

# Examining the Impact of Work Motivation and Work Environment on Employee Productivity in the Snack Food Industry

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## ABSTRACT

Employee productivity is a critical factor in ensuring the competitiveness and sustainability of manufacturing industries, including the snack food sector. This study aims to examine the effect of work motivation and work environment on employee productivity in snack food companies located in Tangerang Regency. A quantitative research approach was employed using a survey method. The population consisted of employees working in snack food industries, with a sample of 100 respondents selected based on Arikunto's sampling guideline. Data were collected through an online questionnaire using a five-point Likert scale and analyzed using SPSS. The results of multiple linear regression analysis indicate that work motivation and work environment have positive and significant effects on employee productivity, both partially and simultaneously. Work motivation emerges as the dominant variable influencing employee productivity. The coefficient of determination shows that motivation and work environment jointly explain a substantial proportion of the variance in employee productivity. Hypothesis testing using t-tests and F-tests confirms that all proposed hypotheses are supported. These findings suggest that enhancing employee motivation and improving workplace conditions are essential strategies for increasing productivity in the snack food industry. This study contributes to the existing literature by providing empirical evidence from a regional manufacturing context and offers practical implications for managers in labor-intensive industries. Insights for marketplace managers in designing effective marketing strategies.

## 1. INTRODUCTION

Employee productivity remains a central concern in organizational management, particularly within manufacturing industries that rely heavily on human labor, such as the snack food industry. In this sector, production efficiency, consistency of output, and adherence to quality standards are directly influenced by employees' ability to perform tasks effectively. However, many snack food manufacturing companies continue to face challenges related to fluctuating productivity levels, including delays in production schedules, inconsistent output quality, and inefficiencies in work processes. These issues are often linked to internal human resource factors rather than technological limitations, highlighting the importance of understanding behavioral and environmental determinants of productivity.

From a theoretical perspective, employee productivity is strongly associated with work motivation, which represents the internal and external forces that stimulate individuals to act toward achieving organizational goals (Robbins & Judge, 2021). Motivation theory suggests that employees who perceive their work as meaningful and rewarding are more likely to exert higher levels of effort, demonstrate persistence, and engage proactively in problem-solving. Self-determination theory further emphasizes that intrinsic motivation, supported by autonomy, competence, and relatedness, enhances performance outcomes, particularly in repetitive and routine production tasks commonly found in manufacturing environments (Ryan & Deci, 2020). In labor-intensive industries, insufficient motivation may result in absenteeism, reduced work engagement, and lower productivity, thereby affecting overall organizational performance.

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Empirical studies consistently support the positive role of work motivation in enhancing employee productivity. Recent research conducted in manufacturing and service sectors indicates that motivated employees tend to achieve higher output levels and exhibit better task efficiency compared to those with low motivation (Putra & Kurniawati, 2023; Wardani, 2024). These findings suggest that motivation functions not only as a psychological driver but also as a strategic resource for organizations seeking to improve productivity outcomes. Nevertheless, motivation alone may not fully explain productivity variations, as employees operate within specific work environments that can either facilitate or hinder performance.

The work environment is another critical factor influencing employee productivity. It encompasses both physical elements, such as workplace layout, lighting, noise, and safety, and non-physical aspects, including interpersonal relationships, supervisory support, and organizational culture. According to the job demands-resources (JD-R) model, a supportive work environment provides adequate resources that reduce job strain and enhance employee performance (Bakker & Demerouti, 2020). In contrast, unfavorable environmental conditions may lead to fatigue, stress, and decreased productivity, particularly in manufacturing settings where employees perform physically demanding tasks for extended periods.

Recent empirical evidence confirms the significant influence of the work environment on employee productivity. Studies conducted across various industries, including manufacturing firms and micro, small, and medium enterprises (MSMEs), demonstrate that employees working in safe, comfortable, and well-organized environments tend to exhibit higher productivity levels (Kusuma et al., 2025; Azis & Hakim, 2026). These findings reinforce the argument that improving environmental conditions is a crucial managerial strategy for enhancing productivity. However, existing studies also reveal inconsistent results regarding the relative strength of motivation and work environment in predicting productivity, indicating the need for further investigation in different industrial contexts. Several studies have examined the combined effects of work motivation and work environment on employee productivity, suggesting that both variables interact to shape performance outcomes. For example, research by Putri et al. (2025) found that motivation and work environment jointly influence productivity, with job satisfaction acting as an intervening variable. Similarly, other studies introduce work discipline or organizational commitment as mediating factors, implying that direct relationships between motivation, environment, and productivity may be context-dependent (Manajemen et al., 2025). While these studies enrich the literature, they also indicate that findings are not universally generalizable across industries.

Despite the growing body of literature, a notable research gap exists regarding the snack food industry, particularly in emerging economies such as Indonesia. Most prior studies focus on general manufacturing, service industries, or MSMEs, with limited attention given to snack food manufacturing, which possesses distinct characteristics such as high production volume, repetitive tasks, strict hygiene standards, and time-sensitive operations. These unique conditions may alter how motivation and work environment influence employee productivity, thereby necessitating industry-specific empirical investigation. Accordingly, the novelty of this study lies in its sectoral focus on the snack food industry, which remains underexplored in the context of human resource determinants of productivity. By examining the direct effects of work motivation and work environment on employee productivity within this specific industry, this study extends existing literature by providing contextualized evidence that reflects the operational realities of snack food manufacturing. Furthermore, this research contributes to theoretical development by reinforcing and refining established organizational behavior theories within a new industrial setting.

The objective of this study is to empirically examine the impact of work motivation (X1) and work environment (X2) on employee productivity (Y) in the snack food industry. The findings are expected to offer practical insights for managers and policymakers in designing effective motivational strategies and improving workplace conditions to enhance productivity. At the theoretical level, this study aims to enrich the literature on human resource management and organizational behavior by addressing existing gaps and offering empirical evidence from a previously underrepresented industry context.

## **2. LITERATURE REVIEW AND HYPOTESIS**

### **Literature Review**

#### *Work Motivation*

Work motivation refers to the internal and external forces that initiate, direct, and sustain employees' work-related behaviors toward achieving organizational goals. In organizational behavior literature, motivation is considered a key psychological mechanism that determines the level of effort employees are willing to exert in their jobs (Robbins & Judge, 2021). Motivation is commonly categorized into intrinsic

motivation, which arises from personal interest and enjoyment of work, and extrinsic motivation, which is driven by external rewards such as wages, incentives, and recognition. Self-determination theory provides a comprehensive explanation of how motivation influences work behavior, emphasizing that employees perform more effectively when their needs for autonomy, competence, and relatedness are fulfilled (Ryan & Deci, 2020). In manufacturing environments, particularly in the snack food industry where tasks tend to be repetitive and physically demanding, maintaining employee motivation is essential to prevent boredom, fatigue, and declining performance. When employees perceive that their efforts are valued and rewarded, they are more likely to demonstrate persistence and commitment, leading to higher productivity. Recent empirical studies support the positive relationship between work motivation and employee productivity. Research conducted in manufacturing and industrial settings consistently shows that motivated employees achieve higher output levels and demonstrate greater efficiency in task completion (Putra & Kurniawati, 2023; Wardani, 2024).

### *Work Environment*

The work environment encompasses all physical and non-physical conditions surrounding employees while performing their tasks. Physical aspects include workplace layout, lighting, temperature, noise, and occupational safety, whereas non-physical aspects involve interpersonal relationships, leadership style, communication patterns, and organizational culture. A supportive work environment enables employees to perform tasks comfortably and safely, thereby enhancing productivity (Bakker & Demerouti, 2020). The job demands-resources (JD-R) model explains that job resources derived from a positive work environment can reduce job stress and foster employee engagement, which ultimately leads to improved performance outcomes. Conversely, unfavorable environmental conditions may increase fatigue, stress, and dissatisfaction, particularly in manufacturing industries where employees are exposed to physical strain and strict production targets. In snack food manufacturing, hygiene standards, workspace organization, and safety measures are especially critical, as poor environmental conditions can disrupt workflow and reduce productivity. Empirical evidence from recent studies indicates that the work environment has a significant effect on employee productivity. Research in manufacturing firms and MSMEs demonstrates that employees working in safe, well-organized, and supportive environments tend to show higher productivity levels than those working under unfavorable conditions (Kusuma et al., 2025; Azis & Hakim, 2026).

### *Employee Productivity*

Employee productivity refers to the ability of employees to produce outputs efficiently and effectively within a given period, in accordance with organizational standards and objectives. Productivity is often measured through indicators such as output quantity, work quality, timeliness, and efficiency in resource utilization. In manufacturing industries, employee productivity plays a vital role in ensuring cost efficiency, product consistency, and competitiveness in the market (Robbins & Judge, 2021). From a human resource management perspective, productivity is influenced not only by technological capabilities but also by behavioral and environmental factors. Employees who are motivated and supported by conducive work environments are more likely to maintain consistent performance and contribute positively to organizational outcomes. Several studies highlight that productivity is a multidimensional construct shaped by psychological, social, and organizational factors rather than solely individual effort (Ryan & Deci, 2020). Recent empirical research confirms that employee productivity is significantly affected by both work motivation and work environment. Studies conducted across various sectors reveal that organizations emphasizing motivational strategies and environmental improvements tend to achieve higher productivity levels (Putri et al., 2025; Manajemen et al., 2025).

## **Hypothesis**

### *The Effect Work Motivation and Employee Productivity*

Work motivation has long been regarded as a fundamental determinant of employee behavior and performance in organizational settings. Motivation drives employees to exert effort, maintain persistence, and focus their energy on achieving work-related goals. According to motivation theory, motivated employees are more likely to demonstrate higher levels of enthusiasm, responsibility, and commitment, which directly contribute to increased productivity (Robbins & Judge, 2021). In manufacturing industries, including the snack food sector, work tasks are often repetitive and physically demanding, making motivation a critical factor in sustaining employee performance over time. Empirical evidence consistently supports the positive relationship between work motivation and employee productivity. Recent studies

reveal that employees with higher motivation levels tend to produce higher output, demonstrate better work quality, and complete tasks more efficiently compared to less motivated employees (Putra & Kurniawati, 2023; Wardani, 2024). Motivation enables employees to overcome work fatigue and maintain performance standards, particularly in production-oriented environments. Based on these theoretical and empirical arguments, the first hypothesis is formulated as follows:

H1: Work motivation has a positive effect on employee productivity.

#### *The Effect of Work Environment and Employee Productivity*

The work environment represents the contextual conditions under which employees perform their tasks, encompassing both physical and psychosocial elements. A supportive work environment provides employees with the necessary resources, safety, and comfort to perform their duties effectively. The job demands-resources (JD-R) model explains that adequate job resources derived from a positive work environment reduce job strain and enhance employee engagement, leading to higher productivity (Bakker & Demerouti, 2020). Recent empirical studies demonstrate that a conducive work environment significantly improves employee productivity. Employees working in environments characterized by good lighting, appropriate temperature, safety measures, and supportive social interactions are more likely to achieve higher productivity levels (Kusuma et al., 2025; Azis & Hakim, 2026). Conversely, poor environmental conditions may increase stress and reduce work efficiency, especially in manufacturing industries where physical demands are high. Given the importance of environmental factors in shaping employee performance, the second hypothesis is proposed:

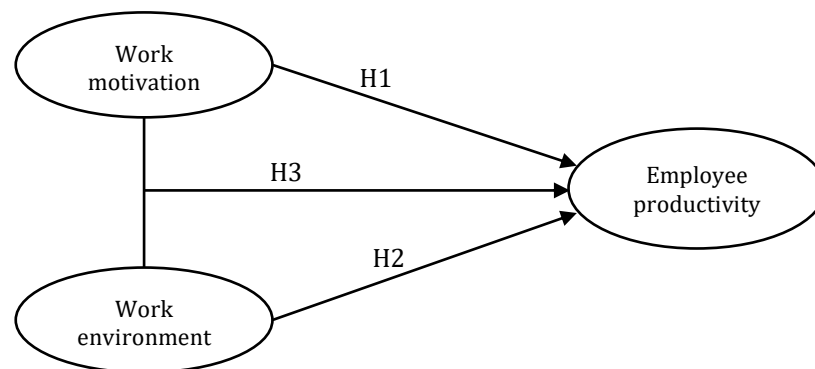
H2: Work environment has a positive effect on employee productivity.

#### *The Combined Effect of Work Motivation and Work Environment on Employee Productivity*

While work motivation and work environment independently influence employee productivity, existing literature suggests that their combined effect provides a more comprehensive explanation of productivity outcomes. Motivation reflects employees' internal willingness to perform, whereas the work environment determines the extent to which this willingness can be translated into actual performance. A conducive work environment may strengthen the effect of motivation by enabling motivated employees to perform tasks efficiently, whereas an unfavorable environment may constrain productivity even among highly motivated employees. Several empirical studies indicate that work motivation and work environment jointly exert a significant influence on employee productivity. Research findings show that organizations that simultaneously emphasize motivational strategies and environmental improvements achieve better productivity outcomes compared to those focusing on only one factor (Putri et al., 2025; Manajemen et al., 2025). These findings suggest that productivity is best understood as the result of the interaction between individual motivation and organizational context. Therefore, the third hypothesis is formulated as follows:

H3: Work motivation and work environment simultaneously have a positive effect on employee productivity

Based on organizational behavior theories and prior empirical evidence, both variables are expected to have a direct positive effect on employee productivity in the snack food industry.



**Figure 1.** Conceptual Framework

### 3. METHODS

This study employed a quantitative research design to examine the effects of work motivation and work environment on employee productivity in the snack food industry. A quantitative approach was selected to allow for objective measurement of relationships among variables and to enable statistical testing of the proposed hypotheses. The population of this study consisted of employees working in snack food manufacturing companies located in Tangerang Regency, Indonesia. Given the relatively large and diverse population, the sample size was determined using the sampling guideline proposed by Arikunto, which suggests that when the population exceeds 100 individuals, a representative sample of 10–25% may be considered adequate. Based on this guideline, a total of 100 employees were selected as respondents for this study. The sampling technique ensured that respondents represented employees involved in production-related activities within the snack food industry.

Data were collected using a structured questionnaire distributed online through Google Forms. This method was chosen to facilitate efficient data collection and to accommodate respondents' accessibility and convenience. All questionnaire items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), allowing respondents to express their level of agreement with each statement. The questionnaire consisted of three main sections corresponding to the study variables. Work motivation was measured using 15 statement items designed to capture employees' intrinsic and extrinsic motivational factors. The work environment variable was measured using 7 statement items reflecting both physical and non-physical aspects of the workplace. Employee productivity was measured using 7 statement items focusing on efficiency, work quality, and task completion. The measurement items were adapted from relevant literature and modified to suit the context of the snack food industry.

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS). Prior to hypothesis testing, several preliminary tests were performed to ensure data quality and suitability for regression analysis. Validity testing was conducted to assess whether each questionnaire item accurately measured its intended construct, while reliability testing was performed using Cronbach's alpha to ensure the internal consistency of the measurement instruments. A normality test was also carried out to confirm that the data were normally distributed. To examine the relationships among variables, partial correlation analysis was applied to identify the strength and direction of the relationship between each independent variable and employee productivity. The coefficient of determination ( $R^2$ ) was calculated to determine the extent to which work motivation and work environment explained variations in employee productivity. Multiple linear regression analysis was then employed to assess the simultaneous effects of work motivation and work environment on employee productivity. Hypothesis testing was conducted using both the t-test and the F-test. The t-test was used to evaluate the partial effects of work motivation and work environment on employee productivity, while the F-test was applied to examine the simultaneous effect of both independent variables on the dependent variable.

### 4. RESULTS AND DISCUSSIONS

#### Results

##### Validity Test

**Table 1.** Validity Test Result

	Corrected Item-Total Correlation		Corrected Item-Total Correlation		Corrected Item-Total Correlation
Motivation.1	0.497	Work Environment.1	0.541	Employee Productivity.1	0.587
Motivation.2	0.552	Work Environment.2	0.565	Employee Productivity.2	0.676
Motivation.3	0.323	Work Environment.3	0.456	Employee Productivity.3	0.523
Motivation.4	0.285	Work Environment.4	0.311	Employee Productivity.4	0.226
Motivation.5	0.46	Work Environment.5	0.443	Employee Productivity.5	0.675

	Corrected Item-Total Correlation		Corrected Item-Total Correlation		Corrected Item-Total Correlation
Motivation.6	0.704	Work Environment.6	0.47	Employee Productivity.6	0.491
Motivation.7	0.431	Work Environment.7	0.379	Employee Productivity.7	0.25
Motivation.8	0.44				
Motivation.9	0.704				
Motivation.10	0.401				
Motivation.11	0.301				
Motivation.12	0.509				
Motivation.13	0.271				
Motivation.14	0.554				
Motivation.15	0.705				

The validity test was conducted to assess whether each questionnaire item accurately measured its respective construct. Item validity was evaluated using the corrected item–total correlation method, in which an item is considered valid when its correlation value exceeds the minimum acceptable threshold of 0.20. This criterion is commonly applied in behavioral and social science research to ensure adequate construct validity, particularly in survey-based studies (Hair et al., 2020). The results indicate that all items measuring work motivation, work environment, and employee productivity met the validity requirements, as each item demonstrated a corrected item–total correlation value above the established threshold. These findings confirm that the measurement instruments were able to represent the intended constructs appropriately and consistently. Consequently, all questionnaire items were retained and considered suitable for further reliability testing and subsequent inferential statistical analysis (Sekaran & Bougie, 2020).

*Reliability Test*

**Table 2.** Reliability Test Result

Variable	Cronbach's Alpha	N of Items
Motivation	.835	15
Work Environment	.737	7
Employee Productivity	.726	7

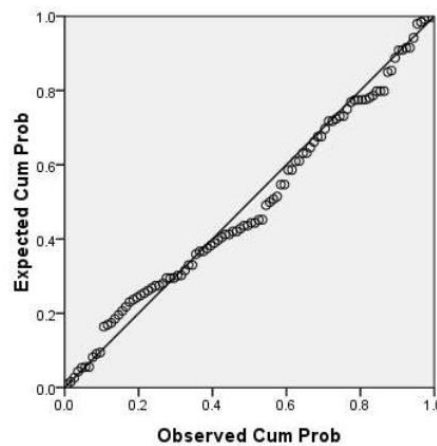
The reliability test was performed to evaluate the internal consistency of the measurement instruments used in this study. Reliability was assessed using Cronbach's Alpha coefficient, which is widely applied to determine the extent to which items within a construct are consistently measuring the same concept. A Cronbach's Alpha value of 0.70 or higher is generally considered acceptable, indicating satisfactory reliability for empirical research (Hair et al., 2020). As presented in Table 2, the results show that all variables achieved acceptable reliability levels. The motivation variable obtained a Cronbach's Alpha value of 0.835, indicating high internal consistency. Meanwhile, the work environment and employee productivity variables recorded Cronbach's Alpha values of 0.737 and 0.726, respectively, both exceeding

the recommended threshold. These findings confirm that the research instruments are reliable and suitable for further statistical analysis, including hypothesis testing and model evaluation (Sekaran & Bougie, 2020).

*Normality Test*

The normality test was conducted to examine whether the regression residuals in this study were normally distributed, which is a key assumption in multiple linear regression analysis. The assessment of normality was performed using a Normal P-P Plot of Regression Standardized Residuals, where the observed cumulative probabilities were compared with the expected cumulative probabilities under a normal distribution. As shown in Figure 2, the plotted residual points are distributed closely along the diagonal line, with no significant deviations or systematic patterns. This indicates that the residuals are approximately normally distributed. Therefore, the normality assumption is satisfied, and the data are deemed appropriate for further parametric analyses, including multiple linear regression and hypothesis testing.

**Dependent Variable: Employee Productivity**



**Figure 2.** Normality Test

The normality test was conducted to examine whether the residuals of the regression model are normally distributed, which is a key assumption in parametric statistical analysis. This study employed the Normal Probability–Probability (P–P) Plot to visually assess the distribution of standardized residuals. In a normally distributed dataset, the observed cumulative probabilities are expected to closely follow the diagonal reference line (Field, 2018). Based on the Normal P–P Plot shown in Figure, the data points are observed to cluster around and follow the diagonal line with no substantial deviations. This pattern indicates that the residuals are approximately normally distributed. Therefore, it can be concluded that the normality assumption is satisfied, and the data are appropriate for further inferential analyses, such as regression and hypothesis testing (Hair et al., 2020)

*Correlation Analysis Test*

**Table 3.** Correlation Analysis Result

		TOTAL.X1	TOTAL.X2	TOTAL.Y
TOTAL.X1	Pearson Correlation	1	.896	.795
	Sig. (2-tailed)		.000	.000
	N	100	100	100
TOTAL.X2	Pearson Correlation	.896	1	.705
	Sig. (2-tailed)	.000		.000
	N	100	100	100
TOTAL.Y	Pearson Correlation	.896	.705	1
	Sig. (2-tailed)	.000	.000	
	N	100	100	100

Correlation analysis was conducted to examine the strength and direction of the relationship between motivation (X1), work environment (X2), and employee productivity (Y). The Pearson correlation coefficient was used because the data met the assumptions of normality and interval measurement. The results indicate that motivation has a strong and positive correlation with employee productivity ( $r = 0.795$ ,  $p < 0.001$ ), suggesting that higher levels of employee motivation are associated with increased productivity. Furthermore, the work environment variable also shows a strong and positive correlation with employee productivity ( $r = 0.705$ ,  $p < 0.001$ ). This finding implies that improvements in the work environment are significantly associated with higher levels of employee productivity. In addition, motivation and work environment are strongly correlated with each other ( $r = 0.896$ ,  $p < 0.001$ ), indicating a close relationship between these independent variables. Overall, the correlation coefficients demonstrate statistically significant and positive relationships among all variables examined. These results support the assumption that motivation and work environment are important factors influencing employee productivity and justify the use of further regression analysis to test the proposed hypotheses (Hair et al., 2020; Sugiyono, 2019)..

*Coefficient of Determination (R2)*

**Table 4.** Coefficient of Determination (R2) Result

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.895a	0.733	0.725	0.26566

a. Predictors: (Constant), TOTALX1

The coefficient of determination ( $R^2$ ) analysis was conducted to assess the proportion of variance in employee productivity that can be explained by motivation and work environment variables simultaneously. Based on the results presented in Table 4, the R Square value is 0.733, indicating that 73.3% of the variation in employee productivity is explained by motivation and work environment. This suggests that the proposed model has strong explanatory power. Furthermore, the Adjusted R Square value of 0.725 indicates that after adjusting for the number of independent variables included in the model, 72.5% of the variance in employee productivity can still be explained. This minimal difference between R Square and Adjusted R Square demonstrates that the model is stable and not affected by overfitting. The remaining 27.5% of variance in employee productivity is influenced by other factors not examined in this study. Overall, these findings indicate that motivation and work environment are substantial determinants of employee productivity. A high coefficient of determination reflects a good model fit and supports the continuation of hypothesis testing using multiple linear regression analysis to evaluate the individual and simultaneous effects of the independent variables (Hair et al., 2020; Ghazali, 2018).

*Multiple Regression Analysis*

**Table 5.** Multiple Regression Analysis Result

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.719	0.261		2.757	0.007
TOTALX1	0.474	0.146	0.532	3.994	0.000
TOTALX2	0.438	0.129	0.341	2.296	0.004

a. Dependent Variable: TOTALY

Multiple linear regression analysis was employed to examine the simultaneous effect of work motivation and work environment on employee productivity. The results in Table 5 show that both independent variables have positive regression coefficients, indicating a direct relationship with employee productivity. The regression equation can be expressed as: employee productivity = 0.719 + 0.474 (motivation) + 0.438 (work environment). This equation suggests that increases in motivation and improvements in the work environment contribute to higher levels of employee productivity.

Individually, work motivation demonstrates a strong and statistically significant effect on employee productivity, with a standardized beta coefficient of 0.532 and a t-value of 3.994 ( $p < 0.001$ ). This finding indicates that motivation is the most dominant predictor in the model, implying that employees with higher motivation levels tend to exhibit significantly better productivity outcomes. Similarly, the work environment variable also shows a positive and significant effect on employee productivity, as indicated by a standardized beta coefficient of 0.341 and a t-value of 2.296 ( $p = 0.004$ ). Overall, the regression results confirm that both motivation and work environment play crucial roles in explaining employee productivity

within the snack food industry context. The statistical significance of both predictors supports the proposed research hypotheses and aligns with prior empirical studies suggesting that psychological and environmental factors are key determinants of employee performance and productivity (Hair et al., 2020; Robbins & Judge, 2022)..

*Hypothesis testing (t-Test)*

**Table 6. t Test Result**

Model	Coefficients <sup>a</sup>		Standardized Coefficients Beta	t	Sig.
	Unstandardized Coefficients B	Std. Error			
1 (Constant)	0.719	0.261		2.757	0.007
TOTALX1	0.474	0.146	0.532	3.994	0.000
TOTALX2	0.438	0.129	0.341	2.296	0.004

a. Dependent Variable: TOTALY

The t-test was conducted to examine the partial effect of each independent variable work motivation and work environment on employee productivity. The results show that work motivation has a positive and statistically significant effect on employee productivity, as indicated by a t-value of 3.994 with a significance level of 0.000 ( $p < 0.05$ ). This finding confirms Hypothesis 1 (H1), which states that work motivation significantly influences employee productivity. The positive regression coefficient indicates that higher levels of motivation are associated with increased productivity among employees. Similarly, the work environment variable also demonstrates a positive and significant effect on employee productivity, with a t-value of 2.296 and a significance value of 0.004 ( $p < 0.05$ ). These results support Hypothesis 2 (H2), confirming that a conducive work environment contributes significantly to improving employee productivity. This suggests that factors such as physical conditions, safety, and workplace comfort play an important role in shaping employees' work outcomes. Overall, the t-test results indicate that both independent variables independently and significantly affect employee productivity. Among the two predictors, work motivation exhibits a stronger influence, as reflected by its higher standardized beta coefficient. These findings are consistent with previous studies emphasizing that motivational factors and supportive work environments are critical drivers of employee productivity and performance (Hair et al., 2020; Robbins & Judge, 2022).

*Hypothesis testing (F-Test)*

**Table 7. F Test Result**

Model	ANOVA <sup>a</sup>				
	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	11.787	2	5.893	83.503	.000a
Residual	6.846	97	0.071		
Total	18.633	99			

a. Dependent Variable: TOTALY

b. Predictors: (Constant), TOTALX2, TOTALX1

The F-test was conducted to examine the simultaneous effect of work motivation and work environment on employee productivity. Based on the ANOVA results presented in Table 7, the regression model produces an F-value of 83.503 with a significance level of 0.000 ( $p < 0.05$ ). This indicates that the regression model is statistically significant and appropriate for explaining variations in employee productivity. These results confirm that work motivation and work environment jointly have a significant influence on employee productivity. Therefore, Hypothesis 3 (H3), which states that motivation and work environment simultaneously affect employee productivity, is accepted. The high F-value reflects a strong collective contribution of the independent variables in predicting employee productivity within the snack food industry context. Overall, the findings demonstrate that the proposed model is robust and supports the theoretical assumption that both psychological and environmental factors must be considered together to effectively enhance employee productivity. This result aligns with previous empirical studies emphasizing the importance of integrating motivational and workplace factors when evaluating employee performance outcomes (Hair et al., 2020; Robbins & Judge, 2022).

**Discussion**

This study aimed to examine the effect of work motivation and work environment on employee productivity in the snack food industry in Tangerang Regency. The empirical results provide strong evidence that both variables play a significant role in shaping employee productivity, both partially and

simultaneously. Overall, the findings reinforce the importance of integrating psychological and environmental perspectives when analyzing productivity in labor-intensive manufacturing sectors. The results of the t-test indicate that work motivation has a positive and statistically significant effect on employee productivity and emerges as the most dominant predictor in the regression model. This finding aligns with contemporary motivation theories, particularly self-determination theory, which emphasizes that motivated employees tend to demonstrate higher levels of engagement, persistence, and performance (Ryan & Deci, 2020). In the context of the snack food industry where work routines are often repetitive and production targets are strict motivation becomes a critical driver that encourages employees to maintain consistency and efficiency. Empirically, this result is consistent with previous studies that found motivation to be a key determinant of employee productivity and performance. For instance, Nguyen et al. (2021) reported that intrinsic and extrinsic motivation significantly improved employee output in manufacturing firms. Similarly, a study by Wahyudi and Park (2022) found that motivated employees were more capable of meeting production standards and minimizing operational errors. The strong standardized beta coefficient for motivation in this study further confirms that employees' internal drive and perceived rewards significantly influence their productivity levels.

In addition to motivation, the work environment also demonstrates a positive and significant effect on employee productivity. This finding supports organizational behavior theory, which posits that physical and psychosocial work conditions such as safety, cleanliness, lighting, interpersonal relationships, and managerial support directly affect employee performance outcomes (Robbins & Judge, 2022). In production-based industries like snack food manufacturing, environmental factors such as workspace layout, noise levels, and equipment conditions are particularly relevant, as they directly impact employees' physical comfort and concentration. The positive relationship between work environment and productivity found in this study is consistent with recent empirical evidence. A study by Ali et al. (2021) showed that a supportive and safe work environment significantly enhanced productivity in food processing companies. Likewise, research conducted by Kamarulzaman et al. (2020) emphasized that improvements in workplace ergonomics and safety standards led to higher employee efficiency and reduced fatigue. These findings corroborate the present study's results, suggesting that investment in improving workplace conditions can yield tangible productivity gains.

Furthermore, the F-test results confirm that work motivation and work environment simultaneously exert a significant influence on employee productivity. This finding highlights that productivity is not driven by a single factor but rather by the interaction of individual psychological factors and organizational conditions. This aligns with systems theory in organizational management, which views employee performance as the result of interrelated internal and external factors (Hair et al., 2020). The high coefficient of determination ( $R^2 = 0.733$ ) further indicates that the proposed model has strong explanatory power, suggesting that motivation and work environment together explain a substantial proportion of productivity variation. From a contextual perspective, this study contributes to the literature by focusing on the snack food industry in a developing regional economy. Many prior studies have concentrated on large manufacturing firms or service industries in metropolitan areas, whereas this study highlights small-to-medium-scale food industries operating in regional industrial zones. This contextual focus strengthens the argument that motivation and work environment remain universally relevant determinants of productivity, regardless of firm size or industry scale.

In summary, the discussion demonstrates that the findings of this study are largely consistent with existing theories and empirical research while also extending the literature by providing evidence from a specific industrial and regional context. The results suggest that managers in the snack food industry should prioritize strategies that enhance employee motivation such as fair compensation, recognition, and career development while simultaneously improving the physical and psychosocial work environment. By addressing both factors in an integrated manner, organizations can achieve sustainable improvements in employee productivity.

## **5. CONCLUSION**

This study concludes that work motivation and work environment have significant positive effects on employee productivity in the snack food industry in Tangerang Regency, both partially and simultaneously. Work motivation emerges as the most influential factor, indicating that employees with higher motivation levels tend to demonstrate better productivity outcomes. The strong explanatory power of the model suggests that psychological and environmental factors play a crucial role in shaping productivity within labor-intensive manufacturing industries.

From a managerial perspective, these findings imply that managers should prioritize strategies aimed at enhancing employee motivation, such as fair compensation systems, performance-based

incentives, recognition programs, and opportunities for skill development. In addition, improving the work environment through better workplace safety, ergonomic design, adequate lighting, and supportive interpersonal relationships can further enhance employee productivity. An integrated approach that combines motivational and environmental improvements is likely to yield sustainable productivity gains.

Despite its contributions, this study has several limitations. First, the sample size is relatively limited and focused on snack food companies within a single region, which may restrict the generalizability of the findings. Second, the use of self-reported questionnaire data may introduce response bias, as employees' perceptions may not fully reflect actual productivity levels. Additionally, this study only examines two independent variables, while other factors such as leadership style, job satisfaction, and organizational culture may also influence employee productivity. Future research is therefore encouraged to expand the scope by including larger and more diverse samples across different regions and industrial sectors. Further studies may also incorporate additional variables or apply mixed-method approaches to provide deeper insights into the mechanisms influencing employee productivity. Longitudinal research designs could also be employed to better capture changes in motivation, work environment, and productivity over time.

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