

Dynamics of Work Motivation and Employee Work Discipline in the Plywood Industry (Case Study at CV. Lumbung Madu)

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Abstract. *Plywood is a composite product formed from layers of veneer glued in a perpendicular cross-linking arrangement between layers, so it is classified as a structural panel in the wood processing industry. The national plywood industry has grown rapidly since the Joint Decree of Three Ministers in 1980 concerning the provision of domestic wood and the ban on the export of roundwood, which was then followed up by the Joint Decree of Four Ministers in 1981 concerning the improvement of the integrated plywood-based wood processing industry. This policy has become one of the main drivers of the development of the plywood industry in Indonesia to date. In the increasingly competitive manufacturing industry, an organization's success is largely determined by the capacity and performance of its human resources (HR). The wood processing industry, particularly plywood production, is a labor-intensive sector with relatively high work risks, reliance on manual precision, and demands for efficient production time. One company facing these dynamics is CV. Lumbung Madu, a plywood production company whose operational processes involve a series of complex mechanical stages, from log cutting, peeling, drying, gluing, and pressing. In this type of production ecosystem, employee behavior on the factory floor directly impacts the quality of the final product (quality control) and the achievement of output targets. Even the slightest decline in work performance on the gluing or pressing lines has the potential to increase the defect rate.) that harm the company operationally and financially. Two fundamental aspects that are intertwined in shaping employee performance at CV. Lumbung Madu are work motivation and work discipline.*

Keywords: *Discipline; Industry; Motivation; Work.*

1. Introduction

Plywood is a composite product formed from layers of veneer glued in a perpendicular cross-linking arrangement between layers, so it is classified as a structural panel in the wood processing industry (Haygreen & Bowyer, 1993). The national plywood industry has grown rapidly since the Joint Decree of Three Ministers in 1980 concerning the provision of domestic wood and the ban on the export of roundwood, which was then followed up by the Joint Decree of Four Ministers in 1981 concerning the improvement of the integrated plywood-based wood processing industry. This policy has become one of the main drivers of the development of the plywood industry in Indonesia to date (Ministry of Forestry, 2007).

In the increasingly competitive manufacturing industry, an organization's success is largely determined by the capacity and performance of its human resources (HR) (Armstrong & Taylor, 2020). The wood processing industry, particularly plywood production, is a labor-intensive sector with relatively high work risks, reliance on manual precision, and demands for efficient production time. One company facing these dynamics is CV. Lumbung Madu, a plywood production company whose operational processes involve a series of complex mechanical stages, from log cutting, peeling, drying, gluing, and pressing.

In this type of production ecosystem, employee behavior on the factory floor directly impacts the quality of the final product (quality control) and the achievement of output targets. Even the slightest decline in work performance on the gluing or pressing lines has the potential to increase the defect rate) that harm the company operationally and financially. Two fundamental aspects that are intertwined in shaping employee performance at CV. Lumbung Madu are work motivation and work discipline.

Motivation is an internal and external drive that moves a person to achieve a certain goal (Robbins & Judge, 2018). In the industry manufacturing wood, employee work motivation is often tested by physical environmental conditions factory which tends to be hot, noisy and dusty, as well as by the clarity of the incentive system or piecework wages applied. Initial observations in the field show existence indication of work saturation due to high physical load, which has the potential lower employee morale on the production line.

Work discipline is a pillar of maintaining production rhythm (Mangkunegara, 2017) In plywood factory, discipline is not limited to punctuality in attendance hours, but also demand full compliance with Standard Operating Procedures (SOP) and aspects Safety and Occupational Health (K3). Based on initial observations, there are still found employees who neglect the use of Personal Protective Equipment (PPE) such as face mask and gloves, despite the risk of exposure to wood dust and adhesive chemicals. (resin) is considered high.

2. Research Methods

This research uses a qualitative approach with a descriptive case study method. According to Yin (2018), a case study is an empirical research method appropriate for in-depth investigation of contemporary phenomena within a real-life context, especially when the boundaries between the phenomenon and its context are not clearly visible. Creswell (2016) adds that qualitative research aims to understand the meaning that individuals or groups ascribe to social or humanitarian issues.

The choice of a qualitative approach in this research is based on the consideration that the issues of employee motivation and discipline at CV. Lumbung Madu are complex and full of subjective meanings, so they cannot always be reduced to mere statistics. Through case studies, researchers can explore in-depth the actual complaints, motives, and obstacles experienced by employees and management at the research site.

3. Results and Discussion

3.1. General Overview of Research Implementation and Informant Profile

This research was conducted at CV. Lumbung Madu using a qualitative case study approach as described in Chapter III. Primary data collection was conducted through in-depth interviews conducted on July 15, 2026, with ten informants, supported by participatory observation on the production floor and documentation studies in the form of CV. Lumbung Madu Employee Absence Recapitulation for the period January–June 2026. The determination of informants used a purposive sampling technique with the criteria of direct involvement in the production process and a minimum work period of one year, as planned in Table.

The actual number of informants in the field is in line with the plan in the proposal, namely six production line employees representing the stages of the plywood production process in sequence (cutting, veneer drying, gluing, pressing/hot pressing, and finishing-packing), two production supervisors/foremen, and two people from the management, namely the HRD Manager and the business owner. The composition of informants is presented in Table.

Table Profile of Research Informants

No	Informant Name	Title/Position	Informant Category	Years of service
1	Bowo Hartato	Glue Spreader & Hot Press Operator	Production Employees Line	3 years

2	Sri Rejeki	Veneer Cutting & Drying Operator	Production Employees	Line	1.5 years
3	Edi Santoso	Hot Press Machine Main Operator	Production Employees	Line	5 years
4	Bagus Kurniawan	Cutting Machine Operator	Production Employees	Line	1.5 years
5	Danang Prasetyo	Glue Spreader Machine Operator	Production Employees	Line	2 years
6	Roni Setiawan	Finishing & Packing Workers	Production Employees	Line	2 years
7	Joko Susilo	Supervisor / Main Foreman	Supervisor-Foreman		7 years
8	Totok Supriyanto	Production Foreman	Supervisor-Foreman		5 years
9	Dian Kartikasari, S.Psi.	HR Manager	Management / HRD		4 years
10	FFY Dwi Martono	Owner	Management / Owner		Since the company was founded

The interview process was semi-structured with interview guidelines based on the dimensions in Table, but remained open to new themes emerging in the field. The researchers observed that after interviewing the ten informants, the answers obtained began to show a consistent pattern of recurring themes particularly regarding the dilemma of using personal protective equipment (PPE) and the relationship between motivation, discipline, and performance, which several informants independently described with similar metaphors (“gasoline and steering wheel,” “motorcycle and brakes”), without being guided by the exact same questions. This condition indicates that the data saturation point as referred to in Chapter III has been reached, so the number of informants is considered sufficient to answer the research focus.

3.2. Employee Work Motivation on the Production Line

The results of data reduction on all interview transcripts identified five main themes that shape the picture of work motivation of CV. Lumbung Madu production line employees, as summarized in Table and described in the following section.

a. Economic-family motivation as the dominant driving force. All six production line employee informants (Informants 1–6) consistently placed the need to support their families whether children, wives, or parents as the primary reason for continuing to work, in line with physiological and safety needs at the base of Maslow's hierarchy of needs (1943, as cited in Bangun, 2012). This finding is consistent with Robbins and Judge's (2018) view that work motivation is fundamentally driven by the drive to fulfill basic needs, which in the context of labor-intensive manufacturing workers like CV. Lumbung Madu is a much stronger motive than the drive for self-actualization.

b. Social solidarity among coworkers serves as an intrinsic motivator. Nearly all production employees cited team cohesion at each workstation as a factor that makes the physical workload feel lighter. Psychologically. This condition was also acknowledged by both supervisors (Informants 7 and 8), who described solidarity among workers as social capital that maintains the stability of the work rhythm of the contract group.

c. The piece rate system as an ambivalent extrinsic motivator.

Field findings indicate that the piecework incentive system is a key driver of work speed across the entire production line, as workers' daily earnings are directly proportional to the volume of plywood sheets completed and passed quality control (QC). However, despite its effectiveness in boosting productivity, this pure piecework system without a base wage harbors fairness issues that workers directly experience whenever raw materials are problematic or machinery experiences problems conditions beyond their control but nonetheless burdening their daily earnings.

“If you say it’s enough, it’s enough, Miss. But if you say it’s according to the fatigue, then the contract draft should be increased a little... because lifting wood and gluing requires extra energy, and when I come home my body is often sore,” said Bowo Hartato (Informant 1), a gluing and pressing operator. A similar complaint was conveyed by Sri Rejeki (Informant 2), a cutting operator, who highlighted how the contract system becomes disproportionate when the quality of raw materials declines: work time is taken up sorting cracked or wet veneer, while wages are still calculated based on the final product that passes, not from the extra effort that has been expended.

Views from supervisors and management reinforce this picture rather than contradict it. Joko Susilo (Informant 7), the main supervisor, openly admitted that “this system does have

weaknesses when the quality of plywood raw materials from suppliers is declining... their work time is taken up, but the contractual results per sheet are calculated the same. This is where their motivation often drops.” A similar admission came from HRD Manager Dian Kartikasari (Informant 9), who stated that her team was “currently formulating a base-rate formula so that when external obstacles such as fussy raw materials or machine trouble occur, production colleagues still have a guarantee of fair income,” and business owner Dwi Martono (Informant 10) who explicitly acknowledged “this system has a moral weakness when the raw wood is not good... I admit it is not entirely ideal,” while confirming that he had instructed a review of the “Minimum Wage Guarantee Floor-Rate” scheme.

The convergence of statements from four different levels operators, supervisors, HRD, and business owners that independently pointed to the same issue constitutes a form of source triangulation that strengthens the credibility of these findings. Theoretically, this condition is best explained through the lens of procedural justice as developed by Greenberg (1990), which asserts that perceptions of fairness in the workplace are not solely determined by the magnitude of the results received (distributive justice), but also by the extent to which the procedure for determining these results takes into account factors beyond the individual's control. CV. Lumbung Madu's pure piecework system, by equalizing wages per sheet without considering exogenous variables such as the quality of raw materials, structurally violates the principle of procedural justice even though in terms of distributive justice (wage proportional to results), this system is quite transparent. At the same time, the dual pressure between meeting wholesale volume targets and maintaining product quality can also be understood as a form of goal conflict within the framework of goal-setting theory (Locke & Latham, 2002): when two equally demanding goals speed and accuracy compete for limited working time, one of the goals tends to be sacrificed, and in this field context, the one that is most often defeated is compliance with quality and work safety procedures.

d. The physical factory environment hinders motivation. All ten informants, without exception including the business owner who regularly visits the production floor acknowledged that the heat from the hot press, the noise of the cutting machine, the sawdust, and the chemical smell of the glue were the main sources of discomfort that reduced concentration and work enthusiasm, especially between 2:00 PM and later. The complete consensus (10 out of 10 informants) on this theme makes it one of the findings with the highest level of validity in this study.

e. Limited formal career development. The majority of production line employees perceive opportunities for technical skill development (task rotation, machine proficiency) as open, but perceive structural career paths as limited given the lean scale of CV businesses. Interestingly, this perception differs slightly from that of the view of the business owner (Informant 10), who emphasized the existence of a real internal promotion path exemplified by the two foremen (Informants 7 and 8), who both began their careers as production line operators. This difference in perspective indicates a perception gap between the expectations of lower-

level employees and the reality of management policies that have not been fully disseminated evenly.

Table Reduction of Employee Work Motivation Themes

Theme	Description of Findings	Informant Source	Consensus Level
Economic-family motivation	The main motivation is to provide for the family	Informants 1–6	Height (6/6 employees)
Team social solidarity	Team cohesion eases the psychological burden	Informants 1–6, 7, 8	Tall
Ambivalent piecework wages	A driver of speed, and a source of injustice	Informants 1–10	Very High (10/10)
The physical environment is inhibiting	Heat, noise, dust, chemical smells lower morale	Informants 1–10	Very High (10/10)
Formal career limitations	Skills increase, structural levels are limited	Informants 1–6 (vs. Informant 10)	Moderate (perception gap)

3.3. Work Discipline and Compliance with Work Standards (SOP)

The second focus of this study explores the implementation of work discipline across four dimensions as formulated in Chapter II: time compliance, company regulation compliance, compliance with work standards/SOPs, and responsibility for tools/work environment (Mangkunegara, 2017; Rivai & Sagala, 2016). It should be emphasized at the outset that CV. Lumbung Madu, as is common in small-to-medium enterprises, does not yet have a written, formally standardized Standard Operating Procedure (SOP) document. The term “SOP,” which recurs in the informants’ quotes in this section, is a colloquial term they use to refer to standard work standards such as glue dosage, pressing duration, or cut size that are passed down and monitored verbally by foremen through direct supervision on the production floor, rather than official written company procedures. Therefore, all findings regarding “SOP compliance” in this section are interpreted as compliance with standard work instructions and institutionalized work habits that have been unwritten, and not as an audit of compliance with formal documents.

a. Compliance with formal clock-in and clock-out times is high. All informants stated that compliance with clock-in and clock-out times is relatively strict due to the electronic fingerprint attendance system monitoring, which is directly linked to attendance premium deductions. HR Manager Dian Kartikasari (Informant 9) explained that the company deliberately designed an additional financial incentive in the form of a “craft premium for employees with 100% attendance in a month,” in addition to the daily piece rate a policy specifically designed to reduce absenteeism. Interestingly, Bowo Hartato (Informant 1) expressed the hope that the company would provide “craft premium money outside the piece rate for employees with full attendance,” indicating a perception gap between the policy designed by management and its level of socialization or adequacy in the eyes of production line operators. This qualitative finding aligns with secondary documentation data in the form of an absence summary for the January–June 2026 period (see Table 4.4), which shows the company’s average attendance rate of 99.1% over the six months of observation a form of technical triangulation between interview data and documentation data that reinforce each other.

b. Break time discipline is loose and situational. In contrast to adherence to clock-in and clock-out times, all informants including both foremen, the HR Manager, and the business owner consistently described a pattern of minor violations during break transitions, with employees postponing their breaks to complete a backlog of bulk work, resulting in a late return to work after the break ends. This pattern confirms the existence of a dualism of discipline: strong formal discipline (attendance) coexists with informal discipline (work breaks) that tends to be flexible due to the pressure of daily target work.

c. Compliance with the use of Personal Protective Equipment (PPE) is very low.

This finding represents one of the strongest levels of triangulation in the research, as it was confirmed by all ten informants without exception from production line operators to business owners. The pattern evident in the field is not one of deliberate defiance, but rather a daily dilemma: workers must choose between physical comfort to continue moving quickly, or adherence to safety procedures that they feel hinder their speed in meeting their target production volume.

“Honestly, Miss... I rarely wear the full mask. The office actually gave me the mask, but if I wear it near the hot press machine, it feels stuffy, stuffy, and makes it hard to breathe. And if I wear thick gloves, handling the wood veneer sheets becomes less sensitive, which actually slows down our work. After all, we are chasing the daily target,” said Bowo Hartato (Informant 1) while scratching his head, showing his embarrassment at his admission. Sri Rejeki (Informant 2) added a slightly different nuance: he always wears gloves because his hands “get destroyed by sharp wood fibers” if left unprotected, but the mask remains an item he “takes on and off” throughout the shift because the stuffy factory air circulation makes him “out of breath and sweaty on his face.”

The researcher's field notes further corroborate this testimony: the press line was noisy with the roar of machinery, and the temperature was stifling physical conditions that directly explain why the thick respirator masks felt excruciating for workers who had to move quickly all day. From a supervisory perspective, Joko Susilo (Informant 7) called this issue "one of the biggest gaps" he faced on the production floor, while business owner Dwi Martono (Informant 10) openly stated this situation as "self-criticism for management," because the specifications of the PPE provided so far had not been designed for the heavy, high-tempo physical work conditions at CV. Lumbung Madu.

Theoretically, this dilemma is most relevantly explained through Hackman and Oldham's (1976) job characteristics theory, which emphasizes that a worker's internal motivation is strongly influenced by the extent to which the job design including the accompanying tools and equipment aligns with the demands of the task at hand. Currently available PPE is generically designed without considering the characteristics of piecework tasks that require high speed and tactile sensitivity, so that instead of being protective, it is perceived by workers as a barrier to their autonomy and work efficiency. The greater the gap between the design of the protective equipment and the actual characteristics of the job, the greater the tendency for workers to ignore it in order to maintain productivity a pattern consistently found across the production lines in this study.

d. Compliance with high standard work instructions under conditions normal, but prone to "cutting corners" towards the end of the shift.

Under normal working conditions, adherence to crucial standard work instructions such as glue dosage during gluing and pressing duration/temperature on the hot press, which are taught and directly supervised by the foreman is reportedly high, as workers are well aware that even minor oversights can seriously damage the quality of the plywood sheets. Problems arise specifically during the critical hours leading up to the end of the shift, when the group's quota has not yet been fully achieved and the pressure to meet the daily target is at its peak.

"That's right, Miss. According to the foreman's teachings regarding drying and gluing, there are standard times, each layer must be checked one by one to ensure there are no twists or bubbles. But in practice, if we follow that slow and meticulous ritual, we end up with very little contract work. That's why we sometimes 'shoot' rather quickly as long as it looks neat from the outside and passes QC," said Bowo Hartato (Informant 1). Sri Rejeki (Informant 2) described a similar pattern in the veneer sorting process: "if the cracks are only fine at the ends, I just let them go straight to the back to speed things up." From a supervisory perspective, Joko Susilo (Informant 7) clearly confirmed this pattern: "when the shift is almost over and their daily quota is a little short, sometimes there are operators who secretly speed up the hydraulic press duration beyond the standard time we usually teach so the goods come out quickly. This is where my supervisory function must be extra strict, walking around the factory floor to minimize such cutting-the-corner actions."

This finding provides direct empirical evidence of the dilemma of the piecework wage system versus the OHS/SOP discipline that is the gap phenomenon of this research as formulated in Chapter I. Theoretically, this condition is a concrete manifestation of goal conflict within the framework of goal-setting theory (Locke & Latham, 2002): workers are faced with two explicit performance targets that are both demanded by management daily piecework volume targets on the one hand, and process quality/safety standards on the other which compete for the same and limited allocation of working time. When these two goals are not aligned through adequate incentive mechanisms, goal-setting theory predicts that workers will tend to prioritize goals that most directly affect their income (volume), and sacrifice goals that have less immediately visible impacts (quality and safety) a pattern consistently depicted by the confessions of operators and supervisors in this study.

e. Equipment maintenance and work area cleanliness are formally maintained, but the quality declines towards the end of the shift. All informants stated that cleaning of machines and work areas is always carried out before the end of the shift, as per the policy of 15 minutes before the end of the shift. However, the quality of the cleaning is often poor due to physical fatigue after a full day of work.

f. The disciplinary enforcement mechanism is hierarchical and humane. Both foremen, the HR Manager, and the business owner consistently explain the same mechanism for handling disciplinary violations: starting with a personal verbal warning (1–3 times), followed by a Warning Letter (SP) or a reduction in craft premiums for repeated violations. The business owner formulates the disciplinary enforcement philosophy as "Firm but Educative," emphasizing a developmental orientation rather than merely repressive sanctions.

Table Reduction of Work Discipline Themes

Discipline Dimension	Findings	Informant Source	Consensus Level
Compliance with check-in/check-out times	High, supported by electronic presence	Informants 1–10 + attendance doc.	Very high
Rest time compliance	Loose/flexible due to chasing wholesale	Informants 1–10	Very high
PPE Compliance	Low; exchanged for convenience & speed of work	Informants 1–10	Very High (10/10)
Standard work instruction compliance	Normal height, "cut compass" in the afternoon/deadline	Informants 1, 3, 4, 5, 7, 8, 9	Tall

Tool maintenance/cleanliness	Formal maintained, quality decreases due to fatigue	Informants 1–10	Very high
Sanction mechanism	Tiered: verbal warning – SP – premium deduction	Informants 7, 8, 9, 10	Tall

As a form of technical triangulation, the interview data on the time compliance dimension above was compared with secondary data in the form of CV. Lumbung Madu Employee Absence Recapitulation for the period January–June 2026. The recapitulation results for 35 employees in all divisions showed an attendance rate (Present/Total Working Days) that was consistently above 98% every month, as presented in Table.

Table Summary of Employee Attendance Levels per Month (January–June 2026)

Month	Present	Sick	Permission	Alpha	Total Working Days	Attendance Rate
January	899	6	4	1	910	98.79%
February	834	4	1	1	840	99.29%
March	904	3	2	1	910	99.34%
April	731	1	2	1	735	99.46%
May	867	4	2	2	875	99.09%
June	906	2	2	0	910	99.56%

The data in Table is not merely administrative supplementary, but rather quantitative evidence that directly supports one of the most important qualitative findings of this study. The average number of active employee attendance days ranges from 25 to 26 workdays per month out of the total available workdays, with attendance consistently above 98% throughout the six months of observation including in high-volume order months like January and March. This pattern empirically proves that the economic incentives of the piecework wage system have succeeded in massively reducing employee absenteeism: because workers' daily income depends directly on their attendance and work volume, absence practically means losing that day's income.

The most striking indicator in Table is not the attendance figures themselves, but rather the Absentee column (absence without explanation). Throughout six months of observation involving 35 employees equivalent to approximately 5,180 person-days the number of Absentee days recorded was only 6 (January 1, February 1, March 1, April 1, May 2, and June 0 days), or less than 0.12% of the total available workdays. Practically, almost all of the absences were due to illness or official permission, not absence without explanation. This pattern most coherently explains the link between the documentation data and the interview findings: because piecework wages are calculated daily and supported by a craft premium for full attendance, as explained by HRD Manager Dian Kartikasari (Informant 9), workers practically have no economic incentive to be absent without reason quantitative evidence that directly supports the informant's repeated statement that economic and family needs are the main driving force for their continued attendance (see Sub-chapter 4.2). Herein lies the structural irony that is the common thread of this research this almost perfect attendance is achieved not solely because of job satisfaction or comfort, but because of economic pressures that force workers to continue coming despite having to bear the burden of physical fatigue and higher occupational safety risks, as illustrated by the findings regarding low compliance with PPE.

When the data are disaggregated by work division, a pattern emerges that is relevant to the qualitative findings regarding the physical burden of production line work. The Production Division which comprises twenty employees and includes all production line informants and the two foremen in this study recorded an attendance rate of 99.05% (14 sick days, 9 leave days, and 5 absence days out of a total of 2,960 work days over six months), slightly lower than the Management, Quality Control, and Security divisions, which each recorded an attendance rate of 100%. While the difference is not large in absolute terms, this pattern is consistent with repeated complaints from production line informants about physical fatigue due to exposure to heat, noise, and wood dust, which were not experienced by the administrative division. As an illustration, several research informants were recorded as taking sick leave during the observation period for example, Sri Rejeki (Informant 2), who was recorded as being sick for two days in March with symptoms of typhus, and Totok Supriyanto (Informant 8), who was recorded as being sick with a severe cough in January and June. Although these medical reports cannot be causally inferred as a direct result of the working environment, their pattern of occurrence concentrated in the production division provides corroborative evidence that aligns with the qualitative narrative of heavier physical burdens on the production line compared to other divisions.

3.4. Production Line Employee Performance

All informants agreed that production line performance is assessed based on two main indicators that must be balanced, namely quantity (volume/daily target of plywood sheets) and quality (product defect rate). The HRD Manager (Informant 9) stated that the company's maximum tolerance standard for defect rates is 2%, while the business owner (Informant 10)

is currently designing a "Zero-Defect Premium Incentive" scheme with a stricter threshold, namely below 1%, as a form of additional financial reward for work groups that succeed in maintaining production quality.

The main obstacles that are consistently mentioned as the cause of not achieving optimal performance targets are: (1) human error due to physical fatigue and decreased concentration during critical hours above 14.00 WIB, in line with the findings on the motivation and discipline aspects above; (2) fluctuations in the quality of raw log wood materials from suppliers, especially during the rainy season; and (3) mechanical obstacles such as fluctuations in the hydraulic pressure of the hot press machine and blunt cutting machine blades that are sharpened too late.

In terms of teamwork, all informants from operators to business owners described the production process as a single, interdependent assembly line. Business owners even compared each workstation to an interdependent "body organ," so that delays at one station would create bottlenecks at the next. Nevertheless, all informants also reported strong work solidarity the initiative to help each other across stations when one coworker is overwhelmed which serves as a natural safety mechanism against the risk of production delays due to variations in individual workloads.

Table Reduction of Employee Performance Themes

Performance Indicators	Findings	Informant Source
Quantity (daily volume)	Generally achieved; supported by wholesale motivation	Informants 1–10
Quality (defect rate)	Standard $\leq 2\%$; proposed zero-defect bonus $< 1\%$	Informant 9, 10
Main causes of defects	Human error, critical hours, raw materials, machine constraints	Informants 1–10
Teamwork	Interdependent (assembly line), high solidarity	Informants 1–10

3.5. The Relationship Between Work Motivation, Work Discipline, and Employee Performance

Questions about the relationship between work motivation, work discipline, and work results were posed to all ten informants with relatively similar wording. Interestingly, five of the ten informants across categories from production line operators, foremen, to business owners

spontaneously answered using the analogy of motor vehicles, albeit with varying word choices and language. Bowo Hartato (Informant 1), a glue operator, stated: "Motivation is like the gasoline, discipline is the steering wheel... if you want good work results, the gasoline must be full, the steering wheel must also be straight." Danang Prasetyo (Informant 5), a glue spreader operator, described it in Javanese: "kados roda kalih steir... nek rodane banter tapi mboten enten setire, hasile triplek pating pecah kabeh" (like a wheel and a steering wheel if the wheel is fast but there is no steering wheel, the result is the plywood breaks apart). Roni Setiawan (Informant 6) said it was "like a motorbike and brakes," while Totok Supriyanto (Informant 8), a production foreman, analogized it as "a car wheel and a steering wheel... if you move fast without a steering wheel, the car will go into a ravine." Business owner Dwi Martono (Informant 10) provided the most complete elaboration: "motivation... is the accelerator, the driving force that makes employees move quickly... while discipline towards work rules is the control brake, which keeps the work speed on track with the product's standard quality."

The researcher does not interpret the similarity of the five answers above as a repetition of uniform words because the terms used are actually varied (gasoline-steering wheel, wheel-steering wheel, motor-brake, accelerator-brake) but rather as a convergence on the same logical structure: work motivation is positioned as an element that spurs the speed and volume of work, while work discipline is positioned as an element that directs and maintains the quality of work results. From this convergent answer pattern, the researcher formulated the analytical abstraction "motivation as an accelerator, discipline as control" as a nodal framework (interpretive summary) to explain the relationship between motivation-discipline-performance in this study not as a literal quote uniformly uttered by the five informants. The emergence of this convergent logical structure in informants from three different categories (operators, foremen, and business owners) who did not coordinate with each other in providing answers remains a strong indication of the achievement of data saturation as well as strengthening the credibility of the research findings.

Based on the abstraction, this study concludes that optimal performance of CV. Lumbung Madu production line employees is only achieved when work motivation and work discipline are balanced. High motivation without adequate compliance with standard work instructions results in high production volumes but is accompanied by a surge in defective products that are detrimental to the company's material, as reflected in the "cut-the-compass" pattern of hot press duration towards the end of the shift. Conversely, overly rigid discipline enforcement without adequate motivation for example due to an uncomfortable work environment that is not improved risks slowing down the work rhythm so that the production volume target is not achieved. This finding empirically confirms the research framework in Chapter II (2.6 The Relationship between Work Motivation, Work Discipline, and Employee Performance) while also answering the third problem formulation and the third research objective of this study.

3.6. Qualitative SWOT Analysis (TOWS Matrix) and Strategic Recommendations

Referring to the qualitative SWOT analysis framework explained in Chapter III, the following internal and external factors are compiled based on the results of data reduction from interviews, observations, and documentation in the field, as the basis for formulating the definitive TOWS Matrix in Table 4.6.

- S1. Employees' economic-family motivation is very strong and stable as a driving force for work.
- S2. High solidarity and teamwork support the smooth flow of chain-based production.
- S3. Compliance with crucial standard work instructions (glue dosage, hot press temperature) is high under normal conditions.
- S4. The multi-level and humane disciplinary enforcement mechanism was well received by employees.
- S5. The formal attendance rate is very high (average 99.1%) supported by an electronic attendance system.
- S6. Internal promotion paths have been proven to work (foremen come from production line operators).

The strengths factors above are accompanied by a number of internal weaknesses (Weaknesses).

- W1. Compliance with the use of PPE is very low across all lines due to the dilemma of physical comfort versus work safety.
- W2. Loose rest time discipline, especially during shift transitions.
- W3. The tendency to "cut corners" from the standard work instructions for hot press duration towards the end of the shift when the wholesale quota has not been reached.
- W4. A pure piecework wage system without a base rate creates a perception of unfairness when there are problems with raw materials/machines.
- W5. Formal career development opportunities are limited for the majority of operators.production line.

W6. The quality of cleanliness and maintenance of equipment decreases at the end of the shift due to physical fatigue.

External factors that influence employee motivation and work discipline are also identified as follows.

- O1. Market demand for plywood products is relatively stable.
- O2. K3 training programs are available from plywood industry associations.
- O3. Modern industrial dust collector technology and ventilation/exhaust systems are available in the market.
- O4. Personal Protective Equipment vendors are available with lightweight respirator specifications and optimal filters.
- T1. Occupational Safety and Health (K3) regulations are increasingly stringent.
- T2. Competitive wage levels with similar plywood companies in the surrounding area.
- T3. Fluctuations in the quality and supply of raw log wood materials due to weather/seasonal factors.
- T4. Fluctuations in the price of adhesive chemicals (resins) in the market.

a. IFE Matrix (Internal Factor Evaluation)

The previously identified strengths and weaknesses are then weighted and rated following the procedures described in Chapter III, to obtain a weighted score that describes the relative significance of each internal factor, as presented in Table 4.6.1 below.

Table IFE Matrix (Internal Factor Evaluation)

Code	Internal Factors	Weight	Rating×Weight=Score
S1	The economic-family motivation of employees is very strong and stable.	0.12	4 → 0.48
S2	High solidarity and teamwork support the smooth flow of production	0.10	4 → 0.40

S3	Compliance with standard work instructions is crucially high under normal conditions.	0.09	3 → 0.27
S4	The multi-level and humanistic disciplinary enforcement mechanism is well received.	0.08	3 → 0.24
S5	The formal attendance rate is very high (average 99.1%)	0.07	4 → 0.28
S6	Internal promotion channels have been proven to work	0.06	3 → 0.18
	Subtotal Strengths (S)	0.52	1.85
W1	Compliance with the use of PPE is very low across all lines	0.12	1 → 0.12
W2	Loose rest time discipline, especially during shift transition periods	0.07	2 → 0.14
W3	The tendency to "cut corners" on hot press duration towards the end of the shift	0.10	1 → 0.10
W4	Pure piece rate wage system without base rate	0.09	2 → 0.18
W5	Limited formal career development opportunities	0.05	2 → 0.10
W6	The quality of equipment maintenance decreases at the end of the shift.	0.05	2 → 0.10
	Subtotal Weaknesses (W)	0.48	0.74
	TOTAL IFE	1.00	2.59

Based on Table, the total weighted score of Strengths is 1.85 and the total weighted score of Weaknesses is 0.74, resulting in a total IFE Matrix score of 2.59 with a difference (S - W) of 1.11. The positive value of this difference indicates that the company's internal strengths in aggregate are still more dominant than its weaknesses, although the very low score of factor W1 (PPE compliance) remains a critical point that requires immediate attention.

4. Conclusion

This study aims to explore in depth the dynamics of work motivation and work discipline and their role in shaping the performance of production line employees at CV. Lumbung Madu through a qualitative case study approach. Based on the results of data reduction, presentation, and analysis described in Chapter IV, this study draws conclusions that answer the three problem formulations as formulated in Chapter I as follows.

a. The work motivation of CV. Lumbung Madu production line employees is multidimensional. Economic-family needs are the dominant and stable driving force, reinforced by social solidarity among workers as an intrinsic motivator that lightens the psychological workload. The piecework wage system acts as an ambivalent extrinsic motivator: it effectively boosts daily productivity, but creates perceptions of procedural injustice when raw material quality declines or machinery experiences problems. The hot, noisy, and dusty physical environment of the factory, as well as limited structural career development opportunities, are consistently identified as the main inhibiting factors for work motivation.

b. The implementation of work discipline at CV. Lumbung Madu shows a distinctive dualistic pattern. Formal compliance with attendance aspects is very high, supported by quantitative data from attendance recaps that show an average attendance rate of 99.1% throughout January–June 2026, but coexists with low informal compliance, especially regarding the use of Personal Protective Equipment and a tendency to “cut corners” on standard work instructions towards the end of the shift when the group's quota has not been reached. The hierarchical and humane disciplinary enforcement mechanism, with a “firm but educative” philosophy, also contributes to maintaining a conducive work climate.

c. Work motivation and work discipline have been shown to play a complementary role, not stand alone, in shaping employee performance. The analytical abstraction of “motivation as an accelerator, discipline as a control” formulated by researchers from the convergence of informant responses across levels shows that optimal performance namely a balance between production quantity and quality is only achieved when both elements are in balance. High motivation without adequate compliance with standard work instructions results in high production volumes but is accompanied by a surge in defective products, while rigid discipline enforcement without adequate motivation risks slowing down work rhythms and production volume targets.

d. The success of the implementation of human resource management and Occupational Safety and Health (K3) at CV. Lumbung Madu is also determined by the extent to which the company carries out the maintenance function of the physical and mental condition of the workforce, provides adequate recognition for employee contributions, and fulfills the mandatory employment insurance guarantee obligations in accordance with K3 legislation. These three dimensions have proven to be an important balance besides financial incentives

in shaping employee motivation and work discipline on an ongoing basis. Overall, the findings of this study successfully fill the methodological gap and the phenomenon gap formulated in Chapter I, namely the absence of qualitative research that specifically reveals the dilemma between the piecework wage system and compliance with OHS discipline in the context of the plywood industry. The strategic recommendations formulated through the qualitative TOWS Matrix in Sub-chapter 4.6 including the redesign of the contextual floor-rate-based incentive system, technical engineering of the work environment, and updating the specifications of Personal Protective Equipment combined with a zero-defect premium scheme are a concrete practical contribution for the management of CV. Lumbung Madu in improving employee motivation, discipline, and performance in a sustainable manner.

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