



How to Improve the Quality of TransJakarta's Customer Relations: Kaizen, Voice of Customer, and Statistics Approach

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Introduction

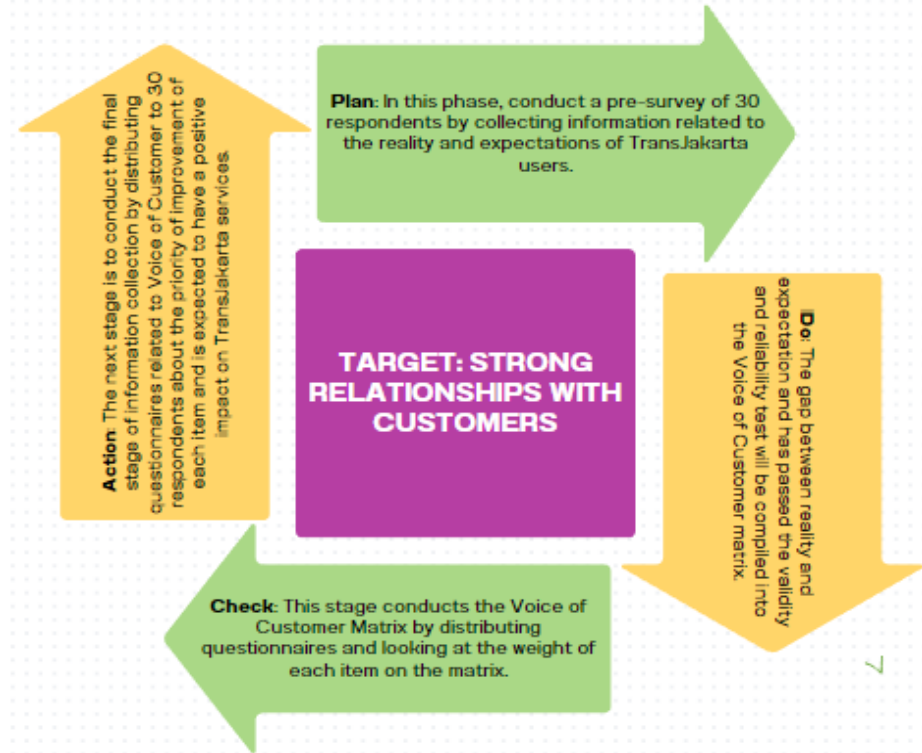
This research is based on fulfilling **the needs of Transjakarta users**. One of the ways is to **improve relationships** with TransJakarta customers and ensure long-term customer satisfaction, loyalty and engagement. This research examines the strategies **used to improve the relationship between TransJakarta and its customers to ensure long-term satisfaction, loyalty and engagement**. TransJakarta focuses on various actions to maintain good relationships with customers, such as providing **quality services, personalised communication, quick response to complaints, and loyalty programmes**.

Literature Review

No	Title	Index
1	Optimalisasi Pengelolaan Dan Pelayanan Transportasi Umum (Studi Pada 'Suroboyo Bus' Di Surabaya)	International Proceeding
2	Using Fuzzy Clustering of User Perception to Determine the Number of Level-of-Service Categories for Bus Rapid Transit	Scopus Q1
3	Public Transport Reforms in Seoul: Innovations Motivated by Funding Crisis	Scopus Q1
4	A New Customer Satisfaction Index for Evaluating Transit Service Quality	Scopus Q1
5	Assessment of Passenger Satisfaction with Intra-City Public Bus Transport Services in Abuja, Nigeria	Scopus Q1
6	Automatic Face Mask Detection System in Public Transportation in Smart Cities Using IoT and Deep Learning	Scopus Q2
7	Pengaruh Tingkat Kualitas Pelayanan Oleh Petugas Dalam Transportasi Umum Transjakarta	Garuda
8	Uji Validitas dan Reliabilitas Kuesioner Perilaku Prososial	Garuda
9	Pengukuran Kualitas Layanan Berdasarkan Dimensi Service Quality (Servqual) Dengan Metode Zone of Tolerance (Zot) dan Kano pada Pet World	Sinta 3
10	Sistem Pengambilan Contoh dalam Metode Penelitian	Google Scholar
11	Metodologi Penelitian Kuantitatif, Kualitatif, dan Kombinasi. CV. Media Sains Indonesia	ISBN
12	Kaizen: Improving Productivity and Reducing Waste in a Manufacturing Company: a Practical Case Study	Scopus Q4
13	Improvement of Effectiveness by Applying PDCA Cycle or Kaizen: An Experimental Study on Engineering Students	Google Scholar
14	Benefits using PDCA cycle of continuous improvement in manufacturing industry - a case study	Google Scholar
15	Enhancing Productivity in Line X Regulator Assy 2 through the PDCA Method (Plan, Do, Check, Action)	Google Scholar
16	Uji Validitas dan Reliabilitas Instrumen Penelitian Pemahaman Konsep Biologi	Google Scholar
17	Pengujian Secara Empiris (Uji Validitas dan Reliabilitas) Instrumen Minat Belajar Matematika Siswa	Sinta 5
18	Langkah -Langkah Uji Validitas Realibilitas Instrumen dengan Menggunakan SPSS	Google Scholar
19	Instrumen Tes Diagnostik Konsepsi Lima Tingkat pada Materi Gerak Lurus: Pengembangan, Uji Validitas dan Reliabilitas serta Uji Coba Terbatas	Garuda
20	Enhancing voice of customer prioritisation in QFD by integrating the competitor matrix	Scopus Q1

Method

1. Planning Phase (Plan): In this phase, conduct a pre-survey of 30 respondents by collecting information related to the reality and expectations of TransJakarta users.
2. Implementation Phase (Do): The gap between reality and expectation and has passed the validity and reliability test will be compiled into the Voice of Customer matrix.
3. Check Stage: This stage performs the Voice of Customer Matrix by distributing questionnaires and looking at the weight of each item on the matrix.
4. Corrective Action Phase (Action): The next stage is to conduct the final stage of information collection by distributing questionnaires related to Voice of Customer to 30 respondents about the priority of improvement of each item and is expected to have a positive impact on TransJakarta services.



Findings and Discussion

1. The validity test results state that item_4, item_6, item_9, item_10, and item_12 are invalid because $r \text{ value} < r \text{ table}$, so the item will be crossed out and not included in the Voice of Customer matrix.
2. The reliability test results state that all items are reliable because $\text{Cronbach's Alpha Value} > r \text{ Table}$

Item	r Value	r Table	Status
Item_1	0,478	0,361	Valid
Item_2	0,367	0,361	Valid
Item_3	0,374	0,361	Valid
Item_4	0,271	0,361	Invalid
Item_5	0,943	0,361	Valid
Item_6	0,132	0,361	Invalid
Item_7	0,670	0,361	Valid
Item_8	0,434	0,361	Valid
Item_9	0,033	0,361	Invalid
Item_10	0,248	0,361	Invalid
Item_11	0,370	0,361	Valid
Item_12	0,045	0,361	Invalid
Item_13	0,719	0,361	Valid
Item_14	0,446	0,361	Valid
Item_15	0,820	0,361	Valid
Item_16	0,820	0,361	Valid
Item_17	0,548	0,361	Valid
Item_18	0,737	0,361	Valid
Item_19	0,871	0,361	Valid
Item_20	0,931	0,361	Valid
Item_21	0,534	0,361	Valid
Item_22	0,367	0,361	Valid
Item_23	0,948	0,361	Valid
Item_24	0,717	0,361	Valid
Item_25	1,000	0,361	Valid
Item_26	0,588	0,361	Valid

Reliability Statistics	
Cronbach's Alpha	N of Items
0,540	31

Findings and Discussion

The next result is that all items that are valid and have a negative gap value will be input into the Voice of Customer matrix. Then the results will be made weighting related to the priority level of improvement. The priority weight will be made into 3 levels with the provisions that:

- 1: Less Priority
- 2: Priority
- 3: High Priority

The results is the highest priority level weight is related to 'Employees are able to answer every user question' and the lowest is related to 'Employees put users' interests first'. From these results it can be explained that employees must have the ability to answer all questions related to TransJakarta services.

Customer Requirements		Transjakarta facilities are good	The condition of Transjakarta facilities is clean and comfortable	Employees provide services on time	Complaint services are fast and related	Employees can be relied upon in handling service problems of Transjakarta users	Employees always respond quickly to user complaints	Employee ability can be trusted	Employees are competent and professional in serving users	Employees are skilled in serving users	Employees are able to answer every user question	Employees listen to users' feedback	Users feel safe in making transactions	Employees apologize immediately when something goes wrong	Employees give individualized attention to users	Employees understand users' specific needs	Employees put users' interests first	Service to users does not affect the overall quality
Customer Relationship Score	1	3	3	3	3	3	3	3	3	3	3	3	1	3	3	3	3	3
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1
	5	2	2	2	2	2	2	2	2	2	3	3	3	1	3	2	2	2
	6	3	1	3	3	3	3	2	2	1	1	2	2	2	3	3	3	1
	7	2	2	2	2	2	2	1	1	1	2	3	2	1	1	2	2	2
	8	2	1	3	2	2	2	2	2	2	2	3	1	1	1	1	1	1
	9	2	2	2	2	3	3	2	2	1	2	2	2	2	2	2	2	2
	10	2	2	2	2	2	1	2	2	2	2	2	3	3	3	2	1	3
	11	3	1	1	1	1	3	3	3	3	3	3	1	2	2	2	1	2
	12	2	2	2	2	2	2	3	1	3	1	3	2	1	1	2	1	2
	13	2	2	2	2	2	2	3	3	3	1	3	1	2	2	2	3	1
	14	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1
	15	3	1	3	3	3	3	2	2	2	2	1	3	2	3	3	1	3
	16	3	3	2	3	3	1	2	2	2	2	2	1	2	1	3	3	1
	17	3	1	3	2	3	3	3	3	3	1	3	1	2	3	3	3	1
	18	2	2	2	2	2	2	2	2	2	1	2	2	2	2	3	2	1
	19	2	1	1	2	2	2	2	2	2	2	2	1	3	3	2	1	2
	20	2	2	1	3	3	3	2	2	2	3	2	2	2	2	2	1	3
	21	2	1	1	2	1	1	1	1	2	2	3	2	2	2	2	2	1
	22	1	1	2	2	3	1	2	1	1	1	3	1	2	1	1	1	1
	23	1	2	2	2	2	2	2	2	2	1	3	1	1	2	2	1	1
	24	2	1	1	2	2	3	3	3	1	1	3	1	2	2	2	2	2
	25	1	1	1	3	3	2	2	2	2	1	3	1	1	1	1	1	1
	26	3	3	3	3	3	3	2	2	2	2	3	3	3	2	3	1	3
	27	2	3	3	3	3	3	2	2	2	2	1	3	3	2	3	1	2
	28	3	3	3	2	2	2	2	2	2	2	3	3	3	1	3	3	1
	29	2	2	2	2	2	2	3	3	3	3	2	2	1	1	2	2	2
	30	1	1	2	2	2	1	3	3	1	2	2	3	3	1	1	2	1
Scores	62	52	60	66	65	64	63	61	55	67	59	54	58	62	60	50	51	
Priority Level	6	13	8	2	3	4	5	7	11	1	9	12	10	6	8	15	14	

Findings and Discussion

The relationship between items related to TransJakarta services and Customer Relationship is something that is interrelated. The stronger an item has a relationship, the more it becomes the main focus in a service. In this study, the relationship between these items and customer relationships was obtained through a questionnaire by weighting as follows:

- : Strong Relationship Level
- ▽ : Medium Relationship Level
- : Weak Relationship Level

The result is 'Employees give individualised attention to users' has the highest weight on Customer Relationship. So that when employees can provide attention in the individual realm, it will further strengthen the customer relationship with Transjakarta.

Customer Relationship Scores		Customer Requirements																
		Transjakarta facilities are good	The condition of Transjakarta facilities is clean and comfortable	Employees provide services on time	Complaint services are fast and reliable	Employees can be relied upon in handling service problems of Transjakarta users	Employees always respond quickly to user complaints	Employee ability can be trusted	Employees are competent and professional in serving users	Employees are skilled in serving users	Employees are able to answer every user question	Employees foster a sense of trust to users	Users feel safe in making transactions	Employees apologise immediately when something goes wrong	Employees give individualised attention to users	Employees understand users' specific needs	Employees put users' interests first	Service to users does not distinguish social status
1	●	▽	○	▽	▽	○	○	○	○	○	○	○	○	○	○	○	○	○
2	●	▽	○	▽	▽	○	○	○	○	○	○	○	○	○	○	○	○	○
3	●	▽	○	▽	▽	○	○	○	○	○	○	○	○	○	○	○	○	○
4	●	▽	○	▽	▽	○	○	○	○	○	○	○	○	○	○	○	○	○
5	▽	▽	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○
6	▽	▽	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
7	○	▽	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
8	○	▽	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
9	▽	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
10	▽	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
11	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
12	▽	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
13	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
14	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
15	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
16	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
17	▽	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
18	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
19	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
20	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
21	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
22	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
23	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
24	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
25	▽	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
26	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
27	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
28	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
29	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
30	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Scores		58	61	58	62	62	54	61	50	52	65	59	58	52	67	65	50	54

Conclusion

In this study, it can be concluded that the key factor in improving the quality of TransJakarta services and maintaining customer relationships is the ability to answer questions. It states that employees must have in-depth knowledge of TransJakarta services so that they are able to provide accurate and comprehensive answers to any user questions. This is very important to fulfil users' expectations and increase their satisfaction. It then highlights the importance of providing individualised attention to each user. By providing personalised attention, employees can build stronger relationships with users, increase loyalty, and ultimately strengthen customer relationships with TransJakarta.

From the results of this analysis, it can be recommended several things to improve the quality of TransJakarta services, namely Increasing Employee Knowledge through continuous training, employees must be equipped with up-to-date knowledge about TransJakarta services, so that they can provide accurate and relevant information to users, communication skills development train good communication skills, both orally and in writing, in order to interact with users effectively and build positive relationships, focus on user experience by paying more attention to user needs and expectations, TransJakarta can increase customer satisfaction and build a good reputation.

References

- A. Sulistyowati dan I. Muazansyah, "Optimalisasi Pengelolaan Dan Pelayanan Transportasi Umum (Studi Pada 'Suroboyo Bus' Di Surabaya)," *proceedings*, hlm. 152, Okt 2019, doi: 10.30589/proceedings.2018.189.
- Y. Huo, J. Zhao, X. Li, dan C. Guo, "Using Fuzzy Clustering of User Perception to Determine the Number of Level-of-Service Categories for Bus Rapid Transit," *JPT*, vol. 23, no. 2, Okt 2021, doi: 10.5038/2375-0901.23.2.3.
- J. Pucher, H. Park, M. Kim, dan J. Song, "Public Transport Reforms in Seoul: Innovations Motivated by Funding Crisis," *JPT*, vol. 8, no. 5, hlm. 41–62, Des 2005, doi: 10.5038/2375-0901.8.5.3.
- L. Eboli dan G. Mazzulla, "A New Customer Satisfaction Index for Evaluating Transit Service Quality," *JPT*, vol. 12, no. 3, hlm. 21–37, Sep 2009, doi: 10.5038/2375-0901.12.3.2.
- A. Nwachukwu, "Assessment of Passenger Satisfaction with Intra-City Public Bus Transport Services in Abuja, Nigeria," *JPT*, vol. 17, no. 1, hlm. 99–119, Mar 2014, doi: 10.5038/2375-0901.17.1.5.
- T. A. Kumar, R. Rajmohan, M. Pavithra, S. A. Ajagbe, R. Hodhod, dan T. Gaber, "Automatic Face Mask Detection System in Public Transportation in Smart Cities Using IoT and Deep Learning," *Electronics*, vol. 11, no. 6, hlm. 904, Mar 2022, doi: 10.3390/electronics11060904.
- Meliana Dwi Ayuningtias, Rizky Ramadhani Putri, dan Siti Sahara, "Pengaruh Tingkat Kualitas Pelayanan Oleh Petugas Dalam Transportasi Umum Transjakarta," *JUPSIM*, vol. 2, no. 2, hlm. 188–197, Mei 2023, doi: 10.55606/jupsim.v2i2.1346.
- E. Rosita, W. Hidayat, dan W. Yuliani, "UJI VALIDITAS DAN RELIABILITAS KUESIONER PERILAKU PROSOSIAL," *J.Fokus*, vol. 4, no. 4, hlm. 279, Jul 2021, doi: 10.22460/fokus.v4i4.7413.
- D. Rahmawati, H. Aulawi, R. Kurniawati, dan T. F. Sari, "PENGUKURAN KUALITAS LAYANAN BERDASARKAN DIMENSI SERVICE QUALITY (SERVQUAL) DENGAN METODE ZONE OF TOLERANCE (ZOT) DAN KANO PADA PET WORLD," *Jurnal Teknik Industri*, vol. 18, no. 1, 2023, doi: 10.14710/jati.18.1.21-32.
- A. S. Fadhillah *dkk.*, "SISTEM PENGAMBILAN CONTOH DALAM METODE PENELITIAN," vol. 3, 2024, doi: <https://doi.org/10.30997/karimahtauhid.v3i6.14047>.
- G. Razali dan A. Syamil, *METODOLOGI PENELITIAN KUANTITATIF, KUALITATIF, DAN KOMBINASI*. CV. MEDIA SAINS INDONESIA, 2023. [Daring]. Tersedia pada: https://www.researchgate.net/profile/Ahmad-Syamil/publication/376832305_Metodologi_Penelitian_Kuantitatif_Kualitatif_dan_Kombinasi/links/658b79e10bb2c7472b131b05/Metodologi-Penelitian-Kuantitatif-Kualitatif-dan-Kombinasi.pdf#page=30
- J. C. Medina, N. A. S. López, M. E. P. Terrón, dan J. V. M. V. Córdoba, "Kaizen: Improving Productivity and Reducing Waste in a Manufacturing Company: a Practical Case Study," *J. Professional Business Review*, vol. 9, no. 1, hlm. e04241, Jan 2024, doi: 10.26668/businessreview/2024.v9i1.4241.
- Z. Hasan dan M. S. Hossain, "Improvement of Effectiveness by Applying PDCA Cycle or Kaizen: An Experimental Study on Engineering Students," *J. Sci. Res.*, vol. 10, no. 2, hlm. 159–173, Mei 2018, doi: 10.3329/jsr.v10i2.35638.
- J. Singh dan S. K. Gandhi, "Benefits using PDCA cycle of continuous improvement in manufacturing industry - a case study," *IJMCP*, vol. 17, no. 1, hlm. 83–97, 2024, doi: 10.1504/IJMCP.2024.135088.
- A. Septiyanto, "Enhancing Productivity in Line X Regulator Assy 2 through the PDCA Method (Plan, Do, Check, Action)," *IJRESM*, 2024, doi: <https://doi.org/10.5281/zenodo.10571050>.
- I. Marthiani, "Uji Validitas dan Reliabilitas Instrumen Penelitian Pemahaman Konsep Biologi," 2024, doi: <https://doi.org/10.61132/yudistira.v2i2.727>.
- A. Syahlani, "Pengujian Secara Empiris (Uji Validitas dan Reliabilitas) Instrumen Minat Belajar Matematika Siswa," 2024, [Daring]. Tersedia pada: <https://j-innovative.org/index.php/Innovative/article/view/5026>
- A. Arsi, "LANGKAH -LANGKAH UJI VALIDITAS REALIBILITAS INSTRUMEN DENGAN MENGGUNAKAN SPSS," 2021, doi: <https://doi.org/10.31219/osf.io/m3qxs>.
- I. P. M. Sari dan F. U. Ermawati, "Instrumen Tes Diagnostik Konsepsi Lima Tingkat pada Materi Gerak Lurus: Pengembangan, Uji Validitas dan Reliabilitas serta Uji Coba Terbatas," *pendipa. jurnal. pendik. sains*, vol. 5, no. 2, hlm. 152–162, Jan 2021, doi: 10.33369/pendipa.5.2.152-162.
- Z. Iqbal dan N. P. Grigg, "Enhancing voice of customer prioritisation in QFD by integrating the competitor matrix," *International Journal of Productivity and Performance Management*, vol. 70, no. 1, hlm. 217–229, Jan 2021, doi: 10.1108/IJPPM-04-2019-0175.