

## **CUSTOMER DECISION MAKING IN SELECTING CINEMA USING ANALYTICAL HIERARCHY PROCESS (AHP) METHOD (CASE STUDY : MANTOS 21, MEGAMALL XXI, CINEMAXX)**

*PENGAMBILAN KEPUTUSAN PELANGGAN DALAM MEMILIH BIOSKOP  
MENGUNAKAN METODE PROSES HIRARKI ANALITIK  
(STUDI KASUS : MANTOS 21, MEGAMALL XXI, CINEMAXX)*

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### **ABSTRACT**

*Cinema is not only a place for watching, but that also a place for consumers to accomplish their hobby. Customer decision making is the process of making purchase decisions based on cognitive and emotional influences such as impulse, family, friends, advertisers, role models, moods, and situations that influence a purchase. It is important because in understanding customer decision making, we will understand how consumer make the purchase decision, how the process of decision making by customer from searching until selecting the product or service, and also we can know the factors that influence the decision making. This research used quantitative method. Quantitative research seeks to quantify the data. The method used in this research is Analytical Hierarchy Process (AHP). AHP is a method for ranking decision alternatives and selecting the best one given multiple criteria. It allows users to assess the relative weight of multiple criteria or multiple options against given criteria in an intuitive manner.*

*Keywords : Customer Decision Making, AHP (Analytical Hierarchy Process)*

### **ABSTRAK**

*Bioskop tidak hanya tempat untuk menonton, tetapi juga tempat bagi mereka untuk memenuhi hobi mereka. Pengambilan keputusan pelanggan adalah proses pengambilan keputusan pembelian berdasarkan pengaruh kognitif dan emosional seperti dorongan, keluarga, teman, pengiklan, model peran, suasana hati, dan situasi yang mempengaruhi pembelian. Hal ini penting karena dalam memahami pengambilan keputusan pelanggan, kita akan memahami bagaimana konsumen membuat keputusan pembelian, bagaimana proses pengambilan keputusan oleh pelanggan dari mencari sampai memilih produk atau jasa, dan juga kita dapat mengetahui faktor-faktor yang mempengaruhi keputusan pembelian. Penelitian ini menggunakan metode kuantitatif. Penelitian kuantitatif mencari hasil ukuran data. Metode yang digunakan dalam penelitian ini adalah Analytical Hierarchy Process (AHP). AHP adalah metode untuk alternatif keputusan berdasarkan peringkat dan memilih yang terbaik beberapa kriteria yang diberikan. Hal ini memungkinkan pengguna untuk menilai bobot relatif dari beberapa kriteria atau beberapa pilihan terhadap kriteria yang diberikan secara intuitif.*

*Kata kunci : pengambilan keputusan pelanggan, proses analitik hirarki (AHP)*

## 1. INTRODUCTION

### 1.1. Research Background

Film is a series of moving pictures. In all cases, the film must have a significant screen size where images are projected so that all attendees can see them convenient. At the same time, the film includes a sector with seats or seats where attendees are placed in rows and neat lines. While the sizes of movie theaters may be varied, usually they must be spacious so many people can enter comfortably.

There are some other features that must be considered. First, for the best projection of such images, the lighting should be almost zero. At the same time, the seats should be preferably located strategic to prevent overlap of people when it comes to see what is projected on the front. However, there are also cinemas in which the seats are all located at the same height. Finally, the audio system must be good and powerful enough to allow the sound hear well from all corners of the room.

Today, large chains of cinemas and theatres have a design more or less generalized in what makes the spaces between the seats, used armchair style, the number of seats per room, the same layout, decoration and also as regards technical projection and audio systems.

There are different types of cinemas today. In cinemas there can be around 6 rooms of greater or smaller, allowing the projection of different films in the same place. 3D cinemas are one of the latest advances in what refers to the projection of videos or movies, most require special equipment.

Manado has already 3 cinemas, which are Cinema 21 Mantos, Cinema XXI, Cinemaxx. While, many factors or criteria can influence customer perception in choosing cinema as their place for watching, the people in Manado has different perception regarding the selection of cinema to enjoying time.

### 1.2. Research Objective

The objectives of this research are to know the criteria are significantly influenced in selecting Cinema, to know the Cinema that people prefer the most.

## 2. THEORITICAL FRAMEWORK

### 2.1. Marketing

Marketing means managing markets to bring about profitable exchange relationship by creating value and satisfying needs and wants. Marketing is a social and managerial process whereby individuals and groups obtain what they need and want through creating and exchanging product and value with other. The core concepts of marketing are needs, wants and demands; marketing offers (products, services, and experiences); value and satisfaction; exchange, transactions, and relationships; and markets. Wants are the form assumed by human needs when shaped by culture and individual personality. When backed by buying power, wants become demands. (Kotler, Armstrong, *et.al.* 2005)

### 2.2. Customer Behavior

Consumer behavior is the study of individuals, groups, or organizations and the process they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society. (Hawkins, *et al*, 2004:7)

### **2.3. Customer Decision Making**

Kotler and Armstrong (2006:5) broadly defined marketing as a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging value with other. In a narrower business context, marketing involves building profitable, value laden exchange relationship with customers. Marketing as the process by which companies create value for customers and build strong relationship in order to capture value from customers in return.

### **2.4. Previous Research**

Razia Sultana Sumi, Golam Kabir (2011), Buyer decision processes are the decision-making processes undertaken by consumers about a potential market transaction before, during, and after the purchase of a product or service. More generally, decision-making is the cognitive processes of selecting a course of action from among multiple alternatives. How many evaluation criteria a consumer will use, what different types of criteria will be considered and how much importance will be placed on each of them depends on the consumer himself and the product consideration. The Analytical Hierarchy Process (AHP) is a multi-criteria decision-making process that is especially suitable for complex decisions, which involve the comparison of decision elements, which are difficult to quantify. The crux of AHP is the determination of the relative weights to rank the decision alternatives. In this study, it has been identified that through using AHP model consumers can evaluate the product attributes differently from simple evaluation criteria. AHP process described an effective buying decision by finding out the effectual attributes of different alternatives.

Dyna Herlina Suwanto (2011), To be able to understand film consumer decision-making, the research was examine film consumer decision-making using mix method approach. The first step was a qualitative research method that using focus group discussion to find 5 main factors, consist of 18 factors that influence consumer behavior when choosing movie in cinema. Those factors are: marketing communication, neutral information source, film characteristics, and content ease. Based on those factors, a questionnaire set was developed. Using quantitative method (factor analysis) it was revealed that there were nine factors: film synopsis and reviews, director and actors, genre, film adaptation, story, neutral information, schedule, visual effects and objectionable content that affecting film consumer decision making.

Ad Huige, the author developed a model of consumer decision making in the cinema market. The research question is: What is the consumer decision making process in the cinema markets, and what is the role of service and quality? The focus was on these variables, because they are not explained by the academic literature, but also the factors: price, availability, perceptual and learning construct and distinctiveness are researched. The changing environment in the cinema market is interesting because many technological- and behavioral factors influenced this market the last 15 years. A model containing 22 different consumer behavior variables was tested with an online survey. The data of 151 participants was a quality sub-set of the population. So a factor analysis and regression model could test the collected data. As a result a regression formula is constructed, and has an explaining value of 20.6% on dependent variable, the number of visits a cinema consumer. The role of quality has an important role in the consumer decision making process, were the role of service is not important. The role of the control variables: availability and perceptual- and learning construct is changed in comparison with their first role

as reviewed in the academic literature. The paper concludes with a discussion section, where the constructed model is implemented with the managerial implications.

### 3. RESEARCH METHOD

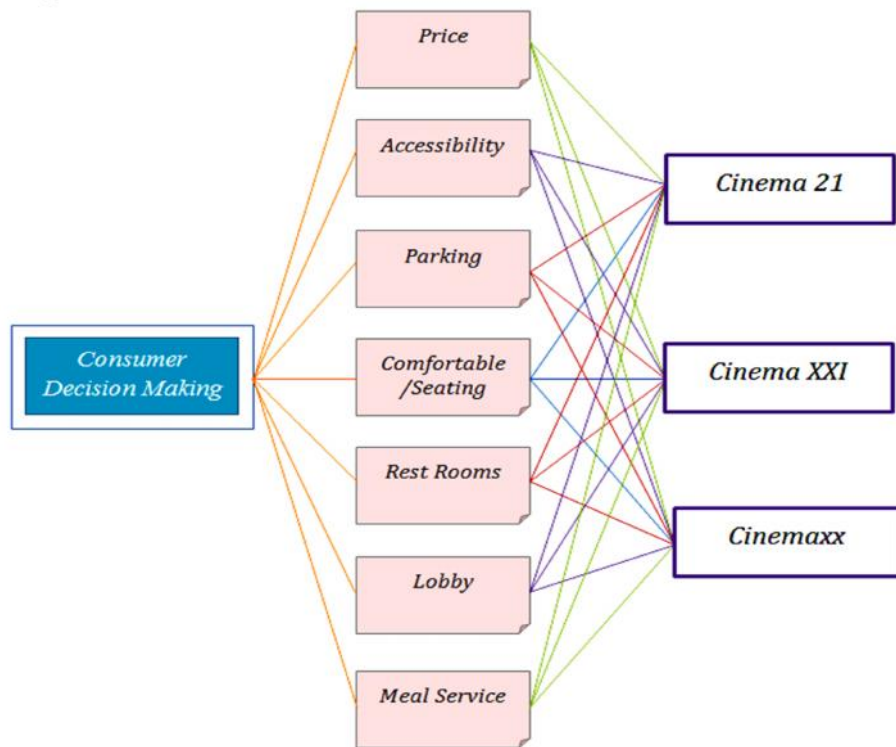
#### 3.1. Type of Research

This research will use quantitative method. Quantitative research seeks to quantify the data. It seeks conclusive evidence based on large, representative samples and typically involving some form of statistical analysis (Maholtra, 2006:180). The method used in this research is Analytical Hierarchy Process (AHP).

#### 3.2. Place and Time of Research

This research will be conducted in Manado city particularly at Cinemas that are Mantos 21 (Regular), Megamall XXI (Regular), Cinemaxx (Regular). This research has been held on May - July 2015.

#### 3.3. Conceptual Framework



Source: Data Processed, 2015

#### 3.4. Population and Sample

Population in this research is people in Manado who have experience in the cinemas of Mantos 21 (Regular), Megamall XXI (Regular), Cinemaxx (Regular). The sample of this research is all customers of Mantos 21 (Regular), Megamall XXI (Regular), Cinemaxx (Regular) as many as 30 respondents that have experience of the Cinemas. Researcher chooses 30 respondents

because even every day several locations of Cinema in Manado always crowded with many people but to find the respondent that have experience in using the three cinemas is quite difficult. Researcher chooses purposive sampling in this research because reseracher have the appropriate characteristic of the sample member to be the respondents which are people in Manado that have experience in using the three cinemas.

**3.5. Data Collection Method**

The data used in this research are taken from primary data. Primary data refer to information obtained first-hand by the researcher on the variables of interest for the specific purpose of the study (Sekaran and Bougie, 2009:180). Individuals provide information when interviewed, administered questionnaires, or observed. Group depth interviews, or focus groups, are another rich source of primary data. The data needed in this research will be collected using questionnaire because questionnaire is relatively easy to analyze, they are simple to administer, the format is familiar to most respondent, and the respondents have time to think about their answer and they are not usually required to reply immediately.

**3.6. Operational Definition of Research Variable**

Customer decision making (Y) defined as a process of gathering and processing information, evaluating it and selecting the best possible option to make a buying choice or to make a decision regarding product and service offering.

Cinema criteria (X) is the characteristic of cinema that will perceived by customer that influencing people (customer) or reason why people want to use a cinema.

Alternatives : (1) Mantos 21, (2) Megamall XXI, (3) Cinemaxx.

**3.7. Data Analysis Method**

The Analytic Hierarchy Process (AHP), develop by Thomas Saaty, is a method for ranking decision alternatives and selecting the best one given multiple criteria. It allows users to assess the relative weight of multiple criteria or multiple options against given criteria in an intuitive manner. In case quantitative ratings are not available, policy makers or assessors can still recognize whether one criterion is more important than another. Therefore, pairwise comparisons are appealing to users. Saaty established a consistent way of converting such pairwise comparisons (X is more important than Y) into a set of numbers representing the relative priority of each of the criteria.

**Table 1. Rating Scale**

Intensity of importance	Definition	Explanation
1	Equal importance	Two factors contribute equally to the objective
3	Somewhat more Important	Experience and judgement slightly favour one over the other.
5	Much more Important	Experience and judgement strongly favour one over the other.
7	Very much more Important	Experience and judgement very strongly favour one over the other. Its importance is demonstrated in practice.
9	Absolutely more important.	The evidence favouring one over the other is of the highest possible validity.
2,4,6,8	Intermediate Values	When compromise is needed

*Source: Literature Reviews, 2015*

Taylor (2013:445) Following is a summary of the mathematical steps used to arrive at the AHP-recommended decision:

1. Develop a pairwise comparison matrix for each decision alternatives (site) for each criterion.
2. Synthesization:
  - a. Sum the value in each column of the pairwise comparison matrices.
  - b. Divided each value in each column of the pairwise comparison matrices by the correspondent column sum-these are the normalized matrices.
  - c. Average the values in each row of the normalized matrices-these are the preference vectors.
  - d. Combine he vectors of preferences for each criterion (from step 2c) into one preference matrix that shows the preference for each site for each criterion.
3. Develop a pairwise comparison matrix for the criteria.
4. Compute the normalized matrix by dividing each value in each column of the matrix by the corresponding column sum.
5. Develop the preference vector by computing the row averages for the normalized matrix.
6. Compute an overall score for each decision alternative by multiplying the criteria preference vector (from step 5) by the criteria matrix (from step 2d).
7. Rank the decision alternatives, based on the magnitude on their scores computed in step 6.

#### 4. RESULT AND DISCUSSION

##### 4.1. Result

**Table 2. Result of the overall criteria**

Price	Accessibility	Parking	Comfortable/Sitting	Rest Rooms	Lobby	Meal Service
0.36	0.22	0.09	0.15	0.08	0.05	0.04

*Sources: Data processed, 2015*

The result shows that the highest score is price (0.36). It means that price is the factor that influence the most people to watch movie at the cinema. The second highest influence shown by accessibility (0.22), followed by comfortable/sitting in third position (0.15), and meal service as the lowest important criteria (0.04). The overall inconsistency 0.09. In general, the degree of consistency is satisfactory (acceptable) if overall inconsistency  $\leq 0.10$ . It means the data comparison in this result is valid and consistent.

**Table 3. Result of AHP (Best Cinema)**

Mantos 21	Megamall XXI	Cinemaxx
0.55	0.29	0.16

*Sources: Data processed, 2015*

Based on the observation, this research shows that respondents choose Mantos 21 as the most preferred cinema for them among the other alternatives. Mantos 21 have the highest score with 0.55, followed by Megamall XXI with score 0.29, and Cinemaxx in the last position with score 0.16. The overall inconsistency indicated = (0.070297), In general, the degree of consistency is

satisfactory (acceptable) if overall inconsistency  $\leq 0.10$ . It means that the data comparison in this result is valid and consistent.

## 4.2. Discussion

### 4.2.1. Pairwise comparison for the main criteria analysis

In Analytical Hierarchy Process (AHP), the criteria developed as the measurement of best cinema has been compared. AHP determines the relative importance or weight of the criteria, to rank the criteria from most important to least important. A criterion with the highest average weight indicates the priority criterion among others.

Firstly, for the overall of seven main criteria (price, accessibility, parking, comfortable/sitting, rest rooms, lobby and meal service), the most important criterion that influences customer is price.

Price becomes the highest influence criteria when they want to choose cinema. Price becomes the most important thing to consider which cinema they want to choose. When customer wants to choose cinema, they choose the most affordable price. Most customers of cinema are students who still get money from their parents. So, the cinema should not give the unaffordable price for the customers. Price has highest score criteria compare to the other six criteria, being the most preferred criteria by respondents and the most crucial criteria that influence customer in selecting cinema. The respondents are those who have experienced on each alternative provided which are the three cinemas based on the requirement of using AHP method. So in this research, according to the respondents, price becomes the most preferred factor for the customer in selecting cinema in Manado.

Second position that influence criteria is accessibility. The cinema should not be located in places with less strategic access that are rather hard to find. Moreover, customer of cinema using their own vehicle, the cinema should be placed in an easily accessible location as well as the public transport or the customers' vehicle. They certainly would not like cinema with difficult access in the vehicle passed by, easily visible, easy access to transportation, and traffic smoothly.

Third position highest influence criteria is comfortable/seating. When people choose to watch movie, they will consider the seats or how comfortable the seating is used while they are watching a movie. How comfortable and clean the cinema is that will influence people to choose which cinema they prefer. The comfort of cinema can be seen by the seats, the air conditioner and the best sight for watching of cinema. Sometimes the customers do not want to watch at that cinema if they cannot have the best sight for watch. Customer also considered the thing such as how clean the room theatre.

The fourth position, followed by parking. Parking area is also one of the important criteria for people when they want to choose cinema. This is because there are so many customers of cinema come to watch movie by using their own vehicle. Have spacious parking area also makes customer consider watch movie. Customers want a cinema with wider and more secure parking area. So, parking area is one of the critical criteria in selecting cinema. The wider and more secure the parking area in cinema, the more it will attract the customer to choose which cinema they will prefer.

At the fifth place is rest room. This one is also important thing, because it is not only few customers that want to go to rest room while waiting the movie or when the movie been playing.

Rest rooms with clean and provides a lot of rooms will influence the customer to choose cinema.

The sixth position is lobby. Have a wider lobby in cinema is a good thing to be offer to the customers because customers can relax while waiting for their time to watch movie or make an activity in cinema lobby. And also they consider about the comfort of lobby and the facilities such as café, charging spot, music. It will make the customers to wait longer inside the cinema. Having a wider lobby is better than having cinema with smaller lobby. Because sometimes customers choose to move to the other cinema if they saw the cinema is crowded by people.

And the last place is meal service. Meal service is less important to customer because sometimes they prefer to eat and drink before they decide to watch a movie because the price of meal service at the cinema is quite expensive. And sometimes customers want to buy meal service inside the cinema, because they cannot bring food and beverage from outside. Right know customer do not see the meal service at the cinema as important as the other six criteria when they go to watch movie at cinema. Therefore meal service got lowest score among the other criteria. But it does not mean that this criterion is not important, this criterion still important to the customer, but it is in the least important criteria resulted from the correspondent.

#### **4.2.2. Pairwise comparison criteria within three Cinemas alternatives analysis**

Pairwise comparison criteria within three cinemas alternatives show each firm performance on each criteria developed on Analytical hierarchy Process (AHP). From the result of price, Mantos 21 has strength in the criteria because the most affordable price with Rp 30,000 for Monday to Thursday, Rp 40,000 for Friday (and a day before holiday) and Rp 50,000 for weekend and holiday compare to Megamall XXI and Cinemaxx. Megamall XXI and Cinemaxx has similar price. The price of Megamall XXI for Monday to Thursday is Rp 40,000, for Friday (and a day before holiday) is Rp 50,000, for weekend and holiday is Rp 60,000. And for Cinemaxx, the price is Rp 35,000 for Monday to Thursday, Rp 45,000 for Friday (and a day before holiday), and for weekend and holiday is Rp 55,000.

In accessibility criteria, Mantos 21 became the most reachable cinema. Mantos 21 is in Jl. Piere Tendean Boulevard (2<sup>nd</sup> floor of Manado Town Square), Megamall XXI is in Jl. Piere Tendean (R1 floor of Mega Mall), Cinemaxx is in Jl. MR.A.Maramis, Kairagi Dua, Lingkungan IV, Mapanget (1<sup>st</sup> floor of Lippo Plaza). Actually, this criterion is relative because customer have different living place.

In parking criteria, Megamall XXI became the most preferred by respondents. For the customers, Megamall XXI has better parking area among the other two cinemas because Megamall XXI located in Megamas which have large parking area. Customers can choose wherever they want to park they vehicle.

Next criterion is comfortable/seating. In this result the most preferred is goes to Mantos 21. In the result analysis, it does not mean the other is not comfortable, both of them are also comfort, but just in least preferred by correspondent compare to Mantos 21.

At criteria of rest rooms, the result shows that Megamall XXI is the most preferred by customers. It is because Megamall XXI is the newest cinema, so they have the cleanest rest rooms that the customer preferred to choose.

Next criterion Megamall XXI dominates the criteria of Lobby. Megamall XXI has the highest score because they have wider and comfort lobby compare to the other cinemas.



The last criterion is meal service. In meal service, Megamall XXI got the highest score. This is because Megamall XXI has a lot of choice for meal.

In every criterion, Cinemaxx not being the most prefer cinema. It is because Cinemaxx is far away from downtown. Customers prefer choose the cinemas that are in downtown. The second reason is for customers who live near with Cinemaxx, it will be easy for them. But, for customers who live far from Cinemaxx, it will be difficult for them to reach this cinema.

#### **4.2.3. Result of Analytical Hierarchy Process of consumer preferred Cinema**

So, based on the overall data, customer will choose Mantos 21 as the most preferred cinema in Manado compared to the other alternatives. This result already shows that when people want to watch movie, they prefer to choose Mantos 21 as the most preferred cinema among the other alternatives. Mantos 21 has the highest score, in the second position is Megamall XXI, and followed by Cinemaxx in the last position.

## **5. CONCLUSION AND RECOMMENDATION**

### **5.1. Conclusion**

Based on seven criteria (price, accessibility, parking, comfortable/seating, rest rooms, lobby and meal service), there are top three criteria that have the most influence for customer in selecting cinema particularly in Manado. In the first place and got the highest total score 0.36 goes to price. According to the data comparison that developed in pairwise comparison of Analytical Hierarchy Process (AHP), price became the most preferred criteria for customer when selecting cinema. Second position of the highest score goes to accessibility with total scores 0.22, and then comfortable/sitting criteria come in third place with total score 0.15.

Based on the overall result that developed using Analytical Hierarchy Process (AHP), shows that Mantos 21 become the most preferred Cinema by the customers with score (0.55), in the second position is Megamall XXI with score (0.29), and Cinemaxx in the last position with score (0.16).

### **5.2. Recommendation**

Price has important role in selecting a cinema. By respondents, price became the most important thing to consider which cinema they want to choose. In this case, Mantos 21 have the most affordable price compare to Megamall XXI and Cinemaxx. Megamall XXI and Cinemaxx should know who are the most customers. Based on the data, the most customers are students who still get money from their parents. So, Megamall XXI and Cinemaxx should give more affordable price.

Comfortable/sitting is also important for the customer. The comfort of cinema can be seen by the seat, the air conditioner and the best sight for watching of cinema. Sometimes the customers do not want to watch at that cinema if they cannot have the good place to seat for watch. Based on the data, Mantos 21 became the most comfortable. It is because Mantos 21 can see the situation if there is a famous movie that can get more income, they will open more theatre for the same movie, so the customer have more choice for seat. The other cinemas should do the same thing.

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## REFERENCES

### *Papers in Journal*

- [1] Sumi, R. S. & Kabir, G. 2010. Analytical Hierarchy Process for Higher Effectiveness of Buyer Decision Process. Vol. 10 Issue 2 (Ver 1.0). Department of Industrial and Production Engineering, Bangladesh University of Engineering and Technology (BUET), Bangladesh & Department of Business Administration, Stamford University.
- [2] Saaty, T. L. 2008. Decision Making with the analytic hierarchy process. Int. J. Service Science, Vol 1. No. 1

### *Books*

- [3] Burns, A. & Bush, R. 2006. Marketing Research, 5<sup>th</sup> ed. Pearson Education. New Jersey.
- [4] Hawkins, D., Best, R. & Coney, K. 2004. *Consumer Behavior : Building Marketing Strategy*. 9<sup>th</sup> ed. McGraw-Hill Irwin, Boston, MA.
- [5] Huige, A., *Consumer decision making process in Cinema markets: the role of service and quality*. Erasmus school of economics Erasmus Universiteit Rotterdam.
- [6] Joseph, F.H, Jr., Arthur H.M., Phillip S., Mike P. 2007. *Research Method for Business*. John Willey & Sons, Ltd.
- [7] Kotler, P. and Armstrong, G. 2006. Principle of Marketing. 11th ed. Pearson Education, Inc. Upper Saddle River, New Jersey.
- [8] Kotler, P. & Armstrong. G. 2008. Principles of Marketing. 12<sup>th</sup> ed, New Jersey: Prentice Hall
- [9] Kotler, P. & Armstrong, G. 2010. *Principles of Marketing*. 13<sup>rd</sup> ed. Pearson Education, Inc. Upper Saddle River, New Jersey.
- [10] Kotler, P. & Armstrong, G. 2012. *Principles of Marketing*. 14<sup>th</sup> ed. Pearson Education, Inc. Upper Saddle River, New Jersey.
- [11] McDaniel, C., Hair, J. & Lamb, C. 2011. *Essentials of Marketing*. 7<sup>th</sup> ed. Cengage Learning, Texas.
- [12] Saaty, T. L. 1980. *The Analytic Hierarchy Process*, McGraw Hill International.
- [13] Saaty, T. L. 1990. *How to make a decision: The Analytic Hierarchy Process*.
- [14] Sekaran, U., & Bougie, R. 2009. *Research Methods for Business: A Skill Building Approach*. 5th ed. John Wiley & Sons Ltd, United Kingdom.
- [15] Schiffman, L. & Kanuk, L. 2007. *Consumer Behavior*. 9<sup>th</sup> ed. New Jersey: Prentice Hall.
- [16] Suwanto, D. H. 2011. *Identifying Key Factors Affecting Consumer Decision Making Behavior in Cinema Context: A Mix Method Approach*. Management Department - Yogyakarta State University, Indonesia.
- [17] Taylor, B.W. 2013. *Introduction to Management Science 11th edition*. Virginia Polytechnic Institute and State University. Global Edition. Pearson.

### *Article in Internet*

- [18] <http://edukalife.blogspot.com/2013/04/cinema-definition-concept-meaning-what.html>. What is the meaning of Cinema? Concept, Definition of Cinema, <https://www.wbdg.org/ccb/AF/AFDG/basetheater.pdf> . Base Theatre Design Standards