Service Quality at the Movie Theaters of Cinema XXI Plaza Andalas and CGV Raya Padang Using Artqual and Analytical Hierarchy Process (AHP) Models

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Abstract: This study aimed to analyze: (1) the priorities of main criteria and sub-criteria in service quality at Cinema XXI Plaza Andalas; (2) the priorities of main criteria and sub-criteria in service quality at CGV Raya Padang. The population in this study was all viewers who had watched movies at Cinema XXI Plaza Andalas and CGV Raya Padang. The number of respondents was 100 respondents who had used services at Cinema XXI Plaza Andalas and CGV Raya Padang. The sample in this study was selected using accidental sampling with the Cochran formula. The data analysis stage used the Analytical Hierarchy Process (AHP) method. Based on the results of data analysis using the Analytical Hierarchy Process (AHP) method, the weights of each criterion could be found out. For Cinema XXI Plaza Andalas, among the 7 criteria examined in this study, there was one criterion that had the highest weight compared to the other criteria, namely the management and policy criterion with the weight of 0.23. For CGV Raya Padang, the one with the highest weight was the management and policy criterion with the weight of 0.18. Based on the data analysis of 27 sub-criteria examined, there was a sub-criterion with the highest weight for Cinema XXI Plaza Andalas, namely ensuring clear movie sound when screening the movie with the weight of 0.4905, and for CGV Raya Padang the sub-criterion with the highest weight was also ensuring clear movie sound when screening the movie with the weight of 0.5237.

Keyword: Service Quality, ARTQUAL, Analytical Hierarchy Process (AHP).
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1. INTRODUCTION

Articles on the growth of movie theaters in Indonesia have been very rapid. This is indicated by the increasing number of movie theater companies in Indonesia. The more developing the technology is, the tougher the movie theaters' competition is with both other competitors and the circulating piracy of movies, even though we all understand that the circulation of pirated movies on several websites is so fast even when the movies have just been released for a few days at movie theaters so that we can download and distribute them from the act of piracy by recording the movies secretly in movie theater studios, therefore enthusiasts of watching in movie theaters decrease. Moreover, people's habit and lifestyle today no longer consider too much what movies to watch but they also want to enjoy facilities provided by movie theaters (Jimanto & Kunto, 2014).

Therefore, movie theater managers are required to be more creative in attracting customers in various ways, including by improving services, providing convenience in buying tickets, ensuring viewer comfort, decorating movie theaters, giving bonuses or prizes, and informing movie showtimes quickly not only via printed media but also via social media, as now there are several movie theaters that have accounts on Facebook, Instagram, websites, and Twitter as means of information and marketing. According to Lovelock (2008), service quality is very important because good service will provide benefits and also affects the level of customer satisfaction.

Cinema XX1 is one of the largest movie theater companies in Indonesia. It is also available in Padang, at Transmart Padang and Plaza Andalas. Besides Cinema XXI, in Padang, CGV Raya Padang movie theater has recently operated. In addition to that, the managers at Cinema XXI or CGV must be able to maintain customer satisfaction, for example by providing friendly service for consumers and ensuring consumer comfort in the movie theaters. Service quality is a necessity that must be carried out by a company to survive and still obtain customer trust (Mongkaren, 2013).

The purpose of this study was to find out the priorities of criteria in service quality. The criteria in service quality include management and policy, personal interaction, stage management, form and performance, physical aspects, and ergonomics (Maghsoodi et al., 2019). The seven criteria are presented in the second level. At the third level there are several sub-criteria. The criterion on management and policy includes six sub-criteria, namely limiting age, considering movie theater's location in terms of the distance from restaurants and entertainment facilities, using a detector to each customer as a security feature, adding facilities and services such as a parking lot etc., managing and controlling customers when they are purchasing tickets and bringing food and drink from outside movie theater. The criterion of personal interaction includes four sub-criteria, namely movie theater's staff responding quickly to customers, staff directing late customers to studio, staff reprimanding customers who do not comply with policies, and providing information to customers such as reminding movie showtimes. The criterion of stage management includes three sub-criteria, namely ensuring that the sound of movies is clear when being screened, providing music and special preparation for waiting area, and providing clear image quality. In the criterion of form and performance, there are four sub-criteria, namely staff communicating with customers, staff being friendly to customers, staff providing information to customers about movie screenings, and staff presenting movies that have moral messages. The criterion of physical aspects includes six sub-criteria, namely decorating and designing studio attractively, having modern chairs, appearance and quality of exterior, audio and video, architecture of interior and decoration of areas such as studio, etc., advertisement and information services before movie screenings, and clean and tidy environment of movie theater. In the criterion of ergonomics, there are four sub-criteria, namely the comfort of the seating area, the comfort at entrance and exit of movie theater to make it easier for customers to make moves, providing air cooler and additional sounds such as songs, and providing bright lighting in movie theater.

Based on the initial survey conducted, the researchers distributed the initial questionnaire with 31 question items to 30 customers. Then, the results regarding the level of service quality at CGV Raya Padang and Cinema XXI Plaza Andalas Padang were obtained. 24 (59%) and 19 (60%) customers expressed satisfaction with their experience watching at CGV Raya Padang and Cinema XXI Plaza Andalas Padang because of different interior atmosphere and always maintaining the cleanliness quality inside and outside the room. Meanwhile, 6 (41%) and 11 (40%) customers surveyed at CGV Raya Padang and Cinema XXI Plaza Andalas Padang expressed their dissatisfaction because CGV Raya Padang was still somewhat less strategic in its location, and still lacked seat capacity so it was not proporsional to the customers' extraordinary enthusiasm, and Cinema XXI Plaza Andalas Padang in terms of service still had a long queue when the visitors surged. Service quality of the movie theaters had influence on consumer satisfaction, considering that CGV Raya Padang had just opened, while Cinema XXI Plaza Andalas had operated for a long time in Padang.

In dealing with new competitors, movie theater managers are required to be able to provide good service to consumers. According to Tjiptono (2011) quality service can lead to customer trust in the company. To enhance the strategy for good service quality, a measurement model called ARTQUAL is used. ARTQUAL is a tool for measuring the quality of services particularly in the field of arts. It was developed by Maghsoodi et al. (2019). Based on the model, sevice quality is determined by brand management, management and policy, personal interaction, visual stage management, physical aspects and ergonomics to measure whether a customer is satisfied or not.

ARTQUAL is an advanced method from Service Quality (SERVQUAL) which aims to assess service quality, especially in the entertainment industry including movie theater (Maghsoodi et al., 2019). To make it easier for a movie theater to improve and enhance the quality of service for its visitors, it is necessary to know the main priority in improving the quality of service. To find out the priority in service improvement, a tool that can help

in determining the priority is Analytical Hierarchy Process (AHP). Munier (2011), AHP is a decision-making method with multiple criteria. This method can determine the comparison among criteria and among alternatives in accordance with the choices of the decision makers. According to Shimizu, et al. (2006), the calculation of AHP is based on subjective pairs against each criterion's pairs involved in the problem, so that it is suitable for decision support system that involves users' subjective assessment. In this study, the researchers used the ARTQUAL model to determine the criteria of service quality at the movie theaters and the AHP method to obtain the weights of each criterion. By using the AHP method, the movie theater companies will also be able to know the order of priorities of criteria that can be referred in determining the criteria which are good to be concerned for the selection or evaluation of service quality.

This study was conducted as supported by several previous studies (Maghsoodi, A., et.al., 2019). Then, there have been several studies that put forward AHP, namely, (Huseyinozder , 2017), (Dweiri, F., Kumar, Khan, dan Jain, 2016), (Rouyendegh dan Erkan, 2012), (Eko darmanto, dan Noor Latifah, dan Nanik Susanti , 2014). Additionally, there have been several studies that supported the existence of service quality at movie theaters, namely (Pricilia Inry Lumentut, Sifrid S. Pangeman, Farlen S. Rumokoy, 2016), (Tedjokusomo, Fahly, 1998) dan (Jimanto, Riswanto Budiono Jimanto dan Kunto, Yohanes Sondang, 2014).

1.1. Service Quality

Heizer & Render, (2017) explains that quality is the overall character of a product or service that can focus visible or blurry needs. According to Kotler and Keller (2016) service is any action or activity that a party can offer to another party, which is bassically intangible and does not result in any ownership. According to Purnamawati (2012), service quality is anything that focuses on efforts to meet consumer needs and desires accompanied by accuracy in conveying them, so that balanced compatibility with consumer expectations is created. Service quality is defined as the level of excellence expected by customers and control over that level of excellence to fulfill customer desires. Service quality is not seen from the point of view of the organizer or service provider, but from the point of view of the community (customers) who receive the services. Based on some experts' opinions, the understanding of service quality is the totality of the characteristics of a service concept that includes all aspects of service, and the benchmark of service quality is to give satisfaction to customers or service recipients.

Based on the concept of service quality seen from 10 dimensions of assessment, (Zeithaml, et al., 1990), Parasuraman et. al. (1985) developed a measuring tool for measuring service quality called "SERVQUAL" in which there are five dimensions used to evaluate service quality as follows:
1. Direct evidence or tangibles
   The dimension of direct evidence or tangibles includes physical facilities, equipment and tools used (technology), and the appearance of company employees.
2. Reliability
   The dimension of reliability includes a company's ability to provide the promised services promptly, accurately, and satisfactorily.
3. Responsiveness
   The dimension of responsiveness is the desire of staff and employees to help customers and provide responsive services.
4. Assurance
   The dimension of assurance includes the knowledge, ability, courtesy and trustworthiness of staff, and free from dangers, risks or doubts.
5. Empathy
   The dimension of empathy includes the ease in making relationships, good communication and personal attention, and understanding the needs of customers.

1.2. ARTQUAL

The Servqual (Service Quality) model is one of the most influential measures of service quality, which is still used in a lot of application and development of service quality. The Servqual model has been extended to cover more aspects of service quality in aesthetic environment to an alternative service quality measurement model called ARTQUAL which was developed by Maghsoodi et.al. (2019).

ARTQUAL is a service quality measurement model developed by Maghsoodi et.al (2019) in their series of studies in the art industry. In this approach it emphasizes that if attribute performance increases greater than attribute expectations, then satisfaction and service quality will increase, and vice versa.

1.3. The ARTQUAL Model

According to Maghsoodi et.al. (2019), in the ARTQUAL model, there are some dimensions of the service quality measurement model for evaluating art galleries, namely:

   a. Brand Management
      Possible increase in satisfaction levels and the impact of exhibiting or presenting artwork on audience perceptions of quality based on brand value.
   b. Management and Policy
      The ability of directors and executives to motivate trust and self-confidence based on the application of defined policies and strategies.
   c. Personal Interaction
      Willingness to help and communicate with audience or customers, and to provide services with courtesy and compassion.
   d. Visual Stage Management
      Environmental appearance and audio-visual effects as well as the relevance of appearance to exhibition
   e. Form and Performance
      The ability to execute and display art exhibitions based on certain aesthetic forms and aspects.
   f. Physical Aspects
      The appearance of physical facilities, equipment and interior or exterior design in an art gallery.
   g. Ergonomics
      The ability to assure the comfort and convenience associated with ergonomic art building issues based on the opinion of audience or customers.

1.4. Analytical Hierarchy Process (AHP)

AHP is a popular technique that can be used to assist decision making that involves multiple criteria (more than one criterion). The AHP method is one of the decision-making methods in which the factors of logic, intuition, experience, knowledge (data), emotion and feeling are tried to be optimized through a systematic process. The result of AHP is a priority ranking of decision alternatives according to all of the decision-makers (Nugroho, 2012).

(Shimizu et al., 2006) suggest that Analytical Hierarchy Process (AHP) is a method for selecting the best alternative decision to consider several criteria and objectives expressed with quantutative and qualitative values. AHP is used to help decision makers to be better at making decisions on issues that have many objectives. (Saaty, Thomas L., 1993), AHP is a representation of a complex problem in a multi-level structure which the first level is goal, followed by the levels of factors, criteria, sub-criteria, and so on to the last level of alternatives.

2. METHOD

In accordance with the problems and objectives stated previously, this type of study is descriptive research in nature. According to (Cooper and Emory, 1999), the purpose of descriptive research is to study the aspects of who, what, when, and how on a certain topic. Population refers to the overall group of people, events, or things a researcher wants to invest in and then draw conclusions (Sekaran & Bougie, 2009). The population in this study was all viewers who had ever got into the movie theaters of Cinema XXI Plaza Andalas and CGV Raya

Padang. The sample was selected using accidental sampling. To determine the sample size in this study, the researchers used the Cochran formula. Then, the sample was 100 viewers who had used the services of the movie theaters of Cinema XXI Plaza Andalas and CGV Raya Padang. For the data processing stage, the processing used the Analytical Hierarchy Process (AHP) method by following the steps proposed by (Kadarsah Suryadi and Ali Ramdhani, 1998), as follows:

a. Hierarchy arrangement

The criteria obtained from literature studies and discussion or brainstorming with the local government were then used as the basis for formulating a hierarchy consisting of several levels. This hierarchy was structured to explain problems in a structured and understood manner.

b. Formulation and distribution of questionnaires

A questionnaire was formulated after forming a hierarchy. The questionnaire formulated contained an assessment of the level of importance (weights) for each criterion using the Saaty scale. The questionnaires were distributed by the researchers to collect the data about the preferences of all of the respondents to find comparisons among the criteria by providing values on the level of importance for each criterion.

c. Arranging pairwise comparison to determine the priorities of criteria

The comparison was then made in the form of pairwise comparison matrix. Furthermore, the assessments of each of the respondents were combined using the geometric mean formula.

d. Consistency testing

The consistency test was conducted to test whether the assessment of comparison among the criteria was consistent or not. When the results obtained showed inconsistency, the researchers could then perform calculation revision or even re-assessment by the respondents. To measure the consistency of the calculation, it could be done using the following formula:

$$CI = (\lambda \text{ maks}-n)/(n-1)$$

Where:

CI : Indeks Konsistensi

λ maks : Eigen value maksimum

n : Orde matriks

Next, measuring the consistency ratio by:

$$CR = CI/RI$$

Where:

RI: Random Index in which the values are in accordance with the ordos

CI : Indeks Konsistensi

For the AHP method, the comparison matrix is acceptable if the consistency ratio value is < 0.1.

e. Weight Determination

After finding the results of the questionnaires with the comparison matrix among the criteria (which had passed the consistency test) then they were combined using the geometric mean formula. The results of the geometric mean calculation were used as the basis for calculating the weights of the criteria.

Table 1: Random Index (RI)

Order matriks	2	3	4	5	6	7	8	9	10
RI	0,00	0,58	0,90	1,12	1,24	1,32	1,41	1,45	1,49

Source: Kadarsah Suryadi and Ali Ramdhani, 1998

3. RESULTS AND DISCUSSION

The data obtained through the distribution of questionnaires to the movie theater visitors were collected and processed using the AHP method, namely making a pairwise comparison matrix then conducting normalization, weighting, and consistency testing. The following are pairwise comparison matrix, weighting, and consistency testing toward the respondents from Cinema XXI Plaza Andalas and CGV Raya Padang.

a. **The Respondents from Cinema XXI Plaza Andalas**

Table 2: Pairwise Comparison Matrix of Service Quality Criteria

Criteria	Management and Policy	Personal Interaction	Stage Management	Form and Performance	Physical Aspects	Ergonomics
Management and Policy	1	2	1	1	1	1
Personal Interaction	½	1	2	1	1	1
Stage Management	1	½	1	2	1	1
Form and Performance	1	1	1	1	1	1
Physical Aspects	1	1	1	1	1	1
Ergonomics	1	1	1	1	1	1
Amount	6	7	7	7	6	6

Source: Data Processing Using Microsoft Excel (2020)

After the data had been processed using pairwise matrix then priority synthesis was made. The priority synthesis was carried out by calculating the paired comparison scaling of the criteria divided by the total criteria. Here is the calculation of priority synthesis.

Table 3: Normalization Matrix of Service Quality Criteria

Criteria	Management and Policy	Personal Interaction	Stage Management	Form and Performance	Physical Aspects	Ergonomics	Relative Weights	Amount	Vector number
Management and Policy	0,18	0,31	0,14	0,14	0,17	0,17	0,18	1,11	1,17
Personal Interaction	0,09	0,15	0,29	0,14	0,17	0,17	0,17	1,01	1,08
Stage Management	0,18	0,08	0,14	0,29	0,17	0,17	0,17	1,02	1,08
Form and Performance	0,18	0,15	0,14	0,14	0,17	0,17	0,16	0,95	1,00
Physical Aspects	0,18	0,15	0,14	0,14	0,17	0,17	0,16	0,95	1,00
Ergonomics	0,18	0,15	0,14	0,14	0,17	0,17	0,16	0,95	1,00
Amount	1,00	1,00	1,00	1,00	1,00	1,00	1,00		

CV	Eigen λ =	0,29
0,95	CI	-1,14
0,17	CR	-1,27
0,16		
0,17		
0,16		
0,16		

Source: Data Processing Using Microsoft Excel (2020)

To find out the consistency of the answers given by the respondents, consistency test needed to be carried out using the following calculation:

$$CI = \frac{\lambda \, maks - n}{n-1} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(2)$$

$\lambda \, maks = \sum maks/n$

$$= \frac{\frac{0.97}{0.14} + \frac{1.10}{0.16} + \frac{1.01}{0.14} + \frac{1.02}{0.15} + \frac{0.97}{0.14} + \frac{0.97}{0.14} + \frac{0.97}{0.14}}{6} =$$

$$= \frac{6,93 + 6,88 + 7,21 + 6,8 + 6,93 + 0,93 + 0,93}{6} = 6,94$$

n = 6

CI = (6,94-6)(6-1) = -0,01

Where:

CI : Consistency Index

ʎ maks : Maximum eigen value

n : Orde matrix

$$CR = \frac{C1}{R1} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(3)$$

The results of the geometric mean calculation were used as the basis for calculating the weights of the criteria.

Table 4: Random Index (RI)

order matriks	1	2	3	4	5	6	7	8	9	10
R1	0	0	0.58	0.9	1.12	1.24	1.32	1.41	1.45	1.49

Source: Data Processing Using Microsoft Excel (2020)

Based on the calculation seen in Table 4, the CR value was less than 0.1, that was 0.007. It could be said that the responses given by the 100 respondents on the questionnaires were consistent. After the normalization matrix had been obtained, then the eigenvector value was calculated. The main eigenvector was obtained by averaging the relative weights that had been normalized on the line. The eigenvector comprised the weights of ratio of each factor. The results were obtained as follows:

Table 5: The Importance (Weight) of Service Quality Criteria

Criteria	Relative Weights	Priority
Management and Policy	0,18	1
Personal Interaction	0,17	2
Stage Management	0,17	2
Form and Performance	0,16	3
Physical Aspects	0,16	3
Ergonomics	0,16	3

Source: Data Processing Using Microsoft Excel (2020)

Furthermore, all of the sub-criteria data were processed using a pairwise matrix then priority synthesis was made. Priority synthesis was conducted by calculating the paired comparison scaling of the sub-criteria divided by the total sub-criteria. To find out the consistency of the answers given by the respondents, consistency test was needed. After the normalization matrix had been obtained, then the values of Eigenvector, Principal Eigenvalue (λ max), Consistency Index (CI) and Consistency Ratio (CR) were calculated for all of the sub-criteria. So, the results were revealed as follows:

Table 6: Principal Eigenvalue (λ Max), Consistency Index (CI) and Consistency Ratio (CR) of All of the Sub-Criteria

Sub Criteria	Principle Eigen Value (λ maks)	Consistency Index (CI)	Consistency Ratio (CR)
Management and Policy	0,16	-1,17	-1,3
Personal Interaction	0,24	-1,25	-1,39
Stage Management	0,31	-1,35	-1,50
Form and Performance	0,24	-1,25	-1,39
Physical Aspects	0,15	-1,17	-1,30
Ergonomics	0,24	-1,25	-1,39

Source: Data Processing Using Microsoft Excel (2020)

b. The Respondents from CGV Raya Padang

Table 7: Pairwise Comparison Matrix of the Criteria

Kriteria	Management and Policy	Personal Interaction	Stage Management	Form and Performance	Physical Aspects	Ergonomics
Management and Policy	1	2	2	2	1	1
Personal Interaction	½	1	2	2	2	1
Stage Management	½	½	1	2	1	1
Form and Performance	½	½	½	1	1	1
Physical Aspects	½	½	1	1	1	1
Ergonomics	1	1	1	1	1	1
Amount	3,96	5,05	7,02	9,02	7,54	7,92

Source: Data Processing Using Microsoft Excel (2020)

After the data had been processed using pairwise matrix, then priority synthesis was made. Priority synthesis was conducted by calculating the paired comparison scaling of the criteria divided by the total criteria. Here is the priority synthesis calculation:

Table 8: The Respondents' Priority Synthesis

Sub Criteria	Management and Policy	Personal Interaction	Stage Management	Form and Performance	Physical Aspects	Ergonomics	Relative Weights	Amount	Priority
Management and Policy	0,25	0,31	0,23	0,24	0,20	0,15	0,23	1,37	1
Personal Interaction	0,13	0,20	0,28	0,21	0,20	0,19	0,20	1,20	2
Stage Management	0,13	0,10	0,14	0,23	0,19	0,18	0,16	0,96	3
Form and Performance	0,12	0,10	0,07	0,11	0,14	0,17	0,12	0,71	4
Physical Aspects	0,13	0,10	0,14	0,10	0,13	0,19	0,13	0,79	5
Ergonomics	0,25	0,20	0,14	0,11	0,13	0,13	0,16	0,96	6
Amount	1,00	1,00	1,00	1,00	1,00	1,00	1,00		
							CV	Eigen λ =	0,17

		-
0,16	CI	1,17
		-
0,18	CR	1,30
0,19		
0,21		
0,14		
0,13		

Source: Data Processing Using Microsoft Excel (2020)

To find out the consistency of the answers given by the respondents, consistency test needed to be carried out using the following calculation:

$$CI = \frac{\lambda \, maks - n}{n-1} \quad ....(2)$$

λ maks = $\sum$maks/n

$$= \frac{\frac{1,24}{0,18} + \frac{1,27}{0,18} + \frac{1,15}{0,16} + \frac{0,95}{0,14} + \frac{0,73}{0,10} + \frac{0,73}{0,10} + \frac{0,93}{0,13}}{6} =$$

$$= \frac{6,89 + 7,06 + 7,2 + 6,8 + 7,3 + 7,3 + 7,23}{6} = 7,11$$

n = 6

CI = (7,11-6)(6-1) = 0,02

Information:

CI: Consistency Index

λ maks: Maximum eigen Value

n: Orde matrix

$$CR = \frac{C1}{R1} \quad ....(3)$$

Table 9: Random Index (RI)

Order matriks	1	2	3	4	5	6	7	8	9	10
R1	0	0	0.58	0.9	1.12	1.24	1.32	1.41	1.45	1.49

Source: Data Processing Using Microsoft Excel (2020)

Based on the calculation presented in Table 9, the CR value was less than 0.1, that was 0.02. It could be said that the responses given by the 100 respondents on the questionnaires were consistent.

After the normalization matrix had been obtained, then the eigenvector value was calculated. The main eigenvector was obtained by averaging the relative weights that had been normalized on the line. The eigenvector comprised the weights of ratio of each factor. So, the results were found as follows:

Table 10: The Importance (Weight) of Service Quality

Kriteria	Relative Weights	Ranking
Management and Policy	0,23	1
Personal Interaction	0,20	2
Stage Management	0,16	3
Form and Performance	0,16	3
Physical Aspects	0,13	4
Ergonomics	0,12	5

Source: Data Processing Using Microsoft Excel (2020)

Furthermore, all of the sub-criteria data were processed using a pairwise matrix, and then priority synthesis was made. Priority synthesis was conducted by calculating the paired comparison scaling of the sub-criteria divided by the total sub-criteria. To find out the consistency of the answers given by the respondents, consistency test was needed. After the normalization matrix had been obtained, then the values of Eigenvector, Principal Eigenvalue (λ Max), Consistency Index (CI) and Consistency Ratio (CR) were calculated for all of the sub-criteria. So, the results were revealed as follows:

Table 11: Principal Eigenvalue (λ Max), Consistency Index (CI) and Consistency Ratio (CR) of All of the Sub-Criteria

Sub Criteria	Principle Eigen Value(λ maks)	Consistency Index (CI)	Consistency Ratio (CR)
Management and Policy	0,16	-1,17	-1,3
Personal Interaction	0,24	-1,25	-1,39
Stage Management	0,33	-1,33	1,48
Form and Performance	0,24	-1,25	-1,39
Physical Aspects	0,15	-1,17	-1,3
Ergonomics	0,24	-1,25	-1,39

Source: Data Processing Using Microsoft Excel (2020)

After getting the weights of each sub-criterion, then the priorities of all of the sub-criteria were weighted. The results were found as follows:

Table 12: Weighting the Priorities of Sub-Criteria of Service Quality at Cinema XXI Plaza Andalas

Level 0 (Purpose)	Level 1 (Criteria)	Level 2 (Sub-Criteria)	Relative Weight	Priority
The Priorities of Criteria	management and policy	limiting the age for each movie category	0.2721	8
		considering movie theater's location in terms of the distance from restaurants and entertainment facilities	0.2271	11
		using a detector to each customer as a security feature	0.1697	17
		adding facilities and services such as a parking lot etc.	0.1501	19
		managing and controlling customers when they are purchasing tickets	0.1012	25
		bringing food and drink from outside movie theater	0.0798	26
	personal interaction	movie theater's staff responding quickly to customers	0.3873	3
		staff directing late customers to studio	0.2748	7
		staff reprimanding customers who do not comply with policies	0.1981	14
		providing information to customers such as reminding movie showtimes	0.1397	21
	stage management	ensuring that the sound of movies is clear when being screened	0.4905	1
		providing music and special preparation for waiting area	0.3119	5
		providing clear image quality	0.1976	15

	form and performance	staff communicating with customers	0.4223	2
		staff being friendly to customers	0.2509	10
		staff providing information to customers about movie screenings	0.1969	16
		staff presenting movies that have moral messages	0.1299	22
	physical aspects	attractive studio decoration and design	0.3044	6
		the use of audio-visual facilities	0.2060	13
		appearance and quality of exterior, audio and video	0.1660	18
		architecture of interior and decoration of areas such as studio, etc.	0.1445	20
		seating layout designs	0.1061	24
		clean and tidy environment of movie theater	0.0730	27
	Ergonomics	comfortable seating area (i1)	0.3813	4
		the comfort at entrance and exit of movie theater to make it easier for customers to make moves	0.2688	9
		providing air cooler and additional sounds such as songs	0.2219	12
		providing bright lighting in movie theater	0.1281	23

Source: Data Processing Using Microsoft Excel (2020)

Based on the results of the processed data in Table 12, it can be seen that the highest and the lowest service quality at Cinema XXI Plaza Andalas were clear sound of movie during movie screening with the weight of 0.4905 and clean and tidy environment with the weight of 0.0730.

Table 13: Weighting the Priorities of Sub-Criteria of Service Quality at CGV Raya Padang

Level 0 (Purpose)	Level 1 (Criteria)	Level 2 (Sub-Criteria)	Relative Weight	Priority
The Priorities of Criteria	management and policy	limiting the age for each movie category	0,2750	7
		considering movie theater's location in terms of the distance from restaurants and entertainment facilities	0,2167	11
		using a detector to each customer as a security feature	0,1744	16
		adding facilities and services such as a parking lot etc.	0,1407	19
		managing and controlling customers when they are purchasing tickets	0,1128	24
		bringing food and drink from outside movie theater	0,0805	27
	personal interaction	movie theater's staff responding quickly to customers	0,3873	3
		staff directing late customers to studio	0,2748	8
		staff reprimanding customers who do not comply with policies	0,1981	13
		providing information to customers such as	0,1397	21

	reminding movie showtimes		
stage management	ensuring that the sound of movies is clear when being screened	0,5237	1
	providing music and special preparation for waiting area	0,3042	6
	providing clear image quality	0,1721	17
form and performance	staff communicating with customers	0,4223	2
	staff being friendly to customers	0,2509	10
	staff providing information to customers about movie screenings	0,1969	15
	staff presenting movies that have moral messages	0,1299	23
physical aspects	attractive studio decoration and design	0,3049	5
	the use of audio-visual facilities	0,2093	12
	appearance and quality of exterior, audio and video	0,1607	18
	architecture of interior and decoration of areas such as studio, etc.	0,1399	20
	seating layout designs	0,1007	25
	clean and tidy environment of movie theater	0,0845	26
Ergonomics	comfortable seating area (i1)	0,3873	3
	the comfort at entrance and exit of movie theater to make it easier for customers to make moves	0,2748	8
	providing air cooler and additional sounds such as songs	0,1981	13
	providing bright lighting in movie theater	0,1397	21

Source: Data Processing Using Microsoft Excel (2020)

Based on the results of data processing displayed in Table 13, it can be seen that the highest and the lowest service quality at CGV Raya Padang were to ensure that the sound of movies is clear when being screened with the weight of 0.5237 and bringing food and drink from an outside movie theater with the weight of 0.0805.

The criteria of service quality at Cinema XXI Plaza Andalas and CGV Raya Padang, In this section, The criteria of service quality at the movie theaters of Cinema XXI Plaza Andalas and CGV Raya Padang will be described in general. There are six criteria developed by Maghsoodi et al. (2019) namely management and policy, personal interaction, visual stage management, form and performance, physical aspects, and ergonomics. These 6 criteria are the main criteria, in which management and policy consisting of 6 sub-criteria, personal interaction consisting of 4 sub-criteria, stage management consisting of 3 sub-criteria, form and performance consisting of 4 sub-criteria, physical aspects consisting of 4 sub-criteria, and ergonomics consisting of 4 sub-criteria.

The weighting was carried out by one hundred respondents who were involved in decision making of selection or evaluating service quality at the movie theaters of Cinema XXI Plaza Andalas and CGV Raya Padang. After processing the data, the weights of each criterion in the evaluation of service quality were obtained. The results of the weighting could be seen based on the results of data analysis using AHP so that the weights of each criterion could be revealed. For Cinema XXI Plaza Andalas, from the 7 criteria examined in this study, there was one criterion that had the highest weight compared to the other criteria, namely the management and policy criterion with the weight of 0.23. Meanwhile, for CGV Raya Padang, the criterion with the highest weight compared to the other criteria was also the management and policy criterion with the weight of 0.18.

These results were revealed referring to the AHP (Analytical Hierarchy Process) formula developed by Saaty (1993). According to Lovelock (2008), service quality is very important because good service will provide benefits to customers and will affect the level of customer satisfaction. Therefore, quality is important for a movie theater because with good service quality it will be able to meet customer needs and match customer expectations.

Based on the results of data processing in this study, it was found that the management and policy criterion was the most influential criterion in selecting or evaluating service quality. This is in line with the result of study conducted by Maghsoodi et al. (2019) that the management and policy criterion was also the criterion with the highest weight in service quality. Therefore, management and policy are important for a movie theater company because with good management and policy, it will be able to meet the needs and expectations of audience or customers. In addition, the criterion with the lowest weight compared to the other criteria was the form and performance criterion. Although it is deemed least important, it will still be the criterion to be used in selecting and evaluating service quality. Moreover, according to movie theater companies, form and performance have impact on movie theater as one of the supports for audience or customers' interest.

The results of weighting the sub-criteria data analyzed using AHP showed the weights of each sub-criterion. For Cinema XXI Plaza Andalas, from the 27 sub-criteria examined in this study, there was one sub-criterion that had the highest weight compared to the other criteria, namely ensuring that the sound of movies is clear when being screened with the weight of 0.4905. Meanwhile, for CGV Raya Padang, the sub-criterion that had the highest weight compared to the other sub-criteria was also to ensure that the sound of movies is clear when being screened with the weight of 0.5237.

In regard to the results of the study, ensuring that the sound of movies is clear when being screened is the most influential sub-criterion that affects service quality in terms of providing the best movie quality to audience. As an implication, movie theater owners are expected to be able to ensure that the movies screened provide clear sound and image quality in order to achieve relevant results. Meanwhile, clean and tidy environment of movie theater, and bringing food and drink from outside movie theater were the sub-criteria with the lowest weights at the movie theaters of Cinema XXI Plaza Andalas and CGV Raya Padang. However, it does not mean that these sub-criteria have no effect on service quality; they have major influence on movie theater as supports to improve service quality at movie theaters.

4. CONCLUSIONS AND IMPLICATIONS

Based on the results of data analysis using the ARTQUAL model and the AHP method on the movie theaters of Cinema XXI Plaza Andalas and CGV Raya Padang, it can be concluded that:

a. Each criterion has different priority scales. It can be indicated from the weights of criteria obtained from the calculation of the AHP method. Among the criteria of management and policy, personal interaction, stage management, form and performance, physical aspects, and ergonomics, the criterion that has the highest weight in evaluating service quality at Cinema XXI Plaza Andalas is the management and policy criterion (the weight of 0.23 in this study). At CGV Raya Padang, the criterion that has the highest weight compared to the other criteria is also the management and policy criterion (the weight of 0.18 in this study). These criteria can be referred by movie theater companies in Padang if one day they will evaluate service quality for future improvement.

b. The priority of sub-criteria in service quality at the movie theaters of Cinema XXI Plaza Andalas and CGV Raya Padang that has the highest weight is to ensure that the sound of movies is clear when being screened (the weights of 0.4905 and 0.5237 in this study). This sub-criterion is very influential in a movie theater, especially when screening movies. Without clear sound when watching, the audience will feel dissatisfied with the service at the movie theater.

Suggestions

Based on the conclusions above, some suggestions can be proposed which are expected to be beneficial to companies under restructurization.

a. In regard to the levels of customer satisfaction, movie theater companies need to improve their service quality in terms of management and policy, personal interaction, visual stage management, form and performance, physical aspects, and ergonomics.

b. Audio clarity in a movie theater is an important factor for customers, so it is advisable for movie theater managers to check the sound system in each theater for clear sound.

c. The limitation of this study is that the researchers only used the AHP approach in determining the main priority for improving movie theaters' service quality. It is hoped that, for future study, the analysis will be carried out in the form of paired sample test, so the gap size between customer expectation and perception can be discovered.

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