



The Effect of Service Quality on Customer Satisfaction by Moderation of Organizational Culture and Price in View of ISO/IEC 17025:2017

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Abstract

Quality is an important thing to be discussed anywhere and anytime. Service quality is a determining factor in satisfying customers to achieve economic improvement. Based on previous research, it was found that there is a relationship between organizational culture and customer satisfaction. The quality culture in a laboratory organization reflects the overall organizational culture. This is in line with the ISO/IEC 17025:2017 which requires the application of a quality culture in a calibration laboratory. Price is also an element that needs to be analyzed to achieve customer satisfaction in a calibration laboratory. This study aims to analyze the effect of service quality on customer satisfaction by moderating organizational culture and prices in an ISO/IEC 17025:2017 accredited laboratory in the province of West Sumatra. The data was collected by distributing questionnaires to 93 respondents from government agencies and private companies in West Sumatra. Then, the data was processed using the method of Partial Least Square-Structural Equation Modeling (PLS-SEM). The results of this study indicate that service quality, organizational culture, and price have a positive and significant effect on customer satisfaction in a calibration laboratory. Moderation of organizational culture and price have no significant effect on the relationship of service quality to customer satisfaction in a calibration laboratory.

Keywords: *customer satisfaction, ISO/IEC 17025:2017, organizational culture, price, service quality*

Introduction

Quality is an important thing to be discussed anywhere and anytime. Quality is a dynamic condition related to products, services, people, or processes that can meet or exceed what is expected (Putri, 2019). Quality of service crucial to satisfy customers as the core of competition to achieve economic improvement (Bellizzi et al., 2020).

Customer behavior and complaints are important issues that require handling and resolution in the public sector as a service provider. In fact, there is a risk for the organization/company when the customer is silent and does not give any complaints (Ghazzawi & Alharbi, 2019). To avoid the continuation of this situation in the future, the laboratory is making efforts, one of which is by improving the quality of service. In line with what (Chien & Chi, 2019). stated, the market

has gradually matured and to get new customers is quite difficult when prices are constantly increasing, therefore prioritizing to maintain long-term relationships with customers is recommended.

It is quite relevant that the laboratory tries to maintain cooperation with existing customers due to the increasing competition for calibration services by other laboratories in West Sumatra in the future. The quality of service provided by laboratory service providers is closely related to customer satisfaction. Le et al. (2020) state that service quality can be obtained if business actors can close the gap between customer expectations and perceptions.

Laboratory is one of type of organization. It is run by a system in a laboratory with ISO/IEC 17015:2017 as a quality standard. On this paper, the writer would like to introduce to the audience about ISO/IEC 17025:2017 and the

perceptions of this ISO to the variables of the research and those would be explored. Whereas the accreditation status of the organization and the standard that used is the need of the discussion on this era. The object of this research has obtained its first accreditation of ISO/IEC 17025 for almost 20 years. The culture of the organization has been shaped especially for this standard of ISO/IEC 17025. Nevertheless, only minor part of the people known about this standard. This mature organization also has some competitor at the present, whereas price needs to be evaluated and discussed on this research.

This study aims to analyze the effect of service quality on customer satisfaction with moderating variables of organizational culture and price in laboratories that have been accredited with the ISO/IEC 17025:2017.

Literature Review

Service Quality

Martasubrata (2016) stated that quality is product or service characteristics that described the requirements capability of customer satisfaction certainly or implied. Quality is the characteristics of product or service that describes the ability for satisfying the needs of customer requirements certainly explained or not (Martasubrata, 2016).

Ximenes (2017) stated that service quality is the shape of attitude, whereas connected with satisfaction, as implication of comparison of hope and performance. Meanwhile, Apriyani & Sunarti (2017) stated that service quality is an assessment focus that describes customer perception on five dimensions of service quality and service performance.

Service quality method is used to examine the service quality based on gap of the analysis. It describes the difference of customer perception and hope of service. Service quality method could identify quality trend which is obtained from the periodic survey to evaluate the level of customer satisfaction (Irawati & Jonatan, 2020).

Service quality has positive and significant factor to customer satisfaction (Le, 2019), which is measured based on the following five dimensions:

1. *Reliability*, the ability of on time delivery and consistency of services

2. *Responsiveness*, the pleasure of helping customers and being a problem solver faster when error or jammed situation happened.
3. *Assurance*, the ability on developing customer trust with professionalism, attitude, respect, communication skill dan fully attention to customers
4. *Empathy*, the style of worker on giving customer service with attention, care, the ability of recognizing customer needs and creating safety and comfortable for customers.
5. *Tangibles*, the supply of facilities, equipment, uniform, and additional material/tools to increase service performance.

Le et al. (2020) concerned on measuring the influence of service quality on customer satisfaction only in logistics industry. it is important to explore the influence of these variables in other industries.

ISO/IEC 17025:2017

Zhai et al. (2019) stated that a laboratory is one of service providers whose service quality and capabilities are measured by the International Laboratory Accreditation Cooperation (ILAC). One of the ILAC standards is the ISO/IEC 17025:2017 for testing and calibration laboratories (testing and calibration laboratory competency requirements). The ISO/IEC 17025:2017 accreditation means that the laboratory works competently based on the principles required to provide valid results (Hou et al., 2019). The ISO/IEC 17025:2017 document was developed with the aim of promoting confidence in laboratory operations. The ISO/IEC 17025:2017 document contains laboratory requirements that enable laboratories to demonstrate that they are operating competently (ISO/IEC 17025:2017).

The ISO/IEC 17025:2017 (2017) states that the general requirements for the competence of testing laboratories and calibration laboratories consist of five requirements: (1) general requirements, (2) structural requirements, (3) resource requirements, (4) process requirements, and (5) management requirements. Each requirement has some clause to be implemented by laboratories based on this ISO.

Organizational Culture

Organizational culture could be defined as a system with conversion of work, value, and believe that it can develop an organization and assist personnel behavior in the organization (Saadi, 2017). Detailed, organizational culture is consisted of tradition, value, rules, believe and behavior which could arrange updating contexts of all things that we have done and thought in the organization (Saadi, 2017). Rad (2006) revealed that the factors that influence organizational culture are the organizational structure, routines, orders & expectations of supervision, and operational norms. Organizational culture has a reciprocal relationship with quality. The quality of an organization is said to be good if the organization has a supportive culture, on the contrary, the bad quality of an organization can be seen from the bad culture in the organization (Jancikova & Brychta, 2009)

An organizational culture based on a qualitative analysis consists of eight dimensions that are linked to the values in Total Quality Management (TQM) (Heine et al., 2016), including (1) the basis of truth and rationality in the organization, (2) the nature of time and time horizon, (3) motivation, (4) stability versus change/innovation/personal growth, (5) orientation toward work, task, and coworkers, (6) isolation versus collaboration/cooperation, (7) control, coordination, and responsibility, (8) orientation and focus internal and/or external. The culture of an organization is a significant contributor to the successful process of an organization in achieving continuous improvement through lean transformation and structured problem-solving practices (Fadnavis et al., 2020). In addition, Santos et al. (2017) state that organizational culture is the most relevant critical factor for the success of a company management system. The ISO/IEC 17025:2017 requires the application of clauses that support this quality culture statement, which includes the management system requirements, such as actions to address risks & opportunities, remedies, corrective actions, internal audits, and management reviews (ISO/IEC 17025:2017).

Price

Saleem et al. (2017) define price as an amount of money or goods issued for a

commodity/product or service. Laboratory organizations in the scope of government have the right to collect fees in accordance with the field of testing/calibration services carried out (West Sumatra Provincial Regulation No. 3 of 2018). The price suitability set by the local government needs to be analyzed to determine the level of laboratory customer satisfaction.

Konuk (2019) defines price as "what has been sacrificed to obtain a product". Price is a clear signal for customers in determining product quality, prices must be reasonable, acceptable, and justifiable (Xia et al., 2004).

Customer Satisfaction

Satisfaction could be conceptualized as summary result of psychological statement when unmatched hope compared with customer feeling as user experience (Konuk, 2019).

The Regulation of the Minister of Administrative Reform [PERMENPAN] No. 14 of 2017 states that public services performed by government officials are currently not considered to have met the expectations of society. The Community Satisfaction Survey includes the following elements (Regulation of the Minister of Administrative Reform [PERMENPAN] No.14 of 2017): (1) requirements, (2) systems, mechanisms, and procedures, (3) completion time, (4) costs, (5) product specifications and types of service, (6) executive competence, (7) executive behavior, (8) handling of complaints, suggestions & input, (9) facilities and infrastructure.

Previous Research

Various studies have been conducted before, such as Le et al. (2020) where the researcher measures service quality on customer satisfaction in the logistics industry. Meanwhile, Saleem et al. (2017) examined the quality of service on student satisfaction in Pakistan with the moderation of university culture, reputation, and price. Konuk (2019) saw a relationship between perceived food quality (PFQ), perceived value (PV), and price fairness (PF) on customer satisfaction at organic food restaurants. Saadi (2017) explores the organizational culture that can contribute to adopting TQM in an organization. Alghamdhi (2018) examined the relationship between TQM and organizational performance

through organizational culture as a moderating effect. In terms of accreditation, Hou, et al. (2019) complements laboratory standards with high resilience, one of which is the ISO 17025:2017 to achieve a Quality Management System (QMS). Ghazzawi & Alharbi (2019) analyze customer complaint data as information to improve service quality and identify factors that trigger low customer satisfaction.

Putri, et al. (2017) concerned in evaluation of service quality for undergraduate programs at Andalas University whereas the calculation of service quality used Customer Satisfaction Index (CSI) method, while the dimensions of service quality, tangible and reliability, need to be improved as priority point.

Meanwhile, this research analyzes four variables include of their variable dimensions which is more complete than previous research. This research analyzes service quality on customer satisfaction by moderation of organizational culture and price in ISO/IEC 17025:2017 accredited organizations.

Methodology

This research was conducted by distributing questionnaires to 104 respondents who are active customers of the *A Calibration Laboratory* in West Sumatra. All these respondents came from government agencies/private companies engaged in testing laboratory services, pharmaceutical companies, drinking water companies, educational laboratories, the food and beverage industry, hospitals, health clinics, export and import of agricultural commodities, etc. A total of 93 respondents answered the questionnaire while 11 respondents did not. The questionnaire consists of two parts. The first part contains general data of respondents and the second part contains respondents' assessments of the level of influence of Service Quality (Sq) variable, Organizational Culture (Oc) variable, Price (P) variable, and Customer Satisfaction (Cs) variable in ISO/IEC 17025:2017 accredited laboratories. The method used in this study is a cross-sectional method with data analysis using Structural Equation Modeling (SEM) assisted by SmartPLS 3.0 software with testing stages of the outer model, inner model, and hypothesis

The scale used in this study is the Likert Scale of 1 – 5 (Terrible – Excellent).

This research was conducted by measuring the direct effect of service quality, organizational culture, and price on customer satisfaction (Figure 1). In addition, this study also measures the moderation of organizational culture and price in service quality on customer satisfaction (Figure 2). It is needed to be discussed for these both frameworks completely on giving more information and knowledge of the four variables of the research influence compared with previous research.

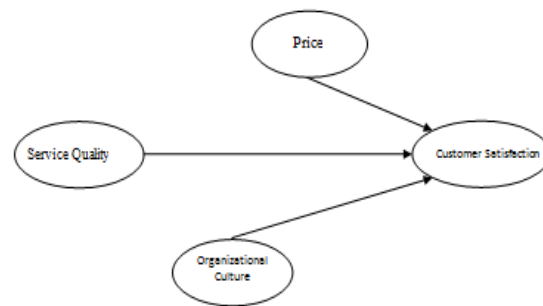


Figure 1. Research framework of service quality, organizational culture and price to customer satisfaction

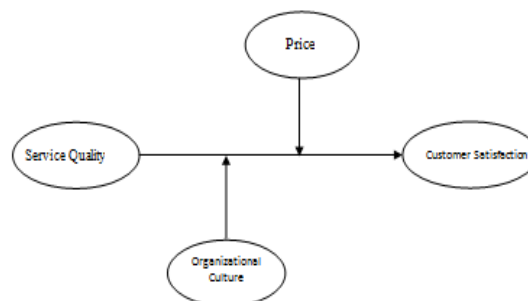


Figure 2. Research framework of organizational culture and price moderation to customer satisfaction

Hypotheses

Based on both frameworks, the interesting hypothesis could be arranged on this research. Five hypotheses are needed to be proved in this research:

- 1 : Service Quality has positive and significant effect on customer satisfaction
- 2 : Organizational culture has positive and significant effect on customer satisfaction
- 3 : Price has positive and significant effect on customer satisfaction
- 4 : Organizational culture moderation has positive and significant effect on relationship

between service quality and customer satisfaction

H5 : Price moderation has positive and significant effect on relationship between service quality and customer satisfaction

Research Method

This research uses PLS-SEM method. Several stages of processing data by PLS-SEM should be done such as: outer model test, inner model test, and bootstrapping. The outer model analysis is carried out to define how each indicator relates to its latent

variables. The outer model test stages are (Ab Hamid et al., 2017): Indicator Reliability, Internal Consistency, Convergent Validity, and Discriminant Validity. Inner model analysis by measuring coefficient of determination (R^2) and predictive relevance (Q^2) (Naveen & Gurtoo, 2020). Finally, bootstrapping was carried out to test the hypotheses of this study.

Variables and Indicators

Indicators for each variable are shown in Table 1, 2, 3 and 4.

Table 1. Service quality variable and dimensions

Dimension	Statements
1. Tangibles	1. Laboratory has standard instruments of calibration that fulfill the customer needs
	2. Laboratory has adequate workplace and it gives customers confidence to get service of calibration
	3. Calibration personnel is wearing tidy clothes and suitable uniform in the customers place
	4. Laboratory has pleasant parking area, waiting room and prayers room for customers
2. Responsive-ness	1. Calibration personnel has quick response on customers' needs
	2. Laboratory staff gives fast response on replying letter/email from customers
	3. Laboratory staff is always on the workplace and giving adequate time for helping customer problem of calibration
3. Assurance	1. Laboratory gives safety service for customers
	2. Calibration certificate that published of the laboratory can be trust and can be used for the customers' needs
	3. Calibration personnel has responsibility if any errors happened on customers place
4. Empathy	1. Laboratory staff gives well attention on customer needs
	2. Calibration personnel gives good handling on customers' needs in the customers place
	3. Calibration personnel is easy to be called by customer
	4. Service hours of calibration is adequate for customer needs
5. Reliability	1. The schedule of calibration service is well arranged and confirmed to the customer
	2. Calibration personnel is coming on time to the customer place
	3. The administration service is well and easy for customer
	4. Certificate of calibration is published on time

Table 2. Organizational culture variable and dimensions

Dimension	Statements
1. Basis of Truth and Rationality in the Organization	1. Calibration result on certificate is valid and can be trusted
	2. Calibration result on certificate is original and acceptable
2. The Nature of Time and Time Horizon	1. Speed of calibration service start from administration, calibration process until certificate publishing is convenient with time schedule of customer agreement
	2. Completion overdue is reasonable and can be tolerated by customer
3. Motivation	1. Calibration laboratory has a good service and calibration process on customer place is running smoothly
	2. Calibration personnel is open minded to increasing the service and welcome to developing of calibration scope to fulfill the customer needs in the future
4. Stability versus Change/Innovation/ Personal Growth	1. Laboratory is developing calibration scope as customer needs
	2. Quality of calibration personnel is gotten by training and experience in the calibration field for many years
5. Orientation toward Work, task, and Coworkers	1. There is good coordination of calibration personnel in calibration activity
	2. There is confirmation about the eligibility of customers instrument from calibration personnel to the customer
	3. Calibration personnel always ask the point of measurements to the customer
6. Isolation versus Collaboration/Coo- peration	1. There is good collaboration between administration staff, finance and calibration personnel in the service activity to the customer
	2. Calibration laboratory is teamwork prioritized on its service
7. Control, Coordination, and Responsibility	1. Calibration certificate is legalized by registered personnel of National Accreditation Committee
	2. Calibration personnel always brings legal assignments letter to the customers place
8. Orientation and Focus Internal and/or External	1. Calibration personnel always works as customer requirements
	2. Calibration laboratory always try to decrease the customer complaints
	3. Calibration laboratory always gives great solution of calibration problem with customer

Table 3. Price variable and dimensions

Dimension	Statements
1. Reasonable	1. Price of calibration service is proper enough a reasonable
	2. Calibration personnel always gives legal price list of calibration service to the customer
	3. Service Cost of BPSMB Padang is cheaper than other laboratory with same quality level of service
2. Acceptable	1. Price of calibration service is comparable with the service to the customer
	2. Customer can bargain the calibration personnel cost if customer has financial deficiency problem
3. Justifiable	1. Cost of calibration service big fare can collect accordance with government regulation
	2. Cost of calibration service is accordance with government regulation

Table 4. Customer satisfaction variable and dimensions

Dimension	Statements
1. Requirements	1. Calibration laboratory already has requirements of service in accordance to the items of calibration service for customer needs
	2. Calibration laboratory has very clear administration process, in example complete format for customer evidence that leave customer's instrument in laboratory
2. Systems, Mechanism, and Procedures	1. The service of laboratory is easy and no trouble for customer
	2. Customer may ask to calibration personnel which instrument is being calibrated first
	3. Customer may choose the payment method of the service, bank transfer or cash
3. Completion Time	1. The speed of administration service of calibration laboratory is in accordance with customer's hope
	2. The activity of calibration is finished well in expected time frame
4. Product Specifications and Type of Service	1. Laboratory gives information to the customer about the ability items of calibration
	2. Personnel calibration gives clear information to the customer about the scope of calibration items that include in accreditation by National Accreditation Committee
5. Executive Competence	1. Calibration laboratory has competent personnel and well trained to do their calibration activity
	2. Calibration laboratory has well reputation and accredited by National Accreditation Committee
6. Executive Behavior	1. Calibration personnel is well behavior and kind to the customer
	2. Administration and finance staff are well behavior dan give any convenience to the customer
7. Handling of Complaints, Suggestions and Input	1. Calibration laboratory has well handling of customer complain and there is complain box in waiting room
	2. Calibration laboratory openly accepts suggestions about its calibration service form customer

Results and Discussion

The processed questionnaire consisted of 19 questions on the Service Quality variable, 18 questions on the Organizational Culture variable, 7 questions on the Price variable, and 15 questions on the Customer Satisfaction variable. All the questions have been validated by experts in the calibration laboratory who have 11 years of experience in the laboratory field. The measurement model with PLS-SEM is shown in Figure 3.

The outer model test begins with the reliability indicator test by eliminating indicators that have an outer loading factor <0.7 . There are 15 indicators with outer loading <0.7 which must be eliminated in two calculation stages (Model is shown on Figure 4). The results of the internal consistency and convergent validity test are shown in Table 5.

Table 5 shows the values of Cronbach Alpha and Composite Reliability for each construct >0.9 while Ave >0.5 . This indicates that the construct has high reliability n valid because it meets the requirements that the value of Cronbach Alpha and Composite Reliability is >0.7 (Naveen & Gurtoo, 2020). This is followed by discriminant validity, which is the value that refers to the degree to which the constructs differ empirically.

Discriminant Validity can be evaluated using the Cross-Loading indicator and Fornell Larcker Criterion. Table 6 shows that the results of each construct are different empirically. This value is obtained after eliminating the 18 indicators with the smallest outer loading on the variables of Service Quality, Organizational Culture, and Customer Satisfaction in several calculation stages.

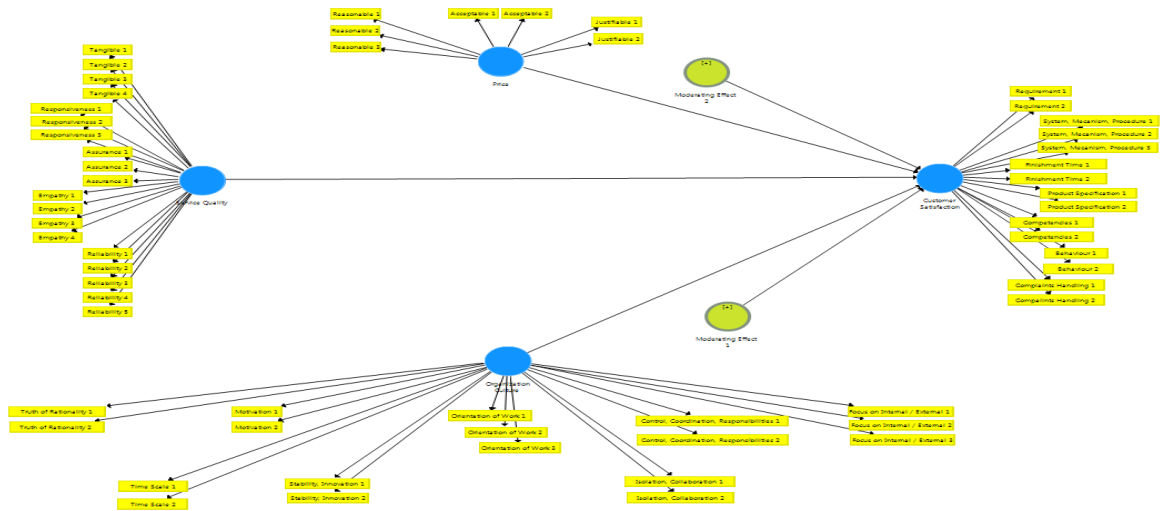


Figure 3. PLS model

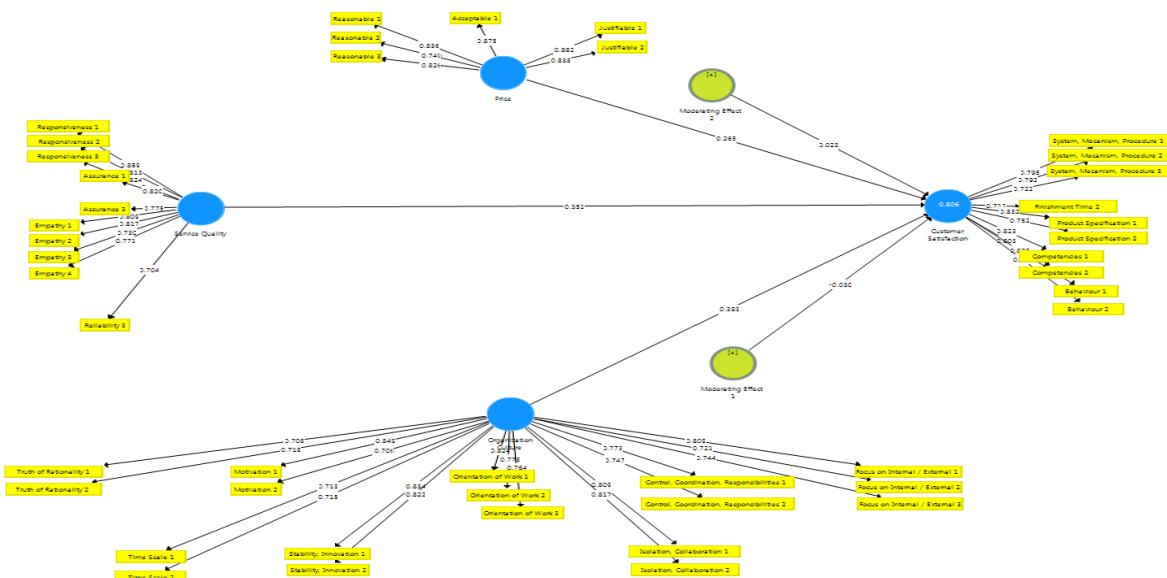


Figure 4. PLS model after eliminating 15 indicators

Table 5. Cronbach Alpha, composite reliability, and AVE of original model and after recalculation

	Cronbach Alpha		Composite reliability		AVE	
	Original model	After recalculation	Original model	After recalculation	Original model	After recalculation
Sq	0.946	0.924	0.952	0.944	0.513	0.686
Oc	0.960	0.940	0.963	0.963	0.595	0.703
P	0.900	0.913	0.923	0.933	0.634	0.698
Cs	0.940	0.896	0.947	0.940	0.547	0.706
Me1 Oc	1.000	1.000	1.000	1.000	1.000	1.000
Me2 P	1.000	1.000	1.000	1.000	1.000	1.000

Table 6. Cross loading indicator and Fornell Larcker criterion

	Oc	P	Cs	Sq	Me1	Me2
Oc	0.839					
P	0.626	0.835				
Cs	0.833	0.699	0.840			
Sq	0.821	0.525	0.817	0.828		
Me1	0.278	0.129	0.235	0.245	1.000	
Me2	0.137	0.149	0.119	0.135	0.741	1.000

The next data processing stage is the bootstrapping test to verify the research hypothesis. The PLS bootstrapping test model is shown in Figure 5.

Furthermore, the inner model test obtained the results of determination coefficient (R^2) of 0.800 and predictive relevance (Q^2) of 0.6400. The variables of Service Quality, Organizational Culture, and Price affect customer satisfaction by 80.0% and the rest is influenced by other variables outside of this study. This shows that the structure of the model made in this study has a strong predictive relevance (Naveen & Gurtoo, 2020). A positive Q^2 value is needed by a model structure to obtain an appropriate predictive value (Roni et al., 2015).

The results of the bootstrapping test are also used to verify the hypothesis by looking at the T-statistic value and the resulting probability value. Hypothesis testing using the T-statistic value with an alpha value of 5%, the T-statistic value used is 1.96. Therefore, the criteria for acceptance/rejection of the hypothesis is H1 is accepted, and H0 is rejected when the T-statistic is >1.96 . In addition, to reject/accept

the hypothesis using probability H1 is accepted if the p-value is <0.05 .

The Service Quality variable has the strongest influence (0.398) than the Organizational Culture variable (0.313) and the Price variable (0.296) on the Customer Satisfaction variable, these three hypotheses are accepted. Meanwhile, moderation of organizational culture and price has no significant effect on customer satisfaction and the hypothesis is rejected.

Le et al. (2020) state that service quality is positively determined by five factors, which are tangibles, responsiveness, assurance, empathy, and reliability to achieve customer satisfaction in logistics companies. Other studies also support that service quality has a positive and significant effect on exhibition visitor satisfaction (Chien & Chi, 2019). When compared with an ISO/IEC 17025:2017 accredited laboratory, the results of this study indicate that only the indicators of responsiveness, assurance, and empathy have a significant and strongest effect in determining customer satisfaction.

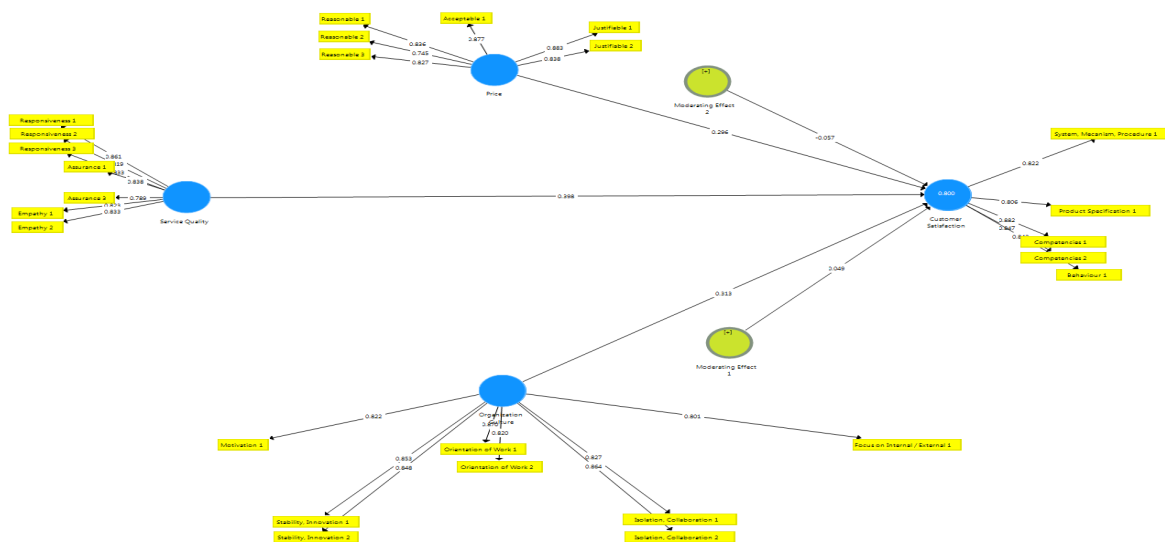


Figure 5. PLS model after bootstrapping

Table 7. Path coefficient, t-statistic and p-value on variable relationship

Variable relationship	Path coeff.	T-statistic	P-value	Hypothesis result
Sq to Cs	0.398	3.021	0.003	H1 Accepted
Oc to Cs	0.313	2.278	0.023	H2 Accepted
P to Cs	0.296	4.100	0.000	H3 Accepted
ME 1 Oc on Sq to Cs	0.049	0.526	0.599	H4 Rejected
ME 2 Pon Sq to Cs	-0.057	0.632	0.528	H5 Rejected

Seen from the point of view of accreditation, a calibration laboratory that is accredited with the ISO/IEC 17025:2017 absolutely fulfills this tangibles and reliability factor in carrying out its function of serving the community. Companies use standards as a tool to signal their investment in improving their quality and performance (Blind, 2018). Besides, the accredited laboratory of ISO 17025:2017 has been implemented of clause 6.3 facilities and environmental conditions and clause 6.4 equipment that include as tangibles indicators of service quality in measuring laboratory customer satisfaction. Meanwhile, reliability indicators of service quality relate to the implementation of clause 4.1 impartiality, clause 6.2 personnel, and clause 7.4 handling of test or calibration items based on ISO 17025:2017.

Hou et al. (2019) revealed that the implementation of the ISO 17025:2017 is used as the backbone of the Quality Management System, this standard is designed to recognize laboratory competencies. The results showed that the responsiveness, assurance, and empathy factors greatly affected the customer satisfaction level of the calibration laboratory by 39.8% of the total research variables. Calibration laboratory customers want fast responsiveness in the calibration service. Besides, customers get a guarantee for the results of the calibration carried out by the calibration laboratory by implementing ISO 17025:2017 clause 7.7 ensuring the validity of results and clause 7.8 reporting of results where the calibration certificate issued by the laboratory which is signed by the personnel signing the certificate who has gone through the selection, verification process, and is registered with the National Accreditation Committee (KAN). This is closely related to the trust of calibration customers on the validity of the calibration certificate issued by the laboratory. Accreditation aims to increase trust in the quality of an organization's infrastructure (Blind et al., 2018).

Meanwhile, the Organizational culture variable has a significant effect on customer satisfaction by 31.3%. The indicators on this organizational culture variable can be linked to the laboratory organizational culture that has synergized with the ISO/IEC 17025:2017 in the indicators of stability, innovation, and

personnel growth which emphasize the competence of laboratory personnel.

In addition, indicators of orientation toward work, task, and coworkers on organizational culture variables also have a quite strong influence on achieving customer satisfaction. The relationship between this indicator and the ISO/IEC 17025:2017 is in clause 7.1 review of request, tenders and contracts by agreement between calibration personnel and customer to fulfill customer requirement of calibration service.

Laboratories that have been accredited with the ISO/IEC 17025:2017, the process of monitoring the effectiveness of the laboratory quality system and achieving targets is carried out through a laboratory internal audit process and management review in accordance with clauses 8.8 internal audits and 8.9 managements review of the ISO/IEC 17025:2017 which must be carried out consistently and objectively. This can be a factor that supports the success of planting an organizational culture in the laboratory.

Another factor in the Organizational Culture variable that affects the level of customer satisfaction is motivation, where a good service system and a calibration process that runs smoothly have a strong influence on customers returning to using calibration laboratory services. Based on the results of data collection, it is found that customers who have collaborated with calibration laboratories for 1-5 years and more than 5 years have a percentage of almost 90% as respondents. Indicators of isolation and collaboration as well as indicators of orientation and focus internally and externally. In laboratories accredited with the ISO/IEC 17025:2017, it can be achieved by implementing clause 6.5 metrological traceability whereas laboratory personnel are cultivated to work together in teams to carry out their duties. All laboratory personnel have their respective roles and responsibilities in their work. Teamwork will create synergy and optimal results in achieving customer satisfaction. Fadnavis et al., (2020) states that there is a positive correlation between the quality of organizational culture and the ability of team members to practice problem-solving for the continuous improvement of the organization. In line with Santos et al. (2017) which state that the most relevant critical factor as a determinant of the success of an

integrated management system is organizational culture.

The Price variable in this study consists of 3 indicators: reasonable, acceptable, and justifiable (Xia et al., 2004). The results of this study indicate that the Price variable has a positive and significant effect on customer satisfaction in the calibration laboratory which is determined by the three indicators of 29.6%. This result is in accordance with previous research which found that price fairness was positively and significantly related to customer satisfaction in organic food restaurants (Konuk, 2019).

The Customer Satisfaction variable in this study consists of seven indicators (PERMENPAN No. 14 of 2017). The results showed that there are four indicators that have the strongest influence on manifest variables of customer satisfaction, such as systems, mechanisms & procedures, product specifications for the type of service, executive competence & executive behavior. Meanwhile, moderation of organizational culture in service quality has a positive and insignificant effect on customer satisfaction of the calibration laboratory by 4.9%. Naqshbandi & Tabche (2018) support the results of this study, the moderation of organizational culture does not have a significant effect on open innovation in companies in India. Dai et al. (2018) also show that the moderation of organizational culture does not have a significant effect on market pressure and corporate strategy on manufacturing companies in China. However, Liu et al. (2019) stated that the moderation of organizational culture context has a significant effect on the relationship between authoritarian personality and student satisfaction in China. In addition, (Roni et al., 2015) also revealed that the moderation of organizational culture and complex behavior has a clear impact on the predictor-criteria relationship in the Theory of Planned Behavior (TPB Model).

Price moderation into the relationship of service quality and customer satisfaction is negatively correlated and does not have a significant effect on customer satisfaction of the calibration laboratory by 5.7%. This means that the price moderation does not strengthen or weaken the quality of service to measure customer satisfaction in a calibration laboratory. Moderation of price information has a negative effect on the relationship between

price modulation and customer dissatisfaction in the hotel industry in Tunisia (Zrelli et al., 2019). However, Wang et al. (2018) state that price and popularity have an important moderating effect on the relationship between the level of customer experience, satisfaction, and product resilience of the automobile industry in China. Saleem et al. (2017) state that moderation of culture and price on education institution have significance factor on reaching students satisfaction in a university.

Conclusions

Service quality has the most significant effect on customer satisfaction. Organizations that make improvements to the quality of their services will have a significant impact on customer satisfaction. Meanwhile, organizational culture has a significant influence on customer satisfaction. The process of improving bad culture in an organization will have a major influence in increasing customer satisfaction. The Price variable has a significant effect on customer satisfaction. Pricing the services of an organization in a manner that transparent, reasonable, and according to the legal basis will provide customer confidence which will further increase customer satisfaction. Meanwhile, the effect of moderation of organizational culture and price has no significant effect on the relationship between service quality and customer satisfaction. That means moderation of organizational culture and price does not weaken or strengthen the relationship between service quality and customer satisfaction.

This research has been conducted in limited scope of organization especially in accredited laboratory. Further studies can be done to measure and analyze the service quality to customer satisfaction with mediation of organizational culture and price in the organization.

Further studies also can be done to explore the comparison measurement and analysis of service quality to customer satisfaction in wider scope of organization such as accredited and not accredited organization with the other variables of research.

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