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Submission date: 01-May-2023 08:10AM (UTC+0700)

Submission ID: 2080275601

File name: AIP_Widhiya.pdf (543.37K)

Word count: 3496

Character count: 18670

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Cite as: AIP Conference Proceedings **2217**, 030045 (2020); <https://doi.org/10.1063/5.0000769>
Published Online: 14 April 2020

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Quality Assessment of COC (Code of Conduct) by SERVQUAL Method and IPA Model

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Abstract. Technology and knowledge development in globalization era are influence to all aspect through society life. A technology implementation which been applied in society such as education, government, transportation, communication, and others. On the other side, a modern technology is can not able to improve performance quality in every sector or instantiation. The important thing which can influence performance quality is about availability of human resources. Humans have more sophisticated abilities and flexibility to conduct performance evaluations. An example of human resources duties is COC (Code of Conduct) activity in PT. PLN. Its address to job evaluation, work evaluation, and solve the problems in company. SERVQUAL method is conducted in this research ind order to assess the service quality of COC (*Code of Conduct*). Score of SERVQUAL are combine with importance-performance analysis (IPA) model. On the other side, researcher give suggestion of improvement through the instrument of IPA diagram has lower scale which are not suitable to employees expectation. Researcher distributed thirty questionnaire to all employees. The questionnaire is fulfillment by using likert scale 1 to 5. According to the methods, the results of this research is giving improvement in the first quadrant of IPA diagram then analyze by using 5 whys analysis to know about cause and effect through the factors of COC (*Code of Conduct*). This study is expected to provide all employees by valuable insights through COC (*Code of Conduct*) activity thath reflect the employees' perceptions in order to make continous improvement.

INTRODUCTION

Technology and knowledge development can change the activities of human life. Both of company progress and challenge for company are important thing in the corporate world to face competition in globalization era. To face competition with others, a company is not enough to be merely depending on technology. There is another important element which is essential to compete in global era that is human resource. Human resource is needed by the company to be able to adapt with competitive situation. It is related to reason, feelings, desires, skills, and creation. Therefore, human contribution is strongly needed to determine the company's progress strategy [1]. The report in this paper discusses PT. PLN (Persero) one of a state-owned company in Indonesia. It is engaged in electricity such as operating the power plants and distributing the power by transmission to society all over Indonesia [2]. The researcher is going to discuss about the quality of human resource departement activity in PT. PLN Central Java and Special Region of Yogyakarta Distribution namely COC (*Code of Conduct*). COC (*Code of Conduct*) is a means to improve employees's performance in PT. PLN. This activity is a means of communication manager and staff. It generally discuss about company management, company problem, job evaluation, and employees's performance evaluation [3].

COC (*Code of Conduct*) activity is usually held minimum one time in one week, it is discuss about regional and national problems, and evaluate last week employees' work performance. The activity is held maximum thirty minutes by standing discussion. All employees in every scope should involved in COC (*Code of Conduct*) activity. By those activity, employee are expected to be an active person when deliver opinion. Therefore, COC (*Code of Conduct*) activity able to realize two-way communication between principal and staf. However, there is a passive person when involve in COC (*Code of Conduct*) activity. The reason of this research is about COC (*Code of Conduct*) activity that sometimes not routine scheduled, therefore researcher wants to know quality of COC (*Code of Conduct*) activity

through employees' performance satisfaction. There are previous research which the same topic in example [4], [5], and [6]. In this research, researcher assess the quality of COC (Code of Conduct) activity when giving solution for regional and national problems and also work evaluate. Quality assessment is shown in terms of the effectiveness of COC (Code of Conduct) in problem solving and assessing the activity of employees involved in COC (Code of Conduct). Employees of Distribution and Procurement fields and also Human Resource fields are involved in this research. Quality assessment is use by SERVQUAL (Service Quality) method and integrated to IPA (Importance-Performance Analysis) model to find out level of importance and performance of COC (Code of Conduct). Service quality is an important issue in company activity to show level of customer satisfaction. SERVQUAL method is developed by Parasuraman et.al. The quality of service assessed is expectations and results obtained. The results both of SERVQUAL method and IPA model already known, then evaluate by using 5 whys analysis. 5 whys analysis is a method to show cause and effect of the problem. After knowing both of cause and effect of the problem, 5 whys analysis is used to give solutions and also continuous improvement through COC (*Code of Conduct*) activity [7].

RESEARCH METHOD

SERVQUAL (Service Quality)

SERVQUAL (*Service Quality*) is a method introduced by Parasuraman et.al to measure service quality. Service quality is an assessment through how much the difference between customers' expectation and reality. Therefore, value of service quality may able to measure by difference of perception score and expectation score [8]. To assess service quality is more difficult then assess product quality, because of the service quality characteristics such as intangible, heterogen, and inseparability. The service quality concept which introduced by [9] has five dimensions, such as reliability, assurance, tangibles, empathy, and responsiveness [10]. SERVQUAL method has ten scale dimensions, then simplified into five dimensions. The fifth dimensions consists twenty two items of questions related to service quality. It will be assess and obtained measure score. The score is useful for discover gap value between importance and performance of service quality. The five dimensions of SERVQUAL consists of tangibles which involves physic facilities, equipments, and communication medium; reliability which involves ability to provide services accurately and satisfactorily; responsiveness which involves ability both of staff and employees when making a respond for problems; assurance which involves both of politeness and trustworthiness; and empathy which involves communication convenience [11].

IPA (Importance-Performance Analysis)

Importance-Performance Analysis is a model to assess level of company importance and performance. This model is introduced by [12] to improve the level of importance and performance by respondents obtained were then assessed for an average of both for analysis. Importance-Performance Analysis is a matrix which has four quadrant. The x ordinat is a perception value, then y ordinat for expectation value [13]. The fourth quadrant of IPA model consists of concentrate here, keep up the good work, low priority, and possibly overkill. These four quadrant can be describe by figure 1.

The first quadrant is concentrate here which located in upper left side of IPA diagram, it is described the sub-dimension in this quadrant means a high level of importance but its current performance is still low. Therefore, it will be priority for proposed improvement by service provider. The second quadrant is keep up with the good work which located in upper right side and described all statement in this quadrant has a good both performance and importance. Then, the sub-dimension has lower level of importance and performance called low priority as the third quadrant. It is located in below left side. This quadrant present about service provider may not focus to give proposed improvement. The last quadrant is possibly overkill. The sub-dimension which includes in this quadrant are not required for customer and service provider because excessive towards performance [14].

5 Whys Analysis

5 Whys analysis is a tools to identify cause of problems. It is introduced by Sakichi Toyoda as a founder Toyota Motor. The fisrt step of conduct 5 Whys analysis is obtained the reality problems and scope of problems. Then, make an iterations towards five whys questions and answered. It will be concluded that 5 whys analysis is an instrument to obtained root cause of reality problems [15].

TABLE I. Dimensions of SERVQUAL

Dimensions	Item Statements
<i>Tangible</i>	T1 1. COC (Code of Conduct) activity is easy to do by online and offline.
	T2 2. COC (Code of Conduct) is always monitored by online.
	T3 3. COC (Code of Conduct) activity involves all employees of PT. PLN Central Java & Special Region of Yogyakarta Distribution that convenient with their scope.
	T4 4. COC (Code of Conduct) always discussess news happening in society.
<i>Reliability</i>	R1 1. COC (Code of Conduct) activity can solve both national and regional problems.
	R2 2. COC (Code of Conduct) activity can evaluate employees' behavior.
	R3 3. As an employee, involvement in COC (Code of Conduct) may improve and evaluate my performance.
	R4 4. All of employees who are involved in COC (Code of Conduct) activity should be active to share opinions.
<i>Responsiveness</i>	RE1 1. An accuracy of problem solving in COC (Code of Conduct) activity is absolutely needed.
	RE2 2. COC (Code of Conduct) activity improves communication among employees.
	RE3 3. COC (Code of Conduct) is always held on time.
	RE4 4. All of employees who are involved in COC (Code of Conduct) activity do it seriously.
	RE5 5. Result of COC (Code of Conduct) activity should be realized.
<i>Assurance</i>	A1 1. Both of honest and accuracy of information by employees are needed in COC (Code of Conduct).
	A2 2. COC (Code of Conduct) as a means of sharing opinion among employees in each scope.
	A3 3. COC (Code of Conduct) exams employees' ability to share opinion and to give solution.
	A4 4. COC (Code of Conduct) activity ensures in information security delivered by employees.
<i>Empathy</i>	E1 1. COC (Code of Conduct) activity is held based on applicable Procedural Operational Standard.
	E2 2. COC (Code of Conduct) activity is a means to spare times for discussion.
	E3 3. COC (Code of Conduct) is held by open and kinship.
	E4 4. COC (Code of Conduct) is a means to give argument and to share complaint of each employee.
	E5 5. There is no limitation among employees' positions in COC (Code of Conduct) activity.

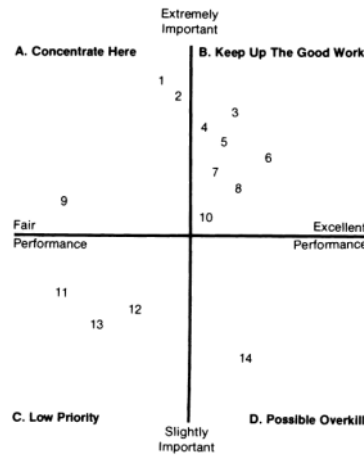


FIGURE I. IPA Diagram

Case Study

A case study has been conducted in PT. PLN (Persero) Central Java and Special Region of Yogyakarta. This object of the research is COC (*Code of Conduct*) activity which held in office everyday around thirty minutes by standing meeting. This research is address to assess quality of COC (*Code of Conduct*) activity which conducted in subfield procurement and human resource of PT. PLN (Persero) Central Java and Special Region of Yogyakarta Distribution. Researcher distributed the questionnaire to all employees in subfield procurement and human resource. There are two section of survey, the first section to assess quality of service and the second section to identified the level of importance in each dimensions. All dimensions in questionnaire are integrated into likert scale 1 to 5 [16] the number 1 is shown the attributes is not importance and disagree, then score 5 is shown the respondents are agree and the attributes are important. There are thirty employees in the sub-fields. The average of employees age are between 25 to 54 years old. On the other hand, there are more male employees then female, especially twenty two of male and eight of female. Before assess the quality of COC (*Code of Conduct*) activity, researcher should calculate the reliability test. Reliability test is a measurement to cognize of target consistency. Reliability is stated by number and interpreted as a coefficient. The measurement will be reliable, if the score of reliable is high. Reliability is required of validity in questionnaire in special objectives [17]. Cronbach's Alpha technique is used to measure the reliability test. The calculation is by intercorrelation average among items. When the result of Cronbach's Alpha is exceed 0,6, the questionnaire is reliable [18].

The result of Cronbach's Alpha on Table 2. According to table 2, the value are more then 0,6, it means the instruments of dimensions are reliable. Therefore, researcher calculate the SERVQUAL. The score of SERVQUAL is on table 3. According to table 3, the biggest gap value is one which has a negative value is empathy in E2 amount - 0,079628. The negative gap indicates employees are not satisfied through COC (*Code of Conduct*) activity. By the score in table 3., the results of SERVQUAL are integrated to IPA Diagram. This integration is to know the score both of importance and performance. The IPA model is used utilized to create strategies through continous improvement of service quality in COC (*Code of Conduct*) activity. This model combines both performance and importance factor in SERVQUAL then give a valuable insights through IPA Diagram [19]. Figure 2 is shown about IPA Diagram result.

TABLE 2. Cronbach's alpha test

Dimensions	Cronbach's Alpha	
	Importance	Performance
Tangible	0,8912	0,8940
Reliability	0,7512	0,8668
Responsiveness	0,9066	0,9270
Assurance	0,8434	0,7953
Empathy	0,8949	0,9128

According to Figure 2., there are five attributes in the first quadrant which are RE2, RE1, A2, T3, and E4. This result indicates the company should have improve the COC (*Code of Conduct*) activity by giving an empathy among employees. It will be create a good communication among each others. Then, in the second quadrant indicates both of performance and importance are corresponding through customers' expectation. There are five attributes in the second quadrant, which are R1, RE5, A1, E1, and E3. The second quadrants' result are indicates the COC (*Code of Conduct*) activity is able to ensure the accuracy of information and able to solve the problem. The solution should be applied in real activity and corresponding to company SOP. The third quadrant is means low important and performance by employees. There are four attributes in the third quadrant, which are R4, A4, E2 and E5. In the third quadrant there are two attributes of employees' empathy. In fact, employees' empathy is not variable which can improve service quality of COC (*Code of Conduct*) activity. The employees are not assume give the big attention to spare a time and limitation among each others in COC (*Code of Conduct*) activity, because of automatically empathy is going to grow in each individual. The last quadrant is the fourth quadrant, there are eight attributes which are T1, T2, T4, R2, R3, RE3, RE4, and A3. The fourth quadrant has a good performance meanwhile it is not important to employees. Therefore, the employees should have reduce this activity to create the effectiveness of COC (*Code of Conduct*) activity. By using IPA Diagram, the result in the first quadrant should have to give proposed improvement. The objectives of proposed improvement is to create the better quality of COC (*Code of Conduct*) activity. According to the research, the 5 whys analysis is used to be a propoved improvement tool. In the first quadrant, every person should have courage when deliver the solution, among employees should have giving motivation through the liveliness in

COC (*Code of Conduct*) activity, then create a good two way communication among employees, and among employees should respect each other both of personal and their job. The respectation will create both of sympathy and empathy.

TABLE 3. Result of SERVQUAL

Dimensions	Attributes	Importance	Performance	Gap
<i>Tangible</i>	T1	2,499105644	3,2269599	0,7278543
	T2	2,499105644	3,2269599	0,7278543
	T3	2,614552285	2,9396008	0,3250485
	T4	1,965856334	3,2269599	1,2611036
<i>Reliability</i>	R1	3,226959947	3,2269599	0
	R2	2,232197399	3,2269599	0,9947625
	R3	2,399809602	3,2269599	0,8271503
	R4	2,399809602	2,9396008	0,5397912
<i>Responsiveness</i>	RE1	2,754983319	2,9396008	0,1846174
	RE2	2,939600762	2,9396008	0
	RE3	2,399809602	3,2269599	0,8271503
	RE4	2,499105644	3,2269599	0,7278543
	RE5	2,939600762	3,2269599	0,2873592
<i>Assurance</i>	A1	2,754983319	3,2269599	0,4719766
	A2	2,754983319	2,9396008	0,1846174
	A3	2,158975381	3,2269599	1,0679846
	A4	2,090799324	2,9396008	0,8488014
<i>Empathy</i>	E1	2,614552285	3,2269599	0,6124077
	E2	2,311825685	2,2321974	-0,079628
	E3	2,754983319	3,2269599	0,4719766
	E4	2,614552285	2,9396008	0,3250485
	E5	2,399809602	2,3998096	0

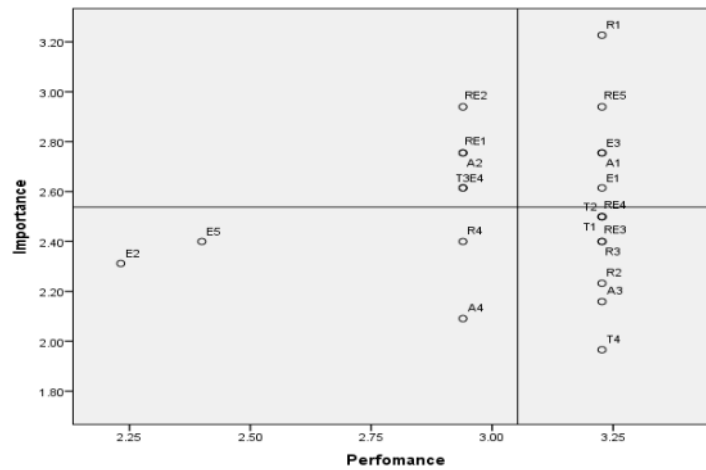


FIGURE 2. IPA DIAGRAM of COC

CONCLUSION

This research is conducted to assess the service quality of COC (*Code of Conduct*) activity in di PT. PLN Central Java and Special Region of Yogyakarta Distribution by using SERVQUAL method and combine by IPA model. Thoses methods are address to measure quality of COC (*Code of Conduct*) activity according to five dimensions and twenty two attributes. According to the research, the average of gap score between importance and performance shown in E2 which is -0,079628. This research is not focus on negative value of gap score, however further examine the attributes in the first quadrant. To give improvement through COC (*Code of Conduct*) activity, the employees should have to see the IPA diagram in order to identify the attributes that perceived as important by COC (*Code of Conduct*) performance activity. There are five attributes should give evaluation by using 5 whys analysis tool. The proposed improvement by researcher, the employees should have confidence when deliver the opinion, among employees should give motivation through liveliness the COC (*Code of Conduct*) activity, and among employees should create both of sympathy and empathy on their job and personal. The further research will be conducted by using IPGA (*Importance-Performance and Gap Analysis*) to measure quality of COC (*Code of Conduct*) actitviy [20]. On the other research, it will be create the multicomunication research of COC (*Code of Conduct*) which involved attributes of locus, applied technology, topic relatedness, and meeting medium [21].

REFERENCES

1. S. J. Perkins dan S. M. Shortland, *Strategic International Human Resource Management Choices and Consequences in Multinational People Management*, London and Philadelphia: Kogan Page, 2006.
2. PERTAMINA Industrial Fuel Marketing, "Fuel Supply Free on Board," [Online]. Available: <https://www.pertamina.com/industrialfuel/id/our-customers/pt-pln-persero/>. [Diakses 17 January 2019].
3. Anggita, "Aktivitas COC (Code of Conduct) Sebagai Sarana Internal Untuk Menilai Kinerja Karyawan di PT. PLN (Persero) Distribusi Jateng dan DIY," *Social Sciences*, 2017.
4. R. Dabestani, A. Shahin dan M. Saljooughian, *Int. Journal of Quality and Reliability Management*, pp. 160-177, 2016.
5. A. Izadi, Y. Jahani, S. Rafiei, A. Masoud dan L. Vali, *Int. Journal of Health Care Quality Assurance*, pp. 1-9, 2016.
6. I. Blesic, J. Popov-Rajlic, L. Urvavic, U. Stankov, L. Deri, M. Pantelic dan T. Armenski, *Economic Research*, pp. 438-495, 2014.
7. V. A. Zeithaml, A. Parasuraman dan L. L. Berry, *Delivering Quality Service*, New York: The Free Press, 1990.
8. M. E. Souri, F. Sajjadian, R. Sheikh dan S. S. Sana, *Journal of Cleaner Production*, pp. 187-196, 2018.
9. A. Parasuraman, V. A. Zeithaml dan L. Berry, *J. Retailing*, pp. 12-40, 1988.
10. Mrdikawati, *Jurnal Administrasi Bisnis*, pp. 64-75, 2013.
11. A. Parasuraman, V. A. Zeithaml dan L. Berry, *J. Market*, pp. 41-50, 1985.
12. J. A. Martila dan J. C. James, *Journal of Marketing*, pp. 77-79, 1977.
13. C.-C. Cheng, C.-T. Chen, F.-S. Hsu dan H.-Y. Hu, *International Journal of Hospitality Management*, pp. 1155-1166, 2012.
14. S. P. Lin, H. Chan dan M. C. Tsai, *Total Quality Management & Business Excellence*, pp. 829-846, 2009.
15. G. Ramu, *The Certified Six Sigma Yellow Belt Handbook*, Milwaukee: ASQ Quality Press, 2017.
16. H. N. Boone dan D. A. Boone, *Journal of Extension*, vol. 50, 2012.
17. J. Nagpal, A. Kumar, S. Kakar dan A. Bhartia, "*J. Assoc. Physicians India*, vol. 58, pp. 295-304, 2010.
18. M. M. Ulkhaq, A. K. Widodo, Widhiyaningrum, M. F. A. Yulianto dan M. O. Gracia, *AIP Conference Proceedings*, vol. 2114, no. 1, 2019.
19. H. Oh," *Tourism Manag.*, vol. 22, pp. 617-627, 2001.
20. S. P. Lin, Y. H. Chan dan M. C. Tsai, *Total Quality Management*, vol. 22, pp. 35-40, 2009.
21. A.-F. Cameron, H. Barki, A. O. d. Guinea, T. Coulon dan H. Moshki, *Management Communication Quarterly*, pp. 1-34, 2018.

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