 30 years	5
<b>Total</b>	<b>100</b>

Source: Primary Research Data (2025)

The respondent profile reveals a workforce predominantly composed of males (82%), with a relatively even age distribution across the 40–55-year range, with 43% under 45 years old. The sample demonstrates strong academic credentials, with 62% holding bachelor’s degrees and 31% possessing master's degrees, indicating a highly educated workforce. In terms of organizational structure, respondents concentrate at mid-to-lower management levels, particularly at Grade K (26%) and Grade G (16%), reflecting a hierarchical distribution typical of larger organizations. Most respondents (90%) are married, suggesting significant family responsibilities that impact retirement planning considerations. Tenure analysis shows that 45% have less than 20 years of service, while 27% have 20-29 years, and only 5% exceed 30 years, indicating a diverse range of experience levels within the organization. Overall, PT XYZ's sample demonstrates a mature, well-educated, and experienced workforce with established family commitments and varied organizational seniority levels.

#### **Structural Equation Modeling Analysis with Partial Least Squares (SEM-PLS)**

The analytical framework employs Structural Equation Modeling with Partial Least Squares (SEM-PLS) to examine complex relationships between perceived pension fund benefits, employee performance, and work motivation among PT XYZ employees approaching retirement. This approach enables simultaneous testing of measurement and structural models while accommodating sample size constraints (n=100) without requiring normality assumptions (Hair et al., 2017). Analysis was conducted using SmartPLS version 4 through systematic evaluation of outer and inner models, followed by hypothesis testing using bootstrapping procedures.



**Figure 2**  
**Structural Model**

Source: Smart PLS Software Version 4

**Outer Model Evaluation**

**Convergent Validity Assessment**

Convergent validity examines whether each indicator effectively captures its intended construct through outer loading values and Average Variance Extracted (AVE). Assessment criteria include outer loading  $\geq 0.60$  per indicator and AVE  $\geq 0.50$  per construct (Hair et al., 2017).

**Tabel 3**  
**Outer Loading Stage 1 (Pre-Elimination)**

Indicator	Employee Performance (Y1)	Work Motivation (Y2)	Perceived Pension Fund Benefits (X)
DP 1	—	—	0.762
DP 2	—	—	0.476
DP 3	—	—	0.725
DP 4	—	—	0.741
MK 1	—	0.431	—
MK 2	—	0.353	—
MK 3	—	0.538	—
MK 4	—	-0.329	—
MK 5	—	0.659	—
MK 6	—	0.663	—
MK 7	—	0.217	—
PK 1	0.665	—	—
PK 2	0.536	—	—
PK 3	0.761	—	—

PK 4	0.566	—	—
PK 5	0.270	—	—

Source: SmartPLS Version 4 Software

Initial assessment identified seven indicators failing convergent validity criteria (outer loading < 0.60): DP\_2 (0.476), MK\_1 (0.431), MK\_2 (0.353), MK\_4 (-0.329), MK\_7 (0.217), PK\_4 (0.566), and PK\_5 (0.270). These items were eliminated to improve construct validity. Subsequently, PK\_4 was removed in stage two due to its contribution resulting in AVE below the 0.50 threshold.

**Tabel 4**  
**Outer Loading Stage 2 (Post-Elimination)**

Indicator	Employee Performance (Y1)	Work Motivation (Y2)	Perceived Pension Fund Benefits (X)
DP 1	—	—	0.778
DP 3	—	—	0.680
DP 4	—	—	0.755
MK 3	—	0.613	—
MK 5	—	0.785	—
MK 6	—	0.730	—
PK 1	0.790	—	—
PK 2	0.690	—	—
PK 3	0.684	—	—

Source: SmartPLS Version 4 Software

Post-elimination analysis retained nine indicators across three constructs, all exceeding the 0.60 minimum threshold. Strongest indicators were PK\_1 (0.790) for employee performance, MK\_5 (0.785) for work motivation, and DP\_1 (0.778) for perceived pension fund benefits, indicating robust measurement quality. All indicators demonstrated substantial factor loadings exceeding theoretical minimums, confirming adequate indicator-construct relationships.

**Tabel 5**  
**Average Variance Extracted (AVE)**

Construct	AVE Value
Employee Performance (Y1)	0.523
Work Motivation (Y2)	0.508
Perceived Pension Fund Benefits (X)	0.546

Source: SmartPLS Version 4 Software

All constructs demonstrated AVE values exceeding the 0.50 threshold, confirming that indicators capture adequate variance within their respective constructs. Employee Performance achieved 52.3% shared variance, Work Motivation 50.8%, and Perceived Pension Fund Benefits 54.6%, substantiating convergent validity across the measurement model.

**Discriminant Validity Assessment**

Discriminant validity ensures each construct measures a distinct concept, preventing conceptual overlap. Assessment employed Heterotrait-Monotrait (HTMT) ratio (< 0.85 threshold) and Fornell-Larcker Criterion.

**Tabel 6**  
**Heterotrait-Monotrait (HTMT) Ratio**

Construct	Employee Performance (Y1)	Work Motivation (Y2)	Perceived Pension Fund Benefits (X)
Employee Performance (Y1)	—	—	—
Work Motivation (Y2)	0.287	—	—
Perceived Pension Fund Benefits (X)	0.443	0.417	—

Source: SmartPLS Version 4 Software

All HTMT values remained substantially below the 0.85 maximum threshold, with the highest value at 0.443 between Perceived Pension Fund Benefits and Employee Performance. This pattern indicates the absence of multicollinearity among constructs and confirms discriminant validity, ensuring each variable maintains conceptual independence.

**Tabel 7**  
**Fornell-Larcker Criterion**

Construct	Employee Performance (Y1)	Work Motivation (Y2)	Perceived Pension Fund Benefits (X)
Employee Performance (Y1)	0.723	—	—
Work Motivation (Y2)	-0.092	0.713	—
Perceived Pension Fund Benefits (X)	0.273	-0.257	0.739

Source: SmartPLS Version 4 Software

Diagonal values (0.723, 0.713, 0.739) represent AVE square roots for each construct, all exceeding off-diagonal correlations. This configuration confirms that each construct possesses unique variance distinct from others, substantiating discriminant validity and ensuring measurement independence among the three variables under investigation.

**Construct Reliability and Validity**

Reliability assessment evaluates internal consistency through Cronbach's Alpha and Composite Reliability (CR), with thresholds of  $\geq 0.70$  for confirmatory studies or  $\geq 0.50$ - $0.60$  for exploratory research (Hair et al., 2019).

**Tabel 8**  
**Construct Reliability and Validity Summary**

Construct	Cronbach's Alpha	Composite Reliability (pc)	Composite Reliability (po_c)	AVE
Employee Performance (Y1)	0.565	0.540	0.766	0.523
Work Motivation (Y2)	0.513	0.511	0.754	0.508
Perceived Pension Fund Benefits (X)	0.614	0.605	0.782	0.546

Source: SmartPLS Version 4 Software

Cronbach's Alpha values (0.513-0.614) and Composite Reliability (0.540-0.605) fell below the conventional 0.70 threshold, consistent with exploratory research involving multidimensional constructs (Nunnally, 1967). However, second-order composite reliability (po\_c) values (0.754-0.782) demonstrated solid consistency in actual weighted measurements. Overall, reliability metrics support the exploratory nature of this investigation while confirming acceptable internal consistency levels.

**Inner Model Evaluation**

Following validation of measurement model validity and reliability, inner model evaluation assessed structural relationships among constructs through path analysis using bootstrapping procedures.

**Path Coefficients and Significance Testing**

Path coefficients quantify direct effects between variables, with significance determined through two-tailed bootstrapping ( $\alpha = 0.05$ ). Statistical significance requires t-statistic > 1.96 and p-value < 0.05.

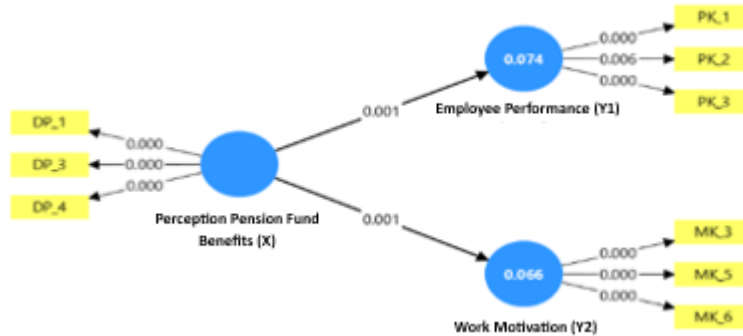
**Tabel 9**  
**Path Coefficients and Significance Testing**

Structural Relationship	Original Sample (O)	Sample Mean (M)	Std. Deviation	T-Statistics	P-Value	Significance
Perceived Pension Fund Benefits (X) → Employee Performance (Y1)	0.273	0.314	0.081	3.375	0.001	<b>Significant</b>
Perceived Pension Fund Benefits (X) → Work Motivation (Y2)	-0.257	-0.287	0.076	3.381	0.001	<b>Significant</b>

Source: SmartPLS Version 4 Software

Both structural relationships achieved statistical significance ( $p < 0.001$ ). The first pathway demonstrated positive effects of perceived pension fund benefits on employee performance ( $\beta = 0.273$ ), indicating enhanced pension benefit perception correlates with

improved work performance. The second pathway revealed negative effects on work motivation ( $\beta = -0.257$ ), suggesting employees perceiving adequate pension security experience reduced intrinsic motivation. Both pathways exhibited substantial t-statistics ( $> 3.3$ ) and identical p-values (0.001), confirming robust statistical evidence despite opposite directional effects.



**Figure 3**  
**Bootstrapping Analysis**

Source: Smart PLS Software Version 4

**Coefficient of Determination (R-Square)**

R-squared values quantify the proportion of dependent variable variance explained by independent variables. Interpretation benchmarks: 0.19 (weak), 0.33 (moderate), 0.67 (substantial) (Chin, 1998).

**Tabel 10**  
**R-Square Analysis**

Endogenous Construct	R-Square	R-Square Adjusted	Interpretation
Employee Performance (Y1)	0.074	0.065	Weak
Work Motivation (Y2)	0.066	0.057	Weak

Source: SmartPLS Version 4 Software

The model explained 7.4% of employee performance variance and 6.6% of work motivation variance, with remaining 92.6% and 93.4% respectively attributable to external factors. These modest  $R^2$  values indicate that while perceived pension fund benefits exert statistically significant effects, other organizational factors including work environment, leadership quality, organizational culture, and individual psychological attributes substantially influence outcomes. Adjusted  $R^2$  values provide conservative predictive capacity estimates.

**Effect Size ( $f^2$ )**

Effect size measures the practical contribution of exogenous variables independent of sample size. Thresholds: 0.02 (small), 0.15 (medium), 0.35 (large) (Hair et al., 2017).

**Tabel 11**  
**Effect Size (f<sup>2</sup> Matrix)**

<b>Exogenous Variable</b>	<b>Employee Performance (Y1)</b>	<b>Work Motivation (Y2)</b>
Perceived Pension Fund Benefits (X)	0.080	0.071

Source: SmartPLS Version 4 Software

Effect sizes for both pathways fell within the small category (0.02-0.15 range). The effect on employee performance ( $f^2 = 0.080$ ) slightly exceeded that on work motivation ( $f^2 = 0.071$ ), though both represented modest practical contributions. Despite small effect magnitudes, consistent positive values and statistical significance confirm that perceived pension fund benefits possess a measurable practical impact on both outcome variables.

**Hypothesis Testing**

Hypothesis evaluation employed bootstrapping results assessing p-values and t-statistics. Hypotheses were accepted when p-value < 0.05 and coefficient direction aligned with theoretical predictions.

**Tabel 12**  
**Hypothesis Testing Results**

<b>Hypothesis</b>	<b>Structural Relationship</b>	<b>Coefficient</b>	<b>T-Statistics</b>	<b>P-Value</b>	<b>Decision</b>
H1	Perceived Pension Fund Benefits (X) → Employee Performance (Y1)	0.273	3.375	0.001	<b>Accepted</b>
H2	Perceived Pension Fund Benefits (X) → Work Motivation (Y2)	-0.257	3.381	0.001	<b>Accepted</b>

Source: SmartPLS Version 4 Software

The following sections provide a comprehensive interpretation of each structural relationship, examining the statistical significance and practical implications of the empirical findings.

**Hypothesis 1**

H1 posited that perceived pension fund benefits significantly and positively affect employee performance. Statistical analysis strongly confirmed this hypothesis ( $t = 3.375$ ,  $p = 0.001$ ,  $\beta = 0.273$ ). The positive and statistically significant path coefficient indicates that increased employee perception of pension program adequacy directly correlates with improved work performance dimensions, including work quality, output quantity, timeliness, effectiveness, and organizational commitment.

**Hypothesis 2**

H2 proposed that perceived pension fund benefits significantly influence work motivation. This hypothesis was accepted with statistical confirmation ( $t = 3.381$ ,  $p = 0.001$ ); however, the relationship direction is negative and statistically significant ( $\beta = -0.257$ ). The

significant negative path coefficient reveals an inverse relationship wherein employees perceiving adequate pension security demonstrate reduced intrinsic motivation for achievement, responsibility engagement, and goal-striving behaviors.

### **Effect of Perceived Pension Fund Benefits on Employee Performance**

Statistical analysis demonstrates a significant positive relationship ( $\beta = 0.273$ ,  $t = 3.375$ ,  $p = 0.001$ ) between perceived pension fund benefits and employee performance at PT XYZ. This finding confirms that enhanced perception of pension benefit adequacy directly correlates with improved work performance across multiple dimensions including work quality, quantity, timeliness, effectiveness, and organizational commitment. According to psychological contract theory (Mas'ud & Prastiwi, 2004), employees reciprocate organizational commitment through enhanced performance when they perceive employer investment in their long-term welfare, particularly relevant for PT XYZ's workforce where 90% are married with family responsibilities requiring retirement security assurance.

The mechanism operates primarily through reduced financial anxiety and enhanced emotional stability. When employees feel confident about their financial future through adequate pension benefits, they experience decreased worry about post-retirement welfare, freeing cognitive and emotional resources for focused work engagement (Yunus, 2025). This psychological relief translates to enhanced task concentration, completion efficiency, and organizational commitment, directly benefiting PT XYZ's service quality delivery. The outer loading analysis reveals work quality (PK\_1 = 0.790) as the strongest performance indicator, suggesting that financial security enables employees to prioritize quality standards over volume output, as reduced financial pressure allows more careful and deliberate work approaches (Robbins & Judge, 2003).

However, the modest  $R^2$  value (0.074) indicates that perceived pension benefits explain only 7.4% of performance variance, with remaining 92.6% attributable to other organizational factors including work environment, leadership quality, organizational culture, and individual capabilities (Silaen et al., 2021). The small effect size ( $f^2 = 0.080$ ) confirms that while statistically significant, perceived pension benefits represent one component within a complex constellation of performance drivers. These results extend Mardiyanto & Chalid (2023) findings that pension funds enhance organizational productivity, while specifying the magnitude and mechanism of this effect specifically among pre-retirement employees in Indonesian state-owned enterprises.

### **Effect of Perceived Pension Fund Benefits on Work Motivation**

The analysis reveals a significant negative relationship ( $\beta = -0.257$ ,  $t = 3.381$ ,  $p = 0.001$ ) between perceived pension fund benefits and work motivation, indicating an inverse correlation wherein employees perceiving adequate pension security demonstrate reduced intrinsic motivation. This paradoxical finding reveals a critical organizational challenge: financial security does not automatically translate to sustained motivation, as employees who feel their financial needs are secured tend to reduce their drive for achievement and active participation in work activities. The goal completion effect explains this phenomenon, whereby employees perceiving achieved financial security experience reduced urgency for further achievement-striving, shifting their psychological time horizon toward retirement rather than sustained career investment (Indurasmi et al., 2023).

The outer loading analysis provides crucial insight, with the development indicator (MK\_5 = 0.785) demonstrating the strongest loading, suggesting work motivation at PT XYZ

fundamentally centers on competency development and continuous learning opportunities. This reveals the paradox: employees most motivated by growth opportunities are precisely those whose motivation declines when pension security is assured (Bahri & Nisa, 2017). For sophisticated professionals with advanced education (93% hold university degrees), intrinsic motivation stems from self-actualization needs represented by development, challenges, and participation rather than financial security. According to Sagir's framework in Siswanto (2005), when pension adequacy addresses lower-order security needs, it may inadvertently signal that growth-oriented striving is less necessary, particularly concerning given that 43% of respondents are below 45 years old with substantial remaining tenure.

The modest  $R^2$  value (0.066) indicates perceived pension benefits explain only 6.6% of motivation variance, yet this represents a systematic negative influence requiring management attention. This finding extends Indurasmi et al. (2023) research demonstrating higher pension benefits correlate with lower workforce participation among older adults, while revealing the underlying motivational mechanism. The negative relationship contradicts expectations that financial security would enhance motivation, highlighting complex pre-retirement employee psychology where pension fund adequacy simultaneously provides security while signaling approaching career conclusion, creating psychological ambivalence about continued investment in work activities (Yunus, 2025).

### **Dominant Indicators of Perceived Pension Benefits Affecting Performance and Motivation**

Through outer loading analysis, three dominant indicators emerge with distinct theoretical and practical implications for PT XYZ's pension fund program management. For perceived pension fund benefits, the facilitating transactions indicator (DP\_1 = 0.778) demonstrates the strongest contribution, followed by increasing efficiency (DP\_4 = 0.755) and providing advantages (DP\_3 = 0.680), while accelerating transactions (DP\_2 = 0.476) was eliminated during validation. This pattern reveals that PT XYZ's educated workforce values pension funds primarily as strategic financial instruments enabling long-term planning rather than immediate liquidity solutions, with employees emphasizing planning facilitation and efficiency optimization over transaction speed (Purba & Siregar, 2022).

For employee performance, work quality (PK\_1 = 0.790) emerges as the strongest indicator, surpassing work quantity (PK\_2 = 0.690) and timeliness (PK\_3 = 0.684), while effectiveness (PK\_4 = 0.566) and commitment (PK\_5 = 0.270) were eliminated. This quality emphasis suggests PT XYZ employees approaching retirement prioritize performance standards over volume output, potentially because financial security provided by pension benefits allows focus on quality rather than quantity through reduced financial pressure enabling more careful work approaches (Robbins & Judge, 2003). For work motivation, development (MK\_5 = 0.785), involvement (MK\_6 = 0.730), and challenge (MK\_3 = 0.613) demonstrate strongest loadings, while motivation itself (MK\_1 = 0.431), recognition (MK\_2 = 0.353), responsibility (MK\_4 = -0.329), and opportunity (MK\_7 = 0.217) were eliminated, revealing that pre-retirement employees are primarily motivated by growth-oriented factors rather than extrinsic rewards or advancement opportunities (Siswanto, 2005).

The negative loading for responsibility (MK\_4 = -0.329) is particularly revealing, suggesting increased responsibility may actually demotivate employees approaching retirement who prefer to reduce rather than expand obligations. These indicator patterns provide actionable insights: the dominance of development-oriented motivation indicators

suggests maintaining engagement requires continuous learning opportunities rather than financial incentives, as intrinsic motivation stems from self-actualization needs remaining salient even as financial security is achieved (Bahri & Nisa, 2017). However, the negative relationship between pension benefit perception and growth-oriented motivators reveals the central management challenge: maintaining development enthusiasm when retirement security signals are approaching career conclusion, requiring PT XYZ to implement targeted job enrichment programs and pre-retirement self-development initiatives to sustain workforce engagement quality.

## CONCLUSION

Based on data analysis conducted using the Structural Equation Modeling–Partial Least Squares (SEM-PLS) method, this study reveals that perceptions of pension fund benefits have a significant impact on work motivation and performance of employees approaching retirement at PT XYZ. Specifically, perceptions of pension fund benefits show a significant positive influence on employee performance. Employees who feel financially secure tend to improve their performance through emotional stability, increased work concentration, and efficiency in completing tasks. This sense of security regarding their financial future inspires a sense of responsibility and dedication to the organization, even though they are nearing the end of their working lives.

However, the perception pension fund benefits also has a significant negative effect on work motivation, whereby employees who feel that their financial needs after retirement are secure tend to reduce their drive to achieve and actively participate in work activities. This shows that financial security is not always directly related to increased intrinsic motivation. In addition, the relatively low  $R^2$  values (0.074 for performance and 0.066 for motivation) indicate that other factors, beyond pension fund benefits, also influence employee motivation and performance, such as work environment conditions, organizational culture, leadership, and individual psychological factors. Overall, the results of this study illustrate that perceptions of pension fund benefits have a dual impact on the one hand, they can improve performance, but on the other hand, they can reduce intrinsic motivation. Therefore, companies need to manage the balance between financial benefits and psychological factors to maintain the productivity of employees approaching retirement.

Based on the results of the study, there are several recommendations that can be applied by PT XYZ and other companies with similar characteristics. First, it is recommended to organize a “Pre-Retirement Self-Development Program” in the form of training and workshops on career transition, entrepreneurship, and personal financial management so that employees approaching retirement have a positive outlook on the future. This program can maintain work enthusiasm while fostering self-confidence. Second, “Job Enrichment” by providing new challenges and additional responsibilities that are relevant to the experience of senior employees. This step can increase intrinsic motivation through a sense of achievement and self-actualization.

Third, there needs to be a “Balanced Reward and Recognition Policy,” which balances financial rewards with non-financial rewards, such as performance awards, publication of achievements, and appreciation from leaders. This combination can restore the work ethic of employees who feel too comfortable approaching retirement. Finally, a

“Holistic Human Capital Approach” is recommended, whereby companies need to integrate pension programs into their long-term human resource development strategies. Thus, pension programs become not only financial instruments, but also part of retention strategies and organizational culture strengthening.

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