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The Impact of Total Quality Management in Improving Corporate Green Performance Through Organizational Innovation Mediation in the Plastic Industry

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Abstract: This study aims to study the impact of total quality management on improving the eco-performance of companies in the plastics industry through the mediation of organizational innovation. The research method used SEM analysis with the participation of multiple respondents, starting with an observational survey and analyzing data from several companies in the plastics industry with a total of 132 representative respondents. The results show that total quality management has a positive but insignificant relationship with a corporate green performance. Furthermore, total quality management has a positive and significant relationship with organizational innovation. Meanwhile, the mediating effect of organizational innovation has a positive and significant relationship mediating the relationship between total quality management and organizational innovation. However, total quality management and organizational innovation have a positive and significant relationship with corporate green performance. The conclusion of this study is that total quality management plays an important role in improving the eco-performance of plastics industry enterprises, although it is not significant, and total quality management also has an impact. positively and significantly impacts organizational innovation, although organizational innovation does not play a mediating role. The relationship between total quality management and eco-performance. Therefore, companies in this sector must actively integrate total quality management into their strategies while enhancing organizational learning capabilities to achieve better green performance. These findings provide valuable guidance to practitioners and managers in their efforts to achieve sustainability and reduce negative environmental impacts in the plastics industry. The new point of this study is that the above variables have never been studied by previous researchers, and the indicators in this study are also considered new because no one has previously measured them with comprehensive indicators such as this study.

Keywords: Total Quality Management, Organizational Innovation, Performance Green Company, Industri Plastic.

INTRODUCTION

Manufacturing companies are generally companies whose business does not purchase finished products from suppliers. However, the purchase of raw materials is then made during the manufacturing process to create a finished product ready for use (Martono, 2019, p. 67). To produce products on a large scale, the manufacturing industry uses machine technology to create products on a large scale and in a short time. Due to the scale of production, manufacturing companies also absorb a lot of labor. Therefore, the existence of manufacturing companies is very important because they have the ability to create many employment opportunities.

Industrial activity is one of the sectors that stimulates the economic growth of society in this millennium era. This is aimed at improving the well-being of people, as a rapidly growing world population is likely to increase demand for goods and services to meet the growth-fueled needs of industry. Indonesia is one of the largest manufacturing industrial bases in ASEAN with a contribution of 20.27% to the national economy. In today's highly dynamic global business environment, where customers demand high quality standards, international competition is increasingly fierce. Therefore, over time, it becomes very clear that only organizations committed to delivering good quality thrive. (Werdhiastutie et al., 2020, p. 747).

The plastic industry in Indonesia is one of the industries that has grown rapidly in recent years. Plastic products are produced to meet the needs of Indonesian people in various fields, such as food and beverage industry, automobile, pharmaceutical and household needs. The plastic industry also makes a major contribution to the Indonesian economy by creating jobs for about 500,000 people (Reni Lestari, 2022). Packaging plastic production in Indonesia continues to increase every year with an average annual growth rate of 4.65%. The decline in plastic production in 2018 is in line with the decline in domestic manufacturing production amid the trade war between the US and China. (Iskandar, 2023, p. 9).

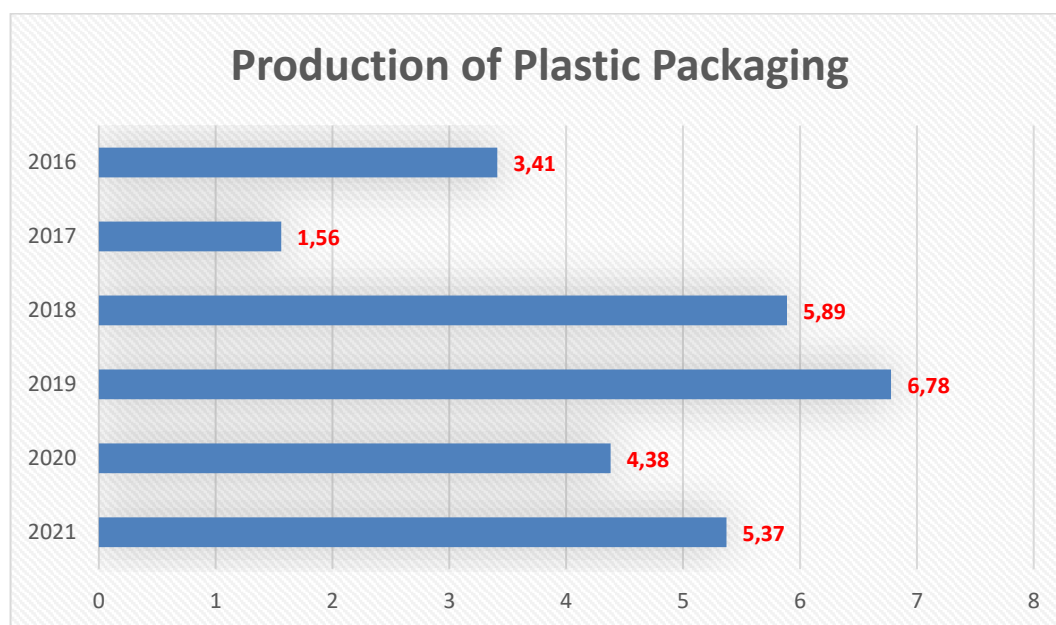


Figure 1. Diagram Production of plastic packaging

The diagram explains the significant fluctuating increase in plastic production in Indonesia, data from the Central Statistics Agency. In 2016 there was an increase of 3,41%, In 2017 there was a decrease of 1,56%, In 2018 there was an increase of 5,89%, In 2019 there was an increase of 6,78%, In 2020 there was a decrease of 4,38%, In 2021 there was an increase of 5,37%.

Based on this data, from Indonesia's economic perspective, the annual increase in plastic packaging production, with an annual growth of 4.65%, suggests several things to consider, including: Demand is growing from economic sectors such as food and beverages, consumer products, pharmaceutical industry, etc. The growth of this industry can create new economic opportunities, create jobs and contribute to national economic growth.

Besides the advances mentioned above, the negative side of increased plastic production is the impact on the environment. Increasing plastic production also means increasing the amount of plastic waste, which can pollute the environment, including oceans and other ecosystems. This can lead to long-term environmental problems and require special attention from the government and society to solve. The emergence of plastic waste has become a global problem, affecting all countries and therefore needs to be addressed together, especially with respect to waste transported at sea, tourism, fishing and human health. In the G20 press release, the Indonesian government will take steps to reduce plastic waste by 28.5% over the past three years. According to data, about 60% of waste dumped into the sea is plastic waste, including plastic straws, cup wrappers and plastic bags. In Indonesia, glass waste and bottled drinking water are one of the causes that significantly contribute to plastic pollution in the sea. Glass bottled drinking water reaches 10.4 billion glass bottles each year, with 46,000 tons of waste. This amount of waste does not include other types of plastic waste such as plastic straws and drink cup accessories that are easier to release into the environment. The data also shows that single-use bottled water production reached 5.5 billion bottles per year, with waste of 83,000 tons (Eri Sutrisno, 2022).

Indonesia sets targets in its Marine Litter Action Plan (Peraturan Presiden no 83, 2018) related to marine waste management, with the target of processing 70% of marine waste by 2025. To achieve this target, the government and stakeholders have tried to take special steps to ensure Waste management is accelerated. The government recognizes that efforts to reduce plastic waste cannot be done alone. This is why the government appreciates the business community, academic associations and innovators who have stepped in to help reduce marine plastic waste. The amount of plastic waste entering or leaking into the sea is about 0.27 million tons, possibly up to 0.29 million tons/year (Baheramsyah, 2022)

The growing need to meet waste reduction goals will lead to adaptation in the production of goods and provision of services by generating less waste, reducing energy consumption, conserving resources and reduce damage to the environment and human life. (Agyabeng Mensah et al., 2020, p. 585). More and more companies are adopting green production practices to meet the requirements of government laws, the demands of investors, employees, the media, labor unions and non-governmental organizations. government. (Abbott & Snidal, 2021, p. 52). Some companies have implemented respect for the environment within the company. However, some experts believe that expanding green production activities outside the company will help improve the environment even more (Agyabeng Mensah et al., 2020, p. 585).

Total quality management (TQM) has a significant impact on business performance, including in the plastic packaging sector. (Purwanto, 2020, p. 22). TQM emphasizes continuous improvement, customer satisfaction, and employee involvement. By implementing TQM principles, companies can improve production processes and reduce waste, which in turn leads to increased efficiency and profits. Additionally, TQM can also contribute to a company's green performance by promoting environmentally friendly practices. Companies that apply TQM principles are more likely to implement environmentally friendly initiatives, such as reducing energy consumption and using recyclable materials. In the plastic packaging industry, where environmental concerns are paramount, adopting TQM can help companies achieve financial success and environmental sustainability. By improving operational efficiency through total quality management practices while implementing environmentally friendly

initiatives, these companies can demonstrate their commitment to social responsibility. business association.

Total quality management (TQM) can have a significant impact on a business's operational performance (OP) and green performance (CGP). (Jawad Abbas, 2020; Hassan & Jaaron, 2021; Khalil & Muneenam, 2021; Pambreni *et al.*, 2019). Total quality management encourages companies to apply management principles that focus on measurement, analysis and continuous improvement in every aspect of the company's operations. Additionally, implementing total quality management can help plastic packaging companies improve their environmental performance by reducing waste and emissions, increasing energy efficiency, and increasing raw material utilization. sustainable raw materials, improving appropriate waste management and raising environmental awareness. (Li *et al.*, 2022, p. 102106). Total quality management encourages businesses to consider the environmental impact of every decision they make and strive to reduce the negative impact on the environment. By implementing total quality management, plastic packaging companies in Indonesia can achieve better operational and environmental performance, increase customer satisfaction and ensure business sustainability.

Another study conducted by Chienwattanasook and Jermisittiparsen, (2019, p. 223) To evaluate the impact of total quality management on the performance of small and medium enterprises (SMEs) in the pharmaceutical industry in Thailand. This study also evaluates the role of organizational learning capacity (OLC) as a moderating variable. Research results show that business orientation and TQM have a positive impact on the performance of small and medium-sized pharmaceutical enterprises in Thailand. Furthermore, research also shows that organizational learning plays an important role as a moderating variable in the relationship between entrepreneurial orientation and performance. Specifically, OLC may facilitate the relationship between entrepreneurial orientation and performance. Research was also conducted by Yuniarti, (2021, p. 150) shows that organizational innovation (OI) plays an important role in overall quality management and operational performance (OP). Organizational innovation can improve the implementation of total quality management in organizations by enhancing creativity, motivation and the ability to adapt to changes that occur. Additionally, innovation can also improve organizational performance by increasing the efficiency, effectiveness and differentiation of the products or services offered. This study provides organizations with information to integrate organizational innovation into total quality management as a strategy to improve organizational performance. In addition, the results of this study can also provide reference for researchers who want to explore the role of organizational innovation in the broader context of total quality management and operational performance.

Total quality management is an approach that maximizes an organization's competitiveness through continuous improvement of products, services, people, processes and the environment (Pambreni *et al.*, 2019, p1397).

Organizational innovation is the effort to create change within an organization that affects performance improvement and creates value for the organization and its stakeholders. This innovation can include changes in business processes, technology, organizational structure, and human resources. Some indicators of organizational innovation according to experts are as follows:

Number of new patents granted (Azeem *et al.*, 2021), Level of use of information and communication technology (Kneipp *et al.*, 2019), Number of new ideas generated by employee creative initiatives (Chen *et al.*, 2020), The ratio of research and development expenses to the organization's total revenue (Moradi *et al.*, 2021), Employee participation in organizational innovation programs (Naqshbandi *et al.*, 2019).

METHOD

This causal test uses path analysis or Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach. PLS SEM data analysis has advantages in modeling flexibility, tolerance for non-normal data, the use of relatively small samples, and the ability to test mediation and overcome multicollinearity problems. In the context of this study, the use of the PLS SEM method will make it possible to model complex relationships between variables. In addition, this method can also take into account the effect of mediation between these variables, as well as provide flexibility in overcoming sample limitations that may occur.

In this study, the type of research that will be used is causal research. This type of causal research is a type of research that aims to determine the cause and effect relationship between the variables being studied. (Bloomfield & Fisher, 2019). In research, causal research can be used to examine the direct influence of total quality management on a company's eco-performance, as well as how this relationship is mediated by variables such as organizational innovation. By using causal research, researchers can determine the cause and effect relationship between total quality management and the dependent variable, and understand the role of mediating variables in connecting the variable. independent of the dependent variable. Intermediate variables, such as organizational innovation, may play an important role in explaining the relationship between total quality management and firm eco-performance.

The reference environment in this study is the real environment. A real-world setting involves collecting data from an actual organization or business, where the research variables are observed and measured in a real-world setting. In this study, data were collected on TQM implementation, operational performance, environmental performance, and other variables from organizations that have implemented TQM and have related environmental activities. This real-life environment provides insight into how these structures operate in Indonesia's plastic packaging industry.

The data used in the study uses primary and secondary data types. Primary data refers to data collected directly from a primary source, especially for research purposes. This study collects primary data using questionnaires or interviews to measure relevant variables. Meanwhile, secondary data is used based on magazines, books and news from official agencies related to this research.

RESULTS AND DISCUSSION

Data collection methods refer to the techniques or strategies used to collect relevant information or data in a study or research. (O. Nyumba et al., 2018, p. 20). This method is designed to obtain the data needed to answer research questions or achieve predetermined research objectives. Data collection methods include the process of gathering information from a variety of sources, such as respondents or participants, documents, archives, or through direct observation. The method may be a special method of data collection or a special technique used to obtain the desired information.

The data collection method used in the research is questionnaire. The questionnaire method involves collecting data through written questions to respondents. The respondent then provides answers according to the choices given or by answering open-ended questions.

Once data is collected, researchers must analyze it to answer research questions. Data analysis in this study can be performed using path analysis techniques to examine the relationships between variables within the conceptual framework that has been formulated.

Population refers to the entire group or item you want to study. Populations can be individuals, groups, organizations, or other research objects that have characteristics or attributes relevant to the research question. (Mohajan, 2020, p. 20). In this study, the target audience includes manufacturing companies operating in the plastic packaging sector and

operating in Indonesia. According to official data from the Ministry of Industry (Kemenperin, 2021) There are 424 companies operating in the plastic industry in Indonesia.

Sampling technique is carried out using purposive sampling technique, specifically sampling technique with certain considerations (Maharani & Bernard, 2018, p. 819). Purposive sampling was used to target all plastic companies in Indonesia, sampling was only carried out for the plastic packaging industry. The number of plastic packaging companies that can be sampled is 204. After calculating according to the Slovin formula with an error of 5%, the minimum number of samples needed is 132 respondents.

The respondents in this study were almost the same, specifically PMA up to 74 people (50.6%) and PMDN up to 72 people (49.3%). Based on the number of employees of the company, the respondents in this study are mainly respondents from companies with groups of more than 100 employees, which is 115 people (78.8%), followed by the group below 50 employees, or 16 people. (11.0%) and the least come from companies with employee groups of 50 to 100 people, or 15 people (10.3%). Based on the location of the company, the number of respondents in this study are mainly respondents from companies in Jabodetabek, specifically 91 people (62.3%), followed by those in East Java , with 40 people (27.4%) and in the Central region. Java has up to 2 people (1.4%) while in other regions there are up to 91 people (62.3%). Based on the company's operating time, the respondents in this study are mainly respondents from companies that have been operating for more than 5 years, i.e. 127 people (87.0%), followed by 2 years - 5 years, that is 13 people (8.9%) and at least 6 people come from companies that have been operating for less than 2 years (4.1%). Based on current position, the respondents in this study are mainly senior managers (senior managers and senior managers), specifically 78 people (53.4%), followed by middle management (senior managers, supervisors), specifically 41 people (28.1%), and the lowest management positions are 27 people (18.5%).

In this study, preliminary tests of the validity and reliability of the questionnaire were conducted using data from 30 respondents. Statistical tools or software to handle test calculations using the help of IBM SPSS 26 program.

Table 1. Results of checking the validity of the question

Variable	Indicator	N	Pearson Correlation (r)	Sig.	Result
<i>Total Quality Management (TQM)</i>	X.1	30	0,639	0,000	Valid
	X.2	30	0,860	0,000	Valid
	X.3	30	0,907	0,000	Valid
	X.4	30	0,895	0,000	Valid
	X.5	30	0,861	0,000	Valid
	X.6	30	0,849	0,000	Valid
	X.7	30	0,757	0,000	Valid
<i>Corporate Green Performance (CGP)</i>	Y.1	30	0,914	0,000	Valid
	Y.2	30	0,635	0,000	Valid
	Y.3	30	0,795	0,000	Valid
	Y.4	30	0,905	0,000	Valid
	Y.5	30	0,892	0,000	Valid
<i>Organizational Innovation (OI)</i>	Z.1	30	0,921	0,000	Valid
	Z.2	30	0,964	0,000	Valid
	Z.3	30	0,886	0,000	Valid
	Z.4	30	0,815	0,000	Valid

Z.5	30	0,869	0,000	Valid
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Source: IBM SPSS 26 data processing results

Based on Table, all question items in the questionnaire have a Pearson correlation value (r) > table $r = 0.1609$ and a significance value (Sig.) < 0.05. Thus, it can be concluded that all questions or indicators in the research questionnaire are valid.

Structural model analysis is the second part of the partial least squares structural equation modeling (PLS-SEM) method. Structural model analysis includes evaluating the structural model and the significance level of the path coefficients. Structural model evaluation is performed to ensure that the constructed structural model is robust and accurate. Evaluation of the internal model can be seen from a number of metrics, including testing the model's goodness of fit through the Standardized Root Mean Squared Residual (SMRM) value and the coefficient of determination, define R-Square (R^2). And the significance level of the path coefficient is used to test the hypotheses, specifically predicting the relationship between latent variables.

The analysis of the significance of the path coefficients in PLS-SEM is performed using the bootstrapping technique to determine the direction of the relationship and the importance of the relationship between the exogenous latent variables and the latent variables, endogenously hidden. Assessing the relationship between exogenous latent variables and endogenous latent variables is done by testing the t-statistic value or p-value. The decision in PLS-SEM analysis for a one-sided hypothesis with a significance test of 5 is whether $|t\text{-statistic}| > 1.645$ or significant value (p-value) < 0.05 then reject H_0 or accept H_1 . On the contrary, if the value $|t\text{-statistic}| \leq 1.645$ or significant value (p-value) ≥ 0.05 , then accept H_0 or accept H_1 .

The first hypothesis (H_1), namely, total quality management (TQM) has a positive and significant relationship with corporate green performance (CGP) in the plastic packaging industry in Indonesia.

The relationship between total quality management (TQM) corporate green performance (CGP) is known to have a positive path coefficient value (base sample) of 0.022 with a t-statistic value of 0.232 (≤ 1.645) and p-value is 0.408 (≥ 0.05). Consistent with these results, H_1 is rejected or the data do not support the hypothesis. Therefore, it can be concluded that total quality management (TQM) has a positive but insignificant relationship with corporate green performance (CGP) in the plastic packaging industry in Indonesia.

The second hypothesis (H_2) is that total quality management (TQM) has a positive and significant relationship with green manufacturing (GM) in the plastic packaging industry in Indonesia.

It is known that the relationship between Total Quality Management (TQM) and Green Manufacturing (GM) has a positive path coefficient value (original sample) of 0.461 with a statistical t value of 3.901 (> 1.645) and a p-value 0.000 (< 0.05). According to the decision-making process, based on these results, H_2 is accepted or the data support the hypothesis. Therefore, it can be concluded that total quality management (TQM) has a positive and significant relationship with green manufacturing (GM) in the plastic packaging industry in Indonesia.

The third hypothesis (H_3) is that total quality management (TQM) has a positive and significant relationship with organizational innovation (OI) in the plastic packaging industry in Indonesia.

It is known that the relationship between Total Quality Management (TQM) Organizational Innovation (OI) has a path coefficient value (original sample) of positive 0.543 with a t-statistic value of 4.591 (> 1.645) and a p-value of 0.000 (< 0.05). According to the decision-making process, based on these results, H_3 is accepted or the data support the hypothesis. Therefore, it can be concluded that total quality management (TQM) has a positive

and significant relationship with organizational innovation (OI) in the plastic packaging industry in Indonesia.

During the research process, some challenges or limitations may be encountered that are beyond the researcher's control and may affect the research results. It is important to explain these limitations to ensure readers do not misinterpret the study results. The limitations do not limit the scope of the study but provide an understanding of potential risks that may influence the results presented.

One of the limitations encountered during the research process was data availability and accessibility. Due to the nature of the industry and the sensitivity of the information, some companies are reluctant to share their data, which limits the sample size and may affect the generalizability of the results. Another limitation lies in the respondents' use of self-reported data. Self-assessments can be biased and do not always accurately reflect the organization's actual performance or performance.

Additionally, this study was conducted in the plastic packaging industry in Indonesia, which may limit the generalizability of the results to other industries or countries. The specific context and industrial characteristics of Indonesia may influence the relationship between the studied variables.

CONCLUSION

This study examines the relationship between total quality management and the mediating variable of organizational innovation on firm eco-performance in the plastic packaging industry in Indonesia. The results of the study show that total quality management has a positive and significant relationship with organizational innovation. Meanwhile, the mediating effect of organizational innovation has a positive and significant relationship mediating the relationship between total quality management and organizational innovation. However, total quality management and organizational innovation have a positive and significant relationship with firm eco-performance.

These results provide new insights into the relationships between different factors in the plastic packaging industry in Indonesia. The results show that implementing total quality management can have a positive impact on corporate social responsibility, organizational innovation, green production, and organizational learning ability.

From a theoretical perspective, these results support the importance of total quality management in promoting sustainable operations and performance in the plastic packaging industry. They also emphasized the importance of green production and corporate social responsibility in promoting operational and environmental performance. These findings contribute to existing knowledge on sustainable practices and performance in the packaging industry.

Overall, these findings provide valuable insights to practitioners and policymakers in the plastic packaging sector in Indonesia, providing guidance on how to improve performance through implementation. implementing measures to manage plastic packaging, overall quality, green production and corporate social responsibility.

REFERENCE

- Afum, E., Agyabeng Mensah, Y., Sun, Z., Frimpong, B., Kusi, L. Y., & Acquah, I. S. K. (2020). Exploring the link between green manufacturing, operational competitiveness, firm reputation and sustainable performance dimensions: a mediated approach. *Journal of Manufacturing Technology Management*, 31(7), 1417–1438.
- Agyabeng Mensah, Y., Ahenkorah, E., Afum, E., Agyemang, A. N., Agnikpe, C., & Rogers, F. (2020). Examining the influence of internal green supply chain practices, green human resource management and supply chain environmental cooperation on firm performance.

- Supply Chain Management: An International Journal*.
- Ahmad, M. F., Ismail, S. N., Hassan, M. F., Chan, S. W., Abdul Hamid, N., Ahmad, A. N. A., Mohd Naw, M. N., & Abdul Rahman, N. A. (2019). A study of green factory practices in Malaysia manufacturing industry. *International Journal of Supply Chain Management (IJSCM)*, 8(1), 772–776.
- Azeem, M., Ahmed, M., Haider, S., & Sajjad, M. (2021). Expanding competitive advantage through organizational culture, knowledge sharing and organizational innovation. *Technology in Society*, 66, 101635.
- Baheramsyah. (2022, October). Indonesia Menargetkan Kurangi Sampah Plastik hingga 70 Persen pada 2025. *Infopublik.Id*. <https://www.infopublik.id/kategori/g20/679239/indonesia-menargetkan-kurangi-sampah-plastik-hingga-70-persen-pada-2025?show=>
- Basheer, M., Siam, M., Awn, A., & Hassan, S. (2019). Exploring the role of TQM and supply chain practices for firm supply performance in the presence of information technology capabilities and supply chain technology adoption: A case of textile firms in Pakistan. *Uncertain Supply Chain Management*, 7(2), 275–288.
- Bloomfield, J., & Fisher, M. J. (2019). Quantitative research design. *Journal of the Australasian Rehabilitation Nurses Association*, 22(2), 27–30.
- Carroll, A. B. (2016). Carroll's pyramid of CSR: taking another look. *International Journal of Corporate Social Responsibility*, 1(1), 3. <https://doi.org/10.1186/s40991-016-0004-6>
- Chen, J., Walker, R. M., & Sawhney, M. (2020). Public service innovation: a typology. *Public Management Review*, 22(11), 1674–1695.
- Chienwattanasook, K., & Jermstiparsen, K. (2019). Influence of entrepreneurial orientation and total quality management on organizational performance of pharmaceutical SMEs in Thailand with moderating role of organizational learning. *Systematic Reviews in Pharmacy*, 10(2), 223–233.
- Eri Sutrisno. (2022). Aksi Nyata Menangani Sampah Laut. <https://indonesia.go.id/g20/kategori/nasional/6147/aksi-nyata-menangani-sampah-laut?lang=1>
- Hassan, A. S., & Jaaron, A. A. M. (2021). Total quality management for enhancing organizational performance: The mediating role of green manufacturing practices. *Journal of Cleaner Production*, 308, 127366.
- Hudnurkar, M., Ambekar, S., Bhattacharya, S., & Sheorey, P. A. (2022). Relationship of total quality management with corporate sustainability in the MSME sector: does innovation capability play a mediating role? *The TQM Journal*, ahead-of-p(ahead-of-print). <https://doi.org/10.1108/TQM-03-2022-0095>
- Iskandar, M. I. (2023). *TREN PRODUKSI DAN KONSUMSI PLASTIK DI INDONESIA*.
- Kemenperin. (2021). *Direktori Perusahaan Plastik*. <https://kemenperin.go.id/direktori-perusahaan?what=plastik&prov=0>
- Khalil, M. K., & Muneenam, U. (2021). Total quality management practices and corporate green performance: does organizational culture matter? *Sustainability*, 13(19), 11021.
- Kneipp, J. M., Gomes, C. M., Bichueti, R. S., Frizzo, K., & Perlin, A. P. (2019). Sustainable innovation practices and their relationship with the performance of industrial companies. *Revista de Gestão*, 26(2), 94–111.
- Maharani, S., & Bernard, M. (2018). Analisis hubungan resiliensi matematik terhadap kemampuan pemecahan masalah siswa pada materi lingkaran. *JPMI (Jurnal Pembelajaran Matematika Inovatif)*, 1(5), 819–826.
- Mohajan, H. K. (2020). Quantitative research: A successful investigation in natural and social sciences. *Journal of Economic Development, Environment and People*, 9(4), 50–79.
- Moradi, E., Jafari, S. M., Doorbash, Z. M., & Mirzaei, A. (2021). Impact of organizational

- inertia on business model innovation, open innovation and corporate performance. *Asia Pacific Management Review*, 26(4), 171–179.
- Nurlan, F. (2019). *Metodologi penelitian kuantitatif*. CV. Pilar Nusantara.
- O. Nyumba, T., Wilson, K., Derrick, C. J., & Mukherjee, N. (2018). The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods in Ecology and Evolution*, 9(1), 20–32.
- Pambreni, Y., Khatibi, A., Azam, S., & Tham, J. (2019). The influence of total quality management toward organization performance. *Management Science Letters*, 9(9), 1397–1406.
- Pattanayak, D., Koilakuntla, M., & Punyatoya, P. (2017). Investigating the influence of TQM, service quality and market orientation on customer satisfaction and loyalty in the Indian banking sector. *International Journal of Quality & Reliability Management*.
- Pavlov, G., Maydeu-Olivares, A., & Shi, D. (2021). Using the standardized root mean squared residual (SRMR) to assess exact fit in structural equation models. *Educational and Psychological Measurement*, 81(1), 110–130.
- Peraturan Presiden no 83. (2018). *Penanganan Sampah Laut*.
- Purwanto, A. (2020). Does Quality, Safety, Environment and Food Safety Management System Influence Business Performance? Answers from Indonesian Packaging Industries. *International Journal of Control and Automation*, 13(1), 22–35.
- Reni Lestari. (2022, January 18). AKIBAT TREN ONLINE DELIVERY, INDUSTRI PLASTIK BANJIR INVESTASI. *Bisnis Indonesia*; Jan 2022. <https://bisnisindonesia.id/article/akibat-tren-online-delivery-industri-plastik-banjir-investasi>
- Werdhiastutie, A., Suhariadi, F., & Partiw, S. G. (2020). Achievement motivation as antecedents of quality improvement of organizational human resources. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Volume*, 3, 747–752.
- Yuniarti, R. (2021). Peran Inovasi Dalam Total Quality Management Dan Kinerja Organisasi. *Jurnal Pamator: Jurnal Ilmiah Universitas Trunojoyo*, 14(2), 150–157.