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RESEARCH ARTICLE

Analysis of the Influence of Job Training and Work Discipline on Employee Productivity with Motivation as Moderating Variables in Rattan Manufacturing Companies

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Abstract
The research examines the effects of job training and work discipline on employee productivity and tests work motivation as a moderating variable in rattan manufacturing companies. A quantitative explanatory design was applied to 153 employees selected through purposive sampling. Data were gathered through structured questionnaires and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results show that job training, work discipline, and work motivation have positive and significant effects on employee productivity. Work motivation also strengthens the effects of job training and work discipline on productivity. These results suggest that training programs will produce stronger outcomes when employees receive clear direction, fair rules, and motivation that matches production demands. The findings also imply that discipline should not rely only on sanctions, since employees respond better when rules support performance, safety, and work targets. For rattan manufacturing firms, productivity improvement requires coordinated action across skill development, attendance control, task supervision, and motivation systems. Managers should design training schedules based on job needs, apply discipline consistently, and build motivation through recognition, feedback, and attainable performance targets in daily production activities.

Keywords
Job Training; Work Discipline; Work Motivation; Employee Productivity; Human Resource Management; PLS-SEM.

1 | INTRODUCTION

Employee productivity is one of the main indicators of organizational success, especially in the manufacturing sector which relies heavily on the efficiency of work processes and the quality of human resources. In the rattan manufacturing industry, productivity is not only determined by the availability of technology and raw materials, but also greatly influenced by the competence, discipline, and psychological condition of employees who are directly involved in the production process. The characteristics of the rattan industry which are labor-intensive, manual skills-based, and demand high precision make human resource management a strategic factor in increasing the company's competitiveness and sustainability.

Job training remains a strategic mechanism for improving employee productivity, particularly in manufacturing firms that depend on manual skills, accuracy, and consistent output. Noe (2017) argues that training designed systematically can strengthen employees' knowledge, technical skills, and work abilities, which in turn supports efficiency and work effectiveness. Empirical evidence from Mangkunegara and Waris (2019) and Sari and Nugroho (2020) also shows that job training significantly increases employee productivity in manufacturing settings. Nevertheless, training outcomes should not be treated as automatic. Salas *et al.* (2012) explain that transfer of training depends on employee readiness, learning motivation, and the willingness to use acquired competencies in daily tasks. In rattan manufacturing companies, training may improve productivity when employees understand production standards, practice new techniques, and receive supervisor support to apply learned skills consistently and reduce errors during repetitive, target-based production processes over time.

In addition to job training, work discipline plays a decisive role in improving employee productivity, particularly in manufacturing activities that require punctuality, accuracy, and steady work rhythm. Hasibuan (2018) defines work discipline as employees' awareness and willingness to obey organizational rules, work standards, and accepted norms. Strong discipline helps create order, reduce operational mistakes, improve attendance, and support smoother production flow. Studies by Sutrisno (2020), Rivai and Sagala (2019), and Putri and Hidayat (2021) found that work discipline has a positive and significant effect on employee productivity in the manufacturing sector. Still, discipline should not rely only on punishment or strict control. Dessler (2020) argues that rigid and repressive enforcement may weaken motivation and harm long-term performance. In rattan manufacturing companies, discipline works best when managers apply rules fairly, communicate expectations clearly, and link supervision with employee development, safety, and achievable production targets every day.

As human resource management research develops, work motivation deserves attention because it shapes how employees respond to training and discipline. Robbins and Judge (2019) describe motivation as a psychological force that guides effort, work direction, and persistence toward organizational goals. Yet motivation should not be treated as a simple cure for low productivity. Employees may attend training and follow rules, but productivity improves only when they see clear value in the tasks, receive fair supervision, and believe that effort leads to recognized outcomes. Luthans (2017) and Prasetyo and Handayani (2021) found that motivated employees tend to absorb training benefits and maintain discipline more consistently. In rattan manufacturing companies, motivation can turn technical learning and workplace rules into stable routines, especially when production requires accuracy, endurance, and repeated performance under daily target pressure on the shop floor.

However, most previous studies still place work motivation as an independent variable or mediating variable, without providing an adequate explanation of its role as a conditional factor that determines the strength or weakness of the influence of HR management practices on productivity. As a result, the understanding of how and under what conditions Job Training and work discipline can result in optimal productivity increases is still relatively limited, especially in traditional or labor-intensive manufacturing industries such as rattan manufacturing that rely heavily on manual skills, work consistency, and employee psychological conditions. This research offers novelty by positioning work motivation as an activation mechanism that determines the effectiveness of Job Training and work discipline in increasing employee productivity. In the context of the rattan manufacturing industry, Job Training does not automatically increase productivity if it is not accompanied by adequate motivation to apply the skills acquired, while work discipline has the potential to result in formal compliance without productive contribution if it is not supported by internal employee motivation. Thus, this study not only examines the relationship between variables, but also explains the conditional role of work motivation in converting managerial inputs into productivity outputs.

Previous research confirms that job training, work discipline, and work motivation affect employee productivity. Yet many studies still examine each variable separately, which weakens the explanation of how managerial practices interact with employee drive. Several studies also position motivation as a mediator, so the analysis explains the process linking training or discipline to productivity, rather than the condition that can make those relationships stronger. This gap matters in rattan manufacturing because employees face repetitive tasks, skill demands, attendance rules, stamina pressure, and daily output targets. The study responds by testing whether work motivation strengthens the effects of job training and work discipline on employee productivity in a labor-intensive production setting.

Based on the research gap identified above, this study aims to: (1) analyze the effect of job training on employee

productivity; (2) analyze the effect of work discipline on employee productivity; (3) analyze the effect of work motivation on employee productivity; (4) examine the moderating role of work motivation in the relationship between job training and employee productivity; and (5) examine the moderating role of work motivation in the relationship between work discipline and employee productivity.This research is expected to make a theoretical contribution in enriching the literature on human resource management, especially related to the role of work motivation as a moderation variable, as well as a practical contribution 2 to company management in designing more effective and sustainable HR management policies.

2 | BACKGROUND THEORY

2.1 Job Training

Job training is a systematic process designed to improve employees' knowledge, skills, and work attitudes in order to be able to carry out their duties and responsibilities more effectively and efficiently. Noe (2017) explained that job training functions as a strategic mechanism to bridge the gap between job demands and actual abilities possessed by employees. Thus, job training is an important instrument in human resource development, especially in organizations that demand a high level of skill and work rigor. Explains that investment in employee knowledge and skills is a strategic asset that enhances individual productivity and organizational performance. From this perspective, job training represents an investment in human capital that enables employees to improve their competencies and contribute more effectively to organizational objectives. Therefore, organizations that continuously invest in employee training are more likely to achieve sustainable productivity improvements. In the manufacturing industry, especially rattan manufacturing which is labor-intensive and based on manual skills, job training has a very strategic role. The production process in this industry demands technical precision, quality consistency, and work time efficiency, so employees need to be equipped with technical competence and adequate procedural understanding. Mangkunegara (2019) emphasized that job training carried out on an ongoing basis is able to increase employee productivity through strengthening technical skills, forming a positive work attitude, and a better understanding of standard operating procedures. A number of empirical studies support this view. Suryani and Kurniawan (2020) and Rahman and Fauzi (2021) found that job training has a positive and significant effect on employee productivity in manufacturing companies. These findings show that job training that is designed in a relevant and applicative manner is able to improve the quality of output and the efficiency of the production process. Nevertheless, Salas *et al.* (2012) emphasize that the effectiveness of training is not automatic, as it is strongly influenced by the readiness and motivation of the individual. Without adequate internal encouragement, the skills and knowledge of the training results tend not to be applied optimally in daily work activities.

2.2 Work Discipline

Work discipline reflects the level of compliance and awareness of employees in complying with the rules, procedures, and work standards that have been set by the organization. Hasibuan (2018) stated that good work discipline will create 4 orderliness, increase work efficiency, and support the achievement of organizational goals optimally. Work discipline not only functions as a tool for behavior control, but also as a foundation for creating a conducive and productive work climate. In the context of the rattan manufacturing industry, work discipline is a very crucial aspect because the production process demands a high level of precision, work consistency, and compliance with quality and safety standards. Employees who are not disciplined have the potential to increase the rate of production errors, delays in job completion, and waste of resources. Therefore, the application of effective work discipline is an important prerequisite in maintaining the stability and efficiency of the production process. Empirical research shows that work discipline has a close relationship with employee productivity. Sutrisno (2020) and Rivai and Sagala (2019) found that work discipline has a positive and significant effect on productivity, where employees who have a high level of discipline tend to work more regularly and are able to achieve production targets sustainably. The results of Widodo and Pramesti (2022) research also show that work discipline contributes to increasing work output and production process efficiency. However, Dessler (2020) reminded that the application of work discipline that is repressive and not accompanied by a humanist approach has the potential to reduce work motivation and employee performance in the long run.

2.3 Employee Productivity

Employee productivity is one of the main performance indicators that reflects the ability of individuals and organizations to produce output effectively and efficiently. From the perspective of human resource management, productivity is not only measured by the amount of work achieved, but also by the quality of work results, timeliness of task completion, and efficiency in the use of resources in the work process. A high level of productivity indicates that employees are able to optimize their competencies, time, and work facilities to achieve organizational goals in a sustainable manner. Sutrisno (2020) defines employee productivity as a comparison between the work results achieved with the resources used in a certain period. This definition emphasizes that productivity is not solely related to the

quantity of output, but also to the efficiency and effectiveness of the work process. In line with the 5, Wibowo (2020) stated that employee productivity reflects the level of real contribution of employees to the achievement of organizational performance, which is influenced by the company's work ability, motivation, discipline, and management system. In the manufacturing sector, especially the labor-intensive rattan manufacturing industry, employee productivity has a very strategic role. The production process relies heavily on manual skills, precision, and consistency of employees' work, so that productivity is not only determined by technology or production machinery, but also by the quality of human resources directly involved in production activities. Employees with high productivity levels tend to be able to produce quality products, minimize work errors, and complete work according to the set time target. Robbins and Judge (2019) explain that employee productivity is influenced by various factors, both individual and organizational. Individual factors include employees' abilities, skills, work motivation, and attitudes towards work, while organizational factors include training systems, application of work discipline, leadership, and work environment. The interaction between these factors determines the extent to which employees are able to work optimally and make maximum contributions to the organization. From a performance management perspective, Mangkunegara (2019) emphasized that employee productivity will increase if there is an alignment between job demands and employee abilities, which is supported by adequate job training, consistent work discipline, and high work motivation. Without the support of these factors, productivity tends to stagnate or even decline even though the company has provided adequate work facilities.

2.4 Work Motivation

Work motivation is an internal and external drive that affects the intensity, direction, and perseverance of employees' work behavior in achieving organizational goals. Robbins and Judge (2019) state that work motivation determines the extent to which employees are willing to exert their best abilities in completing the work. In other words, work motivation serves as a driving energy that directs employees' work behavior towards optimal performance achievement. Explains that employees tend to reciprocate favorable treatment received from their organization through positive work attitudes and behaviors. Organizational support in the form of training opportunities, fair disciplinary systems, and a supportive work environment can enhance employee motivation, which in turn encourages higher productivity and stronger organizational commitment. Luthans (2017) explained that work motivation acts as a psychological mechanism that connects human resource management practices with employee work results. In the context of job training, motivation determines the extent to which the skills and knowledge gained from training can be applied optimally in work activities. Employees who have high work motivation tend to be more proactive in implementing training results and strive to improve performance on an ongoing basis. A number of studies show that work motivation is able to strengthen the influence of human resource management practices on performance and productivity. Prasetyo and Handayani (2021) and Wibowo (2020) found that work motivation plays a role as a reinforcing factor that increases the effectiveness of HR policies. In addition, work motivation also plays an important role in the effectiveness of the implementation of work discipline. Motivated employees tend to adhere to work rules based on personal awareness and responsibility, rather than solely out of pressure or sanctions. Based on this description, work motivation is seen as relevant as a moderation variable in the relationship between Job Training and Work Discipline on Employee Productivity. In the context of the labor-intensive rattan manufacturing industry, work motivation functions as a conditional factor that activates the effectiveness of job training and work discipline, so that it can optimally increase employee productivity.

3 | METHOD

The study used a quantitative approach with an explanatory research design to explain the causal relationships among job training, work discipline, work motivation, and employee productivity. The quantitative approach was used because the study focused on hypothesis testing through numerical data measurement and objective statistical analysis. The explanatory design was selected to examine the effects of job training and work discipline on employee productivity and to test the role of work motivation as a moderating variable in those relationships. The research was conducted in rattan manufacturing companies engaged in rattan production and processing. The selection of these companies was based on the characteristics of the rattan manufacturing industry, which is labor-intensive and depends heavily on manual skills, work discipline, and employee motivation in supporting productivity. The research was carried out in 2025, covering instrument preparation, questionnaire distribution, data collection, and data processing.

The population consisted of all employees working in rattan manufacturing companies. The study used purposive sampling, with the criteria that respondents had worked for at least six months, so they were considered to understand the company's job training system, work discipline, and productivity standards. The final sample consisted of 153 respondents and was considered adequate for Partial Least Squares Structural Equation Modeling (PLS-SEM). Hair *et al.* (2021) state that PLS-SEM is suitable for research models with moderate complexity and relatively small to medium sample sizes. Therefore, the sample size used in the study was adequate for hypothesis

testing and structural model analysis.

The study variables consisted of job training as the first independent variable (X1), work discipline as the second independent variable (X2), employee productivity as the dependent variable (Y), and work motivation as the moderating variable (M). Variable operationalization was developed based on relevant theories and previous studies. Job training was measured through the suitability of training materials, training methods, instructors, training facilities, training benefits, and training transfer, referring to Noe (2017). Work discipline was measured through punctuality, compliance with rules, and work responsibility based on Sutrisno (2020). Work motivation was measured through effort intensity, work goal direction, and persistence based on Robbins and Judge (2019). Employee productivity was measured through work quantity, work quality, punctuality, work effectiveness, and independence based on Wibowo (2020).

Data were collected through structured questionnaires distributed to the study respondents. All statement items were measured using a five-point Likert scale, ranging from 1, strongly disagree, to 5, strongly agree. The questionnaire consisted of 28 statement items, including 8 items for job training, 6 items for work discipline, 6 items for work motivation, and 8 items for employee productivity. The research instrument was developed based on indicators derived from relevant theories and previous studies, so variable measurement could follow clear theoretical foundations and systematic procedures. Participation in the study was voluntary. Respondents received information about the research purpose and were assured that their responses would remain confidential and anonymous. All collected data were used only for academic research purposes.

Table 1. Variable Operations

Variabel	Operational Definition	Dimensions	Indicator	Scale	Source
Job Training (X1)	The process of improving employees' knowledge and work skills to be able to carry out work more effectively	Suitability of training materials	Training materials according to job needs	Likert 1-5	Noe (2017)
		Training Methods	Attractive training methods and adequate training facilities		
		Instructors and facilities	Competent instructors and adequate facilities		
		Benefits and transfers of training	Training improves skills and can be applied in the job		
Work discipline (X2)	Level of compliance with the company's regulations, procedures, and work standards	Obedience to time	Come and go to work on time	Likert 1-5	Sutrisno (2020)
		Rule compliance	Comply with company rules and regulations		
		Job responsibilities	Completing work according to procedures and responsibilities		
Motivation (M)	Internal and external drives that affect employees' enthusiasm, direction, and perseverance at work	The Intensity of Effort	Have high enthusiasm and effort in working	Likert 1-5	Robbins & Judge (2019)
		Direction of work objectives	Oriented towards achieving the best results		
		Work perseverance	It is not easy to give up on getting work done		
Produktivitas Karyawan (Y)	Employees' ability to produce work output effectively and efficiently	Quantity of work	Able to achieve the target number of jobs	Likert 1-5	Wibowo (2020)

Variabel	Operational Definition	Dimensions	Indicator	Scale	Source
	in terms of quantity and quality				
		Quality of work	The work results are of good quality and have minimal errors		
		Punctuality	Completing work on time on deadline		
		Effectiveness and independence	Able to work effectively without having to be constantly supervised		

The study analyzed the data using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4 software. PLS-SEM was selected because it can examine relationships among variables simultaneously, including models that involve moderating variables, and does not require strict assumptions of normal data distribution. The analysis followed two stages: outer model evaluation and inner model evaluation. Outer model evaluation tested construct validity and reliability through convergent validity, discriminant validity, Cronbach's alpha, composite reliability, and Average Variance Extracted (AVE). Inner model evaluation tested the relationships among variables, the coefficient of determination (R^2), and the significance of direct and moderating effects based on the path coefficient, t-statistic, and p-value. The study tested the hypotheses using the bootstrapping technique in SmartPLS. A hypothesis was supported when the t-statistic exceeded 1.96 and the p-value was below 0.05 at the 5 percent significance level. The test examined the effects of job training and work discipline on employee productivity and assessed the role of work motivation as a moderating variable in those relationships.

4 | RESULTS AND DISCUSSION

4.1 Results

Data analysis used Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS. The procedure covered three stages. First, the outer model was assessed to check whether each construct met validity and reliability criteria. Second, the inner model was examined to evaluate the strength and direction of relationships among variables, including the model's ability to explain employee productivity. Third, hypotheses were tested through bootstrapping by reviewing the t-statistic and p-value. This procedure allows the study to test proposed relationships carefully, rather than relying on simple correlation, and helps ensure that conclusions align with the empirical data obtained from 153 respondents directly.

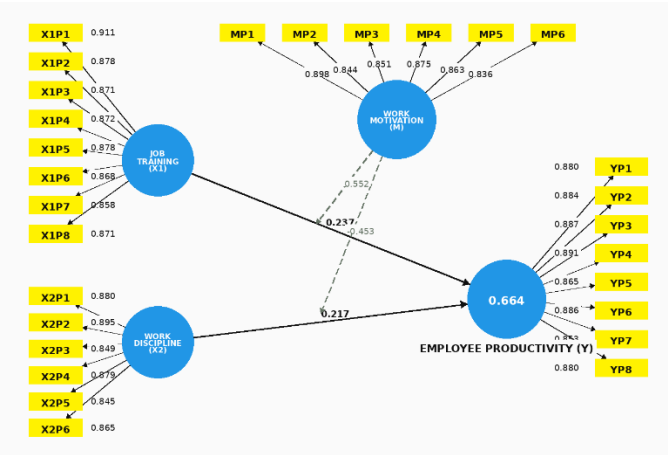

Figure 1. SEM-PLS Research Model

Based on Figure 1, the model shows the relationship between the variables of work discipline, job training, and work motivation on employee productivity, as well as work motivation as a moderation variable. The R^2 value for the employee productivity variable was 0.664, which shows that the variable in the study was able to explain employee productivity by 66.4%. According to Hair *et al.* (2021), an R^2 value of 0.664 indicates substantial explanatory power, suggesting that the

proposed model explains a considerable proportion of employee productivity. This finding demonstrates that job training, work discipline, work motivation, and their interaction effects provide a strong explanation of employee productivity in rattan manufacturing companies.

4.1.1 Outer Model Test (Validity and Reliability)

The outer model test aims to evaluate the feasibility of indicators in measuring latent constructs/variables. The outer model test in this study was carried out through convergent validity and construct reliability tests. The validity of the convergence was assessed based on the value of the Average Variance Extracted (AVE) with the AVE criterion > 0.50. Meanwhile, the reliability of the construct was assessed based on Cronbach's Alpha value and Composite Reliability (rho_a and rho_c) with the > criteria of 0.70.

Tabel 2. Construct Validity and Reliability

Variabel	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Work Discipline (X2)	0.936	0.955	0.949	0.755
Work Motivation (M)	0.931	0.952	0.945	0.742
Job Training (X1)	0.957	0.962	0.963	0.767
Employee Productivity (Y)	0.958	0.958	0.964	0.771

Sources: Research Data (Processed), 2026.

Based on Table 2, the AVE values for each construct are Work Discipline (0.755), Work Motivation (0.742), Job Training (0.767), and Employee Productivity (0.771). All AVE values are above 0.50 so that the constructs in this study are declared to meet the criteria of convergent validity. In addition, Cronbach's Alpha values for each variable were above 0.70, namely Work Discipline (0.936), Work Motivation (0.931), Job Training (0.957), and Employee Productivity (0.958). The Composite Reliability (rho_c) value also shows a number above 0.70. Thus, it can be concluded that all constructs in this study are valid and reliable so that they can be used for further analysis on the inner model.

4.1.2 Discriminant Validity Test with the Fornell-Lacker Criterion

The discriminant validity test aims to ensure that each construct has a clear difference from the others. In this study, the discriminant validity test was carried out using the Fornell-Larcker Criterion approach. The Fornell-Larcker criterion states that discriminant validity is met when the square root value of AVE (shown diagonally) is greater than the correlation value between constructs (values outside the diagonal).

Table 3. Results of the Discriminant Validity Test with the Fornell-Larcker Criterion

Variabel	Work discipline (x2)	Work motivation (m)	Job training (x1)	Productivity s employees (y)
Work discipline (x2)	0.869			
Work motivation (m)	-0.061	0.861		
Job training (x1)	-0.023	-0.000	0.876	
Employee productivity (y)	0.307	0.214	0.236	0.878

Sources: Research Data (Processed), 2026.

Based on Table 3, the value of the square root of AVE located on the diagonal for each construct is greater than the correlation value between constructs in the same row and column. This suggests that each construct has a better ability to explain its own indicators compared to explaining the others. Thus, it can be concluded that all constructs in this study have met the criteria of discriminant validity according to the Fornell-Larcker approach.

4.1.3 Discriminant Validity Test with Heterotrait-Monotrait Ratio (HTMT)

Discriminant validity was examined using the Heterotrait-Monotrait Ratio (HTMT), alongside the Fornell-Larcker criterion. HTMT checks whether constructs remain empirically distinct by comparing correlations among indicators across constructs. A model meets the required standard when HTMT values stay below 0.90. Values near or above the threshold signal possible conceptual overlap and require careful review. The study uses HTMT testing to support a stricter assessment of measurement quality, ensuring that job training, work discipline, work motivation, and employee productivity are measured separately.

Tabel 4. Heterotrait-Monotrait Ratio (HTMT)

Variabel	Work discipline (x2)	Work motivation (m)	Job training (x1)	Employee productivity (y)	Work motivation (m) X trainer n work (x1)
Work discipline (x2)					
Work motivation (m)	0.103				
Job training (x1)	0.066	0.053			
Employee productivity (y)	0.313	0.217	0.243		
Work motivation (m) x training Work (x1)	0.055	0.027	0.052	0.503	
Work motivation (m) x discipline Work (x2)	0.188	0.034	0.047	0.515	0.047

Source: Research Data (Processed), 2026.

Table 4 indicates that all HTMT values among constructs are below the recommended threshold of 0.90. This result suggests that each construct has sufficient empirical separation and does not show problematic overlap. The values also support the measurement model because job training, work discipline, work motivation, and employee productivity operate as distinct constructs. Based on the HTMT assessment, the discriminant validity requirement in the study is adequately fulfilled and accepted.

4.1.4 Bootstrapping and Path Coefficient

Bootstrapping and path coefficient testing were used to assess relationships among variables in the inner model through SmartPLS. Bootstrapping estimates the significance of each path by generating repeated subsamples, allowing the study to evaluate direct and moderating effects more carefully. The assessment relies on path coefficients, t-statistics, and p-values. A relationship is considered significant when the t-statistic exceeds 1.96 and the p-value is below 0.05, indicating that the proposed hypothesis receives empirical support at the accepted 5 percent significance level.

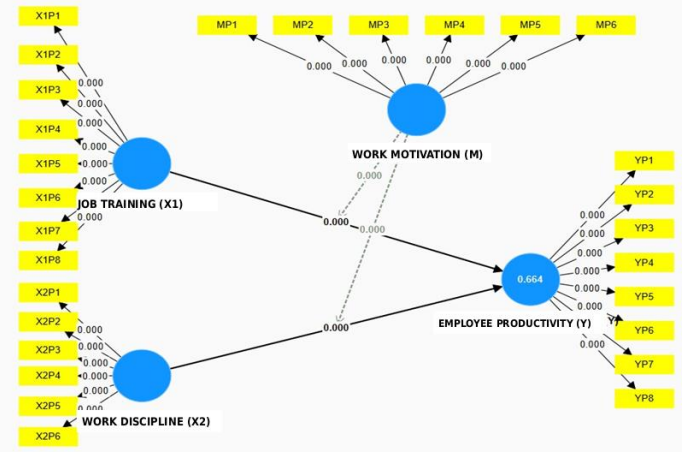

Figure 2. Bootstrapping Model Sem-PLS Result

Based on Figure 2, it can be seen that all paths of relationships between variables in the model have significance values that meet the criteria. In addition, the value of the determination coefficient (R^2) in the Employee Productivity variable was 0.664, which showed that work discipline, job training, work motivation, and the effect of moderation interaction were able to explain employee productivity by 66.4%. Furthermore, to obtain more detailed results regarding the magnitude of the influence between variables, the path coefficient output is used in the following Table 5.

4.1.5 Direct Influence Test and Moderation Test

The direct effect and moderation tests were conducted to examine the influence of work discipline, job training, and work motivation on employee productivity, as well as to assess the role of work motivation as a moderating variable. The direct effect test evaluates whether each independent variable has a significant relationship with employee productivity.

Meanwhile, the moderation test examines whether work motivation strengthens or weakens the relationship between job training and employee productivity, as well as between work discipline and employee productivity. In the model, the moderating effect was tested by forming interaction variables, namely Work Motivation × Job Training and Work Motivation × Work Discipline.

Table 5. Path Coefficient and Moderation Test Result

Variabel	Original Sample (o)	Sample Mean (m)	Standard Deviation (stdev)	T Statistics (|o/stdev|)	P Values
Work Discipline (x2) -> Productivity Employee (y)	0.217	0.222	0.059	3.670	0.000
Work Motivation (m) -> Productivity Employee (y)	0.227	0.228	0.079	2.875	0.004
Job Training (x1) -> Employee Productivity (y)	0.237	0.238	0.067	3.547	0.000
Work Motivation (m) x Job Training (x1) -> Productivity Employee (y)	0.552	0.531	0.088	6.259	0.000
Work Motivation (m) x work Discipline (x2) -> Employee Productivity (y)	0.453	0.436	0.078	5.818	0.000

Source: SmartPLS Output, 2026.

Based on Table 5, the direct effect test shows that work discipline has a positive and significant effect on employee productivity, with a coefficient of 0.217, a t-statistic of 3.670, and a p-value of 0.000. Work motivation also has a positive and significant effect on employee productivity, with a coefficient of 0.227, a t-statistic of 2.875, and a p-value of 0.004. In addition, job training has a positive and significant effect on employee productivity, with a coefficient of 0.237, a t-statistic of 3.547, and a p-value of 0.000. These results indicate that better discipline, stronger motivation, and more effective training are associated with higher employee productivity. The moderation test shows that the interaction between work motivation and job training has a positive and significant effect on employee productivity, with a coefficient of 0.552, a t-statistic of 6.259, and a p-value of 0.000. This result indicates that work motivation strengthens the effect of job training on employee productivity. The interaction between work motivation and work discipline also has a positive and significant effect on employee productivity, with a coefficient of 0.453, a t-statistic of 5.818, and a p-value of 0.000. This means that work motivation strengthens the effect of work discipline on employee productivity. Overall, all direct effects and moderation relationships show positive and significant results.

4.2 Discussion

The results of the study show that job training has a positive and significant effect on employee productivity. This is evidenced by a positive path coefficient value with a significance level below 0.05, thus showing that the better the implementation of job training, the higher the employee productivity produced. Job training that is in accordance with job needs is able to improve employees' technical and non-technical abilities so that employees can work more effectively and efficiently in completing their tasks. These findings indicate that job training is one of the important factors in improving the quality of human resources in companies. Through training, employees gain additional knowledge, skills, and work understanding that can help them in improving the quality and quantity of work results. The implementation of targeted training also allows employees to more easily adapt to the demands of work and the development of the company's work system. The results of this study support the theory put forward by Raymond A. Noe who states that training is a learning process designed to improve the competence and work effectiveness of employees. In addition, the results of this study are also in line with previous research conducted by Anwar Prabu Mangkunegara and Waris (2019), Sari and Nugroho (2020), and Rahman and Fauzi (2021) which concluded that job training has a positive influence on employee productivity and performance. Thus, the first hypothesis (H1) that states that job training has a positive effect on employee productivity is accepted. These findings suggest that training not only improves technical competencies but also creates behavioral changes that enable employees to perform tasks more efficiently. This supports Human Capital Theory (Becker, 1993), which emphasizes that investments in employee development generate productivity gains and enhance organizational performance.

The results of the study show that work discipline has a positive and significant effect on employee productivity. A positive path coefficient value shows that the higher the level of employee work discipline, the higher the productivity

produced. Work discipline is reflected in employees' compliance with company rules, punctuality, and responsibility in carrying out work according to established procedures. These findings show that work discipline has an important role in creating regularity and efficiency in the work process. Employees who have a high level of discipline tend to be able to make optimal use of work time, minimize work errors, and complete work according to the targets set by the company. This condition ultimately has an impact on increasing overall work productivity. The results of this study support the theory put forward by Edy Sutrisno which states that work discipline is a form of awareness and willingness of a person to obey all applicable company regulations and social norms. In addition, the results of this study are also consistent with the research of Veithzal Rivai and Sagala (2019) and Mangkunegara and Waris (2019) which stated that work discipline is an important factor in increasing employee productivity and performance. Thus, the second hypothesis (H2) which states that work discipline has a positive effect on employee productivity is accepted.

The results of the study show that work motivation has a positive and significant effect on employee productivity. This influence can be seen from the positive and significant value of the path coefficient, which shows that the higher the work motivation that employees have, the higher the work productivity produced. Work motivation is a driving factor that affects the enthusiasm, perseverance, and direction of employee behavior in carrying out work. Employees who have high motivation tend to be more enthusiastic at work, have an orientation towards achieving the best results, and are able to maintain work consistency despite facing pressure and work difficulties. This condition has a direct impact on improving the quality and quantity of work results. The findings of this study are in line with the theory of organizational behavior put forward by Fred Luthans who explains that motivation is the main factor that drives individual behavior in achieving organizational goals. In addition, the results of this study also support previous research conducted by Wibowo (2020) and Widodo and Pramesti (2022) which showed that work motivation has a real influence on employee productivity and performance. Thus, work motivation can be said to be a psychological factor that plays an important role in increasing employee work effectiveness.

The results of the study show that work motivation has been proven to be able to moderate and strengthen the influence of job training on employee productivity. This is indicated by the value of the positive and significant interaction coefficient. These findings indicate that job training will have a more optimal impact on productivity if supported by a high level of work motivation in employees. Employees who have high motivation tend to be more enthusiastic about participating in training, faster to understand the material provided, and better able to apply the results of the training in daily work activities. On the other hand, if work motivation is low, the effectiveness of training in increasing productivity becomes less optimal because employees do not have a strong internal drive to develop their work skills. The results of this study support the view of Eduardo Salas *et al.* (2012) who stated that the success of the training program is influenced by the readiness and motivation of the trainees. In addition, the results of this study are also in line with the research of Prasetyo and Handayani (2021) which concluded that work motivation is able to strengthen the influence of human resource management practices on employee performance. Thus, the third hypothesis (H3) which states that work motivation moderates the effect of job training on employee productivity is accepted. The moderating role of work motivation indicates that employee psychological readiness determines the effectiveness of organizational interventions. Employees with higher motivation are more likely to transform acquired knowledge and disciplined behavior into productive outcomes, thereby maximizing productivity improvements.

The results of the study show that work motivation is also proven to strengthen the influence of work discipline on employee productivity. This is shown by the value of a positive and significant moderation coefficient. The findings explain that the level of work discipline will be more effective in increasing productivity if supported by high work motivation. Highly motivated employees tend to practice work discipline not only because of company obligations or rules, but also because of internal awareness to achieve optimal work results. Work motivation makes employees more responsible, more consistent in complying with work rules, and better able to maintain work quality in various work conditions. Thus, work motivation plays a role as a reinforcing factor that increases the effectiveness of work discipline on productivity. This finding is in line with Gary Dessler 's view that the application of effective work discipline needs to be supported by positive work psychological conditions, one of which is work motivation. In addition, the results of this study show that work motivation not only has a direct effect on productivity, but also has a strategic role as a moderation variable in the relationship between work discipline and employee productivity. Therefore, the fourth hypothesis (H4) which states that work motivation moderates the influence of work discipline on employee productivity is accepted.

5 | CONCLUSIONS AND FUTURE WORK

The study concludes that job training, work discipline, and work motivation have positive and significant effects on employee productivity. In addition, work motivation strengthens the effects of job training and work discipline on employee productivity. These findings indicate that organizations should align employee development, disciplinary practices, and motivational strategies to improve workforce productivity. From a theoretical perspective, the findings strengthen human resource management literature by showing that employee

productivity is shaped by job training, work discipline, and work motivation. The results support the view of job training as an employee development strategy that improves work effectiveness (Noe, 2017). They also support the theory of work discipline as a behavioral control mechanism that encourages efficiency and better work outcomes (Sutrisno, 2020; Rivai & Sagala, 2019). The study also shows that work motivation does not only affect productivity directly, but also acts as a moderating variable that strengthens the effects of training and work discipline on employee productivity (Luthans, 2017; Prasetyo & Handayani, 2021). For companies, the results indicate that employee productivity can improve when job training programs are designed more clearly, applied consistently, and aligned with job needs. Previous research and human resource development theory state that training serves as an investment in improving employee work output (Noe, 2017; Salas *et al.*, 2012). Companies also need to strengthen work discipline through clear rules, consistent supervision, and a disciplined work culture, as explained by Sutrisno (2020) and Rivai and Sagala (2019). At the same time, companies should strengthen work motivation because motivation directly improves productivity and reinforces the effects of training and discipline. Managers can improve motivation through reward systems, career development support, a supportive work environment, and constructive communication.

Companies are advised to improve the quality of job training by preparing relevant training materials, applying effective training methods, and conducting post-training evaluations so employees can apply newly acquired skills in daily work. Companies should also strengthen work discipline by enforcing clear and consistent rules, including fair rewards and sanctions to improve compliance. In addition, companies need to build employee motivation through recognition, self-development opportunities, and a supportive work environment, since motivation has been proven to drive productivity directly and strengthen the effects of training and discipline. The research focused on rattan manufacturing companies and used a cross-sectional design. Future studies should examine broader industrial sectors and apply longitudinal approaches to produce stronger empirical evidence on the relationships among job training, work discipline, work motivation, and employee productivity.

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