



THE IMPROVEMENT OF COMPANY PERFORMANCE THROUGH RISK MANAGEMENT PROCESS, PERSONNEL CAPABILITY AND THE APPLICATION OF TQM (CASE STUDY: LUBRICANT MANUFACTURING COMPANY PT X)

Yusep Saeful Rizal¹, Agustinus Hariadi DP²

¹Mercu Buana University, Jakarta, Indonesia, yuseprizal@gmail.com

²Mercu Buana University, Jakarta, Indonesia, agus.hariadi.dp@gmail.com

Corresponding Author: Yusep Saeful Riza¹

Abstract: Performance management is one of the process to achieve a company's vision and mission. The good achievement of company performance is an indicator of the achievement of the company's strategic goals. This research was conducted at a lubricant manufacturing company. The issues faced by the company were a declining market share of sales related to the risk of highly competitive market competition, high levels of losses and rework, and failing to achieve production costs target related to process control methods and resource management. This study aims to determine the effect of risk management processes, personnel capabilities and the application of total quality management (TQM) on company performance. The questionnaire data analysis involved 74 respondents. The data then processed through validity, reliability, classical assumption testing, regression analysis and the coefficient of determination using SPSS. The results of the study showed that the risk management process did not significantly affect the company's performance, the influence of personnel capabilities and the implementation of TQM were positive and significant to the company's performance. The risk management process, personnel capability and TQM implementation simultaneously affect the company's performance positively and significantly.

Keywords: Risk Management Process, Personnel Capability, Total Quality Management, Company Performance, SPSS

INTRODUCTION

Technically, manufacturing is the process of altering the shape, nature, or appearance of raw materials via chemical or physical processes in order to create components or products. According to Heizer et al. (2005), manufacturing is a process involving the use of a machine to create a product, which requires the use of materials and other supporting items. There are many manufacturing companies in Indonesia, one of which is a lubricant company. Lubricants are chemical substances obtained from processing petroleum through a multilevel distillation process according to the its boiling point (Arisandi et al, 2012). Lubricants has a function to prevent direct contact between two surfaces that rub against

each other and reduce wear due to friction. Another function is to reduce vibrations, heat, to carry away the dirt on the engine and as a seal in the compression system.

This research was conducted at PT. X, a lubricant manufacturing company with a vision to become one of the 20 best lubricant companies in the world. Issues occurred in the performance of the company were the decline in market share in the last three years, from 60.2% in 2017 to 54.9% in 2019 and the unstable sales volume. Since the enactment of Presidential Decree of Keppres no. 21 of 2001 concerning the supply and service of lubricants, domestic lubricant producing companies have continued to increase from year to year, which is a risk that can affect the achievement of market share target. According to Vorst et al (2018) the risk management process has a role in achieving goals and improving performance, by analyzing risk control, the main factors that affect performance in terms of cost, performance and time can be identified to support job success (Wijaya et al. al, 2018). In the implementation of risk management, the company has mapped the risks related to its business in the Risk Register document, which includes the risk of decreasing market share and sales volume but its effectiveness is still not maximized so that it cannot support the achievement of company performance.

Another issues that occurred in the company's performance were high level of material losses and the percentage of blending correction which is a rework process for out-spec lubricants 2 consecutive years in 2018 and 2019. Also, the production cost target per liter of lubricant was not achieved in the last two years. These issues are a phenomenon that indicate the lack of consistency in the process of controlling production and product quality. From the results of the internal audit throughout 2018 and 2019 it was found that the Method factor and the Man factor were two most dominant factors causing the audit findings at 51% and 22%, respectively. Based on these things, an effective method is needed to increase the effectiveness of the production control process and product quality to improve the resources owned by the company in order to survive in an increasingly competitive long term market competition. Muluk (2003) suggests that one method is to implement Total Quality Management (TQM). Sadikoglu and Zehir's (2010) found the importance of implementing TQM on an ongoing basis due to effectiveness of TQM implementation practices has a positive impact on company performance. Rumambi (2019) concludes that the effect of TQM on company performance is positive and significant. Mehralian et al (2017) found that TQM positively and significantly affects the Balance Score Card (BSC), and its relationship to the four BSC perspectives is positive and significant.

For the Man factor, Muute (2019) concluded that human resource planning is important because it has a positive and significant influence on performance. Momeni and Nielsen (2016) and Permana and Suraida (2018) conclude that personnel capability is one of the elements that influence the company's performance. Based on the company of PT. X, from all job positions that should be filled, by 2020 there was still 31.58% of vacant job positions which the duties and responsibilities of that vacant positions were assigned to existing workers. If they are not equipped with good competencies and capabilities, there is a high possibility that the performance of the process being carried out will be disrupted.

Based on the descriptions above, this research will examine the effect of risk management processes, personnel capabilities and the application of Total Quality

Management (TQM) on company performance, as well as the effect of these three variables collectively or simultaneously on the company performance.

LITERATURE REVIEW

Performance Assessment

Performance refers to an individual's, team's, or organizational unit's success in achieving organizational goals through the behavior encountered (Mulyadi, 2014). Performance assessment is a periodic determination of the operational effectiveness of the organization, business units within the organization, and its employees, according to predetermined targets, standards, or criteria (Mulyadi and Setyawan, 2002). For every organization, performance appraisal is an important activity, because it can be used to make important decisions in the business plan by the management of the organization. Performance appraisal can also be used by outsiders as an indicator in choosing alternative investments in estimating the condition of the company in the future. Performance appraisal can be concluded as an official effort carried out systematically to assess the results of an activity on the use of resources owned by an organization within a certain period of time whether the results are as planned or not.

Balanced scorecard is a tool in performance management that serves to translate the vision, mission, and goals of an organization. This translation process utilizes financial and non-financial indicators that have a cause-and-effect relationship in it. The Balanced Scorecard is not used only until the strategy-making process stage, but also during the execution stage (Luis and Biromo in Gonardi and Sutapa, 2019). According to Kaplan and Norton in Melatih (2020) company performance measurement can be measured within four perspectives: finance, customer, internal business process and learning and growth.

Risk Management

Risk is an uncertainty, consequence or possibility that can occur and is likely to hinder the process. Risk management is an effort to be able to identify, analyze and control the risks contained in every company activity that aims to obtain higher effectiveness and efficiency (Darmawi, 2010). The guidelines for implementing risk management ISO 31000:2018 state that the risk management process is a systematic application of management policies, work standards and implementation for an activity which consists of three main stages, namely: (1) Scope, context, criteria (scope, context, and criteria); (2) Risk assessment (risk assessment); and (3) Risk treatment, as well as three umbrella stages, namely: (1) Communication & consultation (communication and consultation); (2) Monitoring & review (monitoring and reviewing); and (3) Recording & reporting (recording and reporting). Risk assessment itself is an activity carried out to estimate a risk from a situation that can be clearly determined or the possibility of a threat either quantitatively or qualitatively (Pambudi, 2020) which is divided into three stages of the process: Risk identification (risk identification), Risk analysis (risk analysis) and Risk evaluation (risk evaluation).

Personnel Capability

The definition of capability is the ability possessed by a person to carry out his duties and responsibilities on a specific job. There are four main points in capability development,

namely: Knowledge; Ability (skill); Experience; and individual attitudes which are traits that can help achieve organizational goals, to ensure the assigned tasks will be carried out as well as possible (Hutapea and Thoha in Ardiansyah, 2014). Several things needed to determine the level of experience of an employee are number of years of service, knowledge, skills and mastery of work and equipment (Megantoro in Hariadi-DP, A., 2020). Personnel capabilities are needed by an organization in order to meet organizational goals and achieve good performance.

Total Quality Management (TQM)

TQM is a scheme to maximize organizational competitiveness by continuously improving products, services, processes, human resources and the environment (M.N. Nasution in Rumambi, 2019). There are two sides of TQM, Soft Side and Hard Side. The Soft Side focuses on efforts to increase employee awareness regarding the importance of the of interested parties satisfaction and increase commitment to continuously improve quality. The Hard Side consists of efforts to improve service processes starting from the product design process, the use of quality control tools and other systemic or organizational changes. The indicators that can be used in the implementation of Hard-TQM are Statistical Process Control (SPC), quality tools and techniques (QC tools), product design, benchmarking and continuous improvement (Sutrisno, 2019) and (Saleh and Sweis, 2017).

The hypothesis and framework of this research are:

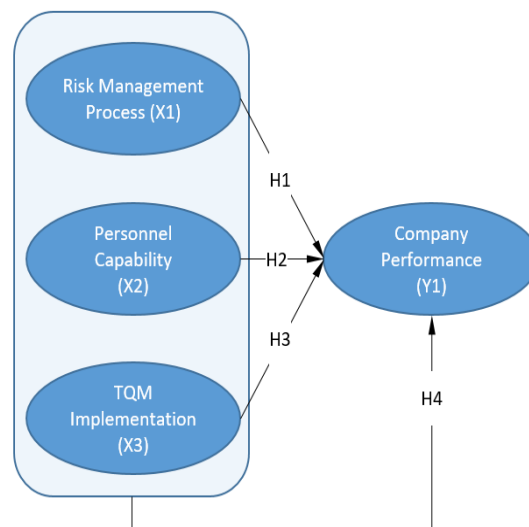


Figure 1. Conceptual Framework

H1: Risk management process affects the company performance

H2: Personnel capability affects the company performance

H3: TQM implementation affects the company performance

H4: Risk management process, personnel capability and TQM implementation affect the company performance simultaneously

RESEARCH METHODS

This research uses a quantitative approach, primary and secondary data were obtained from questionnaires and literature study. The sampling technique was non-probability

sampling, surveyed 74 respondents refer to the calculation of the Slovin formula. The data analysis method used were validity test, reliability test, classical assumption test, t-test and f-test using SPSS version 26 data processing software.

FINDINGS AND DISCUSSION

Findings

There are 43 indicators in this research for validity test, at a significance value of 5%, valid questionnaire items should have a value of $r_{\text{test}} > r_{\text{table}}$. Table 1 shows that the r_{test} of all questionnaire items were greater than the r_{table} value of 0.2257 indicating that all the indicators were valid.

Table 1. Validity test result

Variable		r_{test}	Variable		r_{test}	Variable		r_{test}
Risk Management Process (X1)	X1.1.1	0.786	Personnel Capability (X2)	X2.1.1	0.608	Company Performance (Y1)	Y1.1.1	0.634
	X1.1.2	0.779		X2.1.2	0.533		Y1.1.2	0.607
	X1.2.1	0.707		X2.2.1	0.601		Y1.1.3	0.685
	X1.2.2	0.761		X2.2.2	0.647		Y1.2.1	0.680
	X1.2.3	0.765		X2.3.1	0.664		Y1.2.2	0.687
	X1.3.1	0.729		X2.4.1	0.727		Y1.2.3	0.615
	X1.3.2	0.806		X2.4.2	0.635		Y1.2.4	0.730
	X1.3.3	0.749	TQM Implementation (X3)	X3.1.1	0.764		Y1.2.5	0.660
	X1.3.4	0.754		X3.2.1	0.760		Y1.2.6	0.700
	X1.3.5	0.767		X3.3.1	0.773		Y1.3.1	0.640
	X1.3.6	0.701		X3.4.1	0.816		Y1.3.2	0.642
	X1.4.1	0.751		X3.5.1	0.747		Y1.3.3	0.543
	X1.4.2	0.747					Y1.3.4	0.710
	X1.5.1	0.758					Y1.4.1	0.590
							Y1.4.2	0.522
							Y1.4.3	0.649
							Y1.4.4	0.630

Cronbach's alpha formula is used for reliability test. At significance level 0.05, instruments with Cronbach's alpha value > 0.7 are reliable. Refer to table 2, all questionnaire items are reliable.

Table 2. Validity test result

	<i>Cronbach's Alpha</i>	Remarks
Risk Management Process	0.941	Reliabel
Personnel Capability	0.749	Reliabel
TQM Implementation	0.827	Reliabel
Company Performance	0.910	Reliabel

Normality test was carried out with the 1-sample Kolmogorov Smirnov to determine the residual or unstandardized residual value. The regression model is normally distributed if the Asymp. Sig. < 0.05 . The conclusion based on table 3 below is the regression model are normally distributed with Asymp. Sig. value 0.200.

Table 3. Normality test result

N		74
Normal Parameters ^{a,b}	Mean	0
	Std. Deviation	0.33249059
Most Extreme Differences	Absolute	0.073
	Positive	0.045
	Negative	-0.073
Test Statistic		0.073
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Durbin-Watson test was used as autocorrelation test. If the value of d (durbin-watson) is between dU and (4-dU) it is concluded that there is no autocorrelation between the observational data. Referring to the Durbin-Watson table and the processed data, it can be concluded that the value of d lies between dU and 4-dU with the conclusion that there is no autocorrelation.

Table 4. Autocorrelation test result

dL	dU	d	4-dU	4-dL
15,397	17,079	1,777	22,921	24,603

Heteroscedasticity test was carried out with Glejser test. Heteroscedasticity does not occur if the significance value (Sig.) between the independent variables and the absolute residual is > 0.05 . As shown by table 5 it can be concluded that all the significance values of the independent variables are greater than 0.05 indicating there is no heteroscedasticity.

Table 5. Heteroscedasticity test result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-0.334	0.195		-1.709	0.092
X1	0.023	0.072	0.061	0.315	0.754
X2	0.017	0.072	0.039	0.231	0.818
X3	0.107	0.063	0.298	1.713	0.091

Multi-collinearity does not occur if the VIF value does not exceed 10 and the Tolerance value is > 0.1 . According to table 6, the VIF value of all independent variables is less than 10 and the Tolerance value is greater than 0.1 indicating there is no multi-collinearity.

Table 6. Multi-collinearity test result

Model	Collinearity Statistics	
	Tolerance	VIF
1 X1	0.332	3.014
X2	0.434	2.303
X3	0.407	2.457

Hypothesis test was conducted using multiple regression analysis. Results of t-test, it is known that the t_{test} of the risk management process variable is -0.414 which is smaller than t_{table} (1.997) and a significance value of 0.680 which is greater than 0.05. This means that the risk management process has a negative and insignificant effect to company performance. The

t_{test} value of the personnel capability variable is 3.629 with significance value 0.001, while the t_{test} value of the TQM implementation variable is 2.133 with significance value of 0.036. This means that personnel capabilities and the application of TQM have a positive and significant impact on company performance.

Table 7. Regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	1.291	0.340	3.801	0.000
	X1	-0.052	0.125	-0.414	0.680
	X2	0.455	0.125	3.629	0.001
	X3	0.232	0.109	2.133	0.036

From table 7 above, the regression equation is $Y1 = 1.291 - 0.052 X1 + 0.455 X2 + 0.232 X3 + \varepsilon$. If we assume the absence of the risk management process (X1), personnel capability (X2) and implementation of total quality management (X3), the company performance value is 1,291 units according to the constant value. The regression coefficient of the risk management process (X1) is -0.052 which is negative and not significant to the company's performance (Y1). The personnel capability regression coefficient (X2) is 0.455, which is positive and significant to the company's performance (Y1). The regression coefficient of the implementation of TQM (X3) is 0.232, which is positive and significant to the company's performance (Y1). This means that if the capability of personnel and the application of TQM increases, the company's performance will also increase.

The value of f_{test} is 18.961 which is greater than f_{table} of 2.73, with a significance value of 0.000 (less than 0.05). The conclusion of the f-test is risk management process, personnel capabilities and the implementation of TQM have a positive and significant effect on the company's performance simultaneously.

Table 8. F-test result

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.558	3	2.186	18.961
	Residual	8.070	70	0.115	
	Total	14.628	73		

Adjusted R Square value is 0.425, it can be interpreted that the effect of risk management processes, personnel capabilities and TQM implementation simultaneously on company performance is 42.5% and the rest is influenced by other variables not included in this research framework.

Table 9. Coefficient determination test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.670 ^a	0.448	0.425	0.33954

Results of statistical processing to test the research hypotheses are obtained in table 10 as follows:

Table 10. Hypothesis test

No.	Research Hypothesis	Conclusion
1	H1 : Risk management process (X1) affects the company performance (Y1)	Rejected
2	H2 : Personnel capability (X2) affects the company performance (Y1)	Accepted
3	H3 : TQM implementation (X3) affects the company performance (Y1)	Accepted
4	H4 : Risk management process (X1), personnel capability (X2) and TQM implementation (X3) affect the company performance simultaneously (Y1)	Accepted

Discussions

- 1) From the hypothesis test, it is known that the effect of the risk management process (X1) on the company's performance (Y1) is negative and insignificant which shows there is no significant effect of the risk management process on the company's performance. The results of this study are in accordance with previous research conducted by Sudaryono (2012) which states that the company's risk management has no significant effect on performance. From these results it can be concluded that the implementation of the risk management process in the company is still unsatisfactory so it does not affect the company's performance. From the results of respondents' answers, it is known that the risk management process has been carried out at all levels and business units but still not in line with the company's vision, mission and strategic plans. Risk management process needs to be more streamlined to be in line with the process of actualizing the company's strategic plans, be more properly internalized to make it as a default process that must be carried out before the implementation any activities to minimize risks and improve performance.
- 2) The effect of personnel capability (X2) on company performance (Y1) is positive and significant. This result shows that there is a significant influence of personnel capabilities on company performance, in the sense that increasing personnel capabilities will also improve company performance. This result is supported by the results of research conducted by previous researchers which state that personnel capability is one of the needed factor in the company's innovation capability in creating products that meet customer expectations (Momeni and Nielsen, 2016), personnel capabilities have a strong relationship with significant effect on customer satisfaction and has a positive effect on the company's ability to retain its customers (Darzi and Bhat, 2018). From the results of the respondents' answers, it can be seen that the indicator of suitability of work experience with the tasks and responsibilities given is the main thing that affects the capability of personnel. The employee discipline needs to be improved in order to support the improvement of the company's performance. In addition, the education level and the number of experience or years of service are indicators that have a high influence on performance.
- 3) The effect of implementing TQM (X3) on company performance (Y1) from the research results is positive and significant. With the increasing implementation of TQM it will also improve the company's performance. These results are in accordance with the studies of Sadikoglu and Zehir (2010), Sutrisno (2019), Fotopoulos and Psomas (2010),

Prayhoego (2013) and Saleh & Sweis (2017) which found the importance of implementing TQM in a sustainable manner due to its positive impact on company performance, and Mehralian et al (2017) who concluded that the application of TQM positively and significantly affects the Balanced Scorecard. From the results of the questionnaire, it is known that at the product development stage, all aspects related to product specifications and processes have been identified before the product is launched to the market to maintain its quality, but the effectiveness of usage of quality tools and techniques in the company needs to be improve. Things such as performance comparisons, comparative studies or benchmarking, continuous improvement also have a high correlation with indicators on company performance variables.

- 4) Referring to the results of hypothesis testing, it can be concluded that simultaneously the risk management process, personnel capability and TQM implementation have a positive and significant impact on company performance as seen from the R-Square value of 0.448 or 44.8% which indicates that the effect of that three variables is more significant than relying on only one independent variable. The increase of risk management processes, personnel capabilities and the implementation of TQM will improve the performance of the company.

CONCLUSION AND RECOMMENDATION

Based on the research results, it can be concluded that the risk management process does not have a significant effect on the company's performance, which indicates that the risk management process does not directly affect the company's performance. Personnel capability and TQM implementation have a positive and significant impact on company performance. Simultaneously, the risk management process, personnel capability and the application of TQM have a positive and significant effect on the company's performance, which shows that the effect of these three variables together is more significant on the company's performance compared to only one variable.

Based on the conclusions above, is it suggest to implement policies that can improve employee capabilities with training programs related to digitalization of business processes, statistical techniques and training related to risk control, while providing motivation to each employee to be actively contributes improvement ideas and innovations to boost company performance collectively. The implementation of TQM needs to be carried out more effectively so that all forms of failure can be detected early and prevent greater losses by applying quality analysis tools more comprehensively. The risk management process needs to be supported by the development of good personnel capabilities and the application of appropriate statistical techniques to support risk identification and determination of continuous improvement plans to improve company performance.

BIBLIOGRAPHY

- Darzi, M. A., & Bhat, S. A. (2018). *Personnel capability and customer satisfaction as predictors of customer retention in the banking sector: A mediated-moderation study*. International journal of bank marketing.

- Fotopoulos, C. B., & Psomas, E. L. (2009). *The impact of “soft” and “hard” TQM elements on quality management results*. International Journal of Quality & Reliability Management.
- Hariadi-DP, A. (2020). *Improvement of Project Performance Through Planning, Team Capability, Procurement of Materials, and Work Scope Case Study in the MRO Project*. International Journal of Research In Commerce and Management Studies.
- Mahardika, K. B., Wijaya, A. F., & Cahyono, A. D. (2019). *Manajemen Risiko Teknologi Informasi Menggunakan ISO 31000: 2018 (Studi Kasus: CV. XY)*. Sebatik, 23(1), 277-284.
- Mehralian, G., Nazari, J. A., Nooriparto, G., & Rasekh, H. R. (2017). *TQM and organizational performance using the balanced scorecard approach*. International Journal of Productivity and Performance Management.
- Momeni, M., & Nielsen, S. B. (2016). *Impact of personnel capabilities on organizational innovation capability*. Journal of Management and Innovation, 2(2).
- Muute, N. C. (2019). *Project Planning Practices And Performance Of Construction Projects In Nairobi City County, Kenya* (Doctoral dissertation, Kenyatta University).
- Permana, G. R., & Suraida, I. (2018). *Pengaruh Kapabilitas Personal Dan Dukungan Manajemen Puncak Terhadap Kinerja Sistem Informasi Akuntansi (Survey pada PT INTI (Persero))* (Doctoral dissertation, Perpustakaan Fakultas Ekonomi dan Bisnis Unpas Bandung).
- Prayhoego, C. A. (2013). *Analisa Pengaruh Total Quality Management Terhadap Keunggulan Bersaing dan Kinerja Perusahaan*. Business Accounting Review, 1(2), 236-245.
- Rumambi, R. H. (2019). *Pengaruh Total Quality Management (Tqm), Kepemimpinan, Dan Produktifitas Terhadap Kinerja Perusahaan Pada Pt. Kita Bisa Teknologi* (Doctoral Dissertation, Universitas Mercu Buana).
- Sadikoglu, E., & Zehir, C. (2010). *Investigating the effects of innovation and employee performance on the relationship between total quality management practices and firm performance: An empirical study of Turkish firms*. International journal of production economics, 127(1), 13-26.
- Sudaryono, B. (2012). *Analisis Manajemen Risiko Perusahaan (Enterprise Risk Management) Dan Kepatuhan (Compliance) Terhadap Kinerja Perusahaan*. Media Riset Bisnis & Manajemen, 12(3), 180-198.
- Vorst, Charles R., D.S. Priyarsono dan Arif Budiman. (2018). *Manajemen Risiko Berbasis SNI ISO 31000*. Penerbit Badan Standarisasi Nasional.
- Wijaya, E. K., Setyowati, E. W., & Zaika, Y. (2018). *Analisis Pengendalian Risiko Terhadap Peningkatan Kinerja Pekerjaan Konstruksi (Studi Kasus Asrama Haji Gorontalo)*.