



# The 3<sup>rd</sup> ICEBFG 2020

**The Third International Conference on Economics,  
Business, Finance, and Governance**

**17 December 2020  
University of Bandar Lampung, Bandar Lampung  
Lampung, Indonesia**

## PROCEEDINGS

**Organized by:**



**Bandar Lampung University (UBL)  
Jl. Zainal Abidin Pagar Alam No.26 Labuhan Ratu, Bandar Lampung, Indonesia  
Phone: +62 721 773847, Fax: +62 721701467  
website : [www.ubl.ac.id](http://www.ubl.ac.id)**

## **PREFACE**

The Activities of the International Conference are in line and very appropriate with the vision and mission of Bandar Lampung University (UBL) to promote training and education as well as research in these areas.

On behalf of the Second International Conference on Economics, Business, Finance and Governance (3rd ICEBFG 2020) organizing committee, we are very pleased with the very good response especially from the keynote speakers and from the participants. It is noteworthy to point out that about 32 technical papers were received for this conference.

The participants of the conference come from many well known universities, among others: Cornell University, University of Sharjah, Kitakyushu University, Gadjah Mada University, Sebelas Maret University, Bhayangkara Jakarta Raya University, Trisakti University, Trisakti School of Tourism, Trisakti School of Management, Bina Nusantara University, Pancasila University, Universitas Sumatera Utara, Pelita Harapan University, University of Bandar Lampung, Diponegoro University and Jendral Soedirman University. I would like to express my deepest gratitude to the International Advisory Board members, sponsor and also to all keynote speakers and all participants. I am also grateful to all organizing committee and all of the reviewers who contribute to the high standard of the conference. Also I would like to express my deepest gratitude to the Rector of Bandar Lampung University (UBL) who gives us endless support to these activities, so that the conference can be administrated on time.

Bandar Lampung, 17 December 2020

**Director of Conference The 3<sup>rd</sup> ICEBFG 2020  
Dr. Andala Rama Putra Barusman, S.E., M.A.Ec.**

# **The 3<sup>rd</sup> ICEBFG 2020**

## **The Second International Conference on Economics, Business, Finance, and Governance**

**17 December 2020**

**Post Graduate University of Bandar Lampung  
Lampung, Indonesia**

### ***INTERNATIONAL ADVISORY BOARD***

Andala R.P. Barusman, University of Bandar Lampung, Indonesia  
Wesley D. Sine, Cornell University, USA  
M. Yusuf S. Barusman, University of Bandar Lampung, Indonesia  
Dima Jamali, University of Sharjah, United Arab Emirates  
Tina Miniawati Barusman, University of Bandar Lampung, Indonesia  
Tankiso Moloi, University of Johannesburg, South Africa  
James Guthrie, Macquarie University, Australia  
Dima Jamali, American University of Beirut, Lebanon  
Christine Cooper, University of Edinburgh, Scotland UK  
Leire San Jose, Universidad del Pais Vasco, Spain  
Zahid Mahmood, King Aziz University, Saudi Arabia  
Kiymet Tunca Caliyurt, Trakya University, Turkey  
Jan Stejskal, University of Pardubice, Czech Republic  
Edyta Gheribi, University of Lodz, Poland  
Papakonstantinidis Leonidas, The TEI of Kalamata, Greece  
Chris Patel, Macquarie University, Australia  
Diana Cibulskienė, Šiauliai University, Lithuania  
Bazyli Czyżewski, Poznan University of Economics, Poland  
Christopher Gan, Lincoln University, New Zealand  
Vatuiu Teodora, Titu Maiorescu University, Romania  
Abeer Hassan, University of West Scotland, Scotland  
Bitu Mashayekhi, University of Tehran, Iran  
Barbara Sawicka, University of Life Sciences in Lublin, Poland  
Abdul Naser Ibrahim, AL-Ahliyya Amman University, Jordan  
Sarka Cemerikova, Silesian University in Opava, Czech Republic  
Faisal Faisal, University of Diponegoro, Indonesia  
Maria Järnlström, University of Vaasa, Finland  
Faisal Alqahtani, Taibah University, Saudi Arabia  
Kateryna Proskura, Kyiv National Economic University, Ukraine  
Istianingsih Sastrodiharjo, Indonesia Banking School, Indonesia  
Maisarah Mohamet Saat, Universiti Teknologi Malaysia, Malaysia  
José Álvarez-García, Universidad de Extremadura, Spain  
Tetiana Vasyliieva, Sumy State University, Ukraine  
Hussein Hijazi, Al-Maaref University, Lebanon  
Edwin Mirfazli, University Del Pais Vasco, Spain  
Adriana Tiron Tudor, Universitatea Babeş-Bolyai, Romania  
Fabio Papa, Università Cattaneo, Italy

***The 3<sup>rd</sup> International Conference on Economics, Business, Finance and Governance 2020  
(The 3<sup>rd</sup> ICEBFG 2020), December 17, 2020, Lampung, Indonesia.***

Demirel Engin, Trakya University, Turkey  
Yuliansyah, University of Lampung, Indonesia  
Federica Murmura, Università degli Studi di Urbino Carlo Bo, Italy  
Peipei Pan, Macquarie University, Australia  
Teodora Viorica Farcas, Universitatea Babes-Bolyai, Romania  
Jana Kliestikova, University of Zilina, Slovak Republic  
Mario Ianniello, Udine University, Italy  
Jose Luis Retolaza, University of Deusto, Spain  
Dalilawati Zainal, University of Malaya, Malaysia  
Olena Voronkova, National University of the State Fiscal Service of Ukraine

# **The 3<sup>rd</sup> ICEBFG 2020**

**The Third International Conference on Economics,  
Business, Finance, and Governance**

**17 December 2020  
Post Graduate University of Bandar Lampung  
Lampung, Indonesia**

## ***ORGANIZING COMMITTEE***

### ***Executive Advisors***

Prof. Dr. Ir. M Yusuf S. Barusman, M.B.A.

#### Advisory Council

Dr. Tina Miniawati B, M.B.A.

#### Vice Advisory Council

Dr. Ir. Hery Riyanto, M.S,

#### Chairman

Dr. Andala R.P. Barusman, S.E., M.A.Ec

#### Co-Chairman

Dr. Iskandar Ali Alam, MM.

#### Secretary

Nurdiawansyah, S.E., M.S. Ak.

#### Treasury

Kiki Wulansari, S.E

#### Secretariat Coordination

Tri Lestira Warganegara, S.E., M.M.

Sapmaya Wulan, S.E., M.S.

#### ICEBFG Promotion Council

Drs. Herry Goenawan Soedarsa, M.Si.Ak., CA

#### Publication

Selfia Alke Mega, S.T., M.M.

#### Special Event

Khairuddin, S.E., M.S.Ak.

#### Parallel Session

*The 3<sup>rd</sup> International Conference on Economics, Business, Finance and Governance 2020  
(The 3<sup>rd</sup> ICEBFG 2020), December 17, 2020, Lampung, Indonesia.*

Dr. Oktavianur, S.E., M.M.  
Dra. Rosmiati Tarmizi, M.M., Ak., CA

Documentation  
Luke Suciati, S.E., M.S.Ak.

Accommodation & Transportation  
Dr. Hendri Dunan, S.E., M.M.

Call for Paper  
Dr. Defrizal, S.E., M.M.

**ANALYSIS OF PATIENT SATISFACTION FOR INPATIENTS SERVICES  
QUALITY AT NATAR MEDIKA HOSPITAL IN SOUTH LAMPUNG REGEN-  
CY, LAMPUNG PROVINCE, INDONESIA**

Sapmaya Wulan, Hepiana Patmarina, Ardansyah, Rico Leonardo  
Faculty of Economics and Business, Bandar Lampung University, Lampung, Indonesia  
[sapmaya.wulan@ubl.ac.id](mailto:sapmaya.wulan@ubl.ac.id)

Presented: The 3rd ICEBFG 2020 International Conference on Economics, Business,  
Finance and Governance, 17th December 2020, Bandar Lampung University,  
Lampung, Indonesia

**ABSTRACT**

Health institutions, especially hospitals, are currently growing quite rapidly in line with the increasing public need for health services in hospitals. Hospitals have the role of providing health services according to their competence. Hospitals must be able to provide optimal health services so that patients feel satisfied with the quality of health services provided. The hospital that is the object of this research is the Natar Medika Hospital in South Lampung, Lampung Province, Indonesia. The problem in this study is that the Natar Medika Hospital has provided various health service facilities, but the development of the number of patients fluctuates with a relatively small increase. The purpose of this study was to determine the level of patient satisfaction with inpatient services provided by the Natar Medika Hospital. This study uses a conformity level analysis tool and a Cartesian diagram analysis. Based on the analysis of the level of conformity, the average result of the conformity level is 84.28% with the very appropriate category. This shows that the level of performance (quality of service) provided by the hospital on average is in accordance with the level of interest (expected satisfaction) of the patient. Of the 20 indicators, there are 16 indicators with very suitable categories, 3 indicators with appropriate categories, and 1 indicator with sufficiently suitable categories. Based on the Cartesian diagram analysis, the results obtained: from 20 indicators, there are 4 indicators in Quadrant A (categorized as unsatisfactory), 10 indicators in Quadrant B (categorized as very satisfying), 4 indicators in Quadrant C (categorized as satisfactory), and 2 indicators in the D quadrant (categorized as satisfactory). So overall it can be stated that the quality of inpatient services provided has provided satisfaction to patients. Thus, it can be concluded that the quality of inpatient services provided has provided satisfaction (with satisfactory categories) to patients at Natar Medika Hospital in South Lampung, Lampung Province, Indonesia.

Keywords: Service Quality, Customer Satisfaction, Conformity Level Analysis, Cartesian Diagram Analysis.

## **INTRODUCTION**

Health institutions, especially hospitals, are currently growing quite rapidly in line with the increasing public need for health services in hospitals. Hospitals have the role of providing health services according to their competence. Hospitals must be able to provide optimal health services so that patients feel satisfied with the quality of health services provided. With the rapid development of hospitals, there is a very tight competition climate. The community as customers is in a stronger position because there are more choices of hospitals that can serve it. At the same time, the public is also increasingly critical of health services. In this condition, in order to continue to exist to serve its customers, the hospital must have the willingness and ability to provide excellent service. Therefore we need a paradigm and mental attitude oriented to serve, as well as adequate knowledge and skills in carrying out excellent service.

The hospital that is the object of this research is the Natar Medika Hospital in South Lampung, Lampung Province, Indonesia. This hospital is a public hospital that was founded in 2010, which is located on Jl. Raya Natar no.4 Muara Putih Village, Natar District, South Lampung Regency, Lampung Province, Indonesia. In order to provide excellent service, this hospital strives to always improve its services by providing good and quality service to patients so that the services provided are as expected by patients. By fulfilling the patient's expectations, the patient will feel satisfied with the quality of service provided by the hospital. Good quality service will be able to create a harmonious relationship between the hospital as a health service provider with patients as users and can even create word of mouth (word of mounth) recommendations that are beneficial for the hospital.

From the observations made by the researcher, it can be seen that there are complaints that are felt by patients, such as less friendly nurses, officers or nurses who work in a hurry so that sometimes they make mistakes, some doctors are rarely there which make patients wait a long time, and the nurse's lack of attention to patients. This is important to know as a reference in improving services in order to provide optimal satisfaction. For this reason, it is necessary to know which dimensions of service quality are indicators of patient satisfaction. According to Zeithmal, Berry and Parasuraman (in Zulian Yamit, 2005; 10-11), the dimensions of service quality consist of: tangibles (physical evidence), reliability, responsiveness, assurance, and empathy.

Natar Medika Hospital provides health services equipped with adequate medical equipment facilities. The health services provided consist of medical and non-medical services. The medical services provided include services for outpatient and inpatient care, ICU rooms, emergency services and supporting services. The details of medical services and their facilities can be seen in Table 1. For non-medical service facilities, 34 inpatient care rooms with various classes are provided. which is equipped with a bed of 98 pieces. Details of the completeness of inpatient rooms can be seen in Table 2. The hospital also provides public facilities, namely adequate parking, patient waiting rooms, prayer rooms, canteen, and elevators for patients. The hospital also provides health workers who have various kinds of expertise and specialization, as well as non-health workers. Number of health workers and non-health workers can be seen in Table 3.

**Table 1. Medical Service Facilities at Natar Medika Hospital**



No.	Types of Service	Medical Service Facilities
1	Outpatient	General Polyclinic, Internal Medicine Polyclinic, Pediatric Poly-clinic, Obstetrics and Gynecology Polyclinic, Surgical & Aesthetic Surgery Polyclinic, Neurology Polyclinic, Medical Rehabilitation Unit, Eye Polyclinic, Lung Polyclinic, and Dental Polyclinic.
2	Inpatient	VVIP Room, VIP Room, Room I, Room II, Room III, and Cohort Room.
3	ICU Room	24 Hours Services, Handling of Heavy Cases, Ventilators, Monitors, DC-Shock, and Pamp Syring & Pamp Infusion.
4	Emergency	24 hours service.
5	Supporting Services	MCU (Medical Check Up), MRI (Magnetic Resonance Imaging), Operation Services, Maternity, Perinatology, Radiology, Laborato-ries, Pharmacy Installation, Nutrition Installation, and Ambulance.

Source: Medika Natar Hospital, 2018

**Table 2. Treatment Room Facilities Natar Medika Hospital**

Treatment Room	Total Space	Room Facilities
VVIP Room	4	1 Electric Bed, 32-inch LCD TV, AC, Telephone, Sofa Bed ,Guest Chair, Dispenser, Refrigerator, Large Wardrobe, Desk, Bathroom.
VIP Room	4	1 Electric Bed, 26-inch LCD TV, AC, Telephone, Guest chair, Dispenser, Refrigerator, Wardrobe, Table, and Bathroom.
Room I	8	Beds for 2 Patient, 26 inch LCD TV, AC, Telephone, Bed and Table, Bathroom.
Room II	12	Beds for 3 patients,22 inch LCD TV,AC,Bed and Table, Bathroom.
Room III	4	Beds for 6 Patients, Fan, Bed, Table, and Bathroom.
Cohort Room	2	1 Electric Bed, Patient clothes.

Source: Medika Natar Hospital, 2018

**Table 3. Number of Health Workers and Non-Health Workers**

Number	Type of Expertise	Total (person)
1.	General practitioners	7
2.	Specialist doctors	20
3.	Pharmacist	8
4.	Pharmacy	5
5.	Physiotherapy	1
5.	Radiographer	7
6.	Analyst	7
7.	Nurse	68

8.	General / Non-Health Personnel	84
	Total	207

Source: Medika Natar Hospital, 2018

In this study, we will discuss inpatients because inpatients are more able to assess the quality of services provided by the hospital compared to outpatients. To find out the development of the number of inpatients at Natar Medika Hospital can be seen in Table 4.

**Table 4. Number of Inpatients at Natar Medika Hospital in 2017**

Month	Number of Patients (people)	Development (%)
January	479	-
February	475	- 0,8
March	581	18,2
April	383	- 34,1
May	482	25,8
June	427	- 11,4
July	303	- 29,0
August	333	9,9
September	369	10,8
October	444	20,3
November	400	- 9,9
December	423	5,8
Average		0,47

Source: Medika Natar Hospital, 2018

Based on Table 4 it can be seen that the development of the number of inpatients fluctuates with a relatively large decrease in certain months, so that the development of the number of inpatients increases with an increase. a relatively very small amount of 0.47%. Based on the description and data above, it can be seen that the problems contained in this study are: even though the hospital has provided various types of services, the development of the number of inpatients has fluctuated with a relatively small increase of 0.47%. This can be used as an indicator that the quality of inpatient services provided by the hospital has not provided satisfaction to patients. Based on these problems, problems can be raised, namely: What is the level of patient satisfaction with inpatient services provided by the Natar Medika Hospital? The purpose of this study were: To determine the level of patient satisfaction with the inpatient services provided by the Natar Medika Hospital.

## **LITERATURE REVIEW**

### **Service Quality**

According to Fandy Tjiptono (2007: 59): "Service quality is the level of excellence expected and control over that level of excellence to meet customer desires". From these definitions of service quality it can be concluded that, service quality is all forms of activities undertaken by the company to meet consumer expectations. Service in this case is defined as services or services delivered by service owners in the form of conven-

ience, speed, relationships, abilities, and hospitality which are addressed through attitudes and characteristics in providing services for customer satisfaction Service quality can be identified by comparing consumers' perceptions of the real service they receive or receive with the service they actually expect / want on the service quality attributes of a company.

### **Service Quality Dimensions**

According to Zeithaml, Berry and Parasuraman in Fandy Tjiptono (2005: 14): there are five dimensions that can be used to measure service quality, namely: 1) Tangibles (Physical Evidence), the company's ability to show its existence to external parties in the form of physical appearance includes facilities and infrastructure, facilities, personnel equipment, is clear evidence of the services provided; 2) Reliability, namely the ability to provide promised services promptly, accurately and satisfactorily regarding service delivery, service procedures, problem solving and pricing. Customers usually want to work with companies that can keep their promises; 3) Responsiveness, namely the desire of the staff to help customers and provide responsive services. This dimension emphasizes full attention and speed in dealing with customers, be it requests, questions, complaints and other problems; 4) Assurance, including knowledge, ability, courtesy and trustworthiness of staff, free from danger, risk or doubt. Customers must be free from high risk hazards or free from doubt and uncertainty; 5) Empathy, which includes the ease of making good communication relationships, personal attention and understanding the needs of customers. The most important thing from empathy is the way of delivering communication to customers, customers are considered as important and special people.

### **Customer Satisfaction**

According to Zeithaml, Valerie A. and Bitner, Mary Jo (2000; 75): "Satisfaction is the response or responses of consumers regarding meeting needs. Satisfaction is an assessment of the characteristics or features of a product or service, or the product itself, which provides a level of consumer pleasure related to meeting consumer consumption needs. According to Philip Kotler and Kevin Lane Keller (2007; 177): "Consumer satisfaction is the feeling of pleasure or disappointment of someone who appears after comparing the performance (results) of the product thought against the expected performance". According to Zulian Yamit (2001: 78): "Consumer satisfaction is the result (outcome) that is felt on the use of products and services, equal or exceed the desired expectations".

### **Consumer Satisfaction Indicators**

According to Hawkins and Lonney in Tjiptono (2004; 101), indicators of consumer satisfaction consist of: 1) Conformity of expectations, which is the level of conformity between expected performance / products and what consumers feel, including: a) Products obtained are in accordance with or exceeding expectations, b) Employee services obtained are in accordance with or exceeding expectations, c) Facilities obtained are in accordance with or exceeding expected. 2) Interest in visiting again, is the customer's willingness to visit again or make a re-purchase, including: a) Interested in visiting again because of the satisfying service, b) Interested in visiting again because of the value and benefits obtained after consuming the product, c) Interested in visiting back because of adequate supporting facilities. 3) Willingness to recommend, is the willing-

ness of customers to recommend products / services to friends or family, including: a) Suggesting friends or relatives to buy products because of satisfactory service, b) Suggesting friends or relatives to buy products because of adequate facilities, c) Suggesting friends or relatives to buy products because of the value or benefits of the products / services being constructed.

### **Factors Affecting Customer Satisfaction**

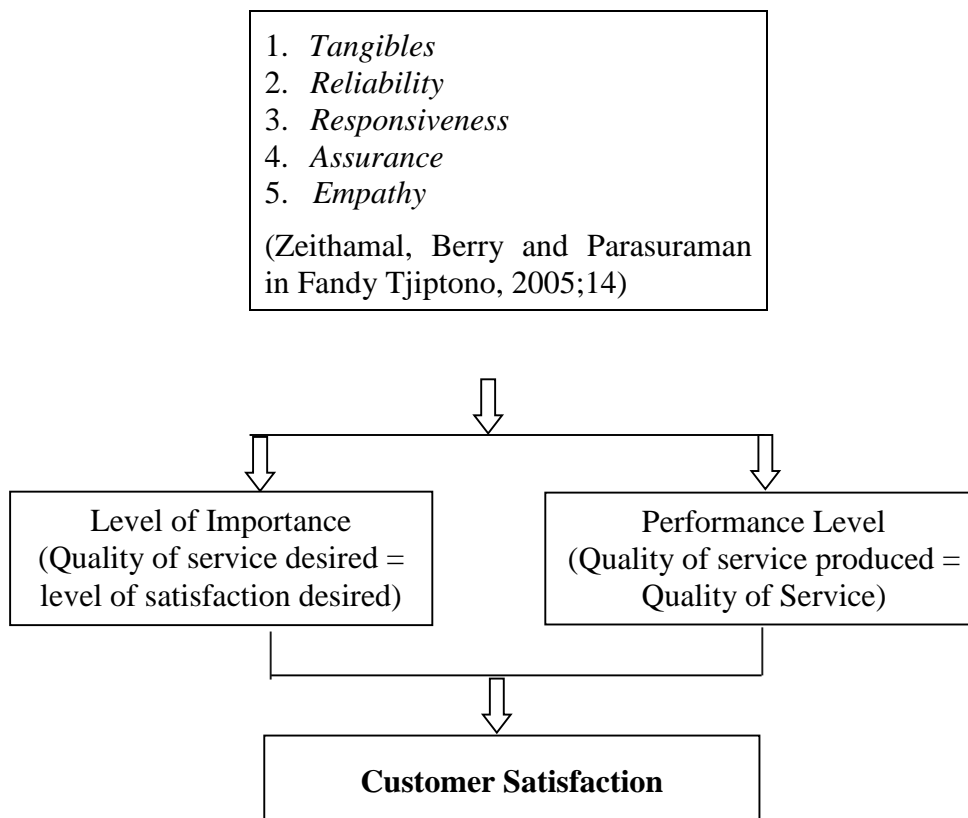
The factors that affect customer satisfaction according to Zeithaml, Valerie A. and Bitner, Mary Jo (2003; 162) are as follows: 1) Quality of service or services, 2) Quality of products, 3) Price, 4) Situation factors and consumer conditions, 5) personal factors of consumers, namely consumer characteristics that include personal needs.

### **Conceptual Framework**

To measure the level of customer satisfaction with the level of service quality, it is necessary to know the dimensions of service quality that can be used to measure the level of customer satisfaction. According to Zeithamal, Berry and Parasuraman in Fandy Tjiptono (2005: 14): there are five dimensions of service quality that can be used to measure the level of customer satisfaction, namely: 1) Tangibles, 2) Reliability, 3) Responsiveness, 4) Assurance, and 5) Empathy. Furthermore, these dimensions will be evaluated by consumers based on what has been obtained and felt (based on the level of importance and performance). The level of importance shows the level of service quality desired by consumers which also reflects the level of satisfaction desired by consumers. The performance level shows the level of service quality produced or provided to consumers which also reflects the level of service quality provided by the company to consumers. The description of the analysis of customer satisfaction level with the dimensions of service quality can be seen in The Conceptual Framework in Figure 1.

**Figure 1. The Conceptual Framework**





Source : J. Supranto (2011;23)

## **RESEARCH METHODS**

This research uses the type of library research and field research and uses a descriptive research design. This study uses data collection techniques: observation, interview, documentation, and questionnaire. Types and sources of data used primary data and secondary data.

### **Variables and Variable Operationalization**

In this study, two variables were used, namely Service Quality (indicating the quality of service produced or provided by the company to consumers as a form of company performance) given the notation X, and Customer Satisfaction (indicating the level of importance of the service quality desired or expected by consumers). given the notation Y. Definition of Service Quality according to Fandy Tjiptono (2007: 59) is: "The level of excellence expected and control over the level of excellence to meet customer desires". The definition of consumer satisfaction according to Philip Kotler and Kevin Lane Keller (2007: 177) is: "A feeling of pleasure or disappointment in someone who appears after comparing the performance (results) of the product thought against the expected performance". The variables of service quality and customer satisfaction have the same dimensions and indicators because the dimensions of service quality will be assessed based on the level of importance and level of performance. As for the explanation of variables, the dimensions of service quality and indicators of each dimension can be seen in Table 5.

**Table 5. Variable Operational Research**

<b>Variable</b>	<b>Dimension</b>	<b>Indicator</b>	<b>Item</b>
<b>Service Quality</b>	<b>1. Tangibles (Physical Evidence).</b> Covering physical facilities, employee equipment, means and facilities.	a. The treatment room is clean, neat and comfortable b. The Emergency room is clean, and neat c. Large parking area d. The reception area is clean and comfortable	1,2,3,4
	<b>2. Reliability.</b> The ability to provide fast, accurate and satisfying service.	a. Fast patient admission procedure b. Fast and precise inspection service c. Service schedule is executed properly d. Completeness of medical equipment	5,6,7,8
	<b>3. Responsiveness.</b> The desire of staff to be responsive in providing services.	a. Responsive to patient complaints b. Provide information clearly and easily understandable c. Fast action when the patient needs d. Fast service in the administration section	9,10,11,12
	<b>4. Assurance (Guarantee).</b> Includes the knowledge, skills, politeness and trustworthiness of staff, free from harm, risk or doubt.	a. The doctor's knowledge and ability to diagnose diseases b. The skills of doctors, nurses and officers at work c. Guarantee of security and trust in service d. Complete medical equipment	13,14,15,16
	<b>5. Empathy.</b> Includes the ease of making good communication relationships, personal attention and understanding the needs of customers.	a. Give special attention to the patient b. Attention to complaints of patients and their families c. Service to patients regardless of social status d. Pay attention by frequently visiting patients	17,18,19,20
<b>Patient Satisfaction</b>	<b>1. Tangibles (Physical Evidence).</b> Covering physical facilities, employee equipment, means and facilities.	a. The treatment room is clean, neat and comfortable b. The Emergency room is clean, and neat c. Large parking area d. The reception area is clean and comfortable	1,2,3,4
	<b>2. Reliability.</b> The ability to provide fast, accurate and satisfying service.	a. Fast patient admission procedure b. Fast and precise inspection service c. Service schedule is executed properly d. Completeness of medical equipment	5,6,7,8
	<b>3. Responsiveness.</b> The desire of staff to be responsive in providing services.	a. Responsive to patient complaints b. Officers provide information clearly and easily understandable c. Fast action when the patient needs d. Fast service in the administration section	9,10,11,12

	<p><b>4. Assurance (Guarantee).</b> Includes the knowledge, skills, politeness and trustworthiness of staff, free from harm, risk or doubt.</p>	<p>a. The doctor's knowledge and ability to diagnose diseases b. The skills of doctors, nurses and officers at work c. Guarantee of security and trust in service d. Complete medical equipment</p>	<p>13,14, 15,16</p>
	<p><b>5. Empathy.</b> Includes the ease of making good communication relationships, personal attention and understanding the needs of customers.</p>	<p>a. Give special attention to the patient b. Attention to complaints of patients and their families c. Service to patients regardless of social status d. Pay attention by frequently visiting patients</p>	<p>17,18, 19,20</p>

### **Population, Sample and Sampling Technique.**

The population in this study were all inpatients at Natar Medika Hospital in December 2017, totaling 423 people. Samples were taken by 25% of the population, namely 106 people. Sampling technique is done by using accidental sampling technique.

### **Validity Test and Reliability Test.**

Validity test is used to measure whether a questionnaire is valid or not (Ghozali, 2005; 45). A questionnaire is declared valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. The measurement technique used is Pearson's Product Moment technique with the help of SPSS 18.00 for windows. Based on the validity test, the results of all items were declared valid.

Reliability test, used to measure the reliability or reliability of the questionnaire which is an indicator of a variable. A questionnaire is said to be reliable or reliable if a person's answer to the questions in the questionnaire is consistent or stable over time (Ghozali, 2005; 41). In conducting the reliability test, the Cronbach Alpha model was used with the help of SPSS for Windows version 18.0. In decision making, an instrument is said to be reliable if the Cronbach Alpha value is greater than 0.6 (Ghozali, 2009; 72). Based on the reliability test, the Cronbach Alpha value of all variables was greater than 0.60, which means that the variables used were declared reliable.

### **Analysis Tools**

**Conformity Level Analysis.** This analysis is used to determine how appropriate the level of importance (expected patient satisfaction) is with the level of performance (quality of service) provided by the hospital. The level of conformity is measured by comparing the importance score that shows patient satisfaction with the performance score that shows the quality of service provided by the hospital (Source: J. Supranto, 2011; 241).

**Cartesian Diagram Analysis.** This analysis is used to measure the level of satisfaction felt by consumers with the quality of services provided by the company. A Cartesian diagram is a shape with a horizontal axis (X axis) showing the level of performance and a vertical axis (Y axis) showing the level of importance. The X-axis shows the level of company performance (is the quality of service produced or provided by the company)

and the Y-axis shows the level of importance (is the level of service quality desired / expected by consumers which also shows the level of customer satisfaction). Build a Cartesian diagram is divided into four parts which are limited by two lines that intersect perpendicular to the points  $(\bar{X}, \bar{Y})$ . The four parts consist of Quadrant A, Quadrant B, Quadrant C, and Quadrant D. Quadrant A is in the First Priority position, Quadrant B is in the Maintain position Priority, Quadrant C is in a low priority position, and Quadrant D. is in a redundant position. To perform a Cartesian diagram analysis, calculations are needed using the Importance Performance Analysis Table (Source: J. Supranto, 2011; 24).

## RESULTS AND DISCUSSION

### Result of Conformity Level Analysis

Based on the calculation of the Comparison of the Level of Conformity between the level of performance (quality of service) and the level of importance (patient satisfaction) is obtained, the percentage of the level of conformity along with the categories of each attribute is presented in The Table of Recapitulation of Conformity Levels of Service Quality Attributes (Table 6).

Based on Table 6, it is obtained that the average value of the level of conformity between the level of performance and the level of importance is 84.28% with the very appropriate category. Of the 20 attributes there are 16 attributes with very suitable categories, 3 appropriate category attributes, and 1 category attribute quite suitable. Thus, overall it can be stated that the level of performance is in accordance with the level of importance, meaning that it has provided satisfaction to the patient.

**Table 6. Recapitulation of Conformity Levels of Service Quality Attributes**

Dimensions and Attributes of Service Quality	Performance Score (X)	Importance Score (Y)	Conformity Levels (%)	Category
<b>1. Tangibles(Physical Evidence)</b>				
1) The treatment room is clean, neat and comfortable.	399	478	83,47	Very Suitable
2) The Emergency room is clean, and neat.	403	484	83,26	Very Suitable
3) Large parking area.	288	481	59,88	Quite Suitable
4) The waiting room area is clean and comfortable.	324	477	67,92	Suitable
<b>2. Reliability</b>				
5) Fast patient admission procedure.	400	473	84,57	Very Suitable
6) Fast and precise inspection service.	402	467	86,08	Very Suitable
7) Service schedule is executed properly.	397	453	87,64	Very Suitable
8) Completeness of medical equipment.	416	475	87,58	Very Suitable
<b>3. Responsiveness</b>				
9) Responsive to patient Complaints.	412	471	87,47	Very Suitable



10) Provide information clearly and easily understandable.	371	445	83,37	Very Suitable
11) Fast action when the patient needs.	383	467	82,01	Very Suitable
12) Fast service in the administration section.	358	438	81,74	Very Suitable
<b>4. Assurance (Guarantee)</b>				
13) The doctor's knowledge and ability to diagnose diseases	415	468	88,68	Very Suitable
14) The skills of doctors, nurses and officers at work	416	467	89,08	Very Suitable
15) Guarantee of security and trust in service	416	431	96,52	Very Suitable
16) Complete medical equipment	434	467	92,93	Very Suitable
<b>5. Empathy</b>				
17) Give special attention to the patient	375	475	78,95	Suitable
18) Attention to complaints of patients and their families	371	477	77,78	Suitable
19) Service to patients regardless of social status	366	427	85,71	Very Suitable
20) Pay attention by frequently visiting patients	357	421	84,80	Very Suitable
<b>Average Level of Conformity</b>			<b>84,28</b>	<b>Very Suitable</b>

Source: Data Processed from The Questionnaire Results, 2018

#### **Results of Cartesian Diagram Analysis**

Based on the data in the analysis of the level of conformity in Table 6, then entered into the Importance-Performance Analysis Table 7 for calculations.

**Table 7. Calculation of Importance-Performance Analysis**

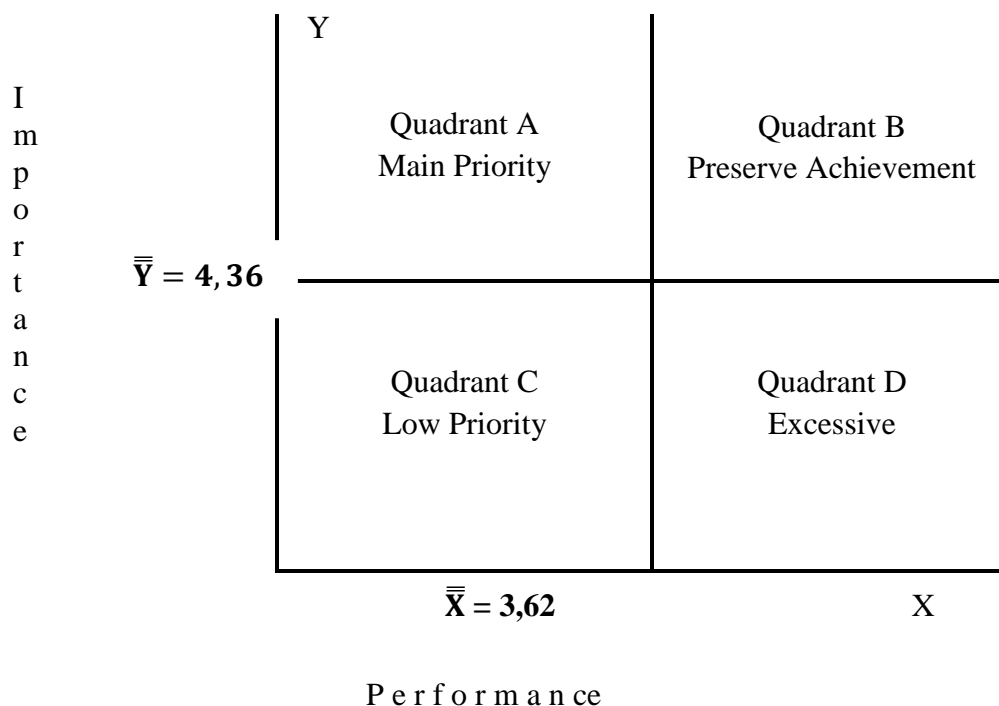
Dimensions and Attributes of Service Quality	Performance Score (X)	Importance Score (Y)	$\bar{X}$	$\bar{Y}$
<b>1. Tangibles (Physical Evidence)</b>				
1) The treatment room is clean, neat and comfortable.	399	478	3,76	4,51
2) The Emergency room is clean, and neat.	403	484	3,80	4,57
3) Large parking area.	288	481	2,72	4,54
4) The Waiting room area is clean and comfortable.	324	477	3,06	4,50
<b>2. Reliability</b>				
5) Fast patient admission procedure.	400	473	3,77	4,46
6) Fast and precise inspection service.	402	467	3,79	4,41
7) Service schedule is executed properly.	397	453	3,75	4,27
8) Completeness of medical equipment.	416	475	3,93	4,48
<b>3. Responsiveness</b>				
9) Responsive to patient Complaints.	412	471	3,89	4,44
10) Officers provide information clearly and	371	445	3,50	4,20

easily understandable.				
11) Fast action when the patient needs.	383	467	3,61	4,41
12) Fast service in the administration section.	358	438	3,38	4,13
<b>4. Assurance (Guarantee)</b>				
13) The doctor's knowledge and ability to diagnose diseases.	415	468	3,92	4,42
14) The skills of doctors, nurses and officers at work.	416	467	3,93	4,41
15) Guarantee of security and trust in service.	416	431	3,93	4,02
16) Complete medical equipment.	434	467	4,09	4,41
<b>5. Empathy</b>				
17) Give special attention to the patient.	375	475	3,54	4,48
18) Attention to complaints of patients and their families.	371	477	3,50	4,50
19) Service to patients regardless of social status.	366	427	3,45	4,03
20) Pay attention by frequently visiting patients.	357	421	3,37	3,97
<b>Total <math>\bar{X}</math> and <math>\bar{Y}</math></b>			<b>72,44</b>	<b>87,16</b>
<b>Average <math>\bar{\bar{X}}</math> and <math>\bar{\bar{Y}}</math></b>			<b>3,62</b>	<b>4,36</b>

Source: Data Processed from The Questionnaire Results, 2018.

Based on the Calculation of Importance-Performance Analysis in Table 7, it is obtained  $\bar{X} = 3,623.62$  and  $\bar{Y} = 4.36$ . Furthermore, the image created Cartesian Diagram in Figure 2 with reference to values  $\bar{\bar{X}}$  and  $\bar{\bar{Y}}$ .

**Figure 2. Cartesian Diagram**

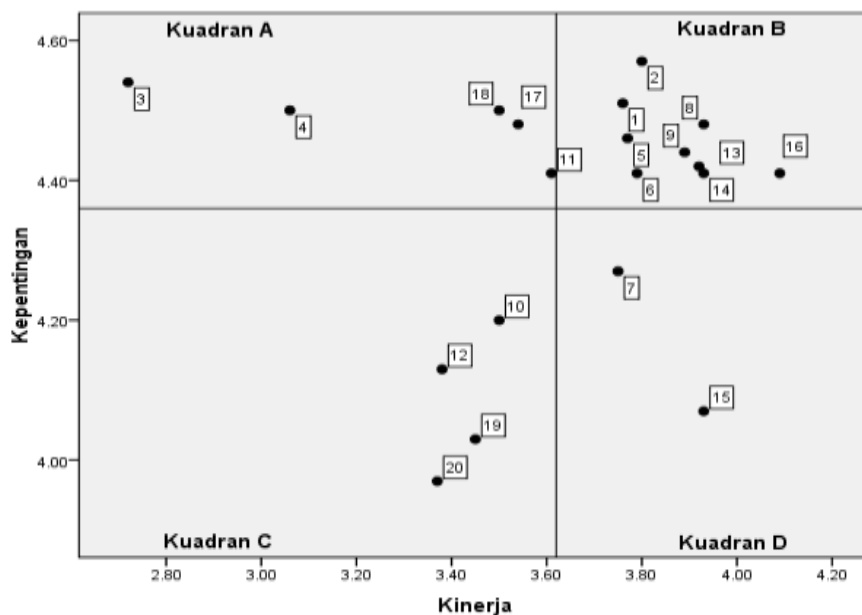


From Figure 2, it can be seen that the positions of the quadrants A, B, C, and D then determine the position of the service quality attributes on the Cartesian Diagram using SPSS 18. The results of the analysis can show the positions of the attributes in the Cartesian diagram which can be seen in Figure 3. From Figure 3 The Cartesian Diagram Analysis can be seen the position distribution of service quality attributes that are in 4 Quadrants A, B, C, and D. The interpretation of the position of service quality attributes that are in Quadrant A, B, C, and D in Figure 3 Cartesian Diagram of Analysis Results can be explained as follows.

**Quadrant A (Main Priority).** The service quality attribute that is in Quadrant A is considered very important for the patient, which means it shows a high level of importance (above average) but the level of performance given is not good (below average), thus making the patient unsatisfactory. Therefore, these attributes are the Main Priorities for improved performance. There are 5 attributes in Quadrant A, namely: attributes number 3, 4, 11, 17, and 18.

**Quadrant B (Preserve Achievement).** The service quality attribute that is in Quadrant B is considered very important for patients, which means it shows a high level of importance (above average) and the level of performance given is also very good (above average), so that it makes the patient very satisfactory. Therefore, these attributes must be maintained for achievement or performance (Maintain Achievement). There are 9 attributes that are in Quadrant B, namely: attribute number 1, 2, 5, 6, 8, 9, 13, 14, 16.

**Figure 3. Cartesian Diagram of Analysis Results**



**Quadrant C (Low Priority).** The attributes of service quality in Quadrant C are considered less important (below average) for patients, meaning they show a low level of importance (below average) and the level of performance provided is also not good (below average). This leaves the patient quite satisfactory. Therefore, these attributes are not prioritized for improvement (Low Priority). There are 4 attributes that are in Quadrant B: attribute number 10, 12, 19, and 20.

**Quadrant D (Excessive).** The service quality attribute in Quadrant D is considered less important (below the average) for the patient, meaning that it shows a low level of importance (below average) but the level of performance given is very good (above average), thus making the patient is satisfied but considered excessive. Therefore, these attributes need to be reviewed and re-evaluated their performance because they are excessive in their service. There are 2 attributes that are in Quadrant D, namely: attribute number 7 and 15.

Furthermore, to determine the position of the level of satisfaction of each service quality attribute based on Cartesian Diagram Analysis can be seen in Table 8.

Table 8. Recapitulation of Patient Satisfaction Levels on Quality Attributes of Inpatient Services Based on the Results of Cartesian Diagram Analysis

Nomor	Atribut-atribut Kualitas Pelayanan	Quadrant	Katagori Tingkat Kepuasan
1	The treatment room is clean, neat and comfortable	B	Very Satisfactory
2	The Emergency room is clean, and neat	B	Very Satisfactory
3	Large parking area	A	Unsatisfactory
4	The Waiting room area is clean and comfortable	A	Unsatisfactory
5	Fast patient admission procedure	B	Very Satisfactory

6	Fast and precise inspection service	B	Very Satisfactory
7	Service schedule is executed properly	D	Satisfying
8	Completeness of medical equipment	B	Very Satisfactory
9	Responsive to patient complaints	B	Very Satisfactory
10	Officers provide information clearly and easily understandable	C	Quite Satisfactory
11	Fast action when the patient needs	A	Unsatisfactory
12	Fast service in the administration section	C	Quite Satisfactory
13	The doctor's knowledge and ability to diagnose diseases	B	Very Satisfactory
14	The skills of doctors, nurses and officers at work	B	Very Satisfactory
15	Guarantee of security and trust in service	D	Satisfying
16	Complete medical equipment	B	Very Satisfactory
17	Give special attention to the patient	A	Unsatisfactory
18	Attention to complaints of patients and their families	A	Unsatisfactory
19	Service to patients regardless of social status	C	Quite Satisfactory
20	Pay attention by frequently visiting patients	C	Quite Satisfactory

Source: Figure 3 Cartesian Diagram, Processed, 2018

## CONCLUSION

Based on the results of the analysis and discussion, it can be concluded as follows: 1) From the results of the Conformity Level Analysis, the average value of the level of conformity between the level of performance and the level of importance is 84.28% with very suitable categories. Of the 20 attributes, there are 16 attributes with very suitable categories, 3 attributes with appropriate categories, and 1 attribute with sufficiently suitable categories. Overall, the level of performance is in accordance with the level of importance, meaning that the level of patient satisfaction with the quality of inpatient services provided by the Natar Medika Hospital is in a satisfactory category. 2) From the results of the Cartesian diagram analysis, it can be seen that the distribution of positions and categories of satisfaction levels from 4 Quadrants A, B, C, and D are as follows: a) The service quality attributes in Quadrant A have a level of satisfaction with the unsatisfactory category, so it becomes a priority Main to improve its performance. There are 5 attributes in Quadrant A, namely: attribute number 3, 4, 11, 17, and 18; b) The service quality attributes that are in Quadrant B have a satisfactory level of satisfaction, so it is necessary to maintain achievement or performance (Maintain Achievement). There are 9 attributes in Quadrant B, namely: attribute number 1, 2, 5, 6, 8, 9, 13, 14, 16; c) The service quality attributes that are in Quadrant C have a satisfactory level of satisfaction, so that they are not prioritized for improvement (Low Priority). There are 4 attributes in the Quadrant, namely: attribute number 10, 12, 19, and 20; and d) The service quality attribute in Quadrant D has a satisfactory level of satisfaction but is considered excessive, so it needs to be reviewed and re-evaluated its performance due to excessive service. There are 2 attributes in Quadrant D, namely: attributes number 7 and 15. Overall the level of patient satisfaction is in the satisfactory category. Based on the

results of the analysis of the level of conformity and analysis of the Cartesian diagram, it can be concluded that the level of patient satisfaction with the quality of inpatient services provided by the Natar Medika Hospital is in the satisfactory category.

## **REFERENCES**

- Ghozali, Imam. 2009. *Multivariate Analysis Application with SPSS Program*. Fourth Edition. Semarang: Diponegoro University.
- Ghozali, Imam. 2005. *Multivariate Analysis Application with SPSS program*. Semarang: t Diponegoro University.
- Kotler, Philip and Kevin Lane Keller. 2007. *Marketing Management*. Twelfth Edition. Jakarta: PT. Index.
- Supranto, J. 2011. *Measuring Customer Satisfaction Levels To Increase Market Share*. (Volume 4). Jakarta: PT. Rineka Cipta.
- Tjiptono, Fandy. 2004. *Marketing Strategy*. Edition 2. Yogyakarta: Andi.
- Tjiptono, Fandy. 2005. *Marketing Services*. Malang: Bayu media.
- Tjiptono, Fandy. 2007. *Service Management*. Yogyakarta: Andi.
- Yamit, Zulian. 2005. *Product and Service Quality Management*. First Edition, Fourth Edition. Econisia Publishers. Yogyakarta: UII Faculty of Economics Campus.
- Yamit, Zulian. 2001. *Product and Service Quality Management*. Yogyakarta: Econisia.
- Zeithaml, Valarie A. and Bitner, Mary Jo. 2003. *Service Marketing*. Int'l Edition. New York: McGraw Hill Inc.
- Zeithaml, Valerie A., & Bitner, Mary Jo. 2000. *Service Marketing*. New York: McGraw - Hill Companies Inc.