# Increase Productivity Employee through Leadership and Work Environment: The Role of Work Motivation as a Intervening Variables at PT. AMS Yamaha Fortuna Ciparay

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## Abstract

This study aims to comprehensively analyze the influence of leadership and the work environment on employee productivity, both directly and indirectly through work motivation as an intervening variable, at PT. AMS Yamaha Fortuna Ciparay. Employee productivity is a crucial factor in determining organizational performance, and it is strongly influenced by how leaders guide employees and how supportive the work environment is in facilitating daily tasks. Therefore, understanding these relationships is essential for improving organizational effectiveness. The research employed a quantitative method using descriptive and verification approaches to explain and test the relationships among variables. The population in this study consisted of 34 permanent employees of PT. AMS Yamaha Fortuna Ciparay. Given the relatively small population size, a saturated sampling technique was applied, in which all members of the population were used as research respondents. Data were collected through structured questionnaires and analyzed using path analysis with the assistance of IBM SPSS version 26. The results of the study indicated several important findings. First, leadership has a positive and significant effect on work motivation, suggesting that effective leadership can encourage employees to be more motivated in carrying out their duties. Second, the work environment also has a positive and significant effect on work motivation, indicating that a comfortable and supportive environment enhances employees' enthusiasm for work. Third, leadership has a positive and significant influence on employee productivity. Fourth, the work environment has a positive effect on employee productivity. Fifth, work motivation has a positive and significant effect on employee productivity. Furthermore, work motivation acts as an intervening variable that strengthens the relationship between leadership, work environment, and employee productivity. Therefore, improving leadership effectiveness and creating a conducive work environment can increase work motivation, which ultimately leads to higher employee productivity.

*Keywords: Leadership, Work Environment, Work Motivation, Employee Productivity*

## 1. Introduction

The increasingly competitive business environment requires every company to continuously improve its organizational performance and productivity. Under intense competition, companies are not only expected to have superior products and marketing strategies, but also to be capable of managing human resources effectively and efficiently. Human resources are the company's primary asset, serving as planners, implementers, and controllers of all organizational activities. Therefore, a company's success largely depends on the quality and productivity of its employees. Employee productivity is one of the key indicators used to assess a company's success in achieving its predetermined objectives. Productivity reflects employees' ability to generate optimal output by utilizing available resources efficiently. Productive employees are not only able to complete tasks according to targets, but also maintain work quality, timeliness, and responsibility for assigned duties. Conversely, low employee productivity can lead to a decline in company performance, failure to achieve work targets, and reduced competitiveness in the market.

In the context of human resource management, work productivity is influenced not only by individual capabilities but also by various organizational factors embedded within the company's work environment. These factors include leadership, work environment, and employee work motivation. These three factors are interrelated and play a strategic role in shaping employee work behavior. Effective

leadership is able to provide direction, motivation, and role modeling for employees, while a conducive work environment can create a sense of comfort and security at work. Work motivation functions as an internal drive that encourages employees to work with enthusiasm and a high sense of responsibility. Leadership is one of the key factors determining organizational success in achieving its goals. A leader is not only responsible for directing work, but also acts as a driving force and motivator for employees. Leaders who are able to communicate effectively, provide clear objectives, and act fairly and consistently tend to foster harmonious working relationships with their subordinates. Conversely, inconsistent leadership that lacks effective communication and frequently changes policies may create confusion, reduce work morale, and negatively affect employee productivity.

In addition to leadership, the work environment also plays an important role in influencing employee productivity. The work environment encompasses both physical and non-physical conditions surrounding employees during work. The physical work environment includes lighting, air ventilation, cleanliness, workspace layout, noise levels, and available work facilities. Meanwhile, the non-physical work environment includes relationships among employees, relationships between supervisors and subordinates, work climate, and organizational culture. A conducive work environment provides employees with a sense of comfort and security, enabling them to work more focused and productively.

Work motivation is an internal factor that encourages employees to work earnestly and achieve optimal work outcomes. Work motivation may originate from within employees themselves or from the work environment, such as rewards, recognition, opportunities for development, and support from leadership. Employees with high work motivation tend to demonstrate greater work enthusiasm, discipline, and responsibility toward their jobs. Conversely, low work motivation may lead to decreased productivity, increased absenteeism, and lower organizational commitment.

PT. AMS Yamaha Fortuna Ciparay is a company engaged in motorcycle sales and official after-sales services for the Yamaha brand in the Ciparay area and its surroundings. As an authorized dealer, the company plays a strategic role in maintaining service quality, customer satisfaction, and achieving sales targets set by the principal. To achieve these objectives, the company relies heavily on the performance and productivity of employees directly involved in sales activities, service operations, and other operational functions. Based on preliminary observations, PT. AMS Yamaha Fortuna Ciparay faces several issues related to leadership and the work environment. One of the main problems identified is the frequent change of leadership within a relatively short period. Frequent leadership turnover results in differences in leadership styles and policies that are directly experienced by employees. This condition creates uncertainty in work direction, confusion in task implementation, and a decline in employee work motivation. Furthermore, the work environment conditions at PT. AMS Yamaha Fortuna Ciparay have not yet been fully optimized. Several issues identified include inefficient workspace layout, high noise levels, inadequate air ventilation, and work facilities that do not fully support employee comfort. The non-physical work environment also indicates less harmonious working relationships between leaders and employees, as well as a lack of effective communication within the organization.

These leadership and work environment issues have an impact on decreasing employee work motivation, which ultimately affects work productivity. This is reflected in sales performance data that does not consistently meet the targets set by the company. Employees' inability to consistently achieve work targets indicates problems in human resource management that require serious attention from management. Leadership and the work environment play an important role in influencing employee productivity, both directly and indirectly through work motivation as an intervening variable. Therefore, this research is important to determine the extent to which leadership and the work environment influence employee productivity, with work motivation as an intervening variable at PT. AMS Yamaha Fortuna Ciparay. The results of this study are expected to contribute theoretically to the development of human resource management knowledge and provide practical recommendations for companies in improving employee productivity.

PT. AMS Yamaha Fortuna Ciparay is one of the business units operating in the field of motor vehicle sales and after-sales services in the West Java region. Operational success in this company is highly dependent on employee productivity, both for those directly involved in production, sales, and after-sales services. Employees in this sector are required to work with high levels of accuracy, timeliness, and speed in serving customers while maintaining product and service quality. To maintain its position, the company must ensure that employee productivity remains at an optimal level. Improving productivity is certainly supported by effective resource management. Human resource management is closely related to the role of employees, who are expected to demonstrate optimal performance to support the achievement of organizational goals. Good employee performance will lead to increased productivity. Employees are viewed as the company's main asset, playing a strategic role within the organization as planners, controllers, and primary drivers of various organizational activities (Rahman et al., 2020).

Employee productivity is a crucial factor in determining a company's success. Therefore, increasing productivity is a key focus for achieving company goals (Widyasari & Marhamah, 2021). Companies are required to continuously improve productivity in order to survive in an increasingly competitive market. Optimal employee productivity does not only depend on individual abilities, but is also influenced by various external factors, including leadership and the work environment provided by the company (Sabilah & Novriansyah, 2024). Leadership plays a strategic role in directing, motivating, and guiding employees to achieve organizational goals. Leaders who are able to create harmonious working relationships, provide clear direction, and set an example in their work will foster a positive work environment (Azmy, 2021). In addition, the work environment also plays an important role in determining employee productivity. The work environment includes physical factors such as workspace layout, lighting, room temperature, as well as psychological factors such as relationships between coworkers, work culture, and stress levels. According to Indahyati, the work environment refers to the place where employees carry out their professional activities. Therefore, companies must be able to create an atmosphere that supports effective cooperation between leaders, employees, and colleagues with equal positions (Fau & Buulolo, 2023).

Initial observations indicate that PT. AMS Yamaha Fortuna Ciparay experiences deficiencies in both its physical and non-physical work environment. Physically, excessive noise, inefficient workspace layout, inadequate ventilation, poor sanitation, limited workspaces, and insufficient welfare-supporting facilities reduce employee comfort and operational efficiency. Non-physically, frequent leadership changes and weak managerial–employee relationships create an unconducive work climate characterized by unclear direction and low adaptability. These conditions collectively hinder employee comfort, stability, and productivity.

**Table 1 Sales Data for PT. AMS Yamaha Fortuna Ciparay in 2024**

| Month | Target (Units) | Achievement (Units) | Percentage |
|---|---|---|---|
| January | 85 Units | 76 Units | 89% |
| February | 85 Units | 60 Units | 70% |
| March | 85 Units | 69 Units | 81% |
| April | 70 Units | 44 Units | 62% |
| May | 50 Units | 37 Units | 74% |
| June | 50 Units | 39 Units | 78% |
| July | 50 Units | 41 Units | 82% |
| August | 50 Units | 42 Units | 84% |
| September | 50 Units | 42 Units | 84% |
| October | 50 Units | 35 Units | 70% |
| November | 50 Units | 22 Units | 44% |
| December | 50 Units | 31 Units | 62% |

**Source: Sales Target Data for PT. AMS Yamaha Fortuna Ciparay 2024**

The table above shows that PT. AMS Yamaha Fortuna Ciparay has set monthly sales targets. However, the data shows that from January to December 2024, employees were not always able to meet these targets. Failure to achieve these targets certainly has an impact on both parties, the company and the employees. This problem is related to the incompatibility of leadership styles and a fluctuating work environment, which has led to a decline in employee morale. This indicates that work motivation is a strategic point that also needs to be considered by management, as it can bridge the influence between the managerial system and the comfort of the environment on employee performance.

**Literature Review**

Saiful (2022) believes that the success of an organization greatly depends on the quality of its leadership. Leaders play a crucial role in motivating and guiding their team members, ensuring that they work effectively and efficiently. Good leadership skills are necessary to build, develop, and improve the competitiveness of an organization in achieving success. According to Sunyoto in Waskito & Kartini (2021), Leadership indicators consist of the ability to motivate, communication patterns, leadership capacity, and decision-making skills. Sedarmayanti revealed that the work environment includes various elements that support an individual's activities in carrying out their duties. A conducive work environment will have a positive impact on increasing employee motivation, thereby encouraging higher work

productivity (Fau & Buulolo, 2023). Septiady & Hamidan (2022) Work environment indicators consist of the physical work environment, which is divided into direct and indirect environments, as well as the non-physical work environment related to social relationships and work dynamics within the organization. Puji et al. (2024) believes that work motivation is an internal psychological condition that encourages, directs, and maintains employee behavior so that it is oriented towards achieving organizational goals in an optimal manner. Work motivation plays a strategic role in increasing employee productivity, because it not only affects the intensity of work, but also the direction and duration of a person's work behavior in achieving organizational goals. Motivation indicators according to Agustiningsih et al. (2023) consisting of work intensity, consistency in action, and behavioral orientation. Sutrisno (2017) Work productivity is a key factor for an institution or company in achieving its established goals. In order to remain competitive, institutions or companies must continuously improve productivity, as this is directly related to organizational performance and operational effectiveness. Productivity indicators can be measured through three indicators, namely work quantity, work quality, and timeliness (Septiady & Hamidan, 2022). Previous research conducted by Saiful (2022) reinforces these findings with regression analysis results that show a positive and significant effect of leadership and work environment on the productivity of PT. Nagamas Agro Mulia employees. In addition, research conducted by Puji et al. (2024) proving that work motivation can act as a mediating variable in the relationship between leadership or work environment and performance or productivity. This means that the influence of leadership and work environment on productivity is not only direct, but also indirect through increased employee work motivation.
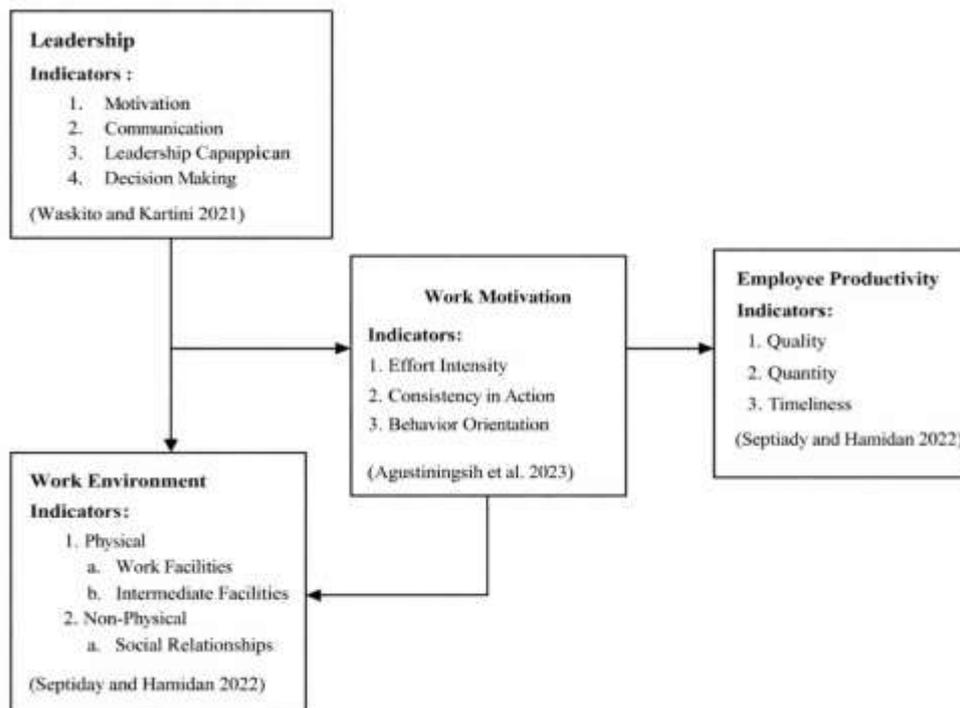


**Figure 1. Research Framework**

## 2. Method

This study uses a quantitative research method with a descriptive and verificative approach. The descriptive approach is used to systematically and factually describe the conditions of leadership, work environment, work motivation, and employee productivity at PT. AMS Yamaha Fortuna Ciparay. Meanwhile, the verifiable approach is used to test the previously formulated hypothesis through statistical analysis, so that the relationship and influence between the research variables can be determined. The quantitative research method was chosen because this study focuses on measuring research variables objectively using numerical data. Data was obtained from questionnaires distributed to respondents, then analyzed using statistical techniques to determine the cause-and-effect relationship between variables. With this approach, researchers can draw empirical conclusions that are scientifically accountable. The research design used is a survey with a cross-sectional approach, where data collection is conducted at a specific time without any special treatment of respondents. This study aims to determine the actual conditions of

the research variables as they are at the time of the study. This approach is considered appropriate because the study does not aim to change the behavior of respondents but to observe and analyze the phenomena occurring within the organization. The research model used is a causal relationship model, because this study aims to determine the effect of independent variables on dependent variables, both directly and indirectly through intervening variables. The independent variables in this study are leadership and work environment, the intervening variable is work motivation, while the dependent variable is employee productivity. The relationship between variables is analyzed using path analysis.

The population in this study consisted of all permanent employees of PT. AMS Yamaha Fortuna Ciparay, totaling 34 individuals. Given that the population size was relatively small, a saturated sampling technique was applied, in which all members of the population were included as research samples. The use of saturated sampling aimed to obtain a more accurate and comprehensive description of employee conditions within the company. Variable operationalization was conducted to translate research concepts into measurable indicators. The leadership variable was measured through indicators including the ability to provide motivation, communication patterns, decision-making ability, and leadership role modeling. The work environment variable was measured using indicators such as physical working conditions, relationships among employees, relationships with supervisors, and overall work atmosphere. The work motivation variable was measured through indicators of achievement needs, the need for recognition, and the drive for self-development. Meanwhile, employee productivity was measured through indicators of work quality, work quantity, timeliness, and work responsibility. The data collection techniques employed in this study included questionnaires, observation, and documentation studies. Questionnaires were used as the primary technique to obtain primary data from respondents. The questionnaires were developed based on the research variable indicators and measured using a five-point Likert scale. Observations were conducted to obtain direct insights into the working environment conditions and employee behavior. Documentation studies were used to obtain supporting data such as the number of employees, organizational structure, and records of work target achievement. Data analysis was carried out using IBM SPSS version 26. The stages of data analysis included research instrument testing, classical assumption tests, path analysis, and hypothesis testing. Instrument testing consisted of validity and reliability tests to ensure that the research instruments were appropriate for use. Classical assumption tests were conducted to ensure that the regression model met the assumptions of normality, multicollinearity, and heteroscedasticity.

Path analysis was employed to identify both direct and indirect effects among the research variables. Furthermore, hypothesis testing was conducted using t-tests to examine partial effects and F-tests to assess simultaneous effects among variables. The coefficient of determination was used to determine the extent of the contribution of independent variables to the dependent variable. The research method applied in this study was an associative method with a quantitative approach. The associative quantitative approach was used to analyze the relationships among the variables under investigation. Through this approach, the collected data could be systematically processed to produce accurate conclusions regarding the interrelationships among the variables involved. Associative research is a type of research that explains the relationship between two or more variables and how that relationship occurs based on quantitative data. According to Cresswell & Cresswell (2018) the quantitative approach emphasizes testing theories through variable measurement and numerical analysis to test hypotheses. The population in this study consisted of 34 employees of PT. AMS Yamaha Fortuna Ciparay. Because the population size was relatively small, i.e., less than 100, a saturated sampling technique was used in this study. According to Bougie & Sekaran (2020) states that total sampling technique is used when the population is small and allows for complete observation.

Data analysis uses path analysis through the SPSS program. This method was chosen because the research model involves more complex causal relationships, where independent variables not only directly affect dependent variables, but also through mediating variables. With this research method, it is hoped that the results of the study can provide a comprehensive picture of the influence of leadership and work environment on employee productivity with work motivation as an intervening variable at PT. AMS Yamaha Fortuna Ciparay.

## 3. Results and Discussion

PT. AMS Yamaha Fortuna Ciparay is an authorized Yamaha dealer operating in motorcycle sales and official after-sales services in the Ciparay area and its surroundings. As an authorized dealer, the company holds strategic responsibility for maintaining service quality, customer satisfaction, and achieving sales targets set by the principal. Organizational performance is therefore highly dependent on the quality and productivity of its human resources. The company employs 34 permanent employees across several

divisions, including sales, administration, service, mechanics, warehouse, and other operational support units. Employee tasks require accuracy, speed, and effective interaction with customers, making leadership and work environment conditions critical determinants of employee motivation and productivity. Preliminary observations indicate several internal challenges faced by the company, including frequent leadership turnover, suboptimal physical work environment conditions, and less harmonious working relationships. These issues have contributed to declining employee motivation, which in turn affects overall work productivity. Such conditions provide a strong rationale for conducting this study.

The respondent characteristics reflect the demographic profile of employees at PT. AMS Yamaha Fortuna Ciparay. In terms of gender, the majority of respondents are male, primarily occupying technical and operational positions such as mechanics and field sales, which demand physical activity and high mobility. Most respondents are within the productive age range of 21–35 years, a stage characterized by high work energy and development potential. However, employees in this age group also require effective leadership, motivation, and a supportive work environment to optimize their performance. Regarding educational background, most employees are high school or vocational school graduates, with a smaller proportion holding diploma and undergraduate degrees. This profile aligns with the automotive retail sector, which emphasizes technical skills and practical experience. Employee tenure varies from less than one year to over five years, indicating differences in experience, loyalty, and adaptation to organizational culture.

## Results of Research Instrument Testing

The research instrument used in this study was a questionnaire developed based on indicators of each variable, namely leadership, work environment, work motivation, and employee productivity. Prior to further analysis, the instrument was tested for validity and reliability to ensure that the measurement tool was capable of accurately measuring the variables under investigation. The validity test results indicate that all statement items across the four variables have correlation coefficient values greater than the critical r-value. This finding demonstrates that each item has good accuracy in measuring its respective construct. Therefore, all questionnaire items were declared valid and suitable for use in the study. Furthermore, the reliability test results show that the Cronbach's Alpha values for each variable exceed the minimum threshold of 0.60. This indicates that the research instrument has good internal consistency, meaning that respondent responses are reliable and relatively stable. With the fulfillment of validity and reliability requirements, the research instrument was deemed appropriate for subsequent analysis.

## Results of Classical Assumption Tests

Classical assumption tests were conducted as a prerequisite for path analysis to ensure that the estimation results were unbiased and reliable. The classical assumption tests included normality, multicollinearity, and heteroscedasticity tests. The normality test results indicate that the data in both the first and second models are normally distributed, as evidenced by significance values greater than 0.05. Normal data distribution suggests that the regression model is appropriate for further analysis. The multicollinearity test results show that the tolerance values for each independent variable are greater than 0.10 and the Variance Inflation Factor (VIF) values are less than 10. Thus, it can be concluded that there is no strong linear relationship among independent variables, indicating that the regression model is free from multicollinearity issues. Additionally, the heteroscedasticity test results reveal no specific pattern in the scatterplot graph, with data points randomly distributed above and below the zero line. This indicates that the regression model does not experience heteroscedasticity, and the residual variance is constant.

## Results of Path Analysis

Path analysis was conducted to determine the magnitude of both direct and indirect effects of leadership and work environment on employee productivity through work motivation as an intervening variable. The analysis results indicate that leadership and work environment have a positive effect on work motivation. This means that better leadership quality and more favorable work environment conditions lead to higher employee motivation. Furthermore, the analysis also demonstrates that leadership, work environment, and work motivation have positive effects on employee productivity. Work motivation is proven to mediate the influence of leadership and work environment on employee productivity. In other words, effective leadership and a conducive work environment enhance work motivation, which in turn drives improvements in employee productivity.

## Discussion

The Influence of Leadership on Work Motivation. The results of the study indicate that leadership has a positive and significant effect on the work motivation of employees at PT. AMS Yamaha Fortuna Ciparay. These findings confirm that the quality of leadership behavior ncluding clarity of direction,

consistency of policy, communication skills, and exemplary behavior plays an important role in shaping employees' internal drive to work harder. Theoretically, these findings are in line with the views of Robbins and Judge, who state that effective leaders are able to influence the attitudes and motivation of their subordinates through persuasive communication and giving meaning to work. Leadership that is able to align individual goals with organizational goals will increase work engagement, which ultimately strengthens work motivation.The results of this study are also consistent with previous research by Sabilah & Novriansyah (2024), which found that leadership has a significant effect on employee work motivation in service organizations. Another study by Waskito & Kartini (2021) shows that leaders who are able to provide motivation and emotional support will encourage employees to show greater enthusiasm for their work.

In the context of PT. AMS Yamaha Fortuna Ciparay, frequent leadership changes have caused differences in leadership styles that are felt by employees. This inconsistency has the potential to reduce work motivation because employees need time to adapt to new directions and policies. Therefore, the findings of this study emphasize the importance of consistency and stability in leadership in maintaining employee work motivation.The Influence of the Work Environment on Work Motivation: The results of the study show that the work environment has a positive and significant effect on employee work motivation. These findings indicate that the work environment, both physical and non-physical, has a real contribution in shaping employee morale and comfort at work.

According to Sedarmayanti, a good work environment will create a sense of security and comfort so that employees are encouraged to work optimally. The physical work environment, such as lighting, ventilation, cleanliness, and ergonomic workspace layout, can reduce work fatigue. Meanwhile, the non-physical work environment, such as interpersonal relationships, communication, and organizational climate, will affect the psychological condition of employees.The findings of this study are in line with research Tarigan et al. (2022) which states that the work environment has a significant effect on employee motivation. Another study by Rahman et al. (2020) It also shows that a conducive work environment can increase employee motivation and job satisfaction.

At PT. AMS Yamaha Fortuna Ciparay, suboptimal working conditions—such as high noise levels, inefficient room layout, and limited work facilities are factors that have the potential to reduce work motivation. Thus, improving the work environment is a strategic step to increase employee motivation in a sustainable manner. The Influence of Leadership on Employee Productivity The results of the study show that leadership has a positive and significant effect on employee productivity. These findings indicate that the role of a leader is not only limited to giving directions, but also as the main driver in improving employee performance and work results. Theoretically, Hasibuan states that effective leadership will encourage employees to work according to established standards, thereby increasing organizational productivity. Leaders who are able to set clear targets, provide periodic evaluations, and reward work achievements will create a productive work culture.

The results of this study are in line with research Rahman et al. (2020) which found that leadership has a significant effect on employee productivity in the industrial and service sectors. Research Widowati (2020) It also shows that good leadership can improve employee work efficiency and effectiveness. In the context of PT. AMS Yamaha Fortuna Ciparay, leadership instability has the potential to affect the achievement of work targets, particularly in the sales and after-sales service departments. Therefore, improving leadership quality is a key factor in increasing employee productivity. The Influence of the Work Environment on Employee Productivity, The results of the study show that the work environment has a positive effect on employee productivity. A conducive work environment allows employees to work with greater focus, efficiency, and minimal distractions.According to Saiful (2022), a good work environment supports smooth work processes and reduces the potential for work errors. An inadequate work environment, such as cramped workspaces and damaged facilities, can decrease concentration and increase work fatigue. These research findings are in line with research Tarigan et al. (2022) which states that both the physical and non-physical work environment have a significant effect on employee productivity. Another study by Puji et al. (2024) also indicates that a favorable work environment has a positive impact on employee performance and productivity. At PT. AMS Yamaha Fortuna Ciparay, an unsupportive work environment has been identified as one of the factors contributing to the failure to consistently achieve sales targets. Therefore, improvements in work facilities and the reorganization of workspaces are important steps in enhancing employee productivity.

The Effect of Work Motivation on Employee Productivity

The results of this study indicate that work motivation has a positive and significant effect on employee productivity. Employees with high levels of work motivation tend to demonstrate greater work enthusiasm, discipline, and responsibility in completing their tasks. According to Herzberg's motivation

theory, motivational factors such as rewards, recognition, and opportunities for growth encourage employees to achieve higher levels of performance. Work motivation functions as a driving force that directs employee behavior toward the achievement of organizational goals. The findings of this study are consistent with research conducted by Nurfitriani (2023), which states that work motivation has a significant effect on employee productivity. Another study by Rahman et al. (2020) also demonstrates that work motivation makes a substantial contribution to improving employee performance and productivity.

The Role of Work Motivation as an Intervening Variable

The results of this study show that work motivation acts as an intervening variable in the relationship between leadership and the work environment on employee productivity. This indicates that the influence of leadership and the work environment on productivity does not occur solely through direct effects, but also indirectly through increased work motivation. This finding is in line with the study by Puji et al. (2024), which states that work motivation is able to mediate the effects of leadership and the work environment on employee performance. With high levels of work motivation, the positive influence of leadership and the work environment on productivity becomes stronger. In the context of PT. AMS Yamaha Fortuna Ciparay, efforts to improve employee productivity will be more effective if the company not only improves leadership systems and the work environment, but also actively fosters employee motivation through reward programs, career development opportunities, and effective communication.

Path analysis was employed in this study to examine the magnitude of both direct and indirect effects among the independent variables, the mediating variable, and the dependent variable. In this study, Leadership ($X_1$) and Work Environment ($X_2$) served as independent variables, Work Motivation (Z) as the mediating variable, and Employee Productivity (Y) as the dependent variable. The analysis was conducted using two models. Model I tested the effects of Leadership ($X_1$) and Work Environment ($X_2$) on Employee Productivity (Y). Model II tested the effects of Leadership ($X_1$) and Work Environment ($X_2$) on Work Motivation (Z).

**Table 2 Results Test Analysis Path Analysis Model I**

| Model | Variable | Unstandardized Coefficients (B) | Std. Error | Standardized Coefficients (Beta) | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | 57.842 | 4.112 | — | 1.903 | 0.065 |
| | Leadership | 0.421 | 0.128 | 0.392 | 3.281 | 0.003 |
| | Work Environment | 0.356 | 0.141 | 0.314 | 2.529 | 0.016 |

Dependent Variable: Employee Productivity
Source: Data Processing Results, 2025

Based on the regression output of model I in table coefficients , obtained mark significance variables Leadership (X1) is 0.003 and mark significance variables Work Environment (X2) is 0.016, both of which more small from level significance 0.05. With thus , it can concluded that Good variables Leadership (X1) and variables Work Environment (X2) in general partial own influence significant to variables Productivity Employee (Y)

**Table 3 Path Analysis Results Model II**

| Model | Variable | Unstandardized Coefficients (B) | Std. Error | Standardized Coefficients (Beta) | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | -1.957 | 0.962 | — | -2.036 | 0.053 |
| | Leadership | 0.655 | 0.141 | 0.518 | 4.636 | 0.000 |
| | Work Environment | 0.792 | 0.178 | 0.489 | 4.456 | 0.000 |
| | Employee Productivity | 0.487 | 0.152 | 0.368 | 3.205 | 0.004 |

Dependent Variable: Work Motivation
Source: Data Processing Results, 2025

In Model II of path analysis, based on the results in the *coefficients table* , the significance value of the Leadership variable (X1) is 0.000, the Work Environment variable (X2) is 0.000, and the Employee Productivity variable (Y) is 0.004. Therefore, the Leadership variable (X1), Work Environment (X2), and Employee Productivity variable (Y) have a significance value smaller than 0.05, so that both have a

significant effect on the Work Motivation variable (Z).

**Table 4 Results Hypothesis Testing Partial (t) against Productivity Employee**

| Model Variable | Unstandardized Coefficients (B) | Std. Error | Standardized Coefficients (Beta) | t | Sig. |
|---|---|---|---|---|---|
| 1 (Constant) | 7.842 | 4.112 | — | 1.903 | 0.065 |
| Work Environment | 0.421 | 0.128 | 0.392 | 3.281 | 0.003 |
| Leadership | 0.356 | 0.141 | 0.314 | 2.592 | 0.016 |
| Work Motivation | 0.487 | 0.152 | 0.368 | 3.205 | 0.004 |

**Dependent Variable: Employee Productivity**
**Source: Data Processing Results, 2025**

Based on t-test results on variables dependent Productivity Employees , it is known that variables independent Leadership , Work Environment , and Work Motivation have an influence significant . This is shown with calculated t value > t table (2.039) and the value significance < 0.05. In general detailed. Leadership own t - value of 3,281 > 2,039, Work Environment of 2,592 > 2,039, and Work Motivation of 3,205 > 2,039. With thus , thirdly variables the proven influential significant to Productivity Employee.

**Table 5 Results Hypothesis Testing Partial (t) against Work motivation**

| Model Variable | Unstandardized Coefficients (B) | Std. Error | Standardized Coefficients (Beta) | t | Sig. |
|---|---|---|---|---|---|
| 1 (Constant) | -1.957 | 0.962 | — | -2.036 | 0.053 |
| Leadership | 0.655 | 0.141 | 0.518 | 4.636 | 0.000 |
| Work Environment | 0.792 | 0.178 | 0.489 | 4.456 | 0.000 |
| Employee Productivity | 0.487 | 0.152 | 0.368 | 3.205 | 0.004 |

**Dependent Variable: Work Motivation**
**Source: Data Processing Results, 2025**

The results of the t-test on the variables dependent Work Motivation shows that variables independent Leadership , Work Environment , and Productivity Employee influential significant . This is proven with calculated t value > t table (2.039) and the value significance < 0.05. In general detailed , Leadership own the calculated t value is 4.636, the work environment is 4.456, and Productivity Employee amounting to 3,205. With thus , thirdly variables the proven influential significant to Productivity Employee.

**Table 6 Simultaneous Test Results (F) on Employee Productivity**

| Model Source | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| 1 Regression | 193.843 | 3 | 64.614 | 13.281 | 0.000 |
| Residual | 2250.392 | 30 | 75.013 | - | - |
| Total | 2444.235 | 33 | - | - | - |

**Dependent Variable: Employee Productivity**
**Predictors: (Constant), Work Motivation, Work Environment, Leadership**
**Source: Data Processing Results, 2025**

Based on results analysis regression , obtained mark F count amounting to 13,281 with Ftable of 3.29 and the Sig. value (.000) < 0.05. Because F count (13.281) > F table (3.29), then H0 is rejected and Ha is accepted . This shows that that variables independent ( Work Motivation , Work Environment , and Leadership ) simultaneous influential significant to variables dependent Productivity Employee (Y).

**Table 7 simultaneous Test Results (F) for Work Motivation**

| Model | Source | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 1705.140 | 3 | 568.380 | 20.419 | 0.000 |
| | Residual | 835.095 | 30 | 27.837 | — | — |
| | Total | 2540.235 | 33 | — | — | — |

**Dependent Variable: Work Motivation**
**Predictors: (Constant), Employee Productivity, Work Environment, Leadership**
**Source: Data Processing Results, 2025.**

Based on results analysis regression , obtained mark F count amounting to 20,419 with Ftable of 3.29 and the Sig. value (.000) < 0.05. Because F count (20.419) > F table (3.29), then H0 is rejected and Ha is accepted . This shows that that variables independent ( Productivity Employees , Work Environment , and Leadership ) in simultaneous influential significant to variables dependent Work Motivation (Z).

**Table 8 Results of the Coefficient of Determination Test (R2)**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | 0.732 | 0.536 | 0.498 | 5.421 |

**Predictors: (Constant), Work Motivation, Work Environment, Leadership**
**Source: Data Processing Results, 2025**

Obtained R Square value of 0.536. With thus , it can concluded that work environment , leadership , and work motivation provide contribution by 53.6% against improvement productivity employees . As for the rest 46.4 % is influenced by other factors outside this research , for example compensation , culture organization , work facilities , and factor external other.

## 4. Conclusion

Based on the research findings, it can be concluded that leadership and the work environment play a crucial role in enhancing work motivation and employee productivity at PT. AMS Yamaha Fortuna Ciparay. Effective and consistent leadership significantly increases employee motivation and productivity, while a conducive work environment both physical and non-physical also contributes positively to these outcomes. Work motivation functions as an intervening variable that strengthens the influence of leadership and the work environment on employee productivity. The results of the t-tests indicate that leadership, the work environment, and work motivation each have a positive and significant effect on employee productivity ($p < 0.05$). Leadership emerged as the most dominant variable, as reflected by the highest t-value and path coefficient ($\beta = 0.518$). Regression and path analysis further confirm that work motivation mediates the relationship between leadership, the work environment, and employee productivity. The coefficient of determination ($R^2$) of 0.536 indicates that leadership, the work environment,and work motivation collectively explain 53.6% of the variance in employee productivity, while the remaining 46.4% is influenced by other factors not examined in this study, such as compensation, organizational culture, reward systems, work discipline, and external organizational factors. Based on these conclusions, it is recommended that PT. AMS Yamaha Fortuna Ciparay strengthen leadership consistency, improve work environment conditions, and implement sustainable programs to enhance employee motivation. Future studies are encouraged to include additional relevant variables and larger sample sizes to obtain more comprehensive results.

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