Service Quality and Consumer Satisfaction: 
An Empirical Study in Indonesia*

Lukman LUKMAN¹, Agus Eko SUJIANTO², Agus WALUYO³, Muchlis YAHYA⁴

Received: February 10, 2021 Revised: April 05, 2021 Accepted: April 15, 2021

Abstract

The purpose of this research paper is: (1) to describe the service quality index; (2) describe the data quality index; and (3) describe the anti-corruption index of BPS Trenggalek, Indonesia. The approach chosen is quantitative with the type of survey research. The primary data collection technique was mainly based on a questionnaire distributed to 40 respondents, namely BPS service users in 5 (five) categories: the private sector, the banking industry, academics, offices, or agencies in Trenggalek Regency and universities. The results showed that the quality of BPS services was good and the data quality index where the respondents were satisfied with the data presented by BPS. Meanwhile, testing the anti-corruption index shows that BPS Trenggalek is very anti-corruption in providing services to consumers. The findings of this study suggested that to improve service quality, it is necessary to pay attention to several aspects, including published service requirements, easy requirements to be fulfilled, published procedure information, clear service process flow, published service times, and costs/tariffs are communicated. This study suggests updating data, data relevance, data accessibility, and data completeness to improve data quality. Furthermore, to maintain the very anti-corruption predicate, this study suggests maintaining service by upholding the prevailing ethics and norms.

Keywords: Consumer Satisfaction, Service Quality Index, Data Quality Index, Anti-Corruption Index, Public Services

JEL Classification Code: D11, D12, D73, M30

1. Introduction

Quality public services can be characterized, among others, from the efforts of the apparatus in modifying conditions effectively and efficiently so that public participation can be built. Therefore, a strategic and adaptive policy is needed to prepare a better-quality management system and apparatus resources, which have a highly competitive ability to provide better services to the public and other related parties.

The ability to compete in an organization is one of the attributes of success in providing excellent service-oriented public services. Furthermore, this excellent service is the breath of the bureaucracy to gain public trust and sympathy so that optimal state apparatus is needed in providing services to the community (Nurdin, 2019). Therefore, a structured monitoring and evaluation (Monev) system with the main principle of focusing better on public services users is needed. This study took a research locus at the Trenggalek Central Statistics Agency (BPS).

One form of Monev conducted by BPS Trenggalek is periodically conducting consumer satisfaction index surveys by applicable regulations (Law No. 25 of 2009 on Public Services). This consumer satisfaction survey program was conducted to obtain direct feedback from users on all BPS performance and service activities to obtain various constructive inputs. This BPS consumer satisfaction survey is based on perceived values compared to what service users...
expect. Teas (1993) explains that service quality is modeled by “perceptions-minus-expectations.”

The consumer satisfaction survey, which is the study in this study, is limited to aspects of service quality, data quality, and anti-corruption as stated in the guidelines for the Minister of State Apparatus Empowerment and Bureaucratic Reform as stipulated in KEP/25/M.PAN/2/2004. Meanwhile, the theme selection about customer satisfaction is based on research by Cho (2020), Espejel et al. (2008), Ilyas et al. (2020), ZAID et al. (2021) states that satisfaction encourages consumer loyalty. According to Law of The Republic of Indonesia Number 8/1999; Wirtz and Bateson (1999), what is meant by consumers, namely users of goods and services. Meanwhile, Chan et al. (2003) reported that the consumer satisfaction index is a parameter for assessing economic performance from a consumer’s point of view.

2. Literature Review

The concept that is the basis for the birth of the theory of customer satisfaction is the theory of satisfaction and, of course, the consumer himself. According to Sirgy (2002), satisfaction is highly subjective and is related to a person’s beliefs, values, and expectations for service. Satisfaction is a concept with a comprehensive understanding and application related to economics, sociology, marketing, law, psychology, and other sciences related to music, entertainment, and so on.

According to Ertz and Sarigöllü (2019), Saari and Judge (2004), satisfaction is the attitude or behavior of customers or consumers as a whole towards service providers; it is the emotional reactions to differences between what customers expect and what they receive for services from service providers, concerning fulfilling some of their wants and needs.

The thinking above implies that satisfaction results from a cause where consumers receive services so that the service providers fulfill their needs. They provide responses and attitudes that subjectively represent their wants and expectations for the services provided by the service providers.

Meanwhile, juridically, it is everyone who uses goods and/or services available in society, whether for the benefit of themselves, their family, other people, or other living things, and not for sale (Law of The Republic of Indonesia Number 8/1999). This definition contains a very explicit meaning indicated by the word “user” or “user” (consumer) and not just a customer (customer). However, Kaulio (1998) explains that the word consumer/user (consumer) is a synonym for customer/buyer (customer).

Meanwhile, according to Azizah and Widayastuti (2013), consumer satisfaction is a person’s attitude and belief in the goods and services used as a result of the buying process by comparing actual impressions with expectations. Elfian and Arwiwobowo (2018), Hidayat (2018), Panjaitan and Yuliaty (2016) suggest that consumer satisfaction is an emotional attitude felt by users resulting from a comparison of the results and expectations they feel. Consumers feel satisfied when the results they feel are even more significant than the perceived expectations.

The implication for BPS consumer satisfaction is that consumer satisfaction in this study is calculated in the form of a Consumer Satisfaction Index based on the Decree of the Minister of State Apparatus Empowerment Number: Kep/25/M.Pan/2/2004 concerning General Guidelines for Preparation of Community Satisfaction Index for Service Units of Government Agencies as in the following table.

Previous research related to service quality index with different research loci was stated by Abdullah et al. (2011), in their study found a way to calculate the service quality index, especially in the banking sector. This study involved customers of 21 Islamic banks and commercial banks. The results of the study, the Bank Service Quality Index method complements the SERVQUAL method in measuring the level of service quality. It can provide information not only for customers but also the government, investors, and shareholders in the banking world.

Still, in the banking sector, Wei (2009) examined banks’ service quality in Malaysia involving 350 respondents. The study results found that service attributes that integrate the SERVQUAL method with the American Customer Satisfaction Index (ACSI) can drive customer quality improvement. Alam and Al-Amri (2020) research on customer satisfaction in Islamic banks in Oman found that 100 respondents, namely customers, responded positively to the quality of bank services. The quality of service as measured by bank operational security, employee readiness, and timely service affects Islamic banks’ satisfaction.

Fornell et al. (1996) examined the customer satisfaction index in America found that customers were more satisfied with services provided by the manufacturing sector than services. Hensher and Prioni (2002) examined customer satisfaction with the transportation industry services. The results showed that the increasingly fierce competition in this sector impacts increasing service effectiveness and cost efficiency to satisfy customers.

Minh et al. (2015) studied the relationship between service quality and hotel customer satisfaction. The results of research on guests at 33 three-star hotels show that to increase customer loyalty, quality services are needed on the aspects of Assurance, Responsiveness, Reliability, and Empathy. Rizq et al. (2018) examined satisfaction in terms of service quality at E-KTP services in Bogor, Indonesia. The results of the study using the customer satisfaction index combined with the SERVQUAL method show that the public is quite satisfied with government services in terms of E-KTP.
The study on the data quality index was chosen because BPS is a non-ministerial government institution established based on the prevailing laws and regulations in Indonesia and is directly responsible to the president. The main function of this institution is to provide data access to the public and the government of the Republic of Indonesia, so quality data is needed. Faqih et al. (2020), Takdir (2018) explains that government development policies are influenced by BPS’s quality of data so that data plays an essential role in decision making.

According to Bainame and Letamo (2014), Taleb et al. (2017), a public institution that positions data as an important asset because data can be used as evaluation information. Not only that, for big data companies, it is very decisive for making long-term predictions. The more quality the data, the correct understanding will be to make decisions.

Nirmala and Damayanti (2016), Riyanto et al. (2020) explain that the important product of BPS is quality data, which meets the following requirements: actualization and timeliness, data completeness, interpretability, coherence, data comparability, data accessibility, data relevance, data updating, and accuracy/data accuracy. Meanwhile, Tran and Le (2020), in their study involving 200 respondents, found that product quality directly has a significant positive effect on customer satisfaction. With quality products, various product variants, to the arrangement and presentation of products that are easily accessible to buyers, this has implications for the ability of Convenience Stores in Vietnam to attract more consumers to shop.

The discussion on the anti-corruption index is critical; therefore, anti-corruption becomes necessary in line with the increasing prevalence of corruption. The implementation of anti-corruption actions is currently proven by the birth of the anti-corruption national movement. As stated by Trionovani (2017), the anti-corruption movement is an integrated effort carried out jointly and massively by all levels of society in preventing behavior that leads to corrupt actions.

Dewinusraheni (2020) describes that a government that serves and is clean is a common goal. Using the anti-corruption perception index parameter, the District Court is at the forefront of providing public services to prevent collusion, corruption, and nepotism. BPS (2020) reports that Indonesia’s anti-corruption behavior will increase in 2020, and higher public education and the implementation of anti-corruption literacy are factors in this increase.

Corruption also disrupts the government’s functioning, as a study by Kennedy (2017) explains that corruption can interfere with government programs to increase investment and competitiveness. Anti-corruption is also carried out in companies. Research by Karim et al. (2016) reveals that the anti-corruption index in companies is in the form of (1) accounting disclosures to fight bribery or corruption; (2) senior board and management responsibilities; (3) human resources development to fight bribery or corruption; (4) responsible business relationship; (5) external party verification and assurance; (6) code of ethics and (7) whistleblowing policy. This anti-corruption disclosure has a significant effect in the long run-on company profitability.

Meanwhile, Suyatmiko and Ratnaningtyas (2017), in their study of business actors in 12 cities in Indonesia, found that to improve people’s welfare, anti-corruption attitudes and perceptions are needed. Implementation of it in the business world or companies, anti-corruption attitudes and perceptions can prevent companies from corruption and reputation risks. Therefore, we need an active role of the community in exercising social control as a form of public accountability.

3. Research Methods and Materials

This research approach is quantitative with the type of survey research. Morissan (2015), Krosnick et al. (2000) explained that survey research is a form of observation of social phenomena. People involved in survey research are called respondents, where according to Glasow (2005), the input from these respondents is used as material for future decisions. The research population is the users of Trenggalek BPS services who in this survey are grouped into 5 (five) categories: the private sector, the banking industry, academics, offices or agencies in Trenggalek Regency and universities.

This study chooses quota sampling to determine the research sample based on the consideration of sample selection, namely people who have received BPS Trenggalek services, for example, via telephone and internet access (e.g., email, visiting websites). Yang and Banamah (2014) state that quota sampling is a non-probability sampling technique where the number of samples has been determined by the study, namely 40 (forty) respondents representing the 5 (five) categories above.

The primary research data collection technique is to use a questionnaire combined with observation and interviews, the implementation of which is carried out in an integrated manner. Data collection time was in the second and third week of February 2020. The measurement scale used is the Likert scale, and instrument items are arranged in the form of a statement sentence with 4 (four) answer choices. The signs used for the satisfaction/performance aspect range from very dissatisfied (score 1) to very satisfied (score 4). Meanwhile, the expectation/expectation aspect uses a value range of 1–4 with the choice of answers not very important – very important.

The analysis of the research data was based on 3 (three) parameters, namely: service quality index (with parameters as Table 1), data quality index (Table 2), and anti-corruption index (Table 3).
Table 1: Consumer Satisfaction Index

<table>
<thead>
<tr>
<th>Performance (Quality of Service)</th>
<th>Perceived Value</th>
<th>Community Satisfaction Index Conversion Interval</th>
<th>Community Satisfaction Index Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very good</td>
<td>4</td>
<td>81.26–100</td>
<td>3.26–4.00</td>
</tr>
<tr>
<td>Good</td>
<td>3</td>
<td>62.51–81.25</td>
<td>2.51–3.25</td>
</tr>
<tr>
<td>Fair</td>
<td>2</td>
<td>43.76–62.50</td>
<td>1.76–2.50</td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
<td>25–43.75</td>
<td>1.00–1.75</td>
</tr>
</tbody>
</table>

Source: Decree of the Minister of State Apparatus Empowerment Number: KEP/25/M.PAN/2/2004.

Table 2: Service Quality

<table>
<thead>
<tr>
<th>Perceived Value</th>
<th>Interval Value</th>
<th>Interval Value</th>
<th>Service Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.00–1.75</td>
<td>25.00–43.75</td>
<td>Very Unsatisfactory</td>
</tr>
<tr>
<td>2</td>
<td>1.76–2.50</td>
<td>43.76–62.50</td>
<td>Not satisfactory</td>
</tr>
<tr>
<td>3</td>
<td>2.51–3.25</td>
<td>62.51–81.25</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>4</td>
<td>3.26–4.00</td>
<td>81.26–100.00</td>
<td>Very satisfactory</td>
</tr>
</tbody>
</table>


Table 3: Anti-Corruption Behavior Index (IPAK)

<table>
<thead>
<tr>
<th>IPAK Interval Value</th>
<th>IPAK Conversion Interval Value</th>
<th>Meaning of Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–1.25</td>
<td>25–43.75</td>
<td>Very Permissive</td>
</tr>
<tr>
<td>1.26–2.50</td>
<td>43.76–62.50</td>
<td>Permissive</td>
</tr>
<tr>
<td>2.51–3.75</td>
<td>62.51–81.25</td>
<td>Anti Corruption</td>
</tr>
<tr>
<td>3.76–4.00</td>
<td>81.26–100</td>
<td>Very Anti Corruption</td>
</tr>
</tbody>
</table>

Source: Developed from IPAK 2013.

4. Results and Discussion

The service quality index of the Central Bureau of Statistics mainly refers to the provisions stipulated in the Guidelines for Survey of Community Satisfaction with Public Service Delivery. Meanwhile, the index category for service satisfaction is based on the guidelines for the Minister of Administrative Reform and Bureaucratic Reform as stipulated in KEP/25/M.PAN/2/2004.

Based on data analysis, the average value of the Central Bureau of Statistics service index is 3.00, which is in the service quality “GOOD” (Table 1) with the service unit performance “GOOD” to 24 service attributes. The results of data analysis in the form of the Consumer Satisfaction Index were then cross-tabulated on various segmentations of respondents. This segmentation analysis is to determine the characteristics of the Consumer Satisfaction Index based on where the respondent is active, the last education completed, the type of service, and the communication media that have been used in accessing services.

Based on the location of the respondent’s activities, the consumer satisfaction index of the Central Statistics Agency that gets the highest score is the group of respondents whose activities are in Others, for example, international organizations, NGOs, freelancers, self-employed (79.39). In contrast, the group of respondents who received the lowest score was the group of respondents whose activities were in private (72.35). Based on the last education completed by the respondent, the Central Statistics Agency’s consumer satisfaction index who received the highest score, was the group of respondents who had a D1 / D2 / D3 education (79.29). Meanwhile, the group of respondents who received the lowest score was the respondents with high school education and below (71.46).

Based on the types of BPS services that have been accessed/used in the last 1 year, the Central Statistics Agency’s consumer satisfaction index that received the highest score was the type of data usage consulting service (77.15). At the same time, the group of respondents who received the lowest score was the type of consultation service and recommendation for statistical activities (70.94). Based on the types of communication media that have been used in accessing BPS services, the Central Statistics Agency’s consumer satisfaction index that received the highest score was the type of telephone media (76.92). While the type of media that received the lowest score was the website (75.42).

BPS (2014) determines data quality factors consisting of accuracy, timeliness, accessibility, comparability, coherence, and relevance. Meanwhile, in the draft Statistical Quality Assurance Framework, data quality is influenced by eight dimensions, namely the level of accuracy, relevance, coherence, comparability, accessibility, punctuality, interpretation (interpretability), and level of trust. While the attributes used to measure the quality of the data in this study are: accuracy/fidelity of data, up-to-date data, relevance of data, data accessibility, data comparability, coherence, interpretability, completeness of data, and actuality and timeliness. Based on data analysis, the average value of the satisfaction index for the Central Statistics Agency’s data quality for the variety of social statistical data is 73.64, which means that the service quality of the Central Statistics Agency is “SATISFACTORY” if it is based on Table 2.
The anti-corruption index calculation uses the Anti-Corruption Behavior Index (IPAK) calculation technique with a value range of 0–5. The index value is getting closer to 5, indicating that the public is increasingly anti-corruption behavior. In interpreting it, the IPAK score can be grouped into 4 categories, as shown in Table 3. Based on data analysis, the average score of the anti-corruption index of the Central Statistics Agency is 87.52, which means the index is “VERY ANTI CORRUPTION” based on the location of the respondent’s activities, the last education completed, and the type of service.

The study results revealed that the service quality of BPS Trenggalek was in a GOOD position based on 24 attributes. The attributes assessed in this aspect are: published service requirements, easy requirements to be fulfilled, published procedure information, clear service process flow, published service time, appropriate service time, the target time is published, service is completed according to target, costs/rates are informed, the adequate number of service officers, easy to meet and communicate, officers ready to be deftly quick, officers provide solutions, services according to information, comfortable service rooms, available supporting facilities, neat and formal packaging, available means of complaints, complaints are followed up, websites easily accessible, data on the web easy to find, easy to complete web features, easy to download quickly and the web language to understand.

The positive response of users of the Trenggalek BPS service can at the same time be a parameter about the services that have been provided by community institutions and can be additional data to continue to improve service performance in the future. The findings of this study support the study of Abdullah et al. (2011), Alam and Al-Amri (2020), Wei (2009), although the research locus is different, namely in the world of profit-oriented banking, and this research was carried out in government public services.

This study supports the findings of Hensher and Prioni (2002), Minh et al. (2015); although the research locus is different, namely in the transportation and hospitality industry, however, respondents gave a positive attitude towards company services amid very tight business competition. The characteristics of this research locus are the same as the study by Rizq et al. (2018), which examined the quality of government services, where respondents were quite satisfied with E-KTP services in Bogor, Indonesia. There are different results such as the study of Fornell et al. (2002), which examines the customer satisfaction index in America. According to him, customers of manufacturing companies are more satisfied with company services than service companies’ services. Fornell et al. indicated that the studied respondents were household members of 250 people interviewed by telephone. Manufacturing company customers include households who buy durable and non-durable products, while the service sector includes insurance, transportation, finance, communications, and government customers.

Based on the research results, the respondent’s attitude in responding to the quality of the data presented by BPS Trenggalek obtained satisfactory results. The attributes used to measure the data quality index are data accuracy/accuracy, data up-to-date, data relevance, data accessibility, data comparability, coherence, interpretability, data completeness as well as timeliness and timeliness. As stated by Faqih et al. (2020); Takdir (2018) states that data quality can affect the quality of decision making, so data must have characteristics as in the 9 attributes above.

This research is relevant to the study of Nirmala and Damayanti (2016), Riyanto et al. (2020), the main product of BPS, namely data. The data in question is quantitative data such as social and population, economy, and trade, as well as agriculture and mining. Besides, there are also quantitative, qualitative data, which is collected using a survey and involves a structured questionnaire.

This finding also supports the research of Bainame and Letamo (2014), Taleb et al. (2017), Tran and Le (2020), which can be expanded in the context of BPS, namely as a public institution that provides data for information and evaluation materials. In Indonesia, the data referred to include data on village government financial statistics, business directories, domestic and foreign trade statistics, economic indicators, Indonesian statistics, Indonesian trade profiles, price indexes, construction indicators, and so on whose existence supports BPS stakeholders to managerial decision making.

The attributes used to measure anti-corruption are: a system of procedures for corruption, officers offer acceleration in terms of service, officers accept offers in terms of services, officers provide services outside of procedures, there are brokering practices, fees do not match the set rates, officers ask for compensation, officers accept bids beyond the official rate, officers differentiate services, there are services other than those specified and officers receive gifts.

Based on the observation of the 11 attributes above, it can be concluded that the services at BPS Trenggalek, Indonesia are in the position of “VERY ANTI CORRUPTION.” The service achievement of this government apparatus is certainly very influential in increasing public trust, which in the end, the public feels satisfied with the services provided by the government. The results of this study are relevant to the research of Dewinugraheni (2020), Karim et al. (2016), Kennedy (2017); Suyatmiko and Ratanningtyas (2017) stated that clean public services by government officials are the hope of the community. Clean public services can increase the nation’s competitiveness and increase the value of the investment so that it is not only feasible to be implemented in government agencies but also very well applied to
public companies. Steps that must be taken by all parties, as explained by Trionovani (2017), are the anti-corruption movement, and according to BPS (2020), anti-corruption literacy is needed.

5. Conclusion

The BPS Trenggalek service quality index shows GOOD results. These results are based on the size of the respondent’s segmentation based on the place where the respondent is active, his latest education, the type of service, and the communication media used. Regarding the data quality index, the results are SATISFACTORY if it is based on the average value of the BPS data quality satisfaction index for various social, production, distribution, and service statistics, balance sheets, and statistical analysis and statistical methodology. Based on the segmentation: (1) on the social aspect with the highest score, namely the private sector; (2) the highest value production aspect, namely other institutions such as international organizations, NGOs, freelancers, and entrepreneurs; (3) distribution and service aspects of the highest value, namely Other institutions; (4) the production sector has the highest score in the private sector and (5) based on the statistical methodology, the highest score is Ministries/Government Agencies. While the anti-corruption index, the results of the study show that BPS Trenggalek is “VERY ANTI CORRUPTION,” both in terms of segmentation and type of service aspects.

References


