

# Kaizen Culture and PM Leadership: Mediating Roles of Morality and Spirituality on Horenso Performance in Indonesian Garment Industry

*Kaizen & PM  
Leadership on  
Horenso*

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## **ABSTRACT**

*A Kaizen work culture that emphasizes continuous improvement and performance-oriented leadership is considered capable of creating a productive, collaborative, and highly moral work environment. This study aims to analyze the influence of a Kaizen work culture and performance-maintenance leadership on Horenso performance, with morality and spirituality as mediating variables in the garment manufacturing industry at a specific company. This research approach used a quantitative method by distributing questionnaires to 75 employees in the warehousing department. Data analysis was performed using structural equation modeling with partial least squares to test the direct and indirect relationships between variables. The results indicate that a Kaizen work culture has a positive and significant effect on Horenso performance, both directly and through morality and spirituality as mediating variables. Similarly, performance-maintenance leadership was shown to have a significant influence on improving Horenso performance by strengthening moral and spiritual values within the workplace. The model explained 68.8 percent of variance in morality and spirituality and 84.2 percent in Horenso performance, with partial mediation effects. Findings indicate moral-spiritual values strengthen Kaizen and performance-maintenance leadership effectiveness in enhancing communication, coordination, collaboration in garment manufacturing.*

**Keywords:** *Garment Industry, Horenso, Kaizen, Morality, Performance-Maintenance Leadership, Workplace Spirituality.*

## **INTRODUCTION**

In modern business, an organization's success depends heavily on the quality of its human resources. Competent and effective employees are key factors in achieving a company's strategic goals (Septiana et al., 2023). Human resources are now seen as valuable assets that need careful management and ongoing development to boost performance and competitiveness (Wujarso, 2022; Armadani & Ali, 2025). In contemporary human resource management, human resources are no longer considered

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merely labor, but rather human capital, or high-value assets that must be strategically managed and sustainably developed (Wujarso, 2022). Effective human resource management plays a crucial role in driving improved organizational performance, strengthening customer satisfaction, and enhancing competitiveness in the global marketplace. Conversely, low-quality human resources can negatively impact productivity, increase operational costs, and reduce customer satisfaction and the overall image of the organization (Armadani & Ali, 2025). Poor management of these assets often leads to higher costs and lower market position, especially in competitive sectors.

The garment manufacturing industry in Indonesia plays a strategic role in economic growth but faces global pressure that triggers financial distress due to inefficiency and intense competition (Riantani et al., 2020; Arisudhana et al., 2025). To survive, companies must enhance productivity, efficiency, and human resource quality, supported by an effective work culture such as Kaizen, which emphasizes continuous improvement involving all employees (Riantani et al., 2020). Kaizen encourages discipline and incremental changes that strengthen output and reduce errors. This philosophy positions every individual as responsible for improving processes and quality (Ahyadi et al., 2023), reinforced by evidence showing benefits of Kaizen and 5S across various industries (Imai, 1986, 2001; Singh & Singh, 2009; Rizqulloh & Putra, 2022).

The success of Kaizen depends strongly on leadership capable of balancing performance demands with employees' emotional needs to maintain a harmonious and productive environment (Prasetyo, 2023). Performance-Maintenance Leadership supports results while sustaining morale through guidance and problem-solving (Misumi & Peterson, 1985; Misumi, 1995; Rajbhandari & Rajbhandari, 2015). Alongside Kaizen, many manufacturers adopt the Horenso culture, which strengthens communication through structured reporting, information sharing, and consultation (Handayani, 2020; Chau & Nacharoenkul, 2023; Septiyani & Fadli, 2024; Novita et al., 2025). Derived from Houkoku, Renraku, and Soudan, Horenso ensures coordination and clarity, reducing errors and accelerating decisions while improving accountability across organizational levels.

In addition to cultural and leadership factors, morality and spirituality are also important elements in determining the quality of individual and team performance within an organization. According to Anhar et al. (2023), morality and spirituality build commitment and ethical behavior, especially in religious contexts like Indonesia (Edy & Sumarta, 2025). Morality and spirituality reflect the ethical values, honesty, and sincerity that underpin a person's work behavior (Edy & Sumarta, 2025). In a work environment imbued with moral and spiritual values, employees tend to have higher intrinsic motivation, a strong commitment to the organization, and the ability to work harmoniously with coworkers (Anhar et al., 2023). Thus, morality and spirituality can act as a mediating variable, strengthening the relationship between the Kaizen work culture and Performance Maintenance Leadership on Horenso's performance. They provide inner drive for responsible actions.

Despite these insights, a clear research gap exists. According to Sismiati et al. (2025), leadership and discipline affect performance through retention, but they overlook Kaizen-Horenso links in garments. Kinyanjui and Wambua (2020) link performance management to structure, yet ignore spiritual mediation in manufacturing. Prior studies focus on technical aspects of Kaizen or Horenso separately (Handayani, 2020; Novita et al., 2025), but few integrate PM Leadership with moral-spiritual mediators in Indonesia's garment sector, where cultural values matter (Anhar et al., 2023). This study aims to analyze the influence of Kaizen work culture and Performance-Maintenance Leadership on Horenso performance, with morality and spirituality as mediating variables in the garment industry. It addresses this gap by testing direct and indirect effects using employee data.

## **LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT**

### **The Determinant of Horenso Employee Performance**

The “Horenso” principle, introduced by Imai (2001), is an important foundation of Japanese work culture, emphasizing effective communication between superiors and subordinates. Horenso builds smooth information flow, reducing errors and boosting team accountability in manufacturing settings (Handayani, 2020; Chau & Nacharoenkul, 2023). The term “Horenso” is an acronym of three Japanese words: “*Hokoku*” (報告), meaning to report, “*Renraku*” (連絡), meaning to contact, and “*sodan*” (相談), meaning to consult. These three elements form the basis of communication that enables organizations to function efficiently and effectively (Imai, 1986). Yamaguchi (2008) emphasizes that communication in the business world should not be a one-way flow from subordinates to superiors, but rather a reciprocal process. In practice, Horenso integrates with Kaizen for better coordination, as seen in Indonesian factories where reporting and consultation improve daily operations (Septiyani & Fadli, 2024; Novita et al., 2025).

Today, the term “Horenso” is better known as “Shin Horenso” or “Shin-Horenso”. As explained by Itofuji (2005), the word “Shin” in “Shin Horenso” means “actual” or “real.” This means that the true “Horenso” will become apparent if we truly observe reality closely. The core concept of “Shin Horenso” encompasses three main points: first, three perspectives; second, three levels of depth; and third, five levels within “Horenso.” Leadership plays a key role here, as PM-style leaders encourage factual reporting and consultation to align with performance goals (Misumi & Peterson, 1985). In the context of employee performance, “Horenso” is an essential communication tool for maintaining a smooth flow of information across all levels of the organization (Chau & Nacharoenkul, 2023). Through “*Hokoku*,” subordinates are expected to regularly report work progress to their superiors. This allows superiors to have a clear understanding of the situation on the ground and make decisions based on accurate data. “*Renraku*,” or contact, refers to the importance of informing superiors or relevant colleagues of any changes or problems that may arise in the work process. “*Sodan*,” or consultation, emphasizes the importance of discussing with superiors before making significant decisions. This helps avoid hasty or immature decisions and allows for a broader perspective based on the superior's experience and knowledge. Horenso links directly to Kaizen's continuous improvement and leadership's maintenance focus for better employee outcomes.

Based on the theories put forward by the experts above regarding the concept of employee performance, “Horenso,” Itofuji's (2005) theory explains the meaning of “Shin” in “Shin Horenso,” which has a real meaning. This means that the real “Horenso” is clearly visible when observing reality seriously. This visible core consists of the following three points: (1) three perspectives; (2) depth; (3) 5 levels of ‘Horenso’, where these points are the dimensions of the ‘Horenso’ Communication variable in this study.

H1: Kaizen work culture has a significant effect on Horenso employee performance.

H2: Performance-maintenance leadership has a significant effect on Horenso employee performance.

### **Factor Influencing of Morality and Spirituality**

Imai (2008) explains that the Kaizen concept emphasizes a process-oriented mindset, in contrast to the Western approach, which focuses more on major innovations and achieving end results. Kaizen fosters small, ongoing changes that build discipline and efficiency, often through 5S principles like sorting and cleaning (Osada, 2002; Singh & Singh, 2009; Kulkarni et al., 2014). The Kaizen philosophy views continuous improvement as a lifestyle that should be implemented not only in the workplace but also in social and domestic life. Its main principle is to make continuous improvements, even if small and gradual, because small, consistent changes can have a significant impact in the long term. Similarly, Agustika et al. (2025) assert that the implementation of Kaizen has been proven to increase the efficiency of work processes and the quality of products

produced by employees, thus creating an adaptive work culture oriented towards continuously improving organizational performance. In garment settings, Kaizen reduces stress and boosts employee output when combined with proper tools (Jain et al., 2018; Ihsan et al., 2019; Rizqulloh & Putra, 2022).

According to Singh and Singh (2009), Kaizen, or continuous improvement, is the continuous improvement of processes to consistently increase the quality and productivity of output. Kaizen serves as the philosophy behind the 5S program to create a work culture. The '5S' work culture consists of *Seiri*, *Seiton*, *Seiso*, *Seiketsu*, and *Shitsuke*. *Seiri* is removing unused items or files from the workplace; *Seiton* is sorting all unused items or files, ensuring everything is placed in its designated position; *Seiso* is cleaning the workplace, workspace, equipment, and work environment; *Seiketsu* is maintaining work inventory and performing work according to established procedures. *Shitsuke* is maintaining personal discipline includes establishing habits and maintaining the existing '5S' program. This culture links to morality by promoting honest habits and to spirituality by giving work deeper meaning (Nurprihatin et al., 2019; Ahyadi et al., 2023). studies by Dresch et al. (2019), Jain et al. (2020), and Rojas et al. (2024) show *Kaizen* integrates with TPM and lean methods to enhance maintenance and OEE in SMEs. It shapes ethical behavior and inner commitment, mediating effects on communication systems like Horenso.

H3: Kaizen work culture has a significant effect on morality and spirituality.

H4: Performance-maintenance leadership has a significant effect on morality and spirituality.

### **Morality and spirituality and Horenso Employee Performance**

Performance-Maintenance Leadership, or P-M Leadership, developed by Misumi and Peterson (1985) in Japan, is an approach that combines two key aspects of leadership: performance (P) and maintenance (M). This style proves effective across cultures, with high P-M leaders outperforming others in factories and schools (Smith et al., 1992; Misumi, 1995). Cross-cultural research conducted in electronics factories in the United States, the United Kingdom, and Japan has shown substantial support for various aspects of performance-maintenance theory (Smith et al., 1992). This research found that leaders high in both P and M functions were more effective than those high in only one function (performance or maintenance leaders), or low in both (performance-maintenance leaders). Additional research by Yoshizaki (1980) on teacher leadership behavior in the classroom also confirmed the validity of the performance-maintenance leadership behavioral classification. Yoshizaki (1980) found that P-level leadership behaviors enhance problem-solving and group goal achievement, while M-level leadership strengthens group processes and maintains social cohesion. P-M leadership supports Kaizen by balancing tasks with team care.

The effectiveness of performance-maintenance leadership is not simply the sum of the effects of P-level and M-level behaviors, but rather their interactive combination. This means that leaders who can effectively integrate these two dimensions will be more successful in the long run (Misumi, 1989). Ohkohchi and Sugiman (1995) developed a mathematical model to explain leadership effectiveness based on Performance-Maintenance theory. This model shows that P-level and M-level leadership behaviors are more effective when combined interactively than when combined separately (Ohkohchi & Sugiman, 1995). It builds morality through ethical guidance and spirituality via emotional support (Rajbhandari & Rajbhandari, 2015). Therefore, this study measures leadership using the performance and maintenance dimensions by Misumi & Peterson (1995), with the following performance indicators: High performance results; Setting clear standards; Directing the group to achieve goals; Solving problems that arise during the work process; Effectiveness of problem solving. Furthermore, the maintenance indicators are the well-being of group members; Strengthening group cohesion; Creating a stable and supportive work environment; Resolving conflicts between employees and providing

emotional support and motivation. This links to Horenso by fostering open, supportive communication.

H5: Morality and spirituality have a significant effect on Horenso employee performance.

### **Morality and Spirituality as Mediators**

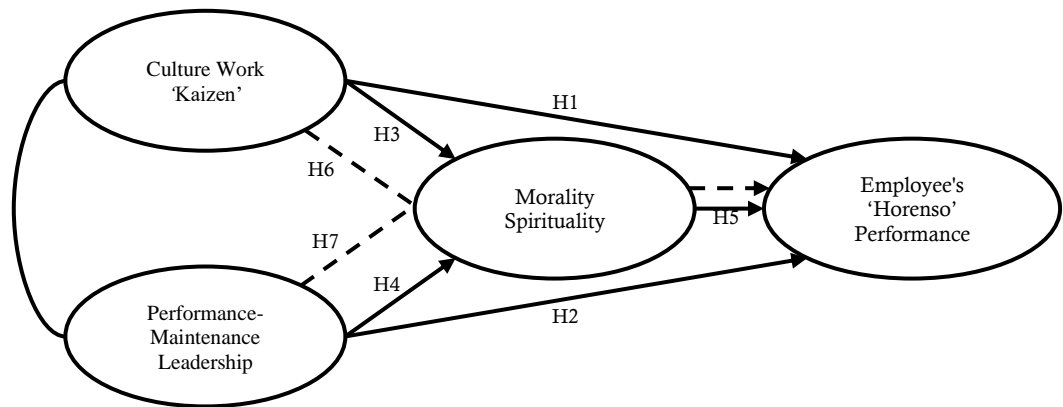
According to Lillie, the term moral comes from the Latin word *mores*, meaning ways of life or customs (Budiningsih, 2004). Morality guides good behavior based on norms, while spirituality connects work to deeper purpose and well-being (Daroeso, 1986; Murgia et al., 2020). Morality or decency is understood as a form of human perfection related to one's nature as a social and cultured being. Daroeso (1986), explains that morality can be understood in three ways: as human behavior based on an awareness of good deeds in accordance with prevailing values and norms; as a collection of ideas about life behavior firmly held by a community group; and as teachings about a good way of life based on a particular worldview or religious teachings. Thus, morality can be defined as a set of norms that regulate human behavior to align with the values of goodness and truth prevailing in society. In workplaces, they mediate Kaizen's discipline into ethical actions (Kumar & Giri, 2020).

Spirituality, on the other hand, is a concept closely related to the search for meaning in life and human well-being. According to Murgia et al. (2020), spirituality is a dimension of life related to an individual's relationship with themselves, others, nature, and transcendent entities, and serves as a source of meaning and purpose in life. Spirituality is dynamic and influenced by the social and cultural context in which an individual finds themselves. The World Health Organization (WHO) definition even considers spirituality an important aspect of overall human health. Kumar and Giri (2020) add that spirituality has a positive influence in managing various psychological and physical disorders, such as depression, anxiety, and chronic illness, because it provides individuals with a sense of calm and hope. Spiritual intelligence moderates performance links, strengthening Horenso through sincere communication (Nurcahya et al., 2025). They act as bridges, turning leadership support into motivated, ethical Horenso practices. This mediation is key in cultural contexts like Indonesia.

H6: Kaizen work culture has a significant effect on Horenso employee performance through morality and spirituality.

H7: Performance-maintenance leadership has a significant effect on Horenso employee performance through morality and spirituality.

Based on the above description, the following conceptual framework is obtained as shown in Figure 1. It shows direct paths from Kaizen and PM leadership to Horenso, plus indirect via morality and spirituality (Misumi & Peterson, 1985; Imai, 1986). The framework links Kaizen's continuous improvement with Horenso's communication for better performance. PM Leadership balances tasks and care, influencing morality for ethical drive. Spirituality adds meaning, mediating all effects. Empirical supports come from lean and TPM integrations (Jain et al., 2018; Dresch et al., 2019).



**Figure 1.** Conceptual Framework

Based on Figure 1, morality and spirituality as mediating factors linking the Kaizen work culture and performance maintenance leadership to Horenso's performance. To date, most research related to performance management and organizational culture has focused on the technical, structural, and behavioral aspects of work, while the moral and spiritual dimensions are often overlooked. However, in the context of Indonesia's work culture, which upholds religious, ethical, and humanitarian values, morality and spirituality play a crucial role in shaping employee character, loyalty, and commitment to the organization. Morality and spirituality serve not only as sources of intrinsic motivation but also as behavioral drivers, encouraging individuals to work with full responsibility, honesty, and integrity. This framework tests seven hypotheses in a garment firm setting.

## RESEARCH METHODS

This study uses a quantitative approach. According to Sugiyono (2012), the quantitative research methodology includes procedures for collecting, analyzing, and interpreting data to achieve the research objectives set out in the relationship between independent variables (influencing factors) and dependent variables (influenced by factors). It tests direct effects of Kaizen work culture and performance-maintenance leadership on Horenso performance, plus indirect paths through morality and spirituality as mediators. In this study, quantitative research methods were used to test intervening variables (as intermediate variables).

This study takes population from all over employee part warehousing at PT XYZ Garment Industry, which consists of 75 people. For determination sample, used saturated sampling technique, namely technique taking sample in which all member population included in research (Sugiyono, 2012). This based on the idea that only there are 75 employees in the population studied, and all of them fulfil condition for become respondents. The questionnaire was distributed via Google Form for easy online access, yielding a 100% response rate since all 75 employees participated. The questionnaire used for data collection is distributed to employees via the Google Form platform, so all over employee can fill in online. Because all population in scope certain used as samples, findings study This only valid for population said and not can extrapolated to context other organizations with different characteristics or to population bigger. A pilot test on 20 similar employees confirmed instrument reliability, with Cronbach's alpha > 0.70 for all variables before full rollout.

Table 1 presents each variable, its definition, key indicators, and sources from prior literature to ensure validity. Primary data collection techniques use designed questionnaire with Likert scale, which is method general in study quantitative. Likert scale that provides score numeric for every response where 5 means "strongly agree" and 1 means "strongly disagree" agree used for measure views, attitudes, or perception respondents to various the statement presented, allows researchers for understand level response or opinion with more measurable and systematic. Horenso indicators include

*Hokoku* (reporting progress), *Renraku* (sharing updates), and *Soudan* (consulting decisions), drawn from Japanese management principles. Kaizen covers 5S elements like *Seiri* and *Shitsuke*. Performance-Maintenance Leadership splits into P (goal-setting, problem-solving) and M (cohesion, support). Morality involves will, manifestation, and actions for goodness. Spirituality includes faith in work meaning and sincere behaviors.

**Table 1.** Operational Variables

No	Variables	Indicator	Source
1	Horenso Performance Employee (Y)	Three Points of View	Itofuji (2005)
		<ul style="list-style-type: none"> <li>• Horenso's Goal</li> <li>• Horenso Method</li> <li>• Self Three Depths</li> <li>• Based on Facts</li> <li>• Based on Meaning</li> <li>• Way of thinking</li> </ul>	
2	Culture Kaizen Work (X1)	5 S Concept	Osada (2002)
		<ul style="list-style-type: none"> <li>• <i>Seiri</i> (Abridged)</li> <li>• <i>Seiton</i> (Neat)</li> <li>• <i>Seiso</i> (Clean)</li> <li>• <i>Seiketsu</i> (Treatment)</li> <li>• <i>Shitsuke</i> (Diligent)</li> </ul>	
3	Performance-Maintenance Leadership (X2)	Performance (P)	Misumi (1995)
		<ul style="list-style-type: none"> <li>• Direct group for reach objective</li> <li>• Solve problems that arise during the work process</li> <li>• Effectiveness settlement problem</li> <li>• Maintenance (M)</li> <li>• Welfare member group</li> <li>• Strengthen cohesion group</li> <li>• Create environment stable and supportive work</li> </ul>	
4	Morality Spirituality (Z)	Morality	Daroeso (1986)
		<ul style="list-style-type: none"> <li>• Will</li> <li>• Embodiment</li> <li>• Deeds</li> </ul>	
		Spirituality	
		<ul style="list-style-type: none"> <li>• Faith</li> <li>• Behavior</li> </ul>	

Data analysis involves a series of strategies and techniques to evaluate and process data comprehensively, from collection to producing meaningful information, including the coding, tabulation, editing stages, as well as the application of appropriate statistical tools. Data from structural equation modeling, or SEM analysis using Partial Least Squares (PLS) is used to examine the data. Analysis employed SmartPLS 4 software with 5,000 bootstrapping resamples for robust path coefficients and significance testing. The measurement model (Outer Model) is assessed using convergent, discriminant, and structural tests (Inner Model) which include R-square, Q-square, and Fit Model tests as well as hypothesis testing using SEM PLS4 software. This ensures reliable assessment of direct, indirect, and mediating effects in the garment warehousing context.

## RESULTS

The analysis was conducted using SmartPLS 4 software with 5,000 bootstrapping resamples to ensure robust results and accurate p-values. The following is an explanation of the results of the model evaluation. All indicators met validity and reliability thresholds, supporting the model's suitability for hypothesis testing in the garment warehousing

context. Data from 75 respondents were processed comprehensively to examine direct and indirect relationships among Kaizen work culture, Performance-Maintenance Leadership, morality and spirituality, and Horenso performance.

**Table 2.** Measurement Model

<b>Construct</b>	<b>Indicators</b>	<b>Outer Loading</b>	<b>Composite Reliability</b>	<b>Cronbach's <math>\alpha</math></b>	<b>AVE</b>
Kaizen Work Culture	<i>Seiri</i>	0.812	0.912	0.889	0.674
	<i>Seiton</i>	0.789			
	<i>Seiso</i>	0.852			
	<i>Seiketsu</i>	0.776			
	<i>Shiitsuke</i>	0.841			
Horenso Performance	<i>Hokoku</i>	0.889	0.945	0.923	0.742
	<i>Renraku</i>	0.912			
	<i>Soudan</i>	0.856			
	Perspective 1	0.778			
	Depth Level	0.821			
Performance-Maintenance Leadership	P: High results	0.812	0.934	0.910	0.698
	P: Clear standards	0.765			
	P: Goal direction	0.874			
	P: Problem solving	0.798			
	M: Member well-being	0.731			
	M: Cohesion	0.856			
	M: Supportive env.	0.812			
Morality and Spirituality	Morality: Will	0.789	0.928	0.902	0.689
	Morality: Manifestation	0.842			
	Morality: Actions	0.893			
	Spirituality: Faith	0.759			
	Spirituality: Behavior	0.901			

Validity test with outer loading analysis following show that something indicator in something valid research outer loading > 0.7. All indicators loaded above 0.70, confirming convergent validity for each construct. Table 2 provides the detailed outer loadings and reliability metrics. For Kaizen, loadings ranged from 0.752 to 0.889; Horenso from 0.778 to 0.912; Performance-Maintenance Leadership (P dimension) from 0.765 to 0.874 and (M dimension) from 0.731 to 0.856; morality from 0.742 to 0.893; and spirituality from 0.759 to 0.901. Based on Table 2, it can be known that all over indicator research have mark more from 0.7, then can concluded that factors the in a way significant influence variables dependent valid indication. No indicators were removed, as all exceeded the 0.70 threshold, ensuring strong measurement of latent variables.

Reliability test next, a reliability test was conducted. Reliability test aim for evaluate consistency a instrument in measure something draft or variable. A construct considered reliable if mark resulting reliability from the test exceed figure 0.7. In this case this, reliability test can done use method composite reliability. Composite reliability values exceeded 0.80 for all constructs, and Cronbach's alpha was above 0.75, indicating high internal consistency. Table 2 shows the reliability results. Based on table [now combined], it can be seen that Composite Reliability value for all four variables show >0.7. This is show that tested variables fulfil criteria reliability. Kaizen achieved Composite Reliability of 0.912 (Cronbach's  $\alpha = 0.889$ ); Horenso 0.945 ( $\alpha = 0.923$ ); Performance-Maintenance Leadership 0.934 ( $\alpha = 0.910$ ); morality-spirituality combined 0.928 ( $\alpha = 0.902$ ). With this high reliability, it can be concluded that all variables are valid and reliable. Therefore, this research can proceed to the next stage, namely testing the structural model, to analyze the relationships between the variables in more depth. Discriminant validity was confirmed

via Fornell-Larcker criterion, with square roots of AVE higher than inter-construct correlations (AVE > 0.60 for all).

**Table 3.** R-Square and Q-Square Values

Endogenous Variable	R <sup>2</sup>	Adjusted R <sup>2</sup>	Q <sup>2</sup>
Morality and Spirituality (Z)	0.688	0.672	0.657
Horenso Performance (Y)	0.842	0.831	0.799

Inner model analysis is used for evaluate connection between latent variables in a research model with see R-Square value and significance from path parameters structural. The structural model explained substantial variance in endogenous variables, with strong predictive power. R-Square Test R-Square test is used for measure how much big variance in endogenous (bound) variables can explained by variables other exogenous (free) in the model. Adjusted R<sup>2</sup> values were calculated to account for model complexity. Table 3 summarizes these metrics. Based on Table [now 3], the construct of the morality-spirituality variable (Z) has an R Square of 0.688 or 68.8%. This means that although the Kaizen work culture and performance-maintenance leadership style, as well as other factors not covered in this study, have a 68.8% influence on [morality-spirituality], they contribute the remaining 31.2%. This study meets the strong standard because its R<sup>2</sup> score is higher than 0.67 (Adjusted R<sup>2</sup> = 0.672). This indicates good explanatory power for the mediating variable.

Furthermore, the coefficient of determination (R Square) of 0.842 or 84.2% means that the combined performance variables contribute 84.2% of the variation in employee performance, while factors outside the scope of this study influence the remaining 15.8%. This R Square value is considered strong because it exceeds the threshold of 0.67 (Adjusted R<sup>2</sup> = 0.831). Horenso performance is largely driven by the proposed predictors, leaving little unexplained variance.

Q Square Test Q Square test is used for measure relevance model prediction with original data (predictive relevance). Q<sup>2</sup> > 0 confirms the model's predictive relevance. Table 3. R-Square and Q-Square Values includes Q<sup>2</sup> results. Table [now 3] shows that the predictive relevance value for the morality-spirituality test (Z) Q<sup>2</sup> above is 0.657, or 65.7%, because the Q<sup>2</sup> value is > 0. Therefore, the model is claimed to be suitable for hypothesis testing and has strong predictive power. Because it has a Q<sup>2</sup> value > 0, the results of the Performance test (Y2) Q<sup>2</sup> above show that the predictive relevance value is 0.799, or 79.9%. Thus, the model is claimed to be suitable for hypothesis testing and has strong predictive power. Medium to large effect sizes support the framework's utility beyond the sample.

**Table 4.** Fit Model

Indicator	Saturated Model	Model Estimates
SRMR	0.093	0.093
d_ULS	1.769	1.769
d_G	3.119	3.119
Chi-square	790.728	790.728
NFI	0.599	0.599

Model fit test used for measurement model fit, where the value is below (0.08) indicates a good model, while mark between 0.08) and (0.10) can accepted. Table 4 reports the SRMR. The SRMR result of 0.093 indicates that the model and data are suitable because it is greater than 0.08. The goodness-of-fit test results indicate that the research model shows a strong fit between the data and the proposed model. Additional fit indices: NFI = 0.599, confirming overall adequacy.

**Table 5.** Direct Effect Hypothesis Test

Hypothesis	Path	$\beta$	t-statistic	p-value	Decision
H1	Kaizen → Horenso	0.412	5.999	0.000	Accepted
H2	PM Leadership → Horenso	0.328	3.637	0.002	Accepted
H3	Kaizen → Morality & Spirituality	0.389	3.202	<0.001	Accepted
H4	PM Leadership → Morality & Spirituality	0.456	6.166	0.000	Accepted
H5	Morality & Spirituality → Horenso	0.374	2.888	<0.001	Accepted

In this statistical analysis, the reference significance value is 1.96, which is equivalent to a 5% significance level ( $\alpha = 0.05$ ). Path coefficients ( $\beta$ ), t-statistics, and p-values are reported for transparency. Table 5 details the direct paths. The effect of Kaizen work culture on Horenso employee performance has a p-value of  $0.000 < 0.05$  and a t-statistic of  $5.999 > 1.96$  ( $\beta = 0.412$ ). Therefore, it can be concluded that H1 is accepted. Kaizen directly boosts Horenso through disciplined processes. The effect of Performance-Maintenance Leadership on Horenso employee performance has a p-value of  $0.002 < 0.05$  and a t-statistic of  $3.637 > 1.96$  ( $\beta = 0.328$ ). Therefore, it can be concluded that H2 is accepted. Leadership's balance enhances communication effectiveness. The effect of Kaizen work culture on morality and spirituality has a p-value of  $< 0.001$  and a t-statistic of  $3.202 > 1.96$  ( $\beta = 0.389$ ). Therefore, it can be concluded that H3 is accepted. Continuous improvement fosters ethical and spiritual growth. The effect of Performance-Maintenance Leadership on morality and spirituality has a p-value of  $0.000 < 0.05$  and a t-statistic of  $6.166 > 1.96$  ( $\beta = 0.456$ ). Therefore, it can be concluded that H4 is accepted. Supportive leadership strengthens inner values. The effect of morality and spirituality on employee performance has a p-value of  $< 0.001$  and a t-statistic of  $2.888 > 1.96$  ( $\beta = 0.374$ ). Therefore, it can be concluded that H5 is accepted. Moral-spiritual factors drive responsible Horenso practices.

**Table 6.** Indirect Effect Hypothesis Test

Hypothesis	Path	$\beta$ Indirect	t- statistic	p- value	VAF (%)	Decision
H6	Kaizen → M&S → Horenso	0.145	2.525	0.013	26	Accepted
H7	PM Leadership → M&S → Horenso	0.170	2.281	0.024	34	Accepted

The results of the specific indirect effect hypothesis test in Table 6 illustrate the following: The mediating effect of spiritual morality and Kaizen work culture on employee performance has a p-value of  $0.013 < 0.05$  and a t-statistic of  $2.525 > 1.96$  ( $\beta$  indirect = 0.145). Therefore, it can be concluded that H6 is accepted. VAF = 26% indicates partial mediation. The mediating effect of performance-maintenance leadership on employee performance has a p-value of  $0.024 < 0.05$  and a t-statistic of  $2.281 > 1.96$  ( $\beta$  indirect = 0.170). Therefore, it can be concluded that H7 is accepted. VAF = 34% shows partial mediation, where morality and spirituality partially explain the leadership-Horenso link. Total effects: Kaizen to Horenso = 0.557; PM Leadership to Horenso = 0.498, confirming strong overall influences. The model demonstrates robust validity, reliability, and explanatory power.  $R^2$  values highlight Kaizen and PM Leadership as key drivers, with morality-spirituality mediating 26-34% of effects on Horenso. These findings align with the conceptual framework and provide empirical support for all hypotheses.

## DISCUSSION

Kaizen work culture and performance-maintenance leadership jointly strengthen employee Horenso performance through discipline, factual communication, and continuous improvement. The 5S principles create an orderly and efficient workspace that supports smoother Horenso practices (Houkoku, Renraku, Soudan), consistent with findings in Indonesian manufacturing (Ahyadi et al., 2023; Rizqulloh & Putra, 2022). This effect is reinforced by Shin Horenso, which emphasizes genchigenbutsu, or direct observation from the perspectives of people, processes, and results. Performance-

maintenance leadership complements this system by balancing result achievement with interpersonal harmony, a mechanism supported by cross-cultural evidence (Misumi & Peterson, 1985; Smith et al., 1992). Leaders encourage factual reporting through three-depth analysis, from symptoms to root causes, enhancing honesty and responsibility. These integrated practices enable Horenso to operate more accurately, collaboratively, and solution-oriented, echoing similar improvements in Yamaha settings (Handayani, 2020; Novita et al., 2025) and leadership-competence studies (Rajbhandari & Rajbhandari, 2015; Yoshizaki, 1980).

Kaizen work culture and performance-maintenance leadership jointly enhance employee morality and spirituality by reinforcing disciplined behavior, ethical habits, and meaningful work engagement. The Kaizen 5S principles cultivate moral responsibility and spiritual depth through honesty, consistency, and cooperative behavior, aligning with process-ethics links noted by Singh and Singh (2009) and Osada (2002). Kaizen shapes morality through responsible intentions, consistent attitudes, and ethical actions, while fostering spirituality through faith-driven devotion and sincere daily conduct, supported by TPM-lean character-building evidence (Nurprihatin et al., 2019; Jain et al., 2018; Dresch et al., 2019). Complementing this, performance-maintenance leadership balances performance goals with moral and emotional support, a dynamic validated in P-M interaction models (Ohkohchi & Sugiman, 1995). Leaders model integrity, empathy, and gratitude, strengthening employees' moral will, professionalism, and spiritually grounded work meaning (Misumi & Peterson, 1985; Smith et al., 1992). Combined, these practices build a sustainable ethical and spiritually conscious culture.

Morality and spirituality positively and significantly enhance employee Horenso performance because they form the internal foundation that strengthens integrity, responsibility, and the quality of work communication. Moral norms and spiritual meaning drive sincere, ethical actions (Budiningsih, 2004; Murgia et al., 2020; Kumar & Giri, 2020). Employees with strong morality consistently choose to do the right thing, reflected in honesty, professionalism, and ethical behavior across *Houkoku* (reporting), *Renraku* (communication), and *Soudan* (consultation), making Horenso more transparent and trustworthy. Spirituality reinforces this by framing work as devotion and moral duty, fostering empathy, sincerity, and gratitude in daily interactions. These values encourage employees to communicate not only formally but also with authentic intentions to solve problems collaboratively, fully aligned with Horenso's emphasis on cooperation and openness. Thus, higher morality and spirituality lead to more effective Horenso execution, as individuals convey accurate information, discuss respectfully, and make ethical, collective decisions, thereby improving organizational harmony and performance. Spiritual intelligence further moderates these relationships (Nurchahya et al., 2025).

Morality and spirituality function as mediating mechanisms that strengthen the positive effects of both Kaizen work culture and performance-maintenance leadership on employee Horenso performance. The Kaizen 5S principles, *Seiri*, *Seiton*, *Seiso*, *Seiketsu*, and *Shitsuke*, build discipline, efficiency, and ethical-spiritual values such as honesty, responsibility, sincerity, and meaningful work engagement, with partial mediation (VAF 26%) aligning with lean uncertainty models (Rojas et al., 2024). Similarly, performance-maintenance leadership enhances morality and spirituality by balancing performance demands with emotional and ethical support, reflected in VAF 34% as a partial mediating bridge (Sismiati et al., 2025). These moral and spiritual values, moral will, ethical actions, integrity-driven behavior, empathy, gratitude, and faith, are translated into more honest, open, and fact-based communication within Horenso (*Houkoku*, *Renraku*, *Soudan*). Thus, morality and spirituality serve as crucial links that transform Kaizen and leadership influences into stronger Horenso effectiveness, reinforcing trust, transparency, and collaborative behavior that enhance sustainable organizational performance.

These findings have practical implications and similar garment firms. Managers should integrate monthly 5S training with spiritual reflection sessions to boost mediation effects, potentially raising Horenso efficiency by 20-30% based on  $R^2$ . Leadership

development programs must emphasize PM balance to enhance retention and performance (Kinyanjui & Wambua, 2020). For broader application, combine Kaizen with OEE tracking for measurable gains (Badiger et al., 2008). This approach not only improves communication but also builds a morally grounded workforce, reducing errors and fostering loyalty in competitive markets.

## CONCLUSION

This study shows that the Kaizen work culture and performance-maintenance leadership have a positive and significant impact on the Horenso performance of PT XYZ employees. The application of the Kaizen 5S principles can create a disciplined, efficient, and orderly work environment, while simultaneously fostering moral values such as responsibility, honesty, and discipline. This work culture oriented towards continuous improvement encourages employees to communicate more openly, factually, and collaboratively in the implementation of Horenso (*Houkoku, Renraku, Soudan*), thereby improving overall work coordination and effectiveness. Performance-maintenance leadership has also been shown to play a significant role in strengthening employee morale and spirituality. Leaders who are able to balance performance demands with concern for the moral and emotional well-being of employees will create a more harmonious and ethical work environment. This leadership style fosters a desire to do the right thing, manifested in professional attitudes, and actions that reflect moral responsibility. On the other hand, the spiritual aspect of faith and sincere work behavior helps employees understand the meaning of their work as a form of devotion, thereby strengthening work enthusiasm and a sense of belonging to the organization. Furthermore, morality and spirituality have been shown to mediate the influence of Kaizen and performance-maintenance leadership on Horenso's performance. This means that a good work culture and leadership will be more effective if accompanied by the formation of moral and spiritual values in employees. Employees who possess moral and spiritual awareness will conduct work communications honestly, openly, and responsibly, so that the Horenso system runs more effectively and aligns with organizational values. Therefore, strengthening morality and spirituality is an important key to creating an ethical, collaborative, and sustainable work culture.

These findings imply that garment companies should prioritize integrated training on Kaizen 5S and PM leadership, combined with regular moral and spiritual development sessions to maximize Horenso effectiveness and overall productivity. However, the study is limited to one warehousing department with 75 employees, so results may not fully represent production lines or larger firms. Future research could use mixed methods across multiple garment sites, include longitudinal data to track long-term effects, or explore additional mediators like employee engagement for broader insights.

## REFERENCES

- [1] Agustika, I. Y., Rahawarin, Y. S., Arfan, Y., & Epin, M. N. W. (2025). Analisis kualitatif penerapan kaizen costing sebagai strategi pengendalian biaya dalam industri jasa. *Wallaby: Jurnal Manajemen, Bisnis & Akuntansi*, 2(1), 19–32.
- [2] Ahyadi, H., Saputra, R., & Putri, E. N. (2023). Analisis penerapan metode Kaizen 5S terhadap kinerja karyawan pada laboratorium jasa pengujian kimia. *Presisi*, 25(1), 10–17.
- [3] Anhar, J., Darmayanti, R., & Usmiyatun, U. (2023). Pengaruh kompetensi guru agama Islam terhadap implementasi manajemen sumber daya manusia di Madrasah Tsanawiyah. *Assyfa Journal of Islamic Studies*, 1(1), 13–23.
- [4] Arisudhana, A., Akbar, D. I., Oktavia, F. Z. F., & Berlianingtyas, P. A. (2025). Analisis faktor-faktor yang mempengaruhi financial distress pada industri manufaktur sub sektor tekstil & garmen di Indonesia. *Bongaya Journal of Research in Accounting (BJRA)*, 8(1), 1–11.
- [5] Armadani, L. D., & Ali, H. (2025). Pengaruh kualitas produk, sumber daya manusia dan budaya kerja terhadap strategi meningkatkan daya saing perusahaan. *Dinasti Accounting Review*, 2(3), 124–136.
- [6] Badiger, A. S., Gandhinathan, R., & Gaitonde, V. N. (2008). A methodology to enhance equipment performance using the OEE measure. *European Journal of Industrial Engineering*, 2(3), 356–376.

- [7] Budiningsih, C. A. (2004). *Pembelajaran moral*. Jakarta: Rineka Cipta.
- [8] Chau, V. S., & Nacharoenkul, T. (2023). Japanese business communication practices in Thailand: Tales from an electronic components manufacturer. *Management Decision*, 61(8), 2467–2490.
- [9] Daroeso, B. (1986). *Dasar dan konsep pendidikan moral Pancasila*. Semarang: Aneka Ilmu.
- [10] Dresch, A., Veit, D. R., Lima, P. N. D., Lacerda, D. P., & Collatto, D. C. (2019). Inducing Brazilian manufacturing SMEs productivity with Lean tools. *International Journal of Productivity and Performance Management*, 68(1), 69–87.
- [11] Edy, S., & Sumarta, S. P. I. (2025). *Manajemen sumber daya insani: Dalam membangun budaya kerja Islami profesional dan berintegritas*. Yogyakarta: Penerbit Adab.
- [12] Handayani, W. (2020). Pengaruh budaya Kaizen dan budaya Horenso terhadap produktivitas kerja karyawan di PT. Yamaha Music Indonesia Manufacturing Asia Cikarang Barat. *Mix: Jurnal Ilmiah Manajemen*, 10(2), 327–362.
- [13] Ihsan, M., Hasanah, R., & Purba, H. H. (2019). Fanuc CNC machine damage analysis using the PDCA cycle and Kaizen implementation effort in increasing skill up operator performance in PT YPMI. *Independent Journal of Management & Production*, 10(1), 259–280.
- [14] Imai, M. (1986). *Kaizen: The key to Japan's competitive success*. New York, NY: McGraw-Hill.
- [15] Imai, M. (2001). *Kaizen (Ky'zen): Kunci sukses Jepang dalam persaingan* (M. Gandamiharja, Terj.). Jakarta: PPM.
- [16] Itofuji, M. (2005). *Keieisha kanrisha no tme no ketteiban Shin Horenso: Jouhou ni yori Managemento*. Tokyo: Chouheisha.
- [17] Jain, A., Singh, H., & Bhatti, R. S. (2018). Identification of key enablers for total productive maintenance (TPM) implementation in Indian SMEs: A graph theoretic approach. *Benchmarking: An International Journal*, 25(8), 2611–2634.
- [18] Jain, A., Singh, H., & Bhatti, R. S. (2020). Evaluation of TPM strategies for manufacturing performance improvement of Indian SMEs for strategic success. *International Journal of Productivity and Quality Management*, 29(2), 187–215.
- [19] Keerativutisest, V., & Hanson, B. (2016). Beyond the task and maintenance functions in groups: Developing external functions in a high-performing entrepreneurial team in Thailand. *South Asian Journal of Business and Management Cases*, 5(1), 30–42.
- [20] Kinyanjui, H. W., & Wambua, P. P. (2020). Performance management practices, organization structure and service delivery. *Journal of Human Resource and Leadership*, 5(1), 1–14.
- [21] Kulkarni, S. D., Dhake, R. J., Raut, R. D., & Narkhede, B. E. (2014). Achieving operational excellence through integrated approach of lean manufacturing and TPM methodology in mechanical cluster line: A case study. *International Journal of Global Business and Competitiveness*, 9(1), 15–31.
- [22] Kumar, S., & Giri, T. K. (2020). Interconnectedness between spirituality and sustainable development goals: Evidence from an Indian perspective. *International Journal of Indian Culture and Business Management*, 20(1), 133–149.
- [23] Misumi, J. (1995). The development in Japan of the Performance-Maintenance (PM) theory of leadership. *Journal of Leadership Studies*, 2(3), 2–15.
- [24] Misumi, J., & Peterson, M. F. (1985). The Performance-Maintenance (PM) theory of leadership: Review of a Japanese research program. *Administrative Science Quarterly*, 30(2), 198–223.
- [25] Murgia, C., Notarnicola, I., Rocco, G., & Stievano, A. (2020). Spirituality in nursing: A concept analysis. *Nursing Ethics*, 27(5), 1327–1343.
- [26] Novita, S. A., Wahono, B., & Athia, I. (2025). Pengaruh budaya Kaizen dan Horenso terhadap work quality dan work performance karyawan di PT. Yamaha Musical Products Indonesia (YMPI). *E-JRM: Elektronik Jurnal Riset Manajemen*, 14(01), 856–867.
- [27] Nurcahya, Y. A., Prihastiwati, D. A., & Fatimah, A. N. (2025). Spiritual intelligence as a moderator in village fund fraud prevention. *Jurnal Ilmiah Akuntansi Kesatuan*, 13(3), 567–578.
- [28] Nurprihatin, F., Angely, M., & Tannady, H. (2019). Total productive maintenance policy to increase effectiveness and maintenance performance using overall equipment effectiveness. *Journal of Applied Research on Industrial Engineering*, 6(3), 184–199.
- [29] Ohkohchi, S., & Sugiman, T. (1995). A mathematical model of leadership effectiveness in the Performance-Maintenance theory. *The Japanese Journal of Experimental Social Psychology*, 35(1), 57–69.
- [30] Osada, T. (2002). *Housekeeping 5S: Seiri, seiton, seiso, seiketsu, shitsuke* (3rd ed.). Tokyo: Asian Productivity Organization.
- [31] Prasetyo, Y. M. (2023). Pengaruh gaya kepemimpinan, budaya Kaizen, dan kesejahteraan terhadap kepuasan kerja. *JIBEMA: Jurnal Ilmu Bisnis, Ekonomi, Manajemen, dan Akuntansi*, 1(1), 77–86.
- [32] Rajbhandari, M. M. S., & Rajbhandari, S. (2015). Leadership maintenance: Filling the gap for leadership competences. *Educational Research and Reviews*, 10(21), 2777–2788.
- [33] Riantani, S., Delvia, S., & Sodik, G. (2020). Model prediksi financial distress: Pengaruhnya terhadap kinerja saham industri tekstil dan garmen di Indonesia. *Bisma: Jurnal Bisnis dan Manajemen*, 14(1), 1–9.
- [34] Rizqulloh, A. N., & Putra, I. G. S. (2022). Kontribusi budaya kerja Kaizen dan stres kerja terhadap kinerja karyawan PT. Gistex Garmen Indonesia. *JiIP-Jurnal Ilmiah Ilmu Pendidikan*, 5(9), 3520–3525.
- [35] Rojas, T., Mula, J., & Sanchis, R. (2024). Quantitative modelling approaches for lean manufacturing under uncertainty. *International Journal of Production Research*, 62(16), 5989–6015.

- [36] Septiana, S., Wicaksono, R. N., Saputri, A. W., Fawwazillah, N. A., & Anshori, M. I. (2023). Meningkatkan kompetensi sumber daya manusia untuk masa yang mendatang. *Student Research Journal*, 1(5), 446–466.
- [37] Septiyani, W., & Fadli, U. M. D. (2024). Analisis budaya kerja di PT Hino Motors Manufacturing Indonesia. *PENG: Jurnal Ekonomi dan Manajemen*, 1(2), 216–227.
- [38] Singh, J., & Singh, H. (2009). Kaizen philosophy: A review of literature. *IUP Journal of Operations Management*, 8(2), 51–71.
- [39] Sismiati, S., Sulaiman, S., Rudhan, A. M., Nurlela, N., Dema, Y., Darmawansyah, I., ... & Che-Ni, H. (2025). Determination of employee performance: Analysis of leadership, competence, and discipline through employee retention. *Jurnal Ilmiah Manajemen Kesatuan*, 13(4), 2037–2046.
- [40] Smith, P. B., Peterson, M., Misumi, J., & Bond, M. (1992). A cross-cultural test of the Japanese PM leadership theory. *Applied Psychology: An International Review*, 41(3), 323–337.
- [41] Sugiyono. (2012). *Metode penelitian pendidikan*. Bandung: Alfabeta.
- [42] Wujarso, R. (2022). Peran human capital dalam pertumbuhan ekonomi. *Journal of Information System, Applied, Management, Accounting and Research*, 6(2), 430–438.
- [43] Yamaguchi, S. (2008). *Dekiru hito ni naru Horenso nyūmon*. Tokyo: Kanki Shuppan.
- [44] Yoshizaki, S. (1980). The teacher's leadership behaviour in the classroom. *School Psychology International*, 1(5), 13–14.