

ENHANCING PRODUCT INNOVATION: THE IMPACT OF TRANSFORMATIONAL LEADERSHIP MEDIATED BY ORGANIZATIONAL CLIMATE AND KNOWLEDGE SHARING

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Abstract:

Developments that move in the realm of technology are an increasingly rapid reality today, which makes each organization always prioritize aspects of innovation to perpetuate its existence when dealing with competitiveness and other competitors in line with the increasingly massive reality. This research focuses on schemes to improve product innovation: the impact of transformational Leadership with the role of organizational climate and Knowledge sharing as mediators (case study at PT. Standard Toyo Polymer in Cilegon City). This research involves a descriptive quantitative approach to assess the relationship between variables and explain why the relationship exists, so confirmatory and exploratory studies are used. The PT Standard Toyo Polymer Cilegon analysis results show that transformational Leadership positively and significantly influences organizational climate and knowledge sharing. Organizational climate and knowledge sharing are also proven to affect product innovation significantly. However, transformational Leadership does not have a significant direct influence on product innovation. Nonetheless, transformational Leadership significantly influences product innovation by mediating organizational climate.

Keywords: Product Innovation, Transformational Leadership, Role of Organizational Climate, Knowledge Sharing

INTRODUCTION

In an era of rapid technological development, innovation has become crucial for organizations that want to remain competitive and ensure sustainability. Innovation helps create value and competitiveness, whether by introducing new products or adopting innovative practices in the workforce that improve skills. In this case, the involvement of innovation allows companies to utilize technological developments to conduct business more variedly. As explained by Margaretha et al. (2023), innovation includes new concepts, tangible objects, techniques, approaches, and manufactured products that are perceived as new by individuals or communities.

Creativity is vital in innovation as a foundation for generating fresh and original ideas. Without Creativity, innovation will not happen, as Creativity allows new solutions to emerge that can then be implemented in a tangible, value-added form. Therefore, organizations need a structured method to ensure that creative ideas can be implemented effectively and quickly in a competitive environment. Combining a systematic approach and a creative culture can accelerate the innovation cycle, allowing companies to be more successful in meeting market challenges.

Transformational Leadership is critical in driving innovation by motivating and inspiring followers to exceed expectations. These leaders emphasize high standards and optimal results and encourage personal growth and leadership development. According to Wardhana (2022),



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transformational Leadership focuses on the drive to go beyond self-interest to achieve common goals through collaboration and inspiration.

In addition, transformational Leadership promotes communal values such as solidarity, justice, and brotherhood, as described by Zainullah (2021). These leaders promote a shared vision of personal gain, collective well-being, and high social values. With this approach, transformational leaders inspire teams to work synergistically and strengthen relationships, building inclusive and just communities that lead to positive changes in organizations and society.

Knowledge management is becoming increasingly important in the context of rapid technological advancement. Technology enables instant access to information, which encourages efficient knowledge sharing within organizations. Wilianto and Indriyani (2021) assert that Knowledge behavior is critical to success in complex businesses. Ahdar and Wardana (2019) added that knowledge sharing is a reciprocal process that strengthens ideas and ideas.

This knowledge sharing consists of two types: explicit Knowledge that can be formalized and tacit Knowledge that is difficult to communicate (Budihardjo, 2017). Suppose the organizational climate and knowledge-sharing process are effective. In that case, both can be mediators that facilitate transformational Leadership in driving product innovation by strengthening engagement between leaders and employees to produce the expected innovation.

Based on a pre-survey conducted by researchers, information was obtained that in the five years from 2019 to 2023, PT Standard Toyo Polymer experienced variations in its net sales performance. In 2019, the company recorded net sales of 25,318,810. However, in 2020, there was a significant decline of 9.26%, with sales dropping to 22,974,288. This downward trend continued in 2021, where net sales shrank by 4.62% to 21,912,875. However, in 2022, there was a slight increase of 0.41%, with sales reaching 22,002,717 before declining again in 2023.

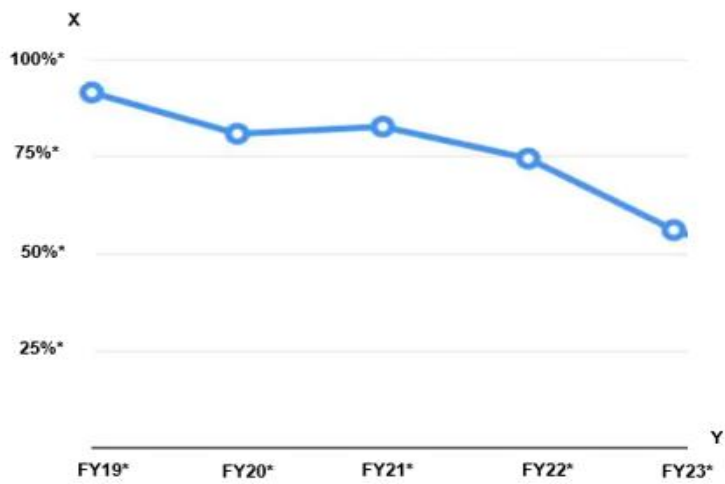
The significant decline in sales in 2020 and 2021 indicates PT Standard Toyo Polymer's challenges in maintaining its sales performance. Although it recorded a slight increase of 0.41% in 2022, sales declined again by 1.3% in 2023. In the face of such inconsistent sales trends, the corporation should pursue follow-up actions such as a comprehensive evaluation of several strategies related to the marketing space and domain, a leader's leadership style, organizational climate, and product innovation to identify the causes of the decline in performance and formulate appropriate corrective measures.

Responding to the continued decline in sales requires considering changes in consumer behavior, organizational climate, and product innovation. A thorough analysis of the external and internal factors affecting the company's sales performance is required to develop strategies to overcome the challenges. With a deep understanding of market dynamics and consumer needs, PT Standard Toyo Polymer can direct performance improvement efforts to improve sales performance and ensure sustainable growth.

The next pre-survey stage is to identify the realization of PT Standard Toyo Polymer's sales target. The researcher will focus on understanding the extent to which the company's sales target was achieved in that period. These steps will look at the company's strategies to achieve these targets. By conducting this pre-survey, the researcher will understand the sales targets and the sales realization of PT Standard Toyo Polymer.



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Source: PT Standard Toyo Polymer (data processed, 2024)

Figure 1. Sales Target and Realization Chart of PT Standard Toyo Polymer 2019-2023

The graph reflects PT Standard Toyo Polymer's sales performance over the past five years, focusing on the sales target and realization from year to year. It will show the comparison between the sales target set and the sales realization achieved by the company during each year. Each data point in the graph will represent a specific year, with the y-axis showing the year and the x-axis showing the sales target value. The dot or line will show the actual sales realization.

This graph shows a decrease in the realization of PT Standard Toyo Polymer's sales target. The company has yet to succeed in achieving the sales target set each year or has decreased in achieving the sales target starting from successive years in the set of 5 years in such a period. The representation of this analysis certainly presents crucial insights for the relevant corporate parties to evaluate their sales performance and formulate comprehensive future improvement strategies.

Bass (2006) highlighted how transformational Leadership affects the organizational climate in companies. In this context, transformational Leadership is defined by the leader's ability to inspire, motivate and direct subordinates with a clear vision. Transformational leaders create an open, innovative and collaborative work climate. They can also strengthen employee engagement by supporting and building positive relationships.

Further research by Burns (2022) shows that transformational Leadership can increase organizational effectiveness by creating a climate that supports the growth and development of individuals within the company. By motivating employees to achieve common goals and develop their potential, transformational leaders can present a replica of the environment that involves their employees to feel a form of appreciation or trigger motivation more optimally to then implement it in the frame of contribution concretely and thoroughly without the need for pressure or less meaningful emphasis. Thus, transformational Leadership changes how an organization operates and fundamentally affects how individuals interact and develop in the work context.

Yukl's (2006) research suggests that although transformational Leadership has advantages in inspiring and motivating employees, other factors, such as a rigid organizational structure or a culture resistant to change, may also limit its influence on the organizational climate. In contexts where organizations are stuck in routines that are difficult to change, transformational leadership styles may need help to change the dynamics in the work domain effectively.



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Moving on to research initiated by Judge and Piccolo (2004), it highlights that the success of transformational Leadership in influencing organizational climate also depends on contextual factors such as support from senior management, the level of task complexity, and the level of employee maturity. If these factors do not support or align with the transformational approach, its impact on organizational climate may be reduced. Therefore, while transformational Leadership has excellent potential, its success in shaping organizational climate can be limited by the dynamics and contextual conditions within a corporation.

Research initiated by Aarons et al. (2014) highlighted how transformational Leadership contributes to company product innovation. The researchers found that leaders who apply transformational leadership styles tend to have a motivating effect on workers, always prioritize aspects of the ability to think more creatively, develop novel ideas, and have the courage to take risks needed to pursue several mechanisms for the product innovation process. Transformational leaders create a work environment that stimulates innovation by providing clear direction, empowering employees, and supporting change.

Another study by Tushman and Nadler (1986) explains that transformational Leadership can influence a corporation's culture of innovation by promoting collaboration, open communication, and acceptance of new ideas. Transformational leaders are also often agents of change who encourage companies to continue to grow and adapt to a changing environment. As such, transformational Leadership creates motivation to innovate and establishes a framework that supports and encourages teams to produce new and impactful products.

Research conducted by Hirst et al. (2004) highlights that although transformational Leadership can motivate and inspire employees, factors such as a lack of resources for research and development, rigid organizational structures, or resistance to change may hinder its ability to influence product innovation. When company systems and procedures do not support freedom of expression or experimentation, more transformational leadership styles may be required to trigger substantial innovation.

In addition, research by Choi & Chang (2009) shows that the success of transformational Leadership in influencing product innovation also depends on contextual factors such as the level of industry competition, company policies, and the level of market need for innovation. If the company operates in a stable environment or does not support change, the impact of transformational Leadership on product innovation may be limited. Therefore, while transformational Leadership can provide the initial impetus, the success of product innovation within the firm is also impacted by several other external factors that are both internal and relevant.

Research by West (2005) highlights how organizational climate can influence company product innovation. An organizational climate that supports innovation, such as a culture open to new ideas, effective communication, and support for developing creative ideas, can create an environment that stimulates teams to innovate. When employees feel supported, valued, and free to express themselves, they are more likely to be motivated to develop novel products to fulfill aspects of needs that target market representation more innovatively.

The study of Elenkov et al. (2022) shows that an organizational climate that promotes collaboration between teams, acceptance of risk, and experimentation can also affect the level of product innovation within the company. With support and recognition of innovative efforts, employees feel more motivated to participate actively in new product development. Therefore, an organizational climate that is innovative and supports Creativity can be vital in encouraging teams to create differentiated and relevant products in a competitive market.



Research conducted by Amabile (1988) highlights that while an organizational climate conducive to innovation can provide an initial boost, factors such as risk-limiting company policies, rigid hierarchical structures, or lack of support from senior management can significantly hinder its ability to influence product innovation. In contexts where freedom of expression is limited or new ideas are often met with resistance, an organizational climate that should be a driver of innovation can inhibit Creativity and the development of innovative ideas.

Then, the research initiated by Anderson et al. (2023) confirms that the success of product innovation in the company is also given the effect or impact on external factors, such as rapid market changes, intense industry competition, or strict regulation. In situations where companies operate in an environment that does not support change or are faced with high external uncertainty, the organizational climate, even if positive, may not be able to influence product innovation significantly. Therefore, while an organizational climate conducive to innovation has an important role, the success of product innovation is also highly dependent on external factors that may go beyond the direct influence of the organizational climate itself.

From various previous studies with various methods, variables, and different results, no research has specifically combined transformational Leadership, organizational climate, and knowledge sharing in the context of product innovation carried out by companies. This research will provide new insights into the importance of transformational Leadership, organizational climate, and knowledge sharing in influencing product innovation. This study aims to analyze the effect of transformational Leadership on organizational climate, knowledge sharing, and product innovation, as well as the mediating role of organizational climate and Knowledge sharing in the relationship.

METHODS

This research involves a descriptive quantitative approach to assess the relationship between variables and explain why the relationship exists, so confirmatory and exploratory studies are used. The variables in question are transformational Leadership as an exogenous variable, organizational climate and Knowledge sharing as intervening variables and product innovation as an endogenous variable. The population of this study was employees of PT Standard Toyo Polymer. This study involves 24 indicators on the four variables used for further analysis of the effect of transformational Leadership on organizational climate, knowledge sharing, and product innovation. Based on the formula of Hair et al. (2017), a sample of 120 employees was determined as respondents.

This research uses primary data directly obtained by researchers from the initial source or obtained for the first time (Ajayi, 2017). Primary data sources can be obtained from surveys, observations, experiments, questionnaires, interviews, etc. However, the primary data in this study were obtained from the results of distributing questionnaires.

This study uses PLS to estimate the relationship between the components specified in the research model. This study uses descriptive data analysis to comprehensively describe the research variables: transformational Leadership, organizational climate, knowledge sharing and product innovation.

The hypothesis examined in this study is a model hypothesis that confirms the causal relationship of one research model. This involves combining the tested hypotheses to test the effect of mediating variables on the relationship between the independent and dependent variables. The mediation effect shows the relationship between the independent and dependent variables through an intermediary or mediating variable. The impact of the independent factor on the dependent



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variable is not direct but occurs through a transformation process represented by the mediating variable (Abdullah & Hartono, 2015).

To determine the presence of perfect or partial mediation, it is necessary to check whether the coefficient c_1 is statistically significant. Perfect/complete mediation occurs if the independent variable does not affect the dependent variable when the mediator is controlled (Baron & Kenny, 1986). If the coefficient c_1 is statistically significant and there is significant mediation, this is called partial mediation (Fritz & MacKinnon, 2007).

In SEM-PLS, there is no need for the assumption that the data must be normally distributed, so the hypothesis test is carried out using the bootstrapping resampling method with the following hypothesis:

- H1: Transformational Leadership on organizational climate
- H2: Transformational Leadership on knowledge sharing
- H3: Organizational climate to product innovation
- H4: Knowledge sharing to product innovation
- H5: Transformational Leadership to product innovation
- H6: Transformational Leadership on product innovation through organizational climate
- H7: Transformational Leadership on product innovation through knowledge sharing

RESULT AND DISCUSSION

Direct Effect Test. Hypothesis testing is carried out based on the Inner Model (structural model) evaluation results, which include the r-square output, parameter coefficients, and t-statistics. The significance value between constructs, t-statistics, and p-values determines whether a hypothesis is accepted or rejected. Hypothesis testing in this study was carried out using SmartPLS (Partial et al.) 4.0 software. These values are obtained from the bootstrapping results. The rule of thumb used in this study is $t\text{-statistic} > 1.96$ with a significance level of p-value 0.05 (5%) and a positive beta coefficient.

Table 1. Path Coefficients Result

Path	Original Sample	Sample Average (M)	Std. Deviation (STDEV)	T statistic (O/STDEV)	P values
KT -> IO	0.941	0.941	0.011	89.161	0.000
KT-> BP	0.950	0.950	0.009	110.933	0.000
IO -> IP	0.341	0.352	0.125	2.735	0.006
BP-> IP	0.455	0.446	0.118	3.858	0.000
KT -> IP	0.174	0.171	0.103	1.691	0.092

Source: Data from Smartpls 4

The first hypothesis tests whether Transformational Leadership affects Organizational Climate. The test results show that the beta coefficient of Transformational Leadership on Organizational Climate is 0.941 with a t-statistic of 89.161. Since the t-statistic is more significant than 1.96 and the p-value is 0.000, less than 0.05, these results indicate that Transformational Leadership positively and significantly influences Organizational Climate.



The second hypothesis tests whether Transformational Leadership affects Knowledge Sharing. The test results show that the beta coefficient value of Transformational Leadership on Knowledge Sharing is 0.950, and the t-statistic is 110.933. From this result, the t-statistic is significant. Because $110.993 > 1.96$ with a p-value of $0.000 < 0.05$, this proves that Transformational Leadership has a significant positive effect on Knowledge Sharing.

The third hypothesis tests whether Organizational Climate affects Product Innovation. The test results show that the beta coefficient value of Organizational Climate on Product Innovation is 0.341, and the t-statistic is 2.735. From this result, the t-statistic is significant. Because $2.735 > 1.96$ with a p-value of $0.006 < 0.05$ proves that Organizational Climate has a positive and significant effect on Product Innovation.

The fourth hypothesis tests whether Knowledge Sharing affects Product Innovation. The test results show that the beta coefficient value of Knowledge Sharing on Product Innovation is 0.455, and the t-statistic is 3.858. From this result, the t-statistic is significant. Because $3.858 > 1.96$ with a p-value of $0.000 < 0.05$, this proves that Knowledge Sharing positively and significantly affects Product Innovation.

The fifth hypothesis tests whether Transformational Leadership affects Product Innovation. The test results show that the beta coefficient value of Transformational Leadership on Product Innovation is 0.174, and the t-statistic is 1.691. From this result, the t-statistic is not significant. Because $1.691 < 1.96$ with a p-value of $0.092 > 0.05$, this proves that Transformational Leadership has an insignificant effect on Product Innovation.

Test of Indirect Influence. Hypothesis testing is done by analyzing the Inner Model (structural model) results, which include the r-square output, parameter coefficients, and t-statistics. To determine whether the hypothesis is accepted or rejected, paying attention to the significance value between constructs, t-statistics, and p-value is necessary. Hypothesis testing in this study was carried out using SmartPLS (Partial et al.) 4.0 software. These values are obtained from the bootstrapping results. The rule of thumb used in this study is $t\text{-statistic} > 1.96$ with a significance level of p-value 0.05 (5%) and a positive beta coefficient.

Table 2. Mediating Coefficient Result

Description	Original Sample (O)	Sample Average (M)	Std Deviation (STDEV)	T statistic (O/STDEV)	P values
Transformational Leadership -> Organization Climate -> Product Innovation	0.321	0.332	0.118	2.714	0.007
Transformational Leadership -> Sharing Knowledge -> Product Innovation	0.432	0.424	0.112	3.864	0.000

Source: Data from Smartpls.4



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Based on the test results in Table 2, the sixth hypothesis tests whether Transformational Leadership affects Product Innovation through Organizational Climate. The test results show a beta coefficient value of 0.321 and a t-statistic of 2.714. Since the t-statistic is more significant than 1.96 and the p-value is 0.007, which is less than 0.05, these results indicate that Organizational Climate successfully mediates the effect of Transformational Leadership on Product Innovation.

The seventh hypothesis tests whether Transformational Leadership affects Purchasing Decisions through Knowledge Sharing. The test results show a beta coefficient value of 0.432 and a t-statistic of 3.864. Since the t-statistic is more significant than 1.96 and the p-value is 0.000, which is less than 0.05, these results indicate that Knowledge Sharing successfully mediates the effect of Transformational Leadership on Purchasing Decisions.

Effect of Transformational Leadership on Organizational Climate. The test results show that the beta coefficient value of Transformational Leadership on Organizational Climate is 0.941, and the t-statistic is 89.161. From these results, it is found that the t-statistic is significant. Because $89.161 > 1.96$ with a p-value of $0.000 < 0.05$, this proves that Transformational Leadership has a positive and significant effect on Organizational Climate.

The results of this study align with research conducted by Sharif et al. (2024) that shows that transformational Leadership impacts organizational climate. Transformational Leadership is known to impact the organizational atmosphere significantly. It fosters healthy work leadership by prioritizing vision, inspiration, employee development, motivating teams, and improving overall performance. Leaders can shape a collaborative, innovative, and change-responsive work culture through this leadership style, leading to better and more sustainable achievements for the organization.

It can be concluded that transformational Leadership plays a crucial role in creating a healthy and productive organizational climate by emphasizing vision, inspiration, and employee development. This leadership style strengthens individual and team performance by fostering engagement, motivation, and adaptability to change. It creates a work culture that enables optimal and sustainable results for the organization.

Effect of Transformational Leadership on Knowledge Sharing. The test results show that the beta coefficient value of Transformational Leadership on Knowledge Sharing is 0.950 with a t-statistic of 110.933. Since the t-statistic is more significant than 1.96 and the p-value is 0.000, less than 0.05, these results prove that Transformational Leadership positively and significantly influences Knowledge Sharing.

According to research conducted by Bustomi et al. (2024), transformational Leadership significantly influences leadership-sharing and knowledge-sharing practices within the company. By creating an open, inspiring, and individual development-oriented environment, transformational leaders encourage employees to collaborate, share information, and expand mutual Knowledge. By providing solid examples and encouragement, transformational leaders can motivate team members to actively participate in the shared learning process, creating a work culture that supports innovation, idea exchange, and collective growth within the organization.

Based on this, it can be concluded that transformational Leadership positively influences leadership-sharing dynamics in organizations by creating an environment that facilitates collaboration, information exchange, and individual growth. Through the inspiration and support they provide, transformational leaders not only build an innovative and open work culture but also stimulate employees to engage in the collective learning process actively. This results in an environment where Knowledge is effectively exchanged, new ideas flourish, and collective progress



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becomes the main focus, benefiting organizations in achieving their goals and strengthening their adaptive capacity.

Effect of Organizational Climate on Product Innovation. The test results show that the beta coefficient value of Organizational Climate on Product Innovation is 0.341 with a t-statistic of 2.735. Because the t-statistic is more significant than 1.96 and the p-value is 0.006, which is less than 0.05, these results prove that Organizational Climate positively and significantly affects Product Innovation.

This study's findings align with research conducted by Dul & Ceylan (2014), which concluded that the organizational environment influences product innovation, for example, in terms of support for Creativity to encourage product innovation and product success in the market. This statement confirms that a positive organizational climate substantially influences new product development. In an environment where Creativity is encouraged, open communication is embraced, and collaboration is strengthened, teams feel more motivated and engaged in product innovation. By feeling supported and valued, employees feel more comfortable sharing ideas, taking measured risks, and participating in the experimentation necessary to create new and superior products. This reinforces the link between a healthy organizational climate and an organization's ability to continue to thrive and compete in an ever-changing marketplace, demonstrating the importance of building a work culture that supports innovation for long-term growth.

An organizational climate that supports innovation positively affects the organization's ability to create superior new products. When Creativity, open communication, and collaboration are pillars of the work culture, employees tend to be more motivated to innovate. Support, appreciation, and space for the expression of new ideas provide the impetus for employees to take measured risks and engage in the process of product innovation. This creates a productive and dynamic work environment and increases the organization's competitiveness in the face of ever-changing market challenges, confirming the need to strengthen a culture of innovation as a cornerstone of long-term growth.

Effect of Knowledge Sharing on Product Innovation. The test results show that the beta coefficient value of Knowledge Sharing on Product Innovation is 0.455 with a t-statistic of 3.858. Since the t-statistic is more significant than 1.96 and the p-value is 0.000, less than 0.05, these results prove that Knowledge Sharing positively and significantly influences Product Innovation.

This study's findings align with research conducted by Rashid et al. (2023), which concluded that information sharing positively impacts product creation. This shows that sharing information has a substantial positive impact on creating new and better products. When information, ideas, and experiences are shared openly and structured within the organization, it creates close collaboration between various teams and individuals. With greater access to Knowledge, employees can enrich their perspectives, identify new opportunities, and create innovative solutions to challenges. The knowledge-sharing process can also accelerate product development by eliminating duplication of effort, accelerating learning, and improving efficiency in creating products responsive to market needs. Thus, effective collaboration and knowledge sharing form a solid foundation for sustainable and competitive product innovation.

Knowledge sharing within organizations contributes substantially to product innovation. Through close collaboration between teams and individuals, exchanging information, ideas, and experiences enables the creation of innovative and market-responsive products. Broad access to Knowledge enriches employee perspectives, accelerates the product development process, and reduces duplication of effort, ultimately strengthening the organization's ability to compete in a



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changing environment. Thus, effective knowledge sharing is an essential foundation for companies' success in terms of sustainable and competitive product innovation.

Effect of Transformational Leadership on Product Innovation. The test results show that the beta coefficient value of Transformational Leadership on Product Innovation is 0.174 with a t-statistic of 1.691. Since the t-statistic is smaller than 1.96 and the p-value is 0.092, more significant than 0.05, these results indicate that Transformational Leadership has no significant effect on Product Innovation.

The results of this study contradict research by Ahmad et al. (2023) that states that transformational Leadership impacts product innovation. It is said that transformational Leadership has a significant impact on leadership innovation. Transformational leaders can encourage Creativity and innovation among team members through their inspirational and visionary influence. They create an environment where new ideas are encouraged, risk-taking is permitted, and collaboration is emphasized, paving the way for developing innovative and competitive products. By providing strong motivation, support, and examples, transformational Leadership not only stimulates Leadership outside the box but also reinforces a culture of innovation that is key to a company's long-term growth and success in an ever-changing market.

Researchers can conclude that causing differences in research results, namely the variables studied, the research methods used, the sample size, the population identified, or the study context different from other studies, can also cause research results to vary.

The Effect of Transformational Leadership on Product Innovation Through Organizational Climate. The test results show a beta coefficient value of 0.321 and a t-statistic of 2.714. Since the t-statistic is more significant than 1.96 and the p-value is 0.007, which is less than 0.05, these results prove that Organizational Climate can mediate the effect of Transformational Leadership on Product Innovation.

The results of the direct effect of transformational Leadership on product innovation are insignificant. At the same time, Organizational Climate significantly affects Product Innovation; Organizational Climate is Full Mediation, indicating that the independent variable cannot have a meaningful effect on the dependent variable unless the intermediate variable mediates it.

The Effect of Transformational Leadership on Product Innovation Through Knowledge Sharing. The test results show a beta coefficient value of 0.432 and a t-statistic of 3.864. Since the t-statistic is more significant than 1.96 and the p-value is 0.000, which is less than 0.05, these results prove that Knowledge Sharing can mediate the effect of Transformational Leadership on Product Innovation.

The results of the direct effect of transformational Leadership on product innovation are insignificant. At the same time, Knowledge Sharing significantly affects Product Innovation; Organizational Climate is Full Mediation, indicating that the independent variable cannot directly affect the dependent variable unless the intermediate variable mediates it.

CONCLUSION

The PT Standard Toyo Polymer Cilegon analysis results show that transformational Leadership positively impacts organizational climate and knowledge sharing. Organizational climate and knowledge sharing are also proven to affect product innovation significantly. However, transformational Leadership does not have a significant influence on product innovation. Nonetheless, transformational Leadership shows significant leadership product innovation through the mediation of organizational climate. Based on these findings, it is recommended that PT



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Standard Toyo Polymer enhance the development of a transformational leadership mindset among company leaders to facilitate the development of employee skills and talents. In addition, it is essential to continue to promote Knowledge sharing through discussion and exchange of ideas among employees, which can enhance innovation capabilities and contributions to product development. Organizing knowledge-sharing sessions in monthly company-wide meetings is also a practical approach to enhancing knowledge dissemination among employees from different departments.

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