

The Effect of Kaizen Implementation on Employee Performance and its Implications on After-Sales Service Productivity at PT Tunas Toyota Gatot Subroto

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Keywords	ABSTRACT
Kaizen Implementation; Employee Performance; After-Sales Service Productivity;	The Indonesian automotive industry faces increasingly intense competition, making operational excellence in after-sales services a critical determinant of customer satisfaction and organizational sustainability. Despite the widespread adoption of continuous improvement practices, many authorized dealerships continue to experience challenges, including service completion delays, inefficient resource utilization, and inconsistent productivity levels. This study aimed to examine the effect of Kaizen implementation on employee performance and its implications for after-sales service productivity at PT Tunas Toyota Gatot Subroto. A quantitative research design with descriptive and verification approaches was employed. The study involved 60 employees from the after-sales division selected through purposive sampling. Data were analyzed using SPSS 25 for descriptive statistics and SmartPLS 3 for structural equation modeling, including validity, reliability, and hypothesis testing. The findings showed that Kaizen implementation had a positive and significant effect on employee performance, while employee performance significantly improved after-sales service productivity. However, Kaizen implementation did not directly affect productivity; instead, employee performance served as a significant mediating variable linking Kaizen implementation to productivity improvement. The structural model demonstrated strong explanatory power, indicating that Kaizen contributed substantially to improving employee performance, which subsequently enhanced productivity. The study concluded that successful Kaizen implementation should be supported by continuous employee development, active employee participation, and performance improvement initiatives to maximize after-sales service productivity. These findings contribute to the continuous improvement literature by highlighting the mediating role of employee performance in the relationship between Kaizen implementation and operational productivity within the automotive after-sales service sector.

INTRODUCTION

The automotive industry and vehicle dealership networks in Indonesia are experiencing increasingly intense business competition, where organizational success is determined not only by vehicle sales strategies but also by operational excellence. Within the automotive business

ecosystem, authorized dealerships play a crucial role as the frontline entities connecting manufacturers with end consumers through integrated sales, service, and spare parts (3S) operations. Growing customer expectations for reliable vehicle maintenance require dealership networks to continuously improve their workflows to become more responsive, efficient, and capable of minimizing waste. According to Tjiptono (2023), after-sales service encompasses various facilities, technical assistance, and warranty services provided by manufacturers or sellers after a purchase transaction to ensure optimal product performance and long-term customer satisfaction. In the automotive service sector, the quality of operational execution at the dealership level serves as a key foundation for building long-term customer trust and loyalty.

After-sales service productivity is generally considered an indicator of operational effectiveness within service divisions, as it reflects the relationship between service output and the utilization of allocated resources (Syam et al., 2026; Titu et al., 2025; Vaziri et al., 2025). Productive after-sales service is characterized by efficient workflows, reduced lead times, high service capacity, and minimal repeat complaints. According to Singgih and Singgih (2024), after-sales service productivity represents operational efficiency by comparing service outputs, such as repair outcomes, service completion speed, and customer satisfaction, with input resources, including mechanic working hours, spare-part utilization, and operational costs, within a specific period.

Challenges related to after-sales service productivity are also experienced by PT Tunas Toyota *Gatot Subroto*, one of Toyota's authorized dealership networks in Bandung. Based on field observations, the repair unit handling capacity within the company's after-sales division frequently experiences service completion delays beyond the estimated delivery time promised to customers. Furthermore, the accumulation of vehicle queues at repair bays and customer complaints regarding delayed vehicle delivery indicate that resource utilization efficiency and service cycle time at PT Tunas Toyota Gatot Subroto have not yet reached optimal productivity levels. The high volume of maintenance units combined with limited technician availability has contributed to reduced productivity. This condition is reflected in the following maintenance unit report data:

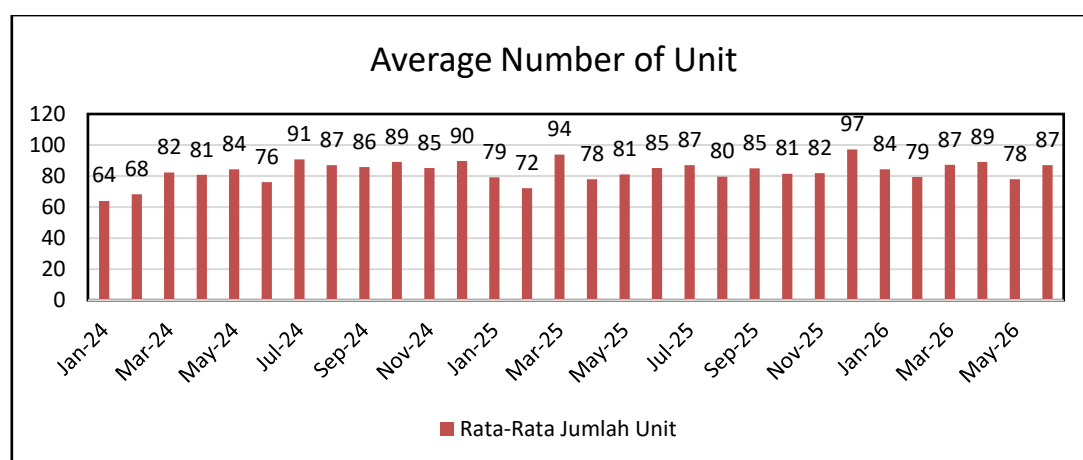


Figure 1 Maintenance Unit Report
Source: Internal Company Data, 2026

Based on Figure 1, it can be concluded that the average number of maintenance units increased from January 2024 to June 2026. The lowest average number of maintenance units was recorded in January 2024, with 64 units, and the number continued to increase in the following months, reaching an average of 91 units in July 2024. Although the number of units decreased in August 2024, it increased again in March 2025 to 94 units. The highest average number of maintenance units was recorded in December 2025, reaching nearly 100 units. The increasing number of units requiring maintenance exceeded technician capacity, resulting in delays in the service completion process. This condition was also reflected in the results of a pre-survey conducted by the researcher involving 35 after-sales service employees, as presented below:

Table 1 Pre-survey Results: Productivity Variables

Pernyataan	Skal Likert					Skor Item	Skor Ideal	%	Kriteria Penilaian
	1	2	3	4	5				
Proses perbaikan kendaraan selesai tepat waktu sesuai estimasi durasi yang dijanjikan kepada konsumen.	0	12	10	8	5	111	175	63,43%	Kurang Baik
Fasilitas/area stall perbaikan dimanfaatkan secara optimal sepanjang shift kerja berlangsung.	0	9	9	14	3	116	175	66,29%	Kurang Baik
Hasil akhir layanan perbaikan secara umum mendapatkan tanggapan/skor kepuasan yang tinggi dari pelanggan.	0	7	13	10	5	118	175	67,43%	Kurang Baik
Pengalokasian jam kerja teknisi/mekanik berjalan sangat efisien sebanding dengan jumlah unit yang diservis.	0	4	7	15	9	134	175	76,57%	Baik
Total						479	700	68,43%	Baik

Source: Processed by the Author, 2026

Based on Table 1, it can be concluded that the total score obtained from all statements/items measuring the productivity variable was 479, equivalent to 68.43%, which was categorized as “Good.” This indicates that respondents perceived after-sales service productivity as good. However, Table 1.1 also shows several dimensions that still require improvement. Vehicle repairs are not always completed within the estimated service duration promised to customers, repair bays and service areas are not optimally utilized throughout working shifts, and the final outcomes of repair services do not consistently receive high satisfaction ratings from customers.

The relatively low level of after-sales service productivity is closely associated with employee performance within the service division, including service advisors, administrative staff, and technicians. According to Pambreni et al. (2025:34–37), employee performance refers to the quality and quantity of work achieved by employees in carrying out their duties and responsibilities according to organizational standards, targets, and performance criteria within a specific period.

At PT Tunas Toyota Gatot Subroto, several employee performance indicators, such as task completion punctuality and work output quality, have not yet been fully optimized. Several technical errors and omissions are still identified, potentially leading to rework, while limited employee initiative in resolving work-related issues and suboptimal discipline in managing effective working hours directly hinder the achievement of operational performance targets

within the service division. In addition, attendance performance among after-sales division employees remains suboptimal. This condition is reflected in the attendance data of after-sales division employees for the period January 2025 to June 2026, as presented below:

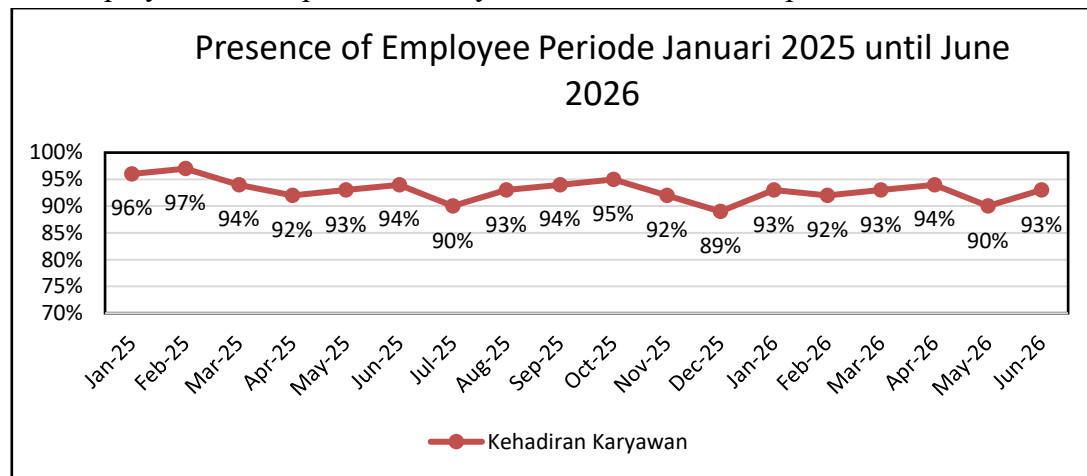


Figure 2 Employee Attendance from January 2025 to June 2026

Source: Internal Company Data, 2026

Based on Figure 1.2, it can be concluded that the attendance rate of after-sales employees was not yet optimal. The highest attendance rate was recorded in February 2025, whereas the lowest attendance rate occurred in December 2025. During the same period, the average number of maintenance units reached its peak, approaching 100 units. This condition increased the workload of technicians, resulting in longer service completion times. These findings were also supported by the results of a pre-survey conducted by the researcher involving 35 after-sales employees, as presented below:

Table 2 Pre-survey Results: Employee Performance Variables

Statement	Likert Scale					Item Score	Ideal Score	%	Category
	1	2	3	4	5				
I utilize all available working hours optimally to complete assigned tasks.	0	10	9	9	7	118	175	67,43%	Poor
I complete each repair/service task carefully, accurately, and with minimal errors.	0	7	9	11	8	125	175	71,43%	Good
I always complete tasks according to the scheduled deadlines.	0	12	8	6	9	117	175	66,86%	Poor
I take quick and proactive actions to find solutions when encountering obstacles at work.	0	9	8	12	6	120	175	68,57%	Good
Total						480	700	68,57%	Good

Source: Processed by the Author, 2026

Based on Table 2, it can be concluded that the total score obtained from all statements/items measuring the employee performance variable was 480, equivalent to 68.57%, which was categorized as “Good.” This indicates that respondents perceived employee performance as good. However, Table 1.2 also shows several dimensions that still require improvement, including the suboptimal utilization of available working hours for task

completion and the persistence of tasks that are not completed according to established schedules.

To address these performance and productivity challenges, the company has attempted to establish a continuous improvement culture through the implementation of the Kaizen concept. According to Quafa (2024), Kaizen is a Japanese management philosophy and systematic improvement approach that emphasizes continuous, incremental improvement involving all organizational levels, from top management to operational employees, to enhance efficiency, effectiveness, and work quality while reducing waste. However, at PT Tunas Toyota Gatot Subroto, Kaizen implementation has not yet been consistently applied across all operational areas. Workplace management based on 5S principles (Seiri, Seiton, Seiso, Seiketsu, and Shitsuke) is often neglected during periods of increased service demand, while employee participation in providing improvement suggestions (total employee involvement) remains limited and tends to be viewed as a routine obligation rather than an active improvement practice. This condition is reflected in the results of a pre-survey conducted by the researchers involving 35 employees in the after-sales division, as presented below:

Table 3 Pre-survey Results: Kaizen Variables

Statement	Likert Scale					Item Score	Ideal Score	%	Category
	1	2	3	4	5				
I and my team respond to and resolve operational work issues promptly and without delay.	0	10	9	9	7	118	175	67,43%	Poor
. I actively participate in Quality Control Circle (QCC) improvement group discussions to address work obstacles.	0	9	12	8	6	116	175	66,29%	Poor
I work carefully to prevent technical errors that require rework.	0	8	9	10	8	123	175	70,29%	Good
I always perform tasks according to the latest established Standard Operating Procedures (SOPs).	0	11	7	8	9	120	175	68,57%	Good
Total						477	700	68,14%	Good

Source: Processed by the Author, 2026

Based on Table 3, it can be concluded that the total score obtained from all statements/items measuring the Kaizen variable was 477, equivalent to 68.14%, which was categorized as “Good.” This indicates that respondents perceived Kaizen implementation positively. However, Table 1.3 also shows several dimensions that still require improvement, including employees’ limited agility in responding to and resolving operational work obstacles, tendencies to postpone task completion, and limited active participation in quality improvement group discussions (Quality Control Circle / QCC) to address workplace issues.

Although numerous studies have examined Kaizen and operational performance, several research gaps remain that require further investigation. Studies conducted by Rizal et al. (2023) and Sari et al. (2023) found that Kaizen implementation positively influences employee performance. These findings are supported by Ichdan (2024), Kosim and Gunawan (2024), Mahmud et al. (2024), and Pratama et al. (2024), who reported that Kaizen has a positive and significant effect on employee performance. Furthermore, studies by Putra et al. (2024) and Sono and Randika (2024) indicated that employee performance positively

influences productivity, which is further supported by Simone et al. (2026), who found a significant positive relationship between employee performance and productivity.

Most previous studies have focused primarily on the impact of Kaizen implementation on manufacturing performance or direct employee performance outcomes, while limited attention has been given to its indirect or cascading effects on after-sales service productivity within the automotive retail service sector. Moreover, empirical findings suggest that Kaizen implementation does not always lead to immediate productivity improvements unless it is supported by effective employee performance and organizational commitment as mediating factors. This contextual and theoretical gap highlights the need for an integrated conceptual model that positions employee performance as a mediating mechanism linking Kaizen implementation and after-sales service productivity.

METHODS

The research method used in this study is a quantitative research method with a descriptive and verification approach. The population is all 60 employees of the after-sales division. The sampling technique used in this study is a non-probability sampling technique with purposive sampling. The analytical tool in this study is SPSS 25 for descriptive analysis and SmartPLS 3 for verification analysis. The measurement model testing in this study is convergent validity, discriminant validity, Average Variance Extracted (AVE), composite reliability, Cronbach alpha. The structural model testing in this study is the coefficient of determination (R²) and Predictive relevance (Q²).

RESULT AND DISCUSSION

Outer Model (Measurement Model)

According to Santosa (2018), the measurement model, or outer model, focuses on the validity and reliability of the indicators used. Outer model analysis is conducted to ensure that the indicators used are suitable for measurement (valid and reliable).

Table 4 Outer Loading

	Kaizen_(X)	Employee Performance_(Y)	Productivity_(Z)
X1	0,885		
X2	0,922		
X3	0,907		
X4	0,755		
Y1		0,788	
Y2		0,894	
Y3		0,856	
Y4		0,919	
Z1			0,769
Z2			0,853
Z3			0,827
Z4			0,891

Source: SmartPLS Output, 2026

Based on Table 4, it can be concluded that the outer loadings in this study were all above 0.7, which is in accordance with the requirements. According to Barclay et al. (in

Santosa, 2018:83), the minimum outer loading value for an indicator is 0.707. Therefore, the kaizen (X), employee performance (Y), and productivity (Z) indicators are declared valid.

Table 5 AVE

Average Variance Extracted (AVE)	
Kaizen_(X)	0,756
Employee Performance_(Y)	0,750
Productivity_(Z)	0,699

Source: SmartPLS Output, 2026

Based on Table 5, it can be concluded that the AVE values in this study are all above 0.5, which is in accordance with the requirements. According to Hair et al. (Santosa 2018), using the same logic to determine the outer loading value, an AVE value of 0.5 or greater indicates that the construct explains more than half of the variance derived from its indicators. Therefore, the kaizen (X), employee performance (Y), and productivity (Z) indicators are declared valid.

Table 6 Cross Loading

	Kaizen_(X)	Employee Performance_(Y)	Productivity_(Z)
X1	0,885	0,753	0,697
X2	0,922	0,880	0,792
X3	0,907	0,770	0,677
X4	0,755	0,705	0,739
Y1	0,680	0,788	0,773
Y2	0,771	0,894	0,700
Y3	0,779	0,856	0,734
Y4	0,870	0,919	0,755
Z1	0,596	0,564	0,769
Z2	0,697	0,688	0,853
Z3	0,700	0,780	0,827
Z4	0,791	0,797	0,891

Source: SmartPLS Output, 2026

Based on Table 6, it can be concluded that the cross-loadings in this study were all above 0.710, which is in accordance with the requirements. According to Barclay et al. (in Santosa, 2018:84), the loading value of an indicator for a construct must be greater than the loading value of that indicator for another construct, or for all indicators, the value must be at least 0.710, which means it exceeds the criteria. Therefore, the kaizen (X), employee performance (Y), and productivity (Z) indicators are declared valid.

Table 7 Composite Reliability and Cronbach's Alpha

	Cronbach's Alpha	Composite Reliability
Kaizen_(X)	0,890	0,925
Employee Performance_(Y)	0,887	0,923
Productivity_(Z)	0,856	0,903

Source: SmartPLS Output, 2026

Based on Table 7, it can be concluded that the Composite Reliability and Cronbach's Alpha in this study were all above 0.7, which is in accordance with the requirements. According to Fornell et al. (Santosa, 2018), item reliability is considered adequate if the correlation between an indicator and its latent variable is at least 0.7. George and Mallery (Santosa, 2018) state that the minimum Cronbach's alpha value is 0.7. Thus, the variables kaizen (X), employee performance (Y), and productivity (Z) are considered reliable. The following is an image of the outer model in this study.

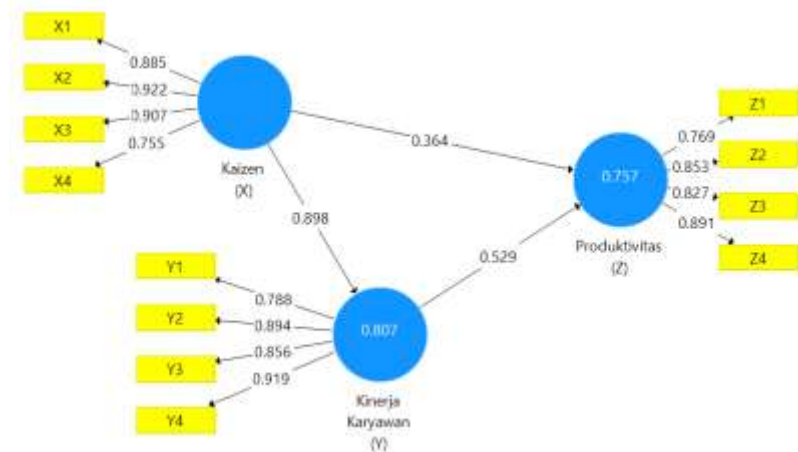


Figure 3 Measurement Model (Outer Model)

Source: SmartPLS Output, 2026

2. Inner Model (Structural Model)

According to Santosa (2018), structural model assessment is used to analyze the relationships between existing latent variables in accordance with the proposed hypothesis. Structural model assessment can only be conducted after the measurement model analysis has been conducted and no deviations are found in the measurement model, particularly those related to data reliability and validity. Testing of the structural model or inner model in this study includes:

Table 8 Coefficient of Determination (R2)

	R Square	R Square Adjusted
Employee Performance_(Y)	0,807	0,804
Productivity_(Z)	0,757	0,748

Source: SmartPLS Output, 2026

Based on Table 8, it can be concluded that the coefficient of determination for the employee performance variable in this study is 0.807, while the coefficient of determination for productivity is 0.757. The coefficient of determination formula is as follows:

$$KP = R^2 \times 100\%$$

$$KP \text{ Employee Performance} = 0.807 \times 100\% = 80.7\%$$

$$KP \text{ Productivity} = 0.757 \times 100\% = 75.7\%$$

Therefore, it can be concluded that the effect of kaizen on employee performance is 80.7%, while the effect of kaizen and employee performance on productivity is 75.7%.

According to Santosa (2018:97), the assessment of Q2 values uses the stipulation that if the Q2 value is greater than 0, a particular endogenous construct has predictive relevance. If

the Q2 value is equal to or less than 0, it indicates no predictive relevance. To calculate the Q-square value, use the following formula:

$$Q^2 = 1 - (1 - (R_{Square})^2)$$

$$Q^2_{Employee Performance} = 1 - (1 - (0,807)^2) = 0,65$$

$$Q^2_{Productivity} = 1 - (1 - (0,757)^2) = 0,57$$

Therefore, it can be concluded that the construct has predictive relevance, as stated in the following: If the Q2 value is greater than 0, then the endogenous construct has predictive relevance. The following is an illustration of the inner model in this study:

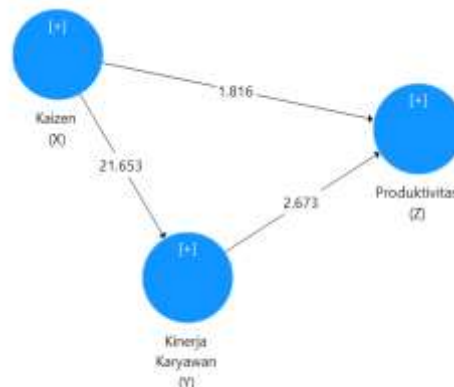


Figure 4 Structural Model (Inner Model)

Source: SmartPLS Output, 2026

3. Hypothesis Testing

According to Santosa (2018:157), to determine whether a hypothesis is acceptable, in addition to the path coefficient value according to the hypothesis being tested, the calculated t-value obtained from the execution results must also be tested. In this case, it is necessary to compare the calculated t-value with the t-table value. Meanwhile, if using probability, Ha is accepted if the p-value is <0.05. If the significance value is greater than 0.05, Ho is accepted and Ha is rejected. If the significance value is less than 0.05, Ho is rejected and Ha is accepted.

Table 9 Direct and Indirect

	T Statistics (O/STDEV)	P Values	Ha
Kaizen_(X) -> Employee Performance (Y)	21,653	0,000	Accepted
Kaizen_(X) -> Productivity (Z)	1,816	0,070	Rejected
Employee Performance (Y)_ (Y) -> Productivity (Z)	2,673	0,008	Accepted
Kaizen_(X) -> Employee Performance (Y) -> Productivity (Z)	2,417	0,016	Accepted

Source: SmartPLS Output, 2026

Based on Table 9, it can be concluded that kaizen partially has a positive and significant effect on employee performance. However, kaizen partially has no effect on productivity. Employee performance has a positive and significant effect on productivity, and employee performance can mediate the effect of kaizen on productivity.

Table 10 F-Test

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	610,574	2	305,287	82,461	,000 ^b
	Residual	211,026	57	3,702		
	Total	821,600	59			

a. Dependent Variable: Productivity

Source: SPSS Output, 2026

Based on Table 10, it can be concluded that kaizen and employee performance simultaneously have a positive and significant effect on productivity. The following is a description of the results of the hypothesis testing in this study:

1. The significance value of the kaizen variable (X) is 0.000, which is less than 0.05, so it can be concluded that H_0 is rejected and H_{a1} is accepted. Therefore, kaizen (X) has a positive and significant effect on employee performance (Y).
2. The significance value of the kaizen variable (X) is 0.070, which is greater than 0.05, so it can be concluded that H_0 is accepted and H_{a2} is rejected. Therefore, kaizen (X) has no effect on productivity (Z).
3. The significance value of the employee performance variable (Y) is 0.008, which is less than 0.05, so it can be concluded that H_0 is rejected and H_{a3} is accepted. Therefore, employee performance (Y) has a positive and significant effect on productivity (Z).
4. The significance value of the kaizen (X) and employee performance (Y) variables is 0.000, which is smaller than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a4} is accepted. Thus, kaizen (X) and employee performance (Y) simultaneously have a positive and significant effect on productivity (Z).
5. The significance value of the kaizen (X) variable on productivity (Z) through employee performance (Y) is 0.016, which is smaller than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a4} is accepted. Thus, employee performance (Y) can mediate the effect of kaizen (X) on productivity (Z).

The Effect of Kaizen Implementation on Employee Performance

The results of the study indicate that the significance value of the kaizen variable (X) is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a1} is accepted. Therefore, kaizen (X) has a positive and significant effect on employee performance (Y). The coefficient of determination for the employee performance variable in this study is 0.807, thus concluding that kaizen has an 80.7% effect on employee performance. According to Quafa (2024), the systematic implementation of kaizen significantly boosts employee performance by establishing an efficient work culture. Every small improvement idea implemented is proven to shorten process time, reduce human error, and increase productivity and output quality for both individuals and teams. According to Supriyanto (2023:85), the implementation of kaizen positively impacts employee performance because it provides staff with active participation and autonomy in identifying waste in their work environment, ultimately increasing employee engagement, operational discipline, and the effectiveness of achieving organizational targets. Implementing kaizen through eliminating waste, organizing work areas (5S), and actively engaging employees can create a more effective and efficient workflow. This not only reduces error rates and processing time but also increases employee motivation, discipline, and productivity on an ongoing basis. This finding aligns with research conducted by Rizal et al. (2023) and Sari et al. (2023), which found that kaizen positively impacts employee performance. This is further supported by research conducted by Ichdan (2024), Kosim & Gunawan (2024), Mahmud et al. (2024), and Pratama et al. (2024), which found that kaizen has a positive and significant impact on employee performance.

The Effect of Kaizen Implementation on After-Sales Service Productivity

The results of the study indicate that the significance value of the kaizen variable (X) is 0.070, which is greater than 0.05. Therefore, it can be concluded that H_0 is accepted and H_{a2} is rejected. Therefore, kaizen (X) has no effect on productivity (Z). According to Singgih & Singgih (2024:58), the implementation of kaizen directly increases after-sales service productivity by eliminating various forms of waste in the repair process, such as spare parts waiting times and inefficient technician movements. This significantly increases the ratio of successfully serviced units to allocated work hours. According to Gaspersz (2022:102), the implementation of kaizen through a 5S work culture and standardized operational procedures has a positive effect on after-sales productivity because it minimizes rework due to technical errors, accelerates service cycle times, and optimizes repair workshop capacity. According to Supriyanto (2023:91), the implementation of the kaizen philosophy encourages continuous improvement in supply chain management and after-sales service team coordination, which leads to increased efficiency in after-sales operational costs and overall increases in customer satisfaction and engagement. By eliminating wasteful workflows, organizing repair work areas (5S), and continuously updating operational standards, kaizen can shorten repair cycle times (lead times), reduce technical errors, and conserve resource utilization. This directly increases the efficiency and effectiveness of after-sales division operations in serving customer needs. This also aligns with research conducted by Amini & Hidayat (2023), which states that kaizen has a positive effect on productivity. This is further supported by research conducted by Ariskiyya et al. (2024) and Ichdan (2024), which found that kaizen has a positive and significant effect on productivity.

The Effect of Employee Performance on After-Sales Service Productivity

The results of the study indicate that the significance value of the employee performance variable (Y) is 0.008, which is smaller than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a3} is accepted. Therefore, employee performance (Y) has a positive and significant effect on productivity (Z). According to Singgih & Singgih (2024:64), optimal employee performance, such as accuracy, technician speed, and work discipline, directly impacts after-sales service productivity because it increases the daily capacity allocation for vehicle/goods repairs without excessively increasing working hours. According to Tjiptono (2023), high performance of after-sales staff (frontliners such as service advisors and administrative staff) significantly impacts service productivity. Skills in communicating technical issues and managing the service registration process can reduce service lead times and minimize customer complaints. According to Assauri (2021:128), the effectiveness and quality of individual employee performance are key determinants in boosting after-sales operational productivity. Adequate technical expertise automatically reduces the rework rate and optimizes the use of spare parts and workshop facilities. Employees with high technical competence, discipline, and strong communication skills can complete repair and service processes in a timely manner, minimize rework, and optimize the use of workshop/service division resources. This directly improves operational efficiency and overall after-sales customer satisfaction. This finding aligns with research by Amini & Hidayat (2023), which states that employee performance positively impacts productivity. This is further supported by research by Putra et al. (2024), Sono & Randika (2024), and Simone et al. (2026), which suggests that employee performance has a positive and significant impact on productivity.

The Simultaneous Effect of Kaizen and Employee Performance on After-Sales Service Productivity

The results of this study indicate that the significance value of the kaizen (X) and employee performance (Y) variables is 0.000, which is less than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a4} is accepted. Therefore, kaizen (X) and employee performance (Y) simultaneously have a positive and significant effect on productivity (Z). The coefficient of determination for the productivity variable in this study is 0.757, thus concluding that the simultaneous effect of kaizen and employee performance on productivity is 75.7%. According to Quafa (2024), the systematic implementation of kaizen significantly boosts employee performance by establishing an efficient work culture. Every small improvement idea implemented is proven to shorten process time, reduce human error, and increase individual and team productivity and output quality. Implementing kaizen through eliminating waste, organizing work areas (5S), and actively engaging employees can create a more effective and efficient workflow. This not only reduces error rates and processing time but also increases employee motivation, discipline, and productivity on an ongoing basis. According to Assauri (2021), the effectiveness and quality of individual employee performance are key determinants in boosting after-sales operational productivity, as adequate technical expertise automatically reduces the rework rate and optimizes the use of spare parts and workshop facilities. Employees with high technical competence, discipline, and strong communication skills can complete repair and service processes in a timely manner, minimize rework, and optimize the use of workshop/service division resources. This directly improves overall operational efficiency and customer satisfaction in after-sales operations. This also aligns with research conducted by Rizal et al. (2023) and Sari et al. (2023), which found that kaizen has a positive effect on employee performance. This is supported by research conducted by Ichdan (2024), Kosim & Gunawan (2024), Mahmud et al. (2024), and Pratama et al. (2024), which states that kaizen has a positive and significant effect on employee performance. Furthermore, research conducted by Amini & Hidayat (2023) states that employee performance has a positive effect on productivity. This is supported by research conducted by Putra et al. (2024), Sono & Randika (2024), and Simone et al. (2026), which states that employee performance has a positive and significant effect on productivity.

The Effect of Kaizen Implementation on Employee Performance and Its Implications for After-Sales Service Productivity

The results of this study indicate that the significance value of the kaizen variable (X) on productivity (Z) through employee performance (Y) is 0.016, which is smaller than 0.05. Therefore, it can be concluded that H_0 is rejected and H_{a4} is accepted. Therefore, employee performance (Y) can mediate the effect of kaizen (X) on productivity (Z). According to Singgih & Singgih (2024:58), the implementation of the kaizen philosophy in the operational environment significantly improves employee discipline and work skills, which then directly impacts increased after-sales service productivity by reducing repair lead times and optimizing mechanic work hours. According to Supriyanto (2023:85), the implementation of continuous improvement encourages active employee involvement to reduce human error rates. This improvement in individual and team performance has positive implications for cost efficiency and the volume of serviced units in the after-sales division. According to Gaspersz (2022:102), cultivating a kaizen culture through work standardization and well-managed operational areas

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has been proven to boost staff performance, which ultimately has significant implications for high after-sales service productivity ratios due to minimal rework. The implementation of kaizen has a positive impact on improving employee performance, which in turn has direct implications for high after-sales service productivity. Employee involvement in the continuous improvement cycle can reduce operational errors, increase service speed, and optimize the utilization of workshop resources or overall after-sales service. This finding also aligns with research conducted by Rizal et al. (2023) and Sari et al. (2023) which found that kaizen positively impacts employee performance. This is further supported by research conducted by Ichdan (2024), Kosim & Gunawan (2024), Mahmud et al. (2024), and Pratama et al. (2024), which found that kaizen has a positive and significant impact on employee performance.

Furthermore, research conducted by Putra et al. (2024) and Sono & Randika (2024) suggests that employee performance has a positive effect on productivity. This is further supported by research conducted by Simone et al. (2026) which suggests that employee performance has a positive and significant effect on productivity.

CONCLUSION

Based on the study findings, Kaizen implementation significantly improved employee performance in the after-sales division of PT Tunas Toyota Gatot Subroto, while employee performance significantly enhanced after-sales service productivity. However, Kaizen implementation did not directly improve productivity, indicating that continuous improvement practices alone were insufficient to generate operational productivity gains unless they were effectively translated into improved employee performance. Furthermore, employee performance was proven to mediate the relationship between Kaizen implementation and after-sales service productivity, demonstrating that the effectiveness of Kaizen depended on employees' ability to internalize continuous improvement principles and apply them in daily work practices. These findings highlight that organizations seeking to improve service productivity should not only institutionalize Kaizen principles, such as 5S, waste reduction, and continuous improvement, but also strengthen employee competencies, discipline, participation, and work commitment to maximize productivity outcomes. Overall, the proposed structural model successfully explained the relationships among Kaizen implementation, employee performance, and after-sales service productivity, contributing to the development of Kaizen research within the automotive after-sales service sector.

Future studies are encouraged to expand the research scope by involving multiple automotive dealerships or service organizations across different regions to improve the generalizability of the findings. Researchers may also incorporate additional organizational and behavioral variables, such as leadership style, organizational culture, work engagement, job satisfaction, innovation capability, and digital service transformation, to provide a more comprehensive understanding of after-sales service productivity. Employing longitudinal research designs would enable researchers to evaluate the long-term effectiveness of Kaizen implementation rather than relying solely on cross-sectional data. Furthermore, combining quantitative approaches with qualitative methods, such as interviews and observations, could provide deeper insights into how continuous improvement initiatives are implemented in practice and identify organizational factors that facilitate or hinder the successful translation of

Kaizen principles into sustainable improvements in employee performance and operational productivity.

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