

EFFECT OF LEADERSHIP, CUSTOMER FOCUS, EMPLOYEE TRAINING AND EMPOWERMENT, PROCESS MANAGEMENT, AND CONTINUOUS IMPROVEMENT ON OPERATIONAL PERFORMANCE (CASE STUDY AT PLASTIC INJECTION COMPANY FOR AUTOMOTIVE AND ELECTRONIC COMPONENTS IN NORTH JAKARTA)

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ABSTRACT

This research was conducted to test and analyze the effect of leadership, customer focus, employee training and empowerment, process management, and continuous improvement as elements of Total Quality Management on operational performance. The method used in this study is Structural Equation Modeling (SEM) using the SmartPLS application. The population in this study is the employee of The Plastic Injection Company for automotive and electronic components in North Jakarta (the "Company") as many as 450 people. The type of sample in this study was purposive sampling and obtained by respondents as many as 206 respondents. The test results showed that leadership negatively affects operational performance, customer focus has no effect on operational performance, employee training and empowerment have no effect on operational performance, process management has a positive effect on operational performance, and continuous improvement has a positive effect on operational performance.

Keywords: Total quality management, operational performance, leadership, customer focus, employee training and empowerment, process management, continuous improvement

INTRODUCTION

The processing or manufacturing industry plays a very important role in national development. This can be seen from its contribution to the Gross Domestic Product (GDP). Data from Indonesia's Central Statistics Agency shows that the processing industry sector contributed 19.70% to GDP in 2019, greater than the GDP of the agricultural sector of 12.71% and trade of 10.38% (BPS, 2020).

The automotive industry, especially the automobile assembly industry, has great potential in boosting state revenues and expanding employment (Austrade 2015; Wibisono 2017). The Company as one of the tier 2 vendors of brand M vehicles is involved in the industry and the company's business is also affected by the rise and fall of car sales. Brand M type X car sales amounted to 75,075 units in 2018, 62,666 units in 2019, and 8,655 units in 2020 (Gaikindo, 2020).

In addition to being marketed domestically, brand M type X cars are also exported abroad, including for Asean countries (the Philippines, Thailand, and Vietnam) as well as countries in Asia, Latin America, Africa, and the Middle East. Until June 2020, the export of brand M type X cars reached 111,749 units (Gaikindo, 2020).

In addition to being an automotive vendor, the Company also is a tier one vendor for S brand television and top-loading washing machine components. The average monthly sales for the S brand television are 280,000 units. Currently, due to changing lifestyles, to a work from home and stay at homelifestyle, people are reducing tourism and traveling. According to Germany-based Gfk pollsters, after being processed by SEID, it is estimated that television demand remains stable (Jemadu, 2021).

The automotive business demands very high quality, whereas the electronics industry demands both high quality and high quantity. As a result, the competition is getting fiercer and demands high operational performance. The Company needs to develop strategies to increase competitive advantages while maintaining the sustainability of the Company's business to supply for its customers, which are the M brand car and S brand electronics Original Equipment Manufacturing (OEM) companies, as well as its other OEM customers. One of the strategies is to optimize quality management thoroughly through the philosophy of Total Quality Management (TQM). Although it has adopted the philosophy of TQM, operational performance at the Company is still an obstacle, which can be seen from the Management Review report in 2019 and 2020 where Customer Claim, Return of Goods, and Non-Conformity Product still did not meet the target. For this reason, the researchers intend to find out exactly what elements of total quality management affect the operational performance. For this reason, the researchers began to conduct research, starting with looking for references related to total quality management and its effect on operational performance.

Some studies conducted by previous researchers include Samson, D., Mile Terziovski (1998), Zaidi, Z.M., Nurazwa Ahmad (2020) which concluded that Leadership has a positive effect on operational performance. Abusa, F. (2011), Wibisono, F.A. (2017) concluded that Customer Focus has positive and significant effect on operational performance. Another research conducted by Ishak, A.P., Agus S. Soegoto, Irvan Trang (2016) resulted that Training has a positive and significant effect on employee performance and that Empowerment has a positive and significant effect on employee performance. Meanwhile, Abusa, F. (2011), Wibisono, F.A. (2017), Adem, M.K., Sandeep Singh Viridi. (2020) found that Process Management has a positive and significant effect on Operational Performance. Wibisono, F.A. (2017), Adem, M.K., Sandeep Singh Viridi (2020) also concluded that Continuous Improvement has a positive and significant effect on operational performance.

HYPOTHESIS DEVELOPMENT

The result of research of Samson, D., Mile Terziovski (1998) on 1,200 manufacturing companies in Australia and New Zealand states that leadership affects operational performance. This is in line with research by Zaidi, Z.M., Nurazwa Ahmad (2020) on manufacturing companies in Johor, Malaysia, which shows that there is a positive influence between leadership and operational performance. Based on the aforementioned researches, the proposed hypothesis is as follows:

H1: Leadership has a positive effect on the operational performance of the Company.

The results of a study by Samson, D., Mile Terziovski (1998) on 1,200 manufacturing companies in Australia and New Zealand, stated that customer focus affects operational performance. This is in line with Abusa's research (2011) on 57 manufacturing companies in Libya, which shows the results that the focus on customers affects operational performance. Likewise, Wibisono's (2017) research at PT Astra Daihatsu Motor, Jakarta, shows that customer focus affects operational performance. Based on the results of these studies, the second hypothesis is proposed as follows:

H2: Customer focus positively affects operational performance of the Company

The results of research by Ishak, A.P., Agus S. Soegoto, Irvan Trang (2016), in 70 employee respondents of PT Asuransi Jiwasraya, Manado, stated that training and empowerment affected the performance of employees of PT Asuransi Jiwasraya, Manado. Based on the results of the study, the following hypothesis was developed:

H3: Employee training and empowerment has a positive effect on the operational performance of the Company.

Abusa's (2011) study of 57 manufacturing companies in Libya showed results that process management affects operational performance. This is in line with Wibisono's research (2017) at PT Astra Daihatsu Motor, Jakarta, which shows that process management affects operational performance. Similarly, Adem, M.K., Sandeep Singh Viridi (2020) conducted a study on 252 respondents consisting of managers and senior experts in the production and quality departments at 35 manufacturing companies in Ethiopia, showing the results of the influence of process management on operational performance. Based on these studies, the following hypothesis was proposed:

H4: Process management has a positive effect on operational performance of the Company.

Abusa's (2011) study of 57 manufacturing companies in Libya showed results that continuous improvement affected operating performance. In line with this, Wibisono (2017) conducted research at PT Astra Daihatsu Motor, Jakarta, which results showed that continuous improvement affects operational performance. Likewise, Adem, M.K., Sandeep Singh Viridi (2020) conducted a study on 252 respondents consisting of managers and senior experts in the production and quality departments at 35 manufacturing companies in Ethiopia, showing the effect of continuous improvements on operational performance. Based on the results of these studies, the following hypothesis was developed:

H5: Continuous improvement has a positive effect on the operational performance of the Company.

MATERIALS & METHODS

This research uses quantitative approach methods. The study used five independent variables: leadership (X1), customer focus (X2), employee training and empowerment (X3), process management (X4), and continuous improvement (X5). The Dependent Variable is operational performance (Y). The sample is part of the number and characteristics possessed by the 206 respondents consisting of employees of the Company. When viewed from the method, data collection techniques are carried out by questionnaires and observations (Sugiyono, 2018). The data collection method used in this thesis research is a questionnaire which is a data collection technique carried out by providing a set of questions or written statements to respondents to answer (Sugiyono, 2018). The method to be used in the testing of this research hypothesis is the modeling of structural equations. According to Santosa (2018), Structural Equation Modeling (SEM) is a statistical method used by researchers in various fields. In general, there are two types of SEM, namely variance-based SEM and covariance-based SEM. PLS is a variance-based SEM, where according to Chin in Santosa (2018), PLS is able to handle track models with reflective or formative construction, even a combination of the two in a model. In this study, the SEM method used was Partial Least Square (PLS).

RESULTS & DISCUSSIONS

From the number of questionnaires that can be processed, namely as many as 206 respondents in this study, the data is tabulated using Microsoft Excel (.xls) (see Attachment: 5-2 Excel Tabulation) and saved into .csv format (comma delimited). The data is then tested for validity and reliability using the SEM PLS method using SmartPLS 3.0 data processing software, Professional Editions. Convergent validity value is the loading factor value on latent variables with its indicators.

Based on the results of the Outer Loading Factor, there are several indicators that have a loading factor value that is less than 0.6 but above 0.52 and insignificant.

Composite Reliability Results

To determine the reliability of the instrument, the measurements used in this study can be known by Cronbach's alpha score and composite reliability.

Table 1. Respondent Reliability Test Score Results

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Customer Focus	0.642	0.645	0.655	0.535
Leadership	0.665	0.666	0.670	0.572
Operational Performance	0.642	0.645	0.652	0.478
Process Management	0.643	0.648	0.653	0.480
Employee Training and Empowerment	0.649	0.652	0.658	0.524
Continuous Improvement	0.632	0.634	0.648	0.512

In general, the composite reliability value that can be used is at least 0.6 or more with Cronbach's alpha score of above 0.6. It can be concluded that the reliability of this instrument is statistically reliable.

Inner model or structural model testing is performed to see the relationship between the construct, the significance value, and the R-square of the research model. Structural models are evaluated using R-square for the construction of the t test dependent as well as the significance of the coefficient of structural path parameters.

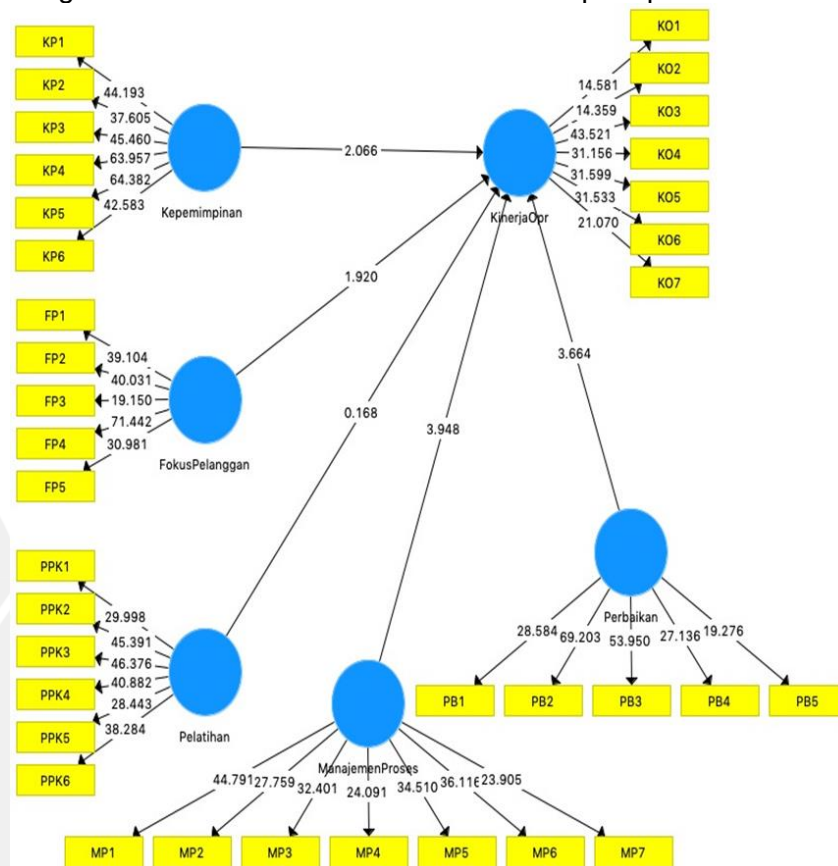


Diagram 5-7: Measurement Model Test Results (Inner Model)

In assessing models with PLS, it starts by looking at the R-square for each dependent latent variable. Table 2 are the result of R-square estimates using smartPLS Professional Editions.

Table 2. R-Square Value

	R Square	R Square Adjusted
Operational Performance	0.467	0.461

Table 2 shows the Adjusted R-square value for the Operational Performance variable obtained a value of 0.461 or 46.1% which means that the operational performance variable can be influenced by leadership variables, customer focus, process management, employee training and empowerment, and continuous improvement of 46.11% or there are still 53.89% of other variables that have not been observed in this study.

The significance of the estimated parameters provides very useful information regarding the relationships between research variables. The basis used in testing hypotheses is the value contained in the output result for inner weight. Table 3 provide estimated outputs for structural model testing.

Table 3. Influence Between Variables – Result For Inner Weight

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Leadership -> Operational Performance	-0.200	-0.199	0.097	2.066	0.039
Customer Focus -> Operational Performance	0.144	0.151	0.075	1.920	0.055
Process Management ----> Operational Performance	0.240	0.247	0.088	3.948	0.000
Employee Training & Empowerment -> Operational Performance	0.020	0.007	0.081	0.168	0.601
Continuous Improvement -> Operational Performance	0.335	0.331	0.092	3.664	0.000

(Source: Data processing, 2021)

In PLS statistical testing, every hypothesized relationship is done using simulations. In this case, the bootstrapping method is performed against the sample. Bootstrapping testing is also intended to minimize the problem of abnormalities of research data. The results of bootstrapping tests from SmartPLSanalysis are as follows:

The results of the first hypothesis test show the relationship of leadership influence on operational performance as seen in Table 3 showing a statistical T value of 2.066. The value is greater than the table t value (1.960). While the original value (O), which is a path coefficient with a value of -0.200 can be interpreted as having the opposite direction. Thus, it can be interpreted that leadership has a negative and significant effect on operational performance.

The test results of the second hypothesis show the relationship of the influence of customer focus on operational performance as seen in Table 3 indicating a statistical T value of 1.920. The value is smaller than the table t value (1.960). Consequently, it can be interpreted that customer focus has no effect on operational performance.

The results of the third hypothesis test show the relationship of the influence of employee training and empowerment on operational performance as seen in Table 3 show a statistical T value of 0.168. The value is smaller than the table t value (1.960). As a result, it can be interpreted that employee training and empowerment has no effect on operational performance.

The test results of the fourth hypothesis show the relationship of the influence of process management on operational performance as seen in Table 3 indicating a statistical T value of 3.948. The value is greater than the table t value (1.960). The original sample (O) is 0.240. In conclusion, it can be interpreted that process management has a positive and significant effect on operational performance.

The results of the fifth hypothesis test show the relationship of the effect of continuous improvement on operational performance as seen in Table 3 shows that the statistical T value of 3.664. The value is greater than the table t value (1.960), while the original sample (O) value is 0.355. Thus, it can be interpreted that continuous improvement has a positive and significant effect on operational performance.

CONCLUSION

The conclusions in this study are as follows:

1. Leadership has a negative and significant effect on operational performance. With a statistical t value of 2.066 greater than the table t value of 1.960 and the original sample (O) value which is the path coefficient with a value of - 0.200.
2. Customer focus has no effect on operational performance. With a statistical t value of 1.920, the value is smaller than the table t value of 1.960.
3. Employee training and empowerment have no effect on operational performance. With a statistical t value of 0.168, the value is smaller than the table t value of 1.960.
4. Process management has a positive and significant effect on operational performance. With a statistical t value of 3.948, the value is greater than the table t value of 1.960, while the Original Sample (O) value is 0.240.
5. Continuous improvement has a positive and significant effect on operational performance. With a statistical t value of 3.664, the value is greater than the table t value of 1.960, while the Original Sample (O) value is 0.355.

RECOMMENDATIONS

Based on the results of the study and the conclusions that have been outlined above, the researchers provide suggestions that can be used as input and consideration for the Company, as follows:

1. Because leadership has a negative effect, referring to descriptive analysis of KP3 statements, leaders are expected to give more examples in an effort to improve quality.
2. The importance of focus to customers to be re-socialized to all workers in order to have a positive effect on operational performance. In accordance with the FP3 statement, the mechanism that helps employees to know customer needs / complaints is more socialized to all employees.
3. In accordance with PPK1, the selection, recruitment and placement of employees is carried out by considering the needs of the organization and employee capabilities to be further sharpened. In accordance with PPK2, the training plan is structured to develop employee knowledge and abilities to be further sharpened, the need for training to be reanalyzed what materials have an impact on operational performance. In accordance with PPK4, employees are provided with the means to carry out QCC (Quality Control Circle), Quality Improvement Teams, Quality Meeting and Suggestion System (SS) activities to be further sharpened. In terms of employee empowerment, it is recommended for top management to compile an interesting career level scheme.
4. Because it has a positive and significant effect, the contribution of management of process needs to be increased to improve operational performance. In accordance with the MP1 statement, it is recommended that the measurement / evaluation of product quality be further sharpened.
5. Because it has a positive and significant effect, sustainable development shall be improved so that operational performance can be further improved. In accordance with the PB5 statement, it is recommended to conduct better benchmarking / comparative studies of similar companies.

DAFTAR PUSTAKA

- Abusa, F. (2011). TQM Implementation and Its Impact on Organizational Performance in Developing Countries: A Case Study in Libya. University of Wollongong.
- Adair, J (2004). Handbook of Management and Leadership. London: Thorogood.
- Adem, M. K., Sandeep Singh Viridi. (2020). The Effect of TQM Practice on Operational Performance: An Empirical Analysis of ISO9001:2008 Certified Manufacturing Organizations in Ethiopia. *The TQM Journal*, 33(2), 407-440.
- Agus, A., Hassan, Z. (2011). Enhancing Production Performance and Customer Performance Through Total Quality management (TQM): Strategies for Competitive Advantage. *Procedia- Social and Behavioral Science*, Volume 24, 2011, Pages 1650-1662
- Aized, T. (2012). Total Quality Management and Six Sigma. Rijeka: In Tech.
- Anderson, R., Eriksson, H., Torstensson, H (2006). Similarities and differences between TQM, six sigma and lean. *The TQM Magaziene*. Vol. 18 No.3. Emerald Group.
- Central Bureau of Statistics. (2019) Quarterly GDP Distribution on Price Basis Applies by Business Field (Percent), 2014-2020. Accessed from <https://www.bps.go.id/linkTableDinamis/view/id/828>. (Retrieved July 9, 2021).
- Bagozzi, R., & Yi, Y. (1988). On the Evaluation of Structural Equation. Models. *Journal of the Academy of Marketing Sciences*, 16, 74-94.
- Barney, J., & Clark, D.N. (2007). Resources-based theory. New York: Oxford.
- Beckman, S.L., & Rosenfield, D.B. (2008). *Operation Strategy*. New York: McGraw-Hill.
- Black, S.A. & Porter, L.J. (1996). Identification of Critical Factors of TQM. *Decision Sciences*, Vol.27, no.1, pp.1-21.
- Cetindere, A., Duran,C.,Yetisen, M. S. (2014). The Effects of Total Quality Management on The Business Performance. An Application in the Province of Kutahya. *Procedia Economics and Finance* 23, 2015, 1376 – 1382.
- Chin, W.W. (1998). The Partial Least Squares Approach to Structural Equation Modeling. *Modern Methods for Business Research*, 295-336.
- Chomeya, Rungsom (2010). Quality of Psychology test between likert scale 5 and 6 points. *Journal of Social Sciences* 6 (3) P. 399-403.
- Cooper, D.R., & Sclinder, P.S. (2011). *Business Research Method*. New York: McGraw-Hill
- Crosby, P.B. (1996). *Quality is Still Free. Making Quality Certain in Uncertain Times*. New York: McGraw-Hill.
- Evans, J.R. & Lindsay, W.M. (2008). *Managing for Quality and Performance Excellence* (11th ed). Canada: Thompson.
- Indonesian Motor Vehicle Industry Association (Gaikindo). Corona Crisis, Xpander Becomes Mitsubishi Motor's Savior. <http://www.gaikindo.or.id> (accessed November 28, 2021).
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. (2010). *Multivariate Data Analysis* (7th Edition): Pearson.
- Heizer, J., Render, B. (2014) *Operation Management* (11th ed) London Pearson.
- Hibau, Y. G., Imam Nazarudin Latif., AdisthyShabrinaNurqamarani. (2019). Analysis of the Effect of The Application of Total Quality Management (TQM) on Operational Performance in Online Media "KaltimKece" in 2019. Samarinda: Faculty of Economics University August 17, 1945 Samarinda.
- Hoyle, D. (2001) *ISO 9000 Quality System Handbook* (4th ed). Oxford: Butterworth-Heinemann.
- Isaac, A.P., Agus S. Soegoto., Irvan Trang. (2016). Work Environment, Training and Empowerment of Its Effect on Employee Performance at PT. Manado Life Insurance. *Journal of EMBA* Vol.4 No.2 June 2016 P.592-601 ISSN 2303-1174
- Jacobs, R., Chase, R. (2014). *Operation and Supply Chain Management* (14th ed). New York: McGraw-Hill.

- Jorgensen, K.B., & Nielsen, A.F. (2013) The effects of TQM Critical Success Factors on Organizational Performance. MSc. Finance & International Business Aarhus University Business and Social Sciences.
- Jemadu, L. (2021, August 12). Sharp Targets Premium TV In Indonesia, Called Still Growing Continuously. Suara.com. Accessed from: <http://www.suara.com> on November 28, 2021.
- Juran, JM., & Godfrey, AB. (1998). *Juran's Quality Handbook* (5th ed). New York: McGraw-Hill.
- Knowles, G. (2011). *Quality Management*. January 17, 2017 <http://www.znrfak.ni.ac.rs/>
- Kreitner, R., & Kinicki, A (2010). *Organizational Behavior* (9th ed). New York: McGraw-Hill.
- Levine, D. M., Stephan, D. F., & Szabat. K. A. (2014). *Statistics for Managers Using Microsoft Excel* (7th ed). Essex: Pearson.
- Miyagawa, M., & Yoshida, K. (2010). TQM practices of Japanese – owned manufacturers in the USA and China. *Internal Journal of Quality & Reliability Management*. Vol. 27 Issue: 7, pp736-755
- Motwani, J. (2001). Measuring Critical Factors of TQM. *Measuring Business Excellence*, Vol. 5 Iss 2 pp. 27-30
- Nagaprasad, H., & Yogesha, B. (2009). Enrichment of Customer Satisfaction Through Total Quality Management Techniques. *International Multi Conference of Engineers and Computer Scientist 2009 Vol II*.
- Nasution, M. N., (2015) *Integrated Quality Management (Total Quality Management)*. Bogor: Ghalia Indonesia.
- Nawang Sari, A.Y., (2011). *Structural Equation Modelling on Calculation of Customer Satisfaction Index Using Amos Software (Case Study: Calculation of FMIPA UNY Student Satisfaction Index Against IM3 Operators)*. Mathematics Study Program Majoring in Mathematics and Natural Sciences Education, Yogyakarta State University.
- Porter, L. J., & Tanner, S. J. (2005). *Assessing Business Excellence* (2nd ed). Elsevier Butterworth_Heinemann.
- Prajogo, D., & Sohal, A. S. (2006). The Relationship Between Organization Strategy, Total Quality Management (TQM), and Organization Performance-The Mediating Role of TQM. *European Journal of Operational Research*. Volume 168, Issue 1, 1 January 2006, Pages 35-50.
- Samson, D. and Terziovski, M. (1998). The Relationship between Total Quality Management Practices and Operational Performance. *Journal of Operating Management*, Vol.17, 393-409.
- Santosa, A. D. (2017). *Theory and application of quantitative research using sem method*. Yogyakarta: Kepel Press.
- Santosa, P. I., Giovanni. (2018). *Quantitative research methods: hypothesis development and testing using SmartPLS*. Yogyakarta: Publisher andi.
- Siregar, S. (2013). *Quantitative Research Methods*. Prenadamedia Group: Jakarta.
- Sinha, N., Garg, A.K., Dahl, N. (2016). Effect of TQM principles on performance of Indian SMEs: the case of automotive supply chain. *The TQM Journal*, Vol.28 Iss 3 pp338-359.
- Sugiyono. (2018). *Mixed Methods*. Bandung: CV Alfabeta.
- Swarnakar, V. (2016). Deploying Six Sigma Framework in Automobile Component Manufacturing Organization. *International Journal of Lean Six Sigma*, Vol.7.
- Teeratansirikool, L., Siengthai, S., Badir, Y., Charoenngam, C. (2013). Competitive Strategies and firm performance: the mediating role of performance measurement. *Internal Journal of Production and Performance Management*, Vo.62 Iss 2 pp.168-184.

- Ulle R.S. (2014). A Review on Total Quality Leadership in TQM Practices-Industrial Management and Organizations. *International Journal of Emerging Research in Management & Technology* ISSN: 2278-9359 (Vol-3, Issue-5).
- Usman, H., Sobari, N. (2013). *Multivariate Application for Marketing Research*. Jakarta: Raja GrafindoPersada.
- Wibisono, F. A. (2017). Analysis of the application of total quality management to the operational performance of case studies: PT Astra Daihatsu Motor., Depok: University of Indonesia., Faculty of Economics and Business.
- Yildirim, F. (2012). Impact of Effective Total Quality Management on Sustainable competitive advantage. University of Amsterdam.
- Zaidi, Z. M., Nurazwa Ahmad. (2020). Total Quality Management (TQM) Practice and Operational Performance in Manufacturing Company. *Research in Management of Technology and Business* Vol.1 No.1 (2020) p.13-27.
- Zhang, Z. (2001). *Implementation of Total Quality Management: An Empirical Study of Chinese Manufacturing Firms*. Groningen: Labyrinth Publication.

