Analysis Of The Effect Of Knowledge Sharing By Mediating The Implementation Of ISO 9001:2015 Quality Management System On Employee Performance At Semboro Sugar Factory

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ABSTRACT

Semboro Sugar Factory has implemented ISO 9001:2008 Quality Management System (QSM) since 2013 and changed its version to ISO 9001:2015 in 2016. In practice, the implementation of ISO 9001:2015 QSM has not been fully understood and used as a work guideline by employees, especially at the level of implementing employees. Until now, there has been no real effect from the implementation of the certification. This study aims to test and analyze the effect of knowledge sharing by mediating the implementation of ISO 9001:2015 QSM on the performance of employees Semboro Sugar Factory. The population in this study was employees Semboro Sugar factory. The sample in this study amounted to 130 respondents. In this study, researchers selected a sample from the population of permanent and non-permanent employees. The data analysis method in this study uses path analysis using the help of the Windows SPSS program. Based on the results of data analysis, it shows that knowledge sharing does not have a significant effect on employee performance. In addition, the results of this study also show that knowledge sharing variables have a strong enough influence on employee performance with the mediation of ISO 9001: 2015 Quality Management System variables.

Keywords : Knowledge Sharing, ISO, Quality Management System, Employee Performance

1. INTRODUCTION

Indonesia had experienced the heyday of the sugar industry in the 1930s during the Dutch East Indies colonial government. This industry, which has been present in Indonesia for hundreds of years, has brought Indonesia to become the second largest sugar exporter in the world after Cuba. At that time, production reached around 3 million tons with a yield of 11% - 13%, so that the sugar industry exported 2.4 million tons (https://ptpn11.co.id/berita/masa-kejayaan-industri-gula-indonesia).

According to data from the Indonesian Sugar Association (AGI, 2021), domestic raw sugar production has tended to decline in the last three years. In 2016, raw sugar production was 2.21 million tons, a decrease compared to the previous year which reached 2.48 million tons. This decrease in production resulted in an increase in the number of imports of raw sugar which reached 3.76 million tons in 2016. The sugar import policy is aimed at meeting national sugar needs, through Regulation of the Minister of Trade of the Republic of Indonesia Number: 117/M-Dag/Per/12/2015 Concerning Provisions Import of Sugar, allows new sugar factories to import raw materials in the form of raw sugar within a certain period of time. The raw sugar import quota in 2017 reached 3.4 million tons with a production target of 2.7 million tons.

In QMS ISO 9001:2015 there are several clauses whose application relates to innovation performance, namely in clause 8 (eight), which includes: Monitoring and Measurement, Control of Non-Conforming Products, Data Analysis and Improvement. PG. Semboro as a company that deals directly with stakeholders, has a labor-intensive management with a fairly high number of employees. This is because there is still customer disappointment with administrative and financial services, there are still employees who have never been involved in training in their field of work, so that employee competence still needs to be improved. The problems in this study can be formulated, namely whether Knowledge Sharing has a significant effect on the Implementation of ISO 9001:2015 QMS, and the performance of employees at PG. Semboro, on the other hand, does the implementation of ISO 9001:2015 QMS have a significant effect on employee performance, as well as mediate the influence of Knowledge Sharing at PG. Semboro.

2. RESEARCH METHODS

2.1 Place and time of research

This research was conducted in PG. Semboro, Jember Regency, East Java Province with the consideration that it is one of the large sugar factories within the current scope of PTPN XI.

2.2 Population, Sample and Sampling

The population in this study were permanent employees and non-permanent employees in the PG milling period (DMG). Semboro is part of the off farm (Engineering, Processing and Quality Assurance) with a total of 193 people. (Data from the HR Department of PG. Semboro, 2021).

As research in the social sciences, the researcher uses a 95% confidence level in sampling, that is, believes that 95% of the research results are correct, or a significance level of 0.05 (there will only be 5% error because "true" happens). With a population of 193 people and 5% error tolerance, the number of samples is set at 130 with ($n = N / (1 + Ne^2) = 193 / (1 + 193 \times 0.05^2) = 130.19 \square 130$). Based on the results of calculations using the Slovin formula, the number of samples in this study were 130 respondents.

In this study, the researcher chose a sample from the population of permanent and non-permanent employees in the PG milling period (DMG). Semboro part of the off farm (Engineering, Processing and Quality Assurance) in each stratum (Permanent Employees Groups 1, 2, 3, 4, Outsourcing, PKWT and Non-Permanent Employees) randomly with the formula $n = (class population \div total population) x$ the number of samples is determined.

2.3 Method of collecting data

The method of collecting data in research is a method or method used by researchers to obtain data in a study. The data collection method used by researchers in this study is as follows:

- 1. This questionnaire is in the form of a closed questionnaire consisting of two parts. The first is the respondent's personal data.
- 2. Interviews are a question-and-answer process to obtain information face to face with respondents or related parties to support the data obtained through questionnaires.
- 3. Observation is an observation to obtain data directly to the object of research so that they can see closely about the things that are the purpose of the observation.
- 4. Literature reviews the process of conducting an overview of previously published literature on diverse topics. (<u>https://www.gramedia.com/literasi/studi-pustaka/</u>)
- 5. Documentation is the collection of data from research sites, which include relevant books, regulations, activity reports, photographs, documentaries, and data from previous studies that are relevant to the problem or research objective.

The Likert scale is a psychometric scale used in the questionnaire. The Likert scale is a technique that can be used in evaluating a program or planning policy. In the Likert Scale there are two forms of statements, namely positive statements which function to measure positive attitudes, and negative statements which function to measure negative attitudes of objects. Positive statement scores start from 1 for strongly disagree (STS), 2 for disagree (TS), 3 for undecided (R), 4 for agree (S), and 5 for strongly agree (SS). Negative statement scores start from 1 for strongly agree (SS), 2 for agree (S), 3 for undecided (R), 4 for agree (S), 3 for undecided (R), 4 for disagree (TS), and 5 for strongly disagree (STS). Some remove the "Doubtful" option in the instrument to make it easier to see the questionnaire that the respondent filled out.

2.4 Data analysis method

The instrument is said to be valid if it can be used to measure what is to be measured (Sugiyono, 2011: 133). A valid meter can be used to measure length accurately, because a meter is indeed a tool for measuring length and becomes invalid if it is used to measure weight.

3. RESEARCH RESULTS AND DISCUSSION

3.1 Respondents' Assessment of Knowledge Sharing (X1)

Table 1 Respondents' Assessment of Knowledge Sharing

Items	Statement	1 STS	2 TS	3 RR	4 S	5 SS	Mo- dus
Z1.1	The company identifies quality aspects with quality management	0	0	5	67	58	4
		0	0	3.8%	51.5%	44.6%	
Z1.2	The company conducts training for employees in relation to production quality	0	1	5	65	59	4

Items	Statement	1	2	3 RR	4 S	5 SS	Mo- dus
		STS	TS				
		0	0.8%	3.8%	50.0%	45.4%	
Z1.3	The company conducts periodic audits of SOP compliance	0	1	9	65	55	4
		0	0.8%	6.9%	50.0%	42.3%	
Z2	Organizational Commitment						
Z2.1	There is a commitment from top management towards the development and improvement of QMS	0	0	7	70	53	4
		0	0	5.4%	53.8%	40.8%	
Z2.2	There is a commitment from middle management towards the development and improvement of QMS	0	0	8	71	51	4
		0	0	6.2%	54.6%	39.2%	
Z2.3	Employees support QMS development and improvement	0	0	5	71	54	4
		0	0	3.8%	54.6%	41.5%	
Z3	Application of Procedures						
Z3.1	The company conducts periodic audits	-	2	30	79	14	4
		0	0	8.5%	54.6%	36.9%	
Z3.2	The company is considered to have and fulfill compliance with standard procedures	0	1	6	73	50	4
		0	0.8 %	4.6 %	56.2 %	38.5%	
Z3.3	The company implements corrective and preventive actions	0	1	9	78	42	4
		0	0.8 %	6.9 %	60.0 %	32.3%	
	The Average Perception Index Z						4

Source: Appendix 3

There are three indicators of the ISO 9001:2015 Implementation variable with nine statement items. In general, it can be explained that of the 130 respondents, the statement items scored at most 4 (Agree) and 5 (Strongly Agree). Based on the description of the data presented in Table 4.9, it is obtained that the average of all indicators in the ISO 9001:2015 Implementation statement is perceived by PG employees. Semboro who was the respondent was 4. Assessment of PG employees. Semboro who has the most respondents (mode) agree. Only a small number of respondents expressed doubts and disagreed with the statements made in the research questionnaire.

In detail, the respondents' answers to each statement can be explained as follows: 1) In the first statement, 51.5% of respondents gave answers that agreed and 44.6% strongly agreed. This shows that the Company identifies quality aspects with quality management.

Respondents' responses to the second statement gave a response of 50% agreeing and 45.4% strongly agree. This shows that the Company conducts training for employees in relation to production quality. 3) Respondents' response to the third statement was not much different from the second, the composition of 50% agreed and 42.3% strongly agreed. It shows that the Company conducts periodic audits of SOP compliance. The next respondent's answer, 4) Respondents' response to the fourth statement with a composition of 53.8% agreed and 40.8% strongly agreed. It shows that there is a commitment from top management towards the development and improvement of QMS. 5) Respondents' responses to the fifth statement with a composition of 54.6% agreed and 39.2% strongly agreed. This means that there is a

commitment from middle management towards the development and improvement of QMS. 6) Respondents' responses to the sixth statement with a composition of 54.6% agreed and 41.5% strongly agreed. It shows that employees support QMS development and improvement. 7) Respondents' responses to the seventh statement with the composition of the respondents' results were 54.6% agreed and 36.9% strongly agreed. It shows that the Company conducts periodic audits. 8) Respondents' responses to the eighth statement with the composition of the respondents' results were 56.2% agreed and 38.5% strongly agreed. It shows that the Company is considered to have and complied with standard procedures. 9) Respondents' responses to the ninth statement with the composition of the results of the respondents were 60% agreed and 32.3% strongly agreed.

3.2 Respondents' Assessment of Employee Performance (Y)

Table 2 Respondents' Assessment of Employee Performance

Items	Statement	1 STS	2 TS	3 RR	4 S	5 SS	Mo- dus
	0.8%	0	6.2%	54.6%	38.5%		
Y2	Employees are able to complete work quickly	0	0	16	69	45	4
		0	0	12.3%	53.1%	34.6%	
¥3	Employees have theoretical and practical knowledge about their work	0	1	10	61	58	4
		0	0.8%	7.7%	46.9%	44.6%	
Y4	Employees are able to work well together, both in one section and between sections	1	1	4	58	66	5
		0.8%	0.8%	3.1%	44.6%	50.8%	
Y5	Employees are able to do the job properly	0	0	10	66	54	4
		0	0	7.7%	50.8%	41.5%	
	Average Perception Index Y						4,2

Source: Appendix 3

It can be explained that there are 5 indicators of employee performance variables with item 5 statements. From the above data it is generally known that of the 130 employees of PG. Semboro who was the respondent answered the most statements with a score of 4 (Agree) and 5 (Strongly Agree). Based on the description of the data presented in Table 4.10, the average of all Employee Performance statements as perceived by respondents is 4.2. PG employee assessment. Semboro who has the most respondents (mode) agrees. Only a small number of respondents expressed doubts and disagreed with the statements made in the research questionnaire.

In detail, the respondents' answers to each statement can be explained as follows: 1) In the first statement, 54.6% of respondents gave answers that agreed and 38.5% strongly agreed. This shows that employees are able to complete the amount of work given by superiors. 2) Respondents' responses to the second statement gave a response of 53.1% agreeing and 34.6% strongly agree. This shows that employees are able to complete work quickly. 3) Respondents' response to the third statement was not much different from the second, the composition of 46.9% agreed and 44.6% strongly agreed. It shows that employees have theoretical and practical knowledge about their work. The next respondent's answer, 4) Respondents' response to the fourth statement with a composition of 44.6% agreed and 50.8% strongly agreed. It shows that employees are able to work well together, both in one section and between sections. 5) Respondents' responses to the fifth statement with a composition of 50.8% agreed and 41.5% strongly agreed. This means that employees are able to do the job properly.

4. CONCLUSION

Based on the results of the research and discussion of the hypotheses that the researchers put in the conceptual framework with the variables of knowledge sharing, employee performance, and the ISO 9001: 2015 quality management system which are interrelated with each other, it can be concluded that in general from each construct that is hypothesized are as follows:

1. The Knowledge Sharing variable has a significant effect on the Quality Management System ISO 9001:2015 PG. Semboro.

- 2. The Knowledge Sharing variable has no significant effect on PG Semboro Employee Performance.
- 3. The ISO 9001:2015 Quality Management System implementation variable has a significant effect on the performance of PG Semboro employees.
- The Knowledge Sharing variable has a strong influence on Employee Performance through the mediation of ISO 9001:2015 Quality Management System variables.

5. REFERENCES

Al Rasyid, Harun Kismantoroadji. 2005. Statistika Sosial. Bandung: Program. Pasca Sarjana UNPAD.

- Andrawina, Luciana., Rajesri Govindaraju., TMA Ari Samadhi., dan Iman Sudirman. 2008. Hubungan Antara Knowledge Sharing Capability, Absorptive Capacity dan Mekanisme Formal: Studi Kasus Industri Teknologi Informasi Dan Komunikasi di Indonesia. Jurnal Teknik Industri Vol. 10, No. 2, Desember 2008: 158-170.
- Aziz, Anhar. 2009. Pengaruh Penerapan Sistem Manajemen Mutu ISO 9001:2008 Terhadap Kinerja Pegawai Dengan Pemberian Insentif dan Kepuasan Kerja Sebagai Variabel Mederating di PT (Persero) Pelabuhan Indonesia. Tesis. Medan: Sekolah Pasca Sarjana Universitas Sumatera Utara.
- Al-Refaie, A. dan O. Ghnaimat. 2012. Effects of ISO 9001 Certification and KAAE on Performance of Jordanian Firms. Jordan Journal of Mechanical and Industrial Engineering. 6(1): 45-53.
- Allen & Meyer. 1997. Commitment in The Workplace (Theory, Research and Application). Sage Publication London.

Amirin, T. .2011. Populasi Dan Sampel Penelitian 4: Ukuran Sampel Rumus Slovin. Jakarta: Erlangga.

- Aziz, Anhar. 2009. Pengaruh Penerapan Sistem Manajemen Mutu ISO 9001:2008 Terhadap Kinerja Pegawai Dengan Pemberian Insentif dan Kepuasan Kerja Sebagai Variabel Mederating di PT (Persero) Pelabuhan Indonesia. Tesis. Medan: Sekolah Pasca Sarjana Universitas Sumatera Utara.
- Cushway, Barry. 1996. Human Resource Management. Jakarta: PT Elex Media Komputindo.
- Dalkir, K. 2011. Knowledge Management in Theory and Practice. Burlington, MA, Elsevier Butterworth-Heinemann.
- Davila, A., G. Foster, and D. Oyon. 2006. Accounting and Control, Entrepreneurship, and Innovation: Venturing into New Research Opportunities. European Accounting Review, 18: 281-311.
- De Jong, J., & Den Hartog, D. .2007. How leaders inf luence employee's innovative behavior. European. Journal of Innovation Management. Vol. 10, No. 1, 41-64.
- De Jong, J.P.J., Kemp, R. .2003. Determinants of co-worker's innovative behaviour: An investigation into knowledge intensive services. International Journal of Innovation Management. Vol. 7, No.2, 189-212.
- Edy, Sutrisno, .2016. Manajemen Sumber Daya Manusia, Kencana Prenada Media Group, Jakarta
- Ferdinand, Augusty. 2014. Metode Penelitian Manajemen. BP Universitas Diponegoro. Semarang.
- Firdaus, M. 2019. Ekonometrika: Suatu Pendekatan Aplikatif. Edisi Ketiga. Cetakan Pertama, Jakarta: PT. Bumi Aksara.
- Firmansyah, Irman. 2014. Determinant of Non-Performing Loan: The Case of Islamic Bank in Indonesia. Jurnal Buletin Ekonomi Moneter dan Perbankan. Vol. 17 No. 2, Oktober 2014, Halaman 241-258.
- Firmaiansyah, D. 2014. Pengaruh Berbagi Pengetahuan Terhadap Kinerja Karyawan Melalui Inovasi. Jurnal Ilmu Manajemen. 2(1): 128-139
- Gaspersz, V. 2002. Total Quality Management. Jakarta: Gramedia Pustaka Utama
- Ghozali, Imam. 2014. Aplikasi Analisis Multivariate dengan Program SPSS, Edisi Keempat. Penerbit Universitas Diponegoro.
- Gibson, J. S. dan M. John. 1997. Organisasi, Prilaku Struktur dan Proses. Edisi ke- 5. Jakarta: Erlangga
- Gitosudarmo, Indriyo dan Mulyono, Agus. 1996. Prinsip Dasar Manajemen. Edisi Ketiga. Cetakan Ketiga. BPFE. Yogyakarta.

Glassop, L.I. 2002. The Organizational Benefits of Teams. Human Relations 55 (2), 225±249

- Hadiati, S. 2007. Pengaruh Faktor-Faktor Manajemen Mutu Terpadu Terhadap Proses Bisnis Internal dan Keunggulan Bersaing Industri Manufaktur yang Memperoleh ISO 9000 Di Jawa Timur. Jurnal Manajemen dan Kewirausahaan. 9(2): 144-154
- Helmi, Fadila Avin dan Elita, Yessi. .2013. Efikasi Diri, Sistem Imbalan dan Berbagai Pengetahuan: Meta-Analisis, Buletin Psikologi Fakultas Psikologi Universitas Gajah Mada, 20 (1), 41-58.
- Hooff, V.D., and Ridder, J.A. 2004. Knowledge Sharing in Context: The Influence of Organizational Commitment, Communication Climate and CMC use on Knowledge Sharing. Journal of Knowledge Management. 11(1): 13-24
- Jang, W. Y. dan C. I. Lin. 2008. An Integrated Framework For ISO 9000 Motivation, Depth Of ISO Implementation And Firm Performance. The Case Of Taiwan. Journal of Manufacturing Technology Management. 19(2): 194-216

Kuncoro, Mudrajad. 2003. Metode Riset untuk Bisnis dan Ekonomi. Jakarta: Erlangga

- Lumbantobing, Paul. 2011. Manajemen Knowledge Sharing Berbasis Komunitas, Knowledge Management Society Indonesia. Bandung.
- AA. Anwar Prabu Mangkunegara, 2017, Manajemen Sumber Daya Manusia Perusahaan, Remaja Rosdakarya, Bandung Messman (2012)

Nasution, M. N. .2005. Manajemen Mutu Terpadu: Total Quality Management, Edisi Kedua, Ghalia Indonesia, Bogor

- Nawawi, Ismail.2012. Manajemen Pengetahuan (Knowledge Management). Bogor: Ghalia Indonesia.
- Nawawi. H. 2003. Manajemen Sumber Daya Manusia Untuk Bisnis yang Kompetitif. Yogyakarta: Gadjah Mada University Press.
- OECD dan Eurostat. 2005. Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data (3rd ed.). Paris: OECD Publishing.
- Priyatno, Duwi. 2012. Cara Kilat Belajar Analisis Data dengan SPSS 20. Yogyakarta: CV. ANDI OFFSET (ANDI).
- Pamungkas, S. Chandra. 2015. Pengaruh Penerapan ISO 9001:2008 Terhadap Kinerja Pegawai Sekretariat Daerah Pemerintahan Kota Malang. Artikel Tidak Dipublikasikan. Malang: Universitas Brawijaya.
- Prakosa, B. 2005. Pengaruh Orientasi Pasar, Inovasi Dan Orientasi Pembelajaran Terhadap Kinerja Perusahaan Untuk Mencapai Keunggulan Bersaing (Studi Empiris Pada Industri Manufaktur Di Semarang). Jumal Studi Manajemen & Organisasi. 2(1)
- Purba, D. Tiur, dan S. Khawarita. 2014. Analisis Pengaruh Sistem Manajemen Mutu ISO 9001:2008 Terhadap Kinerja Karyawan Di PT. X. e-Jurnal Teknik Industri. FT USU 1(1):58-63.

Riduwan. 2017. Skala Pengukuran Variabel-variabel Penelitian. Bandung: Alfabeta.

- Riduwan dan Kuncoro, E. A. 2017. Cara Menggunakan dan Memakai Path Analysis (Analisis Jalur). Bandung: Alfabeta.
- Rino. 2012. Pengaruh Teknologi Informasi Smart Kampus, Implementasi Sistem Manajemen Mutu ISO 9001:2008 Dan Skill Kepemimpinan Terhadap Knowledge Management, Motivasi Kerja Dan Kinerja Dosen Universitas Negeri Padang. Artikel Tidak Dipublikasi. Padang: Universitas Negeri Padang.

Robbins, S. P. 2003. Organizational Behavior.Ninth Edition. New Jersey: Prentice Hall International Inc.

Robbins, S.P. dan Judge, T.A. (2008). Perilaku Organisasi Edisi (12 ed.). Jakarta: Salemba Empat. Robbins, S. P. 2003. Organizational Behavior. Ninth Edition. New Jersey: Prentice Hall International Inc.

Rogers, M, 2003. Diffusions of Innovations, Forth Edition. New York: Tree Press Elizabeth (2014)

Samuel, H dan J. Zulkarnain. 2012. Pengaruh Sistem Manajemen Mutu ISO Terhadap Kinerja Karyawan Melalui Budaya Kualitas Perusahaan. Jurnal Ilmu Manajemen. 4(2): 516-537.

Setiarso, Bambang, dkk., 2006. Berbagi Pengetahuan, Siapa Yang Mengelolah Pengetahuan,

Sugiyono. 2017). Metode Penelitian Kuantitatif Kualitatif dan R&D. Bandung: Alfabeta.

Suwarno, Yogi. 2008."Inovasi di Sektor Publik".STIA-LAN.Jakarta.

Torang, Syamsir .2014. Organisasi dan Manajemen.Bandung: ALFABETA

- Wang, Z. dan N. Wang. 2012. Knowledge Sharing, Innovation and Firm Performance. Department of Human Resource Management, School of Management. Expert Systems with Applications. 39: 8899-8908.
- West, P. dan Meyer. 1997. Communicated Knowledge As A Learning Foundation. International Journal of Organizational Analysis. 5(1): 25-58.
- Zakiyah. 2005. Pertumbuhan Berkelanjutan Dengan Sistem Manajemen Mutu ISO 9000 : Upaya Peningkatan Daya Saing Industri. Artikel Tidak Dipublikasi. Bogor: Institut Pertanian Bogor.