

ISEES MODEL: MODEL OF HOSPITAL SERVICE BASED ON INTERNAL AND EXTERNAL SERVICE QUALITY

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ABSTRACT

The research attempts to investigate public hospital service model and test the effect of the internal and external service quality on employee satisfaction, employee satisfaction on the external service quality, external service quality on customer satisfaction, and customer loyalty. The research was conducted through questionnaires to 31 hospitals in Surabaya with 1155 respondents. Validity and reliability are used to test the research instruments and research hypotheses were tested by linear regression analysis. The results show there is a significant and positive effect of internal service quality on the employee satisfaction. There is also a significant effect of internal service quality on external service quality. But, it also shows there is no significant effect of employee satisfaction on external service quality. Again, there is a significant and positive effect of external service quality on customer satisfaction, a significant and positive effect of customer satisfaction on customer loyalty.

Key words: Service Quality, Employee Satisfaction, Customer Satisfaction, Customer Loyalty.

ISEES MODEL : MODEL PELAYANAN RUMAH SAKIT MENGGUNAKAN PENDEKATAN KUALITAS PELAYANAN INTERNAL DAN EKSTERNAL

ABSTRAK

Penelitian ini menganalisis model pelayanan rumah sakit dan menguji pengaruh kualitas layanan internal dan eksternal pada kepuasan karyawan, kepuasan karyawan pada kualitas layanan eksternal, kualitas layanan eksternal pada kepuasan pelanggan, dan loyalitas pelanggan. Penelitian dilakukan melalui kuesioner terhadap 31 rumah sakit di Surabaya dengan 1.155 responden. Uji validitas dan reliabilitas digunakan untuk menguji instrumen penelitian dan hipotesis penelitian diuji dengan analisis regresi linier. Hasil penelitian menunjukkan ada pengaruh yang signifikan dan positif dari kualitas layanan internal terhadap kepuasan karyawan. Terdapat juga pengaruh yang signifikan dari kualitas layanan internal pada kualitas layanan eksternal. Namun, tidak ada pengaruh yang signifikan dari kepuasan karyawan terhadap kualitas layanan eksternal. Sekali lagi, ada pengaruh yang signifikan dan positif dari kualitas layanan eksternal pada kepuasan pelanggan, pengaruh yang signifikan dan positif dari kepuasan pelanggan terhadap loyalitas pelanggan.

Kata Kunci: Kualitas Layanan, Kepuasan Karyawan, Kepuasan Pelanggan, Loyalitas Pelanggan.

INTRODUCTION

It is argued that quality of service is related to the level of performance of the services provided by the company for the customers. In turn, the customers who receive service performance will compare their expectations with their perceived performance evaluation. This is done by them in order that they can obtain the level of service quality. For that reason, the evaluation of customer service quality on the performance of services by service companies is very important, especially for the purpose of improving the company's marketing strategy (Jain and Gupta 2004).

The fact is that service quality in the service sector is considered an indicator of the company's overall performance. Even the very slight dissatisfaction, when it is felt by the customers, it will damage the company's overall quality of service (Rahmat 2007). In addition, the companies that can provide superior quality service that will create a satisfied customer base (and Veloutsou Gilbert 2006). Therefore, every effort made by the company should be oriented to customer needs. If repair is not based on the quality of customer needs, the efforts will not lead to an increase in customer satisfaction (Grace 2007; Sivadas and Prewitt 2000).

However, it is difficult to measure the quality of the service, due to the given the perception of consumers in assessing service quality which is highly subjective. The condition that there is a quality of service in the hospital sector, it is indeed more difficult to measure it. It needs more scrutiny and pressure from the public, as well as the gaps in implementing the assessment method (Liang and Zhang 2009; Pohan 2006). Up to now, no comprehensive conclusions has been found on the relationship between service quality and customer satisfaction. The researchers in this occasion are unable to reach an agreement dealing with the cause and effect among these factors. For example, it deals with whether there is a direct relationship between the quality of service and customer satisfaction (Liang and Zhang 2009).

Despite with the above obstacles, public sector of hospitals should still be encouraged in order to provide excellent service quality and efficiency improvisation (Ladhari 2009). In connection with this, it can be stated that, in general, the service can be categorized into consumer services (e.g. supermarkets) and professional services (e.g. healthcare). Service-oriented consumers can be attained through a number of sales gains, while professional services are more oriented quality of service that leads to customer satisfaction, such as hospitals.

Besides doing some functions of public health services, the hospital also has the function of education and research (Boekitwetan 1997; Suki, Lian, and Suki 2011). In this case, what must be observed is the fact that the health of the population in Indonesia is still relatively low compared to the neighboring countries in Southeast Asia. For example, it can be seen by looking at the maternal mortality rate in which it is about 390 per 100,000 births, while the Philippines 170, Vietnam 160, Thailand 44, and Malaysia 39 per 100,000 births, as shown in Table 1.

By the same token, a World Bank report, that Indonesia is far left behind when compared to its nearest like-Philippines, Malaysia and Thailand in terms of indicators concerning the quality of bureaucracy, corruption, and socio-economic conditions, the condition of the investment climate, education, and health. All these sectors are considered not very satisfactory as being due to low quality of service offered by government institutions.

Therefore, it is necessary to manage the quality of hospital services, through the efforts of improving the quality of service as well. In recent development, there is an increasingly tight competition, and given the dynamics of the internal and external growing demands, the hospitals are being faced by such competition. Thus, the efforts should be done by them to respond to the dynamics of the present advancement. This is intended to adjust to external and internal integration of the potential for coping with

Table 1
Comparison of Some Indicators of Health among Countries

Counties	MMR	GNP/Capita (US\$)	Health Cost/Capita (US\$)	Rank in Health Cost	Insurance Coverage
Malaysia	39	3.400	110	93	100%
Thailand	44	1.960	133	64	80%
Srilangka	60	820	25	138	-
Vietnam	160	370	17	182	-
Philippine	170	1.020	40	124	60%
Myanmar	230	220	100	136	-
Indonesia	390	580	18	154	16%

Source: Public Health Science –Faculty of Medicine UGM.

the increasingly complex task.

The above endeavors require the organization of maintaining its performance, such as health services to the community as well as obtain adequate funding for the survival of the organization (Lim and Tang 2000; Pohan 2006). In addition, consumers tend to be much more aware of the alternatives for the rising standards of service. This condition must also require the improvement of patient expectations to hospitals (Lim and Tang 2000). To achieve that goal, the hospital cannot ignore its human resources, including its attention to the customers' satisfaction. When all these are neglected, these will affect the organizational performance, in which in the long run, it can seriously damage the quality of healthcare. As such, the question is that whether the individuals experience emotionally pleasant or unpleasant depends on the expected level of their satisfaction (Vinagre and Neves 2007).

Considering the arguments above, it is obvious that the importance of service quality is also a major focus of attention for regional decentralization autonomy. One of the provinces that actively responds to public services in the present era is marked by the East Java. East Java issuance Number 11 Year 2005 regarding public services in East Java Province. One of the goals is the fulfillment of the public's rights to obtain a maximum service, including health care. Thus, the health service for the hospital is one of the basic needs of the community. Health service is attained through the effort

of improving the quality of service which must be a priority.

Some research indicates that the quality of service can determine the level of satisfaction perceived by the customers. Beside, service quality also describes the company's ability to deliver different benefits and satisfy the customer. So far, the issues of quality and patient satisfaction have been the main focus of the hospital (Pohan 2006). This is because the system quality services can also improve the patient satisfaction, which in turn, can increase corporate profits (and Amiresmaili Moghadam 2011; Rachmat 2007).

In connection with this research, this study employs a quality model used adopted from servqual models developed by Parasuraman et al. (1988). In this case, servqual instrument has been accepted as a standard for assessing the dimensions of variation in the quality of service, and is based on the concept of service-quality "gaps" (Parasuraman et al. 1988, 1991; Zeithaml 2009). Five dimensions of service are identified by Parasuraman et al. (1988) by taking into account the features of relationship quality public services. These dimensions are tangibility, reliability, responsiveness, assurance, and empathy.

In general, the dimensions of service quality are associated with elements that interact with customers during the service received.

As such, the purpose of this study is to examine and analyze the significant and pos-

itive effect of Internal Service Quality on the Employee Satisfaction, the significant and positive effect of Internal Service Quality on External Service Quality, the significant and positive effect of the External Service on Employee Satisfaction Quality.

It is also to analyze the significant and positive effect of External Service Quality on Customer Satisfaction, the significant and positive effect of tangibility on Customer Satisfaction, the significant and positive effect of reliability on Customer Satisfaction, the significant and positive effect of Responsiveness on customer Satisfaction, the significant and positive effect of Assurance on Customer Satisfaction, the significant positive and effect of Empathy on Customer Satisfaction, and finally the significant and positive effect of Customer Satisfaction on Customer Loyalty.

THEORETICAL FRAMEWORK AND HYPOTHESIS

Quality of Public Services

Managing a company cannot be separated from the execution of a marketing strategy. This is true such as when it is done by using all available resources in a competitive climate to achieve the company's goal. In this case, Zeithaml and Bitner (2000), in the service marketing triangle, suggest that there are three parties to make a successful company in the competition: the company, customers, and employees (providers). External marketing is responsible for the customer's expectations by providing the promise to the customer before the service is provided. Through this, everything is communicated to customers through promotion or advertising.

In the condition above, interactive marketing is often called real-time marketing in which it provides an explanation of the transactions between employees (who provide services) and customers (who want the service). The important thing to note is the promise that has been delivered by the external marketing should be met by interactive marketing. Internal marketing has function to improve the skills and motivation of

the employees in the work so as to provide the best service to customers.

Employee Satisfaction

Employee satisfaction is a comparison among the expectations desired by employees with the proceeds received by the employees either. The higher the result they feel when compared to the expectations, the higher the satisfaction they feel to or the other way around. Employee satisfaction is a major factor in driving the creation of quality services. The satisfied internal employees will create high employee motivation, which in turn; it can encourage a culture of service to their customers. In this situation, employee satisfaction can also be regarded as a comparison between past work experience and the current experience for their future (Levy et al. 2007).

It is asserted that employee satisfaction is an important variable that can give the employees an idea dealing with emotion and perceptions about work and the workplace. Thus, employee satisfaction refers to the expectations of the employees about the workplace and employee attitudes toward work (Togia et al. 2004). All in all, job satisfaction is a picture of the extent to which employees are satisfied with their work, well satisfied with the working environment, working relationships with their fellows or working relationships with leaders and companies.

Customer Satisfaction

Customer satisfaction is a comparison between the customers' expectations compared to the performance of a product service process. The higher the performance is received by them, the more satisfied customers are. Conversely the lower the performance of the service they received compared to their expectations, the lower the satisfaction level perceived by them. Basically, the two companies have a very important asset and are interrelated with each other. The two assets are assets within the company (internal customers) that are often referred to as employees, and assets outside the company (external customers) called customers.

Linking the two assets above is crucial to ensure the company in an effort to increase revenue and improve profitability. Companies that want to increase revenue and profits should pay attention to the satisfaction of both internal and external customers. This is due to basically customer satisfaction which can only be achieved if the employees as a party providing services to the customers are satisfied first. Thus, satisfying one party alone will not provide maximum results for the company because the two assets are interrelated (Lings and Greenley 2010; Alhashem et al. 2011).

Companies that can satisfy employees directly can also reduce labor turnover, which means reducing costs for retraining, dismissal, or the cost of employee contracts. Furthermore, employees who are in a state of satisfaction will strive to provide better service to customers. They can also increase productivity, which in turn, affect the company's profits. Increasing revenue and profits can only be done by a company that is oriented to customer satisfaction.

The efforts to realize customer satisfaction plays a very important role for increasing the company revenue that is revenue enhancement. However, such effort does not only raise the revenue, but also increases the profits. By providing good quality satisfaction to customers, companies can increase their customers' loyalty. This is done by the customers by creating a positive image words of mouth, and will always be recognized by customers. If the companies can achieve all three assets above, they can also increase their revenues and profits (Rahmat 2007; Gounaris 2008; Brown 1995; Lings and Greenley 2010).

Customer Loyalty

Customer loyalty is the level of customer being loyal to the company. In addition, customer loyalty appears when the minds are understood as a tendency for customers to buy back the company's products (Edwards et al. 2000). The level of customer loyalty is often associated with the frequency of

repeated purchases of a product. It can provide a high level of growth for the company as the company seeks to establish a sustainable relationship. Growth and profitability of companies, therefore, depends on the ability of the company to provide services to customers' satisfaction.

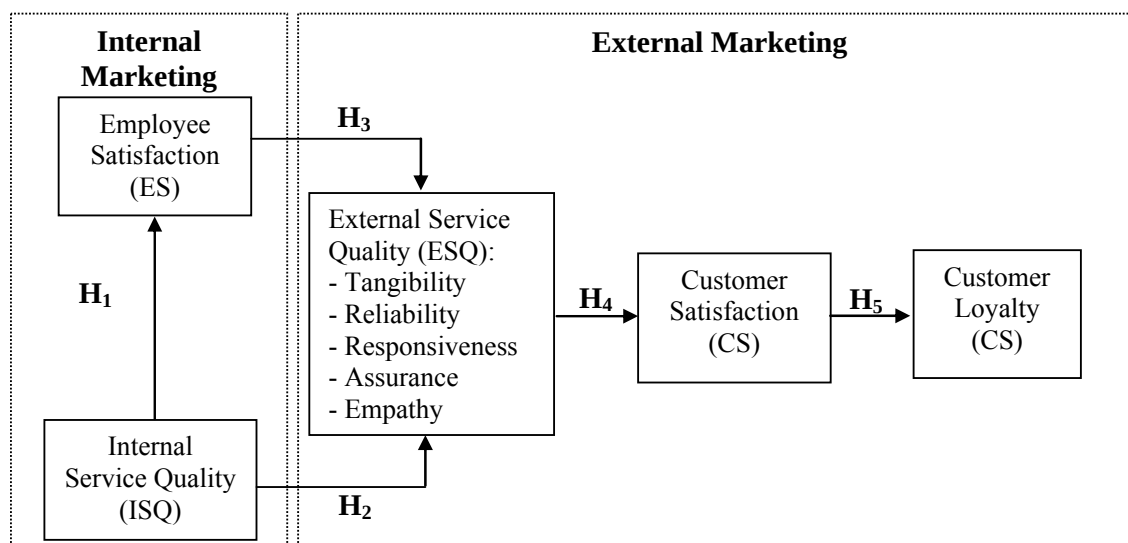
The more often customers buy the company's products, the higher the level of benefits to be derived by a company (Casalo 2008). Thus, customer loyalty is often regarded as one of the important factors that can support the survival of the company (Flavian et al. 2006; Keating et al. 2003). More importantly, the satisfaction perceived by the customer can affect customer loyalty. A satisfied customer will always buy the same product from the same company. In general, it can be argued that efforts to increase customer loyalty can be achieved through improving satisfaction to the customers on a continuous basis (Tariq and Moussaoui 2009; Casalo et al. 2008).

Conceptual Framework

This study is done to provide a model and describe the relationship among internal service quality, employee satisfaction, the external quality of service, customer satisfaction, and loyalty in public service context as shown in Figure 1. To meet the patients' expectations and satisfy patients, the external customers should be done by first improving the internal service quality hospitals that create employee satisfaction. Later on, the employee satisfaction will have an impact on the coordination of the work of all the divisions that exist within the organization (Turkyilmaz et al. 2011; Brown 1995; Dimitriadis and Stevens 2008).

One of the factors that can encourage the creation of employee satisfaction is to enhance the harmony of the working conditions for good working conditions will have an effect on job satisfaction perceived by employees. Thus, if the employee is satisfied with the job, the employee will strive to satisfy customers (Turkyilmaz et al. 2011, Dimitriadis and Stevens 2008).

Figure 1
Conceptual Framework of the Research



H1. There is a significant and positive effect of Internal Service Quality on the Employee Satisfaction.

H2. There is a significant and positive effect of Internal Service Quality on the External Service Quality.

H3. There is a significant and positive effect of Employee Satisfaction on the External Service Quality.

Service quality model is adopted from servqual models developed by Parasuraman et al. 1988). This instrument has been accepted as a standard for assessing the dimensions of variation in the quality of service and is based on the concept of service-quality "gaps" (Parasuraman et al. 1988). Five dimensions of service have been identified by Parasuraman et al. (1988) by taking into account the features of relationship of quality public services. These dimensions are (1) tangibility, (2) reliability, (3) responsiveness, (4) assurance, and (5) empathy (empathy).

In general, the dimensions of quality of service are associated with elements that interact with customers during the service received. Furthermore, the quality of service will determine the level of satisfaction perceived by the customer (Parasuraman et al. 1991), quality of service also illustrates the company's ability to provide different benefits and satisfying the customer, market share, profitability, and development strategies.

In that effort, the company should provide services to customers so that customer satisfaction is also induced by factors of service quality (Zeithaml and Bitner 2000). The system of quality service should improve the patient satisfaction because the quality of service is one of the attributes that influence patient satisfaction (Cen et al. 2004; Cooper 2004). In this context, a continuous improvement of the services in the public sector can drive the company to the customers' high satisfaction (Zeithaml 2000).

H4a. There is a significant and positive effect of External Service Quality on Customer Satisfaction.

H4b. There is a significant and positive effect of Tangibility on Customer Satisfaction.

H4c. There is a significant and positive effect of Reliability on Customer Satisfaction.

H4d. There is a significant and positive effect of Responsiveness on Customer Satisfaction.

H4e. There is a significant and positive effect of Assurance on Customer Satisfaction.

H4f. There is a significant positive effect of Empathy on Customer Satisfaction.

Again, it is clear that satisfaction perceived by the customer can affect the level of customer loyalty. In turn, the efforts to increase customer loyalty can be achieved through increasing customer satisfaction (Tariq and Moussaoui 2009; Casalo et al. 2008). Customer loyalty is the customer loyalty.

alty towards the company which is realized by the intention or inclination to buy more products from the same company (Edwards et al. 2000). One way to increase customer loyalty is by making the customers satisfied. Thus, customer satisfaction is considered one of the key factors to success and the company's corporate sustainability (Flavian et al. 2006; Keating et al. 2003).

H5. There is a significant and positive effect of Customer Satisfaction on Customer Loyalty.

RESEARCH METHOD

Research Design

The research was conducted in Surabaya by considering that this city is geographically, as the provincial government and the capital of East Java. It is the second biggest city after Jakarta in Indonesia. In addition, based on the spreading position of the hospitals in East Java, it is found that 133 hospitals are in Surabaya, in which it has the largest number of hospitals and these hospital are relatively complete (modern) (Anonym 2004). There are namely 31 hospitals.

Population and Sample

The population is all people who have got services from the hospital in Surabaya and all hospital employees. This study does not consider whether the respondents are living in or out of Surabaya. The main consideration is that the respondents have received the hospital services in Surabaya or being the employees in these hospitals. The sampling methods is random sampling method, the method is simple random sampling in which each member of the population has an equal chance to be selected as the study sample.

The method above is relatively easy and simple because it only requires a single stage sampling procedure. The technical implementation is accidental, in which every member of the population was met at the time of distribution of questionnaires and has the same opportunity to serve as the research sample. The practicality factor (ease of extracting the data) is also the key consideration in the use of the method of selecting

a random sample. The number of sample in this study is 1155 people in 155 hospital employees and 1000 hospital patients, given that numbers represent perceptions of hospital staff and the general perception of people who use health care services in Surabaya.

Data Collection

The questionnaire was used for collecting the data, in which, they contain several questions or statements related to the research variables. Distribution system used in distributing the questionnaire and it was designed in such a way as to enable the expected number of questionnaires returned as expected. The way is done by distributing questionnaires to people who have received or used health services given by the hospital employees in Surabaya.

Test of the Validity and Reliability

In order that the research achieves the validity of the instrument, the researchers calculate the correlation among the scores of each item with the total score using the product moment correlation technique. The research instruments are proved to be declared valid when the value is ≥ 0.3 . For the reliability, it is a measure of the extent to which a measure can be reliable or unreliable. It is in fact, the value is 0.6 indicating that the instrument is reliable instrument because it is $> \alpha$. In this study, Cronbach Alpha coefficients reliability is used for this measurement. When it is > 0.6 (Table 2 in Appendices), the test results show that all the variables are said to be reliable. It was done by means of product moment correlation and Cronbach Alpha performed with SPSS software for Windows 11.

Hypothesis Testing

SPSS analysis tool for Windows 11 is employed with multiple linear regression analysis. It can determine whether the proposed hypothesis is accepted or rejected. The criteria used to accept or reject the hypothesis is that if the value is 0.05, it demonstrates a significant levels $<$ of the probability p, with p (Imam Ghazali 2005) is of 5%. $<$. In that, the hypothe-

Table 3
Summary Model Internal Service Quality towards External Service Quality

Variabel	R Square	Std Error of the Estimate	Mean Square
Internal Service Quality → Employee Satisfaction	0.154	0.759	121.002
Internal Service Quality → External Service Quality	0.000	0.743	0.188
Employee Satisfaction → External Service Quality	0.000	0.743	0.216
External Service Quality → Customer Satisfaction	0.506	0.598	422.117
Customer Satisfaction → Customer Loyalty	0.005	0.775	3.490
Tangibility → Customer Satisfaction	0.235	0.744	196.219
Empathy → Customer Satisfaction	0.344	0.689	286.496
Responsiveness → Customer Satisfaction	0.496	0.604	413.312
Reliability → Customer Satisfaction	0.400	0.659	333.515
Assurance → Customer Satisfaction	0.543	0.575	452.741

Table 4
Regression Analysis Internal Service Quality towards External Service Quality

Variables	Std. Coefficients (Beta)	t-Value	Sig (p-Value)
Internal Service Quality → Employee Satisfaction	0.393	14.494	0.000
Internal Service Quality → External Service Quality	-0.017	-0.584	0.559
Employee Satisfaction → External Service Quality	0.18	0.625	0.532
External Service Quality → Customer Satisfaction	0.711	34.377	0.000
Customer Satisfaction → Customer Loyalty	0.071	2.411	0.016
Tangibility → Customer Satisfaction	0.485	18.835	0.000
Empathy → Customer Satisfaction	0.586	24.564	0.000
Responsiveness → Customer Satisfaction	0.704	33.659	0.000
Reliability → Customer Satisfaction	0.632	27.720	0.000
Assurance → Customer Satisfaction	0.737	37.005	0.000

sis is said to be significant if the probability value (p-value) < 5%. The result of data processing using linear regression models shows that the feasibility study fits the model.

Based on Table 3, it is known that the R Square is within a range of values from 0 to 0.5. This shows that at 0 to 0.5 framework of this study is influenced by variables that research is complied with into the research framework. With a 0.5 framework of this study, it is influenced by variables other than the variables that exist in the framework of the research study.

As based on the value of linear regression as shown in Table 4, it is obtained that the value of standardized coefficient of beta, is about -0,017 (internal service quality towards employee satisfaction) and 0,737 (assurance towards customer satisfaction), and the *t*-

value is about -0,584 (internal service quality towards external service quality) and 37,005 (assurance towards customer satisfaction).

Again, as based on Table 5, it can be explained that the research hypothesis testing provides a conclusion that there are eight significant hypotheses that can be accepted. First, there is a significant and positive effect of internal service quality on employee satisfaction indicated by a p-value of 0.000 or less than 0.05, there is a significant positive influence of external service quality on customer satisfaction indicated by a p-value of 0.000 or less than 0.05.

Second, there is a significant and positive effect of external service quality on customer satisfaction shown by the p-value for 0.000 or less than 0.05.

Third, there is a significant and positive effect

Table 5
Results of Research Hypotheses

Hypotheses	Variables	p-Value	Description
H ₁	Internal Service Quality → Employee Satisfaction	0.000 (t _{-value} =14.494)	Significant
H ₂	Internal Service Quality → External Service Quality	0.559 (t _{-value} =−0.584)	not Significant
H ₃	Employee Satisfaction → External Service Quality	0.532 (t _{-value} =0.625)	not Significant
H _{4a}	External Service Quality → Customer Satisfaction	0.000 (t _{-value} =34.377)	Significant
H _{4b}	Tangibility → Customer Satisfaction	0.000 (t _{-value} =18.835)	Significant
H _{4c}	Reliability → Customer Satisfaction	0.000 (t _{-value} =27.720)	Significant
H _{4d}	Responsiveness → Customer Satisfaction	0.000 (t _{-value} =33.659)	Significant
H _{4e}	Assurance → Customer Satisfaction	0.000 (t _{-value} =37.005)	Significant
H _{4f}	Empathy → Customer Satisfaction	0.000 (t _{-value} =24.564)	Significant
H ₅	Customer Satisfaction → Customer Loyalty	0.016 (t _{-value} =2.411)	Significant

of external tangibility on customer satisfaction shown by the p-value of 0.000 or less than 0.05.

Fourth, there is a significant and positive effect of external reliability on customer satisfaction shown by the p-value of 0.000 or less than 0.05.

Fifth, there is a significant and positive effect of external responsiveness on customer satisfaction shown by the p-value of 0.000 or less than 0.05.

Sixth, there is a significant positive effect of external assurance on customer satisfaction shown by p-value of 0.000 or less than 0.05.

Seventh, there is a significant positive effect of external empathy on customer loyalty shown by the p-value of 0.016 or less than 0.05.

Eight, there are two hypotheses that are rejected dealing with the positive and significant effect of internal service quality on external service quality and the significant and positive effect of employee satisfaction on external service quality.

DATA ANALYSIS AND DISCUSSION

Now that the research findings, as also referred to previous studies, it can be described that this study, firstly, is able to identify a set of variables of the quality of hospital services in Surabaya consisting of tangibility, reliability, responsiveness, assurance, empathy, and customer satisfaction. For another thing, this study can identify and apply a set of indicators forming tangibility, reli-

ability, responsiveness, assurance, empathy, and customer satisfaction in the hospital industries in Surabaya.

Other than the above mentioned, it also reveals any significant effect of internal service quality positive on employee satisfaction, with p-value 0.000. This indicates that the higher the quality of services performed by the internal elements of the hospital that are able to increase employee satisfaction. This means that the internal service quality is an important variable for improving the satisfaction of hospital employees.

It is found no significant influence of the internal service quality towards external service quality with a p-value 0.559. This indicates that the higher the quality of services performed by the internal parts of the hospital that do not affect the quality service and external parties (patients). It is found no significant effect of external service quality on employee satisfaction with a p-value 0.532. This suggests that higher internal service quality, the higher the employees' satisfaction. It is found a significant and positive influence of external service quality on customer satisfaction with the p-value 0.000. This indicates that the higher the internal quality of services, the higher the employees' satisfaction.

This means that the quality of internal services is an important variable for improving customer satisfaction. It is revealed that there is no any significant and positive effect of internal service quality external service

quality with *p-value* 0.559. This also indicates that the higher internal service quality, the higher the service quality of external customers (patients). This is found there is no significant and positive effect of employees' satisfaction on external service quality with the *p* value is 0.532. This also indicates that the employees' satisfaction does not influence the service quality provided for external parties (patients), in which it is found that there is significant and positive effect of external service quality on customer satisfaction with *p* value of 0.000. This indicates the higher the external service quality, the higher the customer satisfaction.

This indicates that the better the tangibility and the hospital equipment, the higher the customer satisfaction. It is found that there is significant and positive effect of tangibility on customer satisfaction with *p* value of 0.000. This indicates that the better tangibility and hospital equipment, the higher the customer satisfaction. It reveals that there is significant and positive effect of customer satisfaction with reliability *p-value* of 0.000.

This indicates that the better and reliable services provided by the hospital, the higher customer satisfaction. It is found that there is significant and positive effect of responsiveness on customer satisfaction with a *p-value* of 0.000. This indicates that the more responsive and faster services provided by the hospital staff, the higher customer satisfaction. This is found that there is significant and positive effect of assurance on customer satisfaction with *p-value* of 0.000.

This indicates that the hospital's responsibility for guaranteeing the services of the treatment can increase the patients' satisfaction. It is revealed that there is significant and positive effect of empathy on customer satisfaction with *p-value* of 0.000. This indicates that the more empathetic and caring the hospital staff are, the more satisfied the patients are. It is found that there is significant and positive effect of customer satisfaction on customer loyalty *p-value* of 0.000. This shows that the higher the perceived patient satisfaction, the more loyal the patients.

CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

It must be inferred that to get the patient loyalty, the hospitals must enhance it by providing a satisfactory service for them. The patient satisfaction can be created when the hospitals strives to improve service quality regarding tangibility, reliability, responsiveness, assurance, and empathy. On the contrary, internal service quality does not significantly influence the external service quality.

The above evidence suggests that the efforts done by the hospitals to provide quality service for the patients have not become the working culture of the hospitals, although the satisfaction experienced by hospital employees has increased when the internal service quality is also improved.

The model of hospital service quality is not fully understood, especially when related to the customer satisfaction. Since the scientific information on internal and external service quality of the hospitals and their effects on patient satisfaction and loyalty is still very limited. Therefore, the exploration and explanation of the model in this study are expected to contribute to understanding and building a model of internal and external service quality of the hospitals can increase the patient satisfaction. This is intended to create customer loyalty.

Practically, this study can provide managerial implications for hospital managers. The research model is expected to help the managers of the hospitals in Surabaya to understand how the internal and external service quality is attained to increase customer or patient satisfaction and loyalty. This can be done by paying attention to internal employees of the hospitals. Therefore, it is necessary to get the attention of hospital management, based on the fact that the internal service quality affects employee satisfaction but no significant effect on the quality of external services. In addition, it is also found that employee satisfaction does not affect the quality of external services, and one indication of this is due to working ethic and culture in the workplace that is still con-

sidered low among the hospitals' employees.

It is honestly admitted that there might be some limitations in this study. This might deal with such as linear regression analysis as the instrument. For the leveling model like this study, it is advisable to employ structural equation modeling, as it has a higher capability to measure all instruments and variables accurately. Beside, the linear regression analysis is less suitable for measuring such model.

Another limitation is even experienced by the previous researchers that measuring satisfaction subjectively is perceived by the respondents, but the size can be biased because respondents being subjectively to measure with too high or too low level. Other limitations are based on observations in the field regarding the categorization such as whether respondents of the private hospitals and government hospitals should be separated.

The difference in the status of these hospitals might also provide different impacts on the performance of the government hospital employees and private hospitals employees. The level of service provided by hospital for their patients is also considered different. This study does not separate these two distinctions.

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APPENDICES

Table 2
Validity and Reliability Test of Research Instruments

Latent Variables	Observable (Manifest) Variables	Validity	Reliability
Employee Satisfaction (ES)	The hospitals provide the employees whose best achievement with awards (ES1)	0.898**	0.911
	The hospitals have clear career promotion system (ES2)	0.826**	
	The hospitals are trying to develop their employees capabilities (ES3)	0.830**	
Tangibility (ESQ)	The hospitals have their modern equipment (ESQ1)	0.846**	0.893
	The hospitals have their attractive equipment (ESQ2)	0.802**	
	The hospitals employees have their attractive appearance (ESQ3)	0.671**	
	The hospitals' physical equipment is suitable for the condition being offered (ESQ4)	0.855**	
Reliability (ESQ)	When the hospitals promise to do something they certainly realize it on time. (ESQ5)	0.833**	0.914
	The hospitals are obligatorily to clam the patients every time there is a problem with them. (ESQ6)	0.774**	
	The hospitals have to do their tasks responsibility correctly since the beginning (ESQ7)	0.782**	
	The hospitals provide the services according on the time as they promised (ESQ8)	0.880**	
	The hospitals' recording system is accurate and free from mistakes (ESQ9)	0.747**	
Responsiveness (ESQ)	The hospitals provide the exact time of service provision clearly to their patients as they have informed. (ESQ10)	0.799**	0.925
	The hospitals' employees provide their services quickly (ESQ11)	0.891**	
	The hospitals' employees are always ready to help their patients (ESQ12)	0.840**	
	The hospitals' employees are not always busy so that they are willing to respond to their patients' wants (ESQ13)	0.852**	
Assurance (ESQ)	The hospitals' employees are reliable (ESQ14)	0.854**	0.936
	There is a secure feeling when the patients do transaction with the hospital's employees (ESQ15)	0.843**	
	The hospitals' employees always behave politely to their patients (ESQ16)	0.931**	
	The hospitals' employees have wide horizon/ experience so that they can answer all the patients' questions (ESQ17)	0.828**	
Empathy (ESQ)	There is an individual attention by the hospitals (ESQ18)	0.645**	0.925
	The hospitals' operation is fascinating for all the patients (ESQ19)	0.833**	
	The hospitals' employees provide the patients with personal attention (ESQ20)	0.882**	
	The hospitals indeed pay attention to the patients' interest (ESQ21)	0.876**	
	The hospitals' employees understand the patients' specific need (ESQ22)	0.881**	

Latent Variables	Observable (Manifest) Variables	Validity	Reliability
Customer Satisfaction (CS)	I am always satisfied with the services provided by the hospitals (CS1)	0.910**	0.927
	I am always satisfied with the services provided by the employees of hospitals (CS2)	0.857**	
	I am always satisfied during the waiting time in the waiting room (CS3)	0.854**	
Customer Loyalty (CL)	The patients always use the hospitals' services when they are sick (CL1)	0.740**	0.758
	The patients recommend other people of having a health care to the hospitals (CL2)	0.723**	

** . Correlation is significant at the 0.01 level (2-tailed).