

INTEGRATING MODIFIED LODGSERV WITH IMPROVEMENT GAP ANALYSIS TO DESIGN HOTEL SERVICE IMPROVEMENTS

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Abstract: The purpose of this study is to measure and analyze satisfaction of the Hotel X's guests by its service quality. To achieve this, a modified LODGSERV scale is used as research instrument with total of 24 attributes used in questionnaire. In order to collect data, the questionnaire is distributed to guests who have stayed in Hotel X. The collected data is analyze using Improvement Gap Analysis to identify the highest priority level of the attributes that matter most to the hotel's guest satisfaction. Based on the IGA matrix, there are 7 attributes that have the highest priority level for improvement. Furthermore, these attributes are identified by using fishbone diagram to obtain the root problem of each attribute. According to the root problems obtained, there are 15 suggestions for improvement are given to Hotel X.

Keywords: Hotel, Customer Satisfaction, Improvement Gap Analysis

1. Introduction

The international tourist industry has experienced significant growth in recent years and more hotels provide exquisite, high-quality and customized service that contributes to hotel's image and competitiveness (Chen, 2013). The tourist industry growth also happened in Indonesia especially in Bandung. Bandung, the capital of Indonesia's West Java province, is known for tourist destination for vacation because of its location surrounded by mountains, beautiful scenery and cool weather.

According to the Public Relations of Bandung (2019), Bandung won the Indonesia Attractiveness Award as the best city for tourism with total Index 9,19 based on measurement conducted by Tempo Media Group in collaboration with Frontier Consulting Groups. As soon as a city has high tourism index so that it will contribute directly the city's economic growth. This contribution can help increasing in regional income, number of jobs and positive impact for hotel industry.

According to the Minister of Tourism, Post and Telecommunications (1987), hotel is one type of accommodation that uses half or all sections for lodging services, food and drink providers and other services for the general public that are managed commercially which meet the requirements set by the ministry of tourism, post and telecommunications. In the other words, hotel can be used as a place to stay overnight while travel to a certain area either for vacation or business trip. Well, hotel provides service hence quality of the service must be the main focus of the hotel. Based on Minh, Ha, Anh and Matsui (2015), there is a relationship between service quality and customer satisfaction so that when the better the quality of a service given by a hotel, it will lead to customer satisfaction to the services provided by a hotel. So, service quality is a crucial factor to hotel industry and its

measurement can assist managers in making decisions for improving its service, efficiency and profit.

According to Kandampully and Suhartanto (2000), hotel should be able to provide services that are able to satisfy customers hence the customers decide to get the same service as the last time they stayed. Thus, good quality service can affect loyalty of the customers so that they can get the same service at the hotels. Based on BPS (2018), non-star hotels are decreasing in number of hotels but it is increasing in the number of rooms. This show that the higher competition among non-star hotels in order to meet customer needs. The tight competition makes the non-star-hotels to try more ways to attract customers to stay.

According BPS (2018), hotel room occupancy rates in West Java have decreased for star-hotels. In April 2018 the hotel room occupancy rate in West Java was 56.18% while in April 2019 it was 53.7% which is decreasing 3.01%. However, the hotel room occupancy rate according to the non-star classification in West Java is increasing from 29.95% to 35.90%. Thus, there is an increase of 5.95% for hotel room occupancy rates for non-star hotels. Hotel X is one of non-star-hotel in Bandung. Yet, number of occupied rooms at Hotel X has decreased from 2017 to 2019 due to inability Hotel to satisfy customers with the quality of service given. According to Abdullah and Hamdan (2012), one of the factors that affect the room occupancy rate of a hotel is customers satisfaction on the quality of service provided by a hotel. This study aims to design hotel service improvement by integrating modified LODGSERV with Improvement Gap Analysis. Thus, the hotel can improve their service quality performance based on priority. On the other hand, the hotel can save cost by improving the poor performance attributes based on customer satisfaction. According to Knutson (1990), LODGSERV is an index to measure consumer expectations for service quality in hotel. Patton, Stevens, and Knutson (1994) have tested the LODGSERV model in Japan, Taiwan, Hong Kong, Australia and United Kingdom. The researchers concluded that the LODGSERV can be used outside of the United States but not tested in South East Asia especially in Indonesia. Many studies focus star hotel such as Knutson (1990), Patton (1994), Abdullah (2012), Wonglorsaichon (2013), Chen (2013), Minh, (2015) and Lee (2016). Few studies focus on non-star hotel such as Peng (2015) and Krudthong (2017).

2. Literature Review

LODGSERV

According to Knutson (1990), LODGSERV is an index to measure consumer expectations for service quality in hotel. Patton, Stevens, and Knutson (1994) have tested the LODGSERV model in Japan, Taiwan, Hong Kong, Australia and United Kingdom. The index consist of 26-item as can be seen in Table 1.

Table 1 LODGSERV Index

Dimension	Attribute
Reliability	Equipment Works
	Dependable/Consistent
	Quicky Correct Problems
	Service on Time
Assurance	Trained/Experienced Employees
	You Feel Comfortable
	Company Supports Employees
	Knowledgeable Staff
	Reservationists are Knowledgeable

Responsiveness	Prompt Service
	Staff Shift where Needed
	Do Special Requests
Tangibles	Neat Personnel
	Quality Food/ Beverage
	Attractive Room
	Décor Reflects Concept
	Attractive Public Areas
	Up-to-Date Equipment
Empathy	You Feel Special/Valued
	No Red Tape
	Sympathetic Employees
	Sensitive Employees
	Convenient Hours
	Anticipates your Needs
	Complimentary Services
	Has Healthful Menus

Improvement Gap Analysis

Improvement Gap Analysis is quadrant analysis used to compare the expected customer dissatisfaction if an attribute has low performance with the expected impact on customer satisfaction if the attribute is improved or offered (Tortini and Picolo, 2010). For each attribute, customers respond about their expected satisfaction or dissatisfaction with ESFQ (Expected Satisfaction Functional Question) and ESDQ (Expected Satisfaction Dysfunctional Question). The last one, the customers will assess the current attributes performance. The answers will be recorded in seven-point likert scale with description strongly disagree to strongly agree. The expected average satisfaction with the functional question (AESFQ), the expected average dissatisfaction (AESDQ), and average current satisfaction (ACS) will be calculated using equations (1) to (3).

$$AESFQ = \frac{\sum_{i=1}^n ESFQ}{n} \quad (1)$$

$$AESDQ = \frac{\sum_{i=1}^n ESDQ}{n} \quad (2)$$

$$ACS = \frac{\sum_{i=1}^n CS}{n} \quad (3)$$

The Improvement Gap (IG) is calculated for each attribute by subtracting the average expected satisfaction with the average of current attribute's performance using equation (4).

$$IG_k = AESFQ_k - ACS_k \quad (4)$$

The IG is standardized for each attribute using equation (5) and the result will be plotted in the x-axis of the matrix. The AESDQ is also standardized using equation (6) and the result will be plotted in the y-axis of the matrix. The matrix can be seen in Figure 1.

$$IGk = \frac{IGk - \overline{IG}}{\sigma_{IG}} \quad (5)$$

$$AESDQk = \frac{AESDQ - AESDQk}{\sigma_{AESDQ}} \quad (6)$$

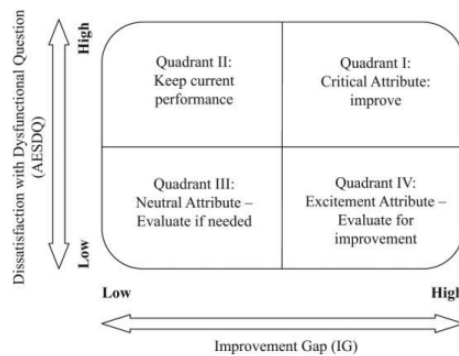


Figure 1
(Tortini & Picollo, 2010)

Based on Figure 1, the matrix is divided into 4 quadrants. The first quadrant has the high IG and high AESDQ where the attributes are considered critical for improvement because it may help increase the satisfaction if the attributes are improved. The attributes in the second quadrant have high AESDQ and low IG. These attributes don't need any improvement but the company must keep the current performance. The attributes in third quadrant are called neutral attributes because they have low IG and AESDQ. The attributes in the fourth quadrant have high IG and low AESDQ. The attributes are called excitement attributes because if these attributes do not bring great dissatisfaction to customers if absent, but can bring a great improvement in customer satisfaction if improved.

3. Research Method

This research uses primary data that are collected through online and offline questionnaires using seven-point likert scale with description strongly disagree to strongly agree. The attributes are used from LODGSERV and interview that fit to hotel's guest expectation which can be seen in Table 1.

Table 1 Attributes

Code	Attributes	Source
A1	Equipment works	LODGSERV & Interview
A2	Dependable and consistent	LODGSERV & Interview
A3	Quickly correct problems	LODGSERV & Interview
A4	Service on time	LODGSERV
A5	You feel comfortable	LODGSERV & Interview
A6	Reservationists are knowledgeable	LODGSERV
A7	Prompt service	LODGSERV
A8	Neat personnel	LODGSERV & Interview
A9	Quality food and beverage	LODGSERV
A10	You feel special	LODGSERV
A11	No red tape	LODGSERV
A12	Sympathetic employees	LODGSERV
A13	Sensitive employee	LODGSERV
A14	Convenient hours	LODGSERV
A15	Anticipates your need	LODGSERV
A16	Complimentary services	LODGSERV
A17	Hotel has convenient access	Interview
A18	Clean room	Interview

A19	Hotel has easy access parking lot	Interview
A20	Friendly employee	Interview
A21	Wifi access	Interview
A22	Water heater availability	Interview
A23	Breakfast variety	Interview
A24	Cost	Interview

According to Hair (2009), minimum of sample size needed is five times number of attributes that are used in the research [9]. Thus, this research needs at least 120 respondents. There were 151 respondents participated by filling the questionnaire then the minimum sample size was fulfilled. The collected data were processed using validity and reliability test. The validity test used SPSS as can be seen in Table 2.

Table 2 Validity Test

Code	Pearson Correlation	R Table	Description
A1	0,160	0,159	Valid
A2	0,314		
A3	0,361		
A4	0,292		
A5	0,395		
A6	0,262		
A7	0,286		
A8	0,324		
A9	0,383		
A10	0,334		
A11	0,229		
A12	0,291		
A13	0,207		
A14	0,393		
A15	0,388		
A16	0,240		
A17	0,168		
A18	0,196		
A19	0,167		
A20	0,195		
A21	0,199		
A22	0,211		
A23	0,179		
A24	0,172		

Based on Table 1 can be seen that all of the attributes have Pearson correlation value bigger than r Table thus all the attributes are valid. After that, the data were tested by using reliability test to make sure the attributes that were used reliable for the research. The test used SPSS software, which is obtained that the value of Cronbach's Alpha was 0,700. Based on Hair (2009), the limit acceptable value of Cronbach's Alpha is 0,600. Because of the obtained value is more than 0,600 that can be said that the measurement is reliable. After passed all of the test, the data can be used for obtaining Improvement Gap Analysis Matrix by using the equation (1), (2), (3), (4), (5) and (6).

4. Results and Discussion

Based on the value obtained by calculation, the value of AESDQ and IG that have been standardized can be plot into a matrix that can be seen in Figure 2.

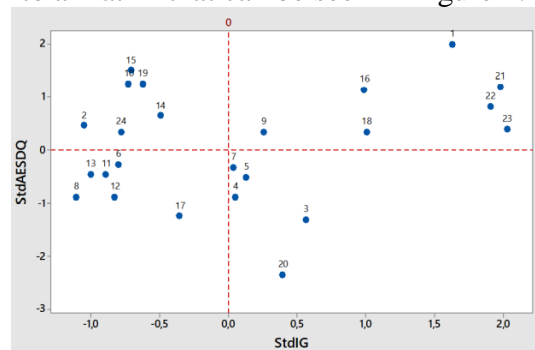


Figure 2 Improvement Gap Analysis Matrix

Based on the Matrix can be obtained the result of the attributes divided into four quadrant that can be seen in Table 4.

Table 4 Result of IGA Matrix

Quadrant	Attribute Code
1	1
	9
	16
	18
	21
	22
	23
2	2
	10
	14
	15
	19
3	24
	6
	8
	11
	12
	13
4	17
	3
	4
	5
	7
	20

Based on obtained Matrix, can be obtained the priority attributes in the first quadrant which is consist of 7 attributes. These attributes have the high priority to be improved. In order to find the root cause of each attribute, the root cause identification will use fishbone diagrams.

For the first attribute, the main root cause of the equipment doesn't work well especially for the air conditioning because of irregular maintenance. Then for the low water pressure is clogged drains. It is because there isn't any regular checking of the equipment. The last one for hot water doesn't work, it is because of the water heater is broken. Based on Nurcahyo (2017), facility has significant influence towards customer satisfaction. Good function facility will increase customer satisfaction. So based on the main root cause, that the proposed improvement is making regular maintenance schedule and equipment check list to make sure all of the equipment is working.

For the ninth attribute, the root cause of the problem is lack of variety menu of breakfast. So, the proposed improvement is to enhance variety flavor for breakfast. For the sixteenth attribute is obtained that there are three root causes. The first one is the position of the table consist of free drink for complimentary service is too far away from the lobby, thus the proposed improvement is to move the table nearby the lobby. The second root cause is there is no information that there is free drink for complimentary service, thus the proposed improvement is the receptionist should tell the customers when they are checking in that there is free drink for complimentary service. The third root cause is every customer has different desire for the complimentary drink, thus the proposed improvement is to serve another variety of drink such as tea, milk or so on.

For the eighteenth attribute, there are found 5 root cause such as there is no exhaust fan, air freshener, cleaning checklist, irregular insect repellent and no-smoking caution. Thus, the proposed improvement is to add exhaust fan in every bathroom so the air circulation will be smooth, add camphor in the bathroom to help reducing smell and insect, use cleaning checklist, do insect repellent regularly, and add smoking ban in every room. For the twenty first attribute, the root cause of this attribute is the broken router. Then, the proposed improvement is to repair the router thus the wifi can be accessed. For the twenty second attribute, the root cause is the limited number of electric water boiler. Thus, the proposed improvement is to add electric water boiler in every room. For the twenty third attribute, the root cause is the breakfast menu is only one. So, the proposed improvement is to add additional breakfast menu.

5. Conclusion

This study concludes that there are 24 attributes are used to measure customer satisfaction by combining attribute from LODGSERV and interview. By using Improvement Gap Analysis can be obtained that, there are 7 priority attributes to be improved. Hereby, there are 15 proposed improvements based on priority attributes.

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