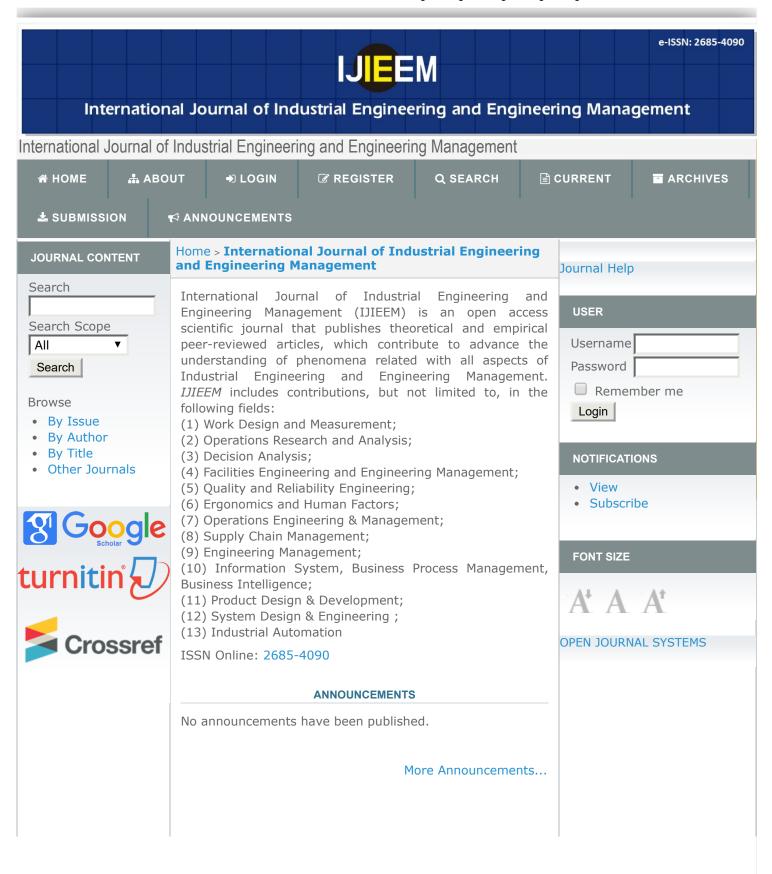


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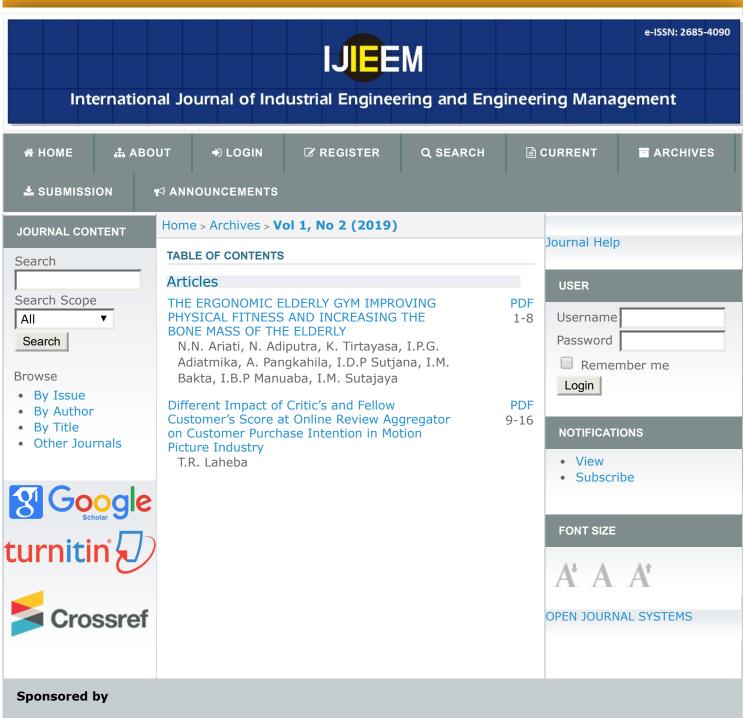




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Different Impact of Critic's and Fellow Customer's Score at Online Review Aggregator on Customer Purchase Intention in Motion Picture Industry

T.R. Laheba

ABSTRACT

The Motion picture industry is somehow unique compared to other industries. Ticket prices for all films are the same, because of that price is not the main variable in decision making for watching a film. A review can become one of the most powerful variables when choosing which film to watch by the customer. Other than that, different from other industries and products, reviews that come in the form of narrative and detailed expositions tend to be avoided by customers because it will ruin the satisfaction of watching films activity due to leakage of information from the film plot and storyline. One that can be an aid for film customers is an online review aggregator's score that accumulated from a bunch of scores that given from either critics or fellow customers and it made online review aggregator viewed as a more objective reviewer. This study aims to find whose review at the online review aggregator website will be more influential on the customer purchase intention of Indonesia's moviegoers. Data of 220 Indonesia's millennial generation were retrieved and analyzed during the research. This research finds out that customers in Indonesia can be influenced by score or rating that comes from online review aggregator, an equally good review from critics and customer can increase customer purchase intention and vice versa. Furthermore, the customer's score or rating is the one more influential by a small margin compared to the score from critics.

Keywords: Expert Review, Customer Review, Movie Industry, Customer Purchase Intention.

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1. INTRODUCTION

Understanding customer behavior has become very crucial for every industry in today's world. We have already seen that in the past, a producer or corporation has a very dominant role in determining what kind of products will be produced or offered to the customers. In the current era of information disclosure and technology, only products that are preferred by the customers will succeed in the market. This phenomenon was already forecasted before by the experts at the early development era of the internet (Labrecque et al., 2012). Therefore, understanding customer behavior will give enormous benefits for corporate in creating and developing a product, determining market

segmentation, and conducting the product's marketing process to the customers as a whole business process (KPMG, 2017).

The internet has brought significant changes how the customer behaves. Online product reviews have become one of the main sources of information for customers (Hu et al., 2008). Nowadays, in the technological era, it is a very common thing for customers to search for online reviews before creating a decision to buy a certain product. Recent research shows that 52% of online customers use the internet to search for information about a product, with 24% of them use the internet to search for product information before making a purchase (Barbado et al., 2019). With this online review, customers can be helped in the decision-making process.

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Online review aggregator can become one of the main alternative source of information for customers to find reviews related to a product. An online review aggregator is a platform that collects opinions from people and allows objective and subjective information about a product to be easily accessed by potential customers (Piolatto, 2015). Online review aggregators have advantages in influencing decision making by customers because the reviews within are specific to certain products and sourced from a bunch of people so the results can be trusted compared to another platform that usually only comes from a certain person and can become very subjective. Several online review aggregators are popular and trusted in the world today, including Trip Advisor for travel and holiday products. Yelp.com for restaurants, idreambooks.com for books. rotten tomatoes, and IMDb for films and movies, and many more online review aggregator that specifically dedicated for every industry.

The motion picture industry in the world and specifically Indonesia continues to grow at a very rapid pace. The Hollywood film industry, whose films dominate the cinema screens in Indonesia recorded revenues of USD 42 billion during the year of 2018. Indonesia is a big and very potential market for the film industry. The growing number of viewers in movie theatres in Indonesia was recorded at 230% in the last five years, besides that Indonesia was also known as the 16th largest box office films market in the world with a market value reaching USD 345 million or around IDR 4.8 trillion per year. This potential will still be increasing because the number of screens in Indonesia is very far from the ideal condition. With a population of 260 million people, the ideal number of cinema screens should be around 10,000 screens, but until today the number of cinema screens in Indonesia is still at the range of 1800 screens (Susanto, 2019). Besides watching a film in the theater, we can also see the high paced growth of film streaming, which means people now can watch films from their gadget by paying a certain amount of money. Streaming can give additional and a longer period of income for production house rather than only licensing a film to the cinema.

Unlike most other products, price is not an important variable for customers in deciding to choose which film to watch. This is because the price of cinema tickets or film streaming for all films usually is the same. Therefore, a review can be an important variable when deciding to choose which movie to watch (Pentheny, 2015). The types of reviews sought after by film customers will be different compared to other products in general. On the other products, detailed exposition related to a product becomes the most sought after and important thing. For films, spoilers will ruin watching experience (Anderson, 2011) because of that customers will avoid detailed reviews in the form of videos or narrations as much as possible before watching a movie to avoid leakage or information of the film's storyline, which in turn will ruin the satisfaction of watching a film from the customers.

Online review aggregators in the motion picture industry will provide a score or rating for films that are available in the market. Three online review aggregators are widely used by the customers of the film industry, IMDb or Internet Movie Database, Metacritic, and Rotten Tomatoes. Each of these websites uses a different method for giving a rating or score to the films. Rotten Tomatoes and Metacritic use scores given by critics and customers, while IMDb only has scores given by viewers. Figure 1.1 illustrates how one of the online review aggregator, namely Rotten Tomatoes provides scores for a film.

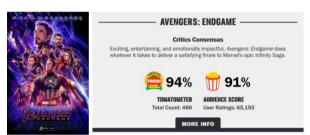


Figure 1. Movie Review/Score in Online Review
Aggregator Rotten Tomatoes

Online review aggregator has a big impact on the film industry. A recent survey indicates that almost 91% of 18-34-year-olds, for whom the internet has become an unseparated thing in their life trust online reviews as much as personal recommendations (Murphy, 2019). But that does not mean the reviews given by these websites are free from problems. In fact, an online review aggregator can have two scores, the value of which can be very different. Significant differences can occur between the scores that came from critics and customers, and this can provoke controversy and once even have led to a petition to boycott Rotten Tomatoes because the values differ greatly between scores given by critics and by the audience considered to have a bad impact in terms of marketing and financial to a particular film or production house.

There are a few requirements from an online review to affect customer purchase intention. The high-quality argument was more influential compared to the low quality of review argument that is usually emotional and subjective (Obiedat, 2013). Chen (2017) on his research, try to find out which one from five-star, and binary-visual types and review that can help people more in creating buying decision of a product. Bae and Lee (2011), in their research tried to understand how gender can affect response to online review. Besides that, a recent study finds out customers seem to rely heavily on the majority's opinion in determining their evaluation (Purnawirawan et al., 2014). Lee at al. (2011) found out online customer reviews that found on their own by the customer will have a greater impact on customer purchase intention rather than an online review that embedded in marketing tools such as flyer, billboard,

Online reviews of a film will affect the sales performance of a film. Several studies have been

conducted to see how the impact of an online review on the performance of a film. Online reviews in the form of a text can help to explain a film and predict the box office success of the film (Moon et al., 2014). Lee and Choeh (2018), in their research, found that, while the review is helpful, it can also influence the box office performance of a movie. Pentheny (2015) found that film reviews influence customers' decision making processes. Tsao (2014), in her research, understand that it is not just the purchase intention affected by review but also post-viewing film evaluation. But until today, there is no research to find out how a review in the form of rating or score that accumulated in online review aggregator from critics and customers can impact decision making in watching a movie.

Film review's effect will have a different impact on customer purchase intention depending on the genre of the film being reviewed. Gemser et al. (2006), in his study, tried to see how the effect of the review on box office performance for art house films and mainstream films. The results showed that the number and review of films for art house films in Dutch newspapers directly affected the behavior of the customer who watches art house films. By contrast, for mainstream films, the reviews provided only predicted the performance of the films concerned. Reinstein and Snyder (2005), from their research, found out that a positive review from movie critics can have a good impact on drama and narrowly released films. Thrane (2017) found out that the magnitude of the effects of expert reviews in the film industry is related to the genre of the film and gender of the prospective customer. After all, we still need a greater understanding of how score and review will affect customer purchase intention for the film industry.

Peer viewers within one community have more influences on customer purchasing preferences. Divakaran and Norskov (2015) found in their research on the fandango.com community that online reviews from fellow customers in one community had a greater influence than expert reviews. However, the research can only be applied for new films which we know today film industry having a new revenue generator from streaming that can give more and bigger money to the movie studio. In addition, people within one community tend to believe peer review from within the community because they know that the review comes from people having the same hobby or interest with them.

The culture of a country can influence the response of prospective customers to the review of a film. Research conducted by Chiu et al. (2019) used data from two online review websites, namely IMDB.com and Douban.com, to see how the impact of an online review on customer spending preferences from the United States and China and found specific similarities and differences among customers in these two countries. In response to an online review of a film, this research aims to find out how certain score, which in this case bad and good review from both critics and peer, can influence decision making to buy a ticket or stream a film in Indonesia.

Although there have been several studies related to the importance of online reviews, especially for the motion picture industry with the accusation, it received for ruining certain production houses even the career of a director and actress. It is still needed to find how rating or score from an online review aggregator can affect customer purchase intention in the motion picture industry.

2. RESEARCH OBJECTIVES

The objective of this research is to find out whose opinion is the most influential for customer purchase intention in Indonesia, whether the scores from critics or fellow viewers on the online review aggregator website.

The benefits of this research will later be used by cinema owners in the cinema to help determine which film is most suitable for getting the number of screens to increase sales and maximize profits in each cinema studio or for streaming movie corporations to set prices for the film that they are streamed.

3. RESEARCH METHODOLOGY

3.1. Online Review Aggregator

The online review aggregator used in this study is Rotten Tomatoes. Rotten Tomatoes is chosen because it is the online review aggregator that is most widely used by internet users compared to other online review aggregators, namely IMDB and Metacritic (Alexa, 2019). Another thing about Rottentomatoes.com, it has two scores that are able to be used in this study to see the difference of impact between the reviews from experts or film critics and fellow customers' reviews on the customer purchase intention of potential customers who visit the online aggregator review website.

The Tomatometer score will represent the accumulated score given by film critics, while the audience score is the accumulated score given by fellow customers of the film industry. Tomatometer and audience score will comprise from a group of people usually more than 30 people that give analysis and score for the film.

3.2. Customer Purchase Intention

Customer purchase intention defined as the tendency from customers to buy a product or a brand based on the consideration of the suitability of the purchase motive with the attributes or characteristics of products or brands (Belch in Sari and Anggraeni, 2019). In this study, customer purchase intention is measured by asking respondents whether after seeing the score or rating of a particular film makes them want to watch that particular film.

3.3. Respondents

Respondents in this study are millennials generation who are in the age range of 19-25 years. This age range is chosen because this generation is already very familiar with the internet. Besides, they are a generation that is very fond of watching activity. Because of these

reasons, this generation will be very appropriate as a respondent in this study.

3.4. Questionnaire

The questionnaire in this study will be distributed to respondents using the Google form in one week. Four titles of films with different combinations of the review will be shown to the respondents to measure how the impact of score from both film critics and fellow customer on respondents' customer purchase intention with the following conditions:

- Condition 1: Good Critics score, Bad Customer score.
- Condition 2: Bad Critics score, Good Customer score.
- Condition 3: Good Critics score, Good Customer score.
- 4. Condition 4: Bad Critics score, Bad Customer score. A good score will be ranging from 0-50%. On the other hand, above 60% is considered a good score or rating.

All films used in this study are films with a horror genre. All questions will be presented using a Likert scale of 1-5 so that the respondents will be able to explain more clearly and precisely how they respond to the review and score of the film shown to them, compared if the question only can be answered with yes or no response.

Customer purchase intention of the respondents in this study was measured using a Likert scale with the following information:

- 1 Really Want to Watch a Film
- 2 Want to Watch a Film
- 3 Simply Want to Watch a Film
- 4 Don't Want to Watch a Film
- 5 Really Don't Want to Watch a Film

Questions regarding customer purchase intention will be given after each condition is presented to the respondents. All of the respondents will give one response in each given condition.

3.5. Data Processing

Data processing was performed using two statistical methods. The first method is descriptive statistics, and the second one is Friedman's non-parametric two way ANOVA with ranks test. This test was selected because it is under the results of data retrieval and response to customer purchase intention, in which the results generated are in the form of an ordinal scale. Before the data processing and analysis were carried out, reliability analysis will be conducted for the data retrieved by the questionnaire.

The hypotheses developed in this study are:

H₀: There are no differences between the distribution of customer purchase intentions in condition 1, condition 2, condition 3, and condition 4.

H₁: There are differences between the distribution of customer purchase intention in condition 1, condition 2, condition 3, and condition 4.

4. RESULT AND DISCUSSION

Data from 220 university students were taken, and all were analyzed in this study. Then, some of the results related to watching film activities were obtained. The reliability test was conducted, and Cronbach's α was 0.87, which means that the questionnaire is reliable. According to this research, we found out that Indonesia's millennial generation is very fond of watching activity, 94.3% of respondents in this study stated that they are fond of and interested in watching activity. Besides delighting in watching a film, the respondents also actively watched, with 96.9% of respondents at least watching once a month in the cinema or through streaming films.

If viewed from the effect of the review of the choice of watching, respondents consider a review to be an important variable in making decisions about which movie to watch. 84.5% of respondents stated that a review they saw and found could influence the decision of what movie they would watch. As noted by this study, it was found that the respondents would not spend much time searching and reading a review. It was also found 58.8% of respondents using an online review aggregator as one of the main sources for finding a review of a film. These results show the great influence of the review found in the online review aggregator in the decision-making process of film selection.

Customer purchase intention is measured using a Likert scale for each respondent after four review conditions related to a film are presented to the respondents. From the results of Friedman's non-2-way ANOVA test results obtained significance <0.05 (results can be seen in table 1) so that H_0 in this study stated that there is no difference in the distribution of customer purchase intentions on four conditions of reviews that can be rejected. Good movie reviews given by the critics and customers will give different impact and influence customer purchase intention. Further analysis is done using a pairwise comparison of the results of the test Friedman's two way ANOVA by trying to find out how reviews from critics and customers will have a different impact on customer purchase intention.

Table 1. Friedman's two-way ANOVA Result

Null Hypothesis	Test	Sig.	Decision	
The distributions of Condition 1 Condition 2 Condition 4 Are the same	Related samples Friedman's Two Way Analysis of Variance by ranks	.000	Reject the null hypothesis	

From the pairwise comparison test results, it can be seen that both bad reviews (condition 2) and both good reviews (condition 4) will greatly affect customer purchase intention from customers. If the reviews from critics and customers lead to the same thing, in this case,

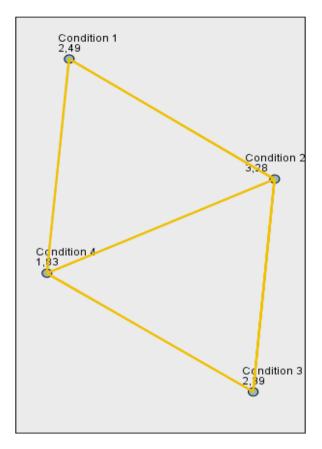


Figure 2. Pairwise Comparison of Friedman's 2 Way Anova with Ranks

Sample 1 – Sample 2	Test Statistic	Std. Error	Std. Test	Sig.	Adj. Sig.
			Statistic		8
Condition 4 – Condition 3	.557	.123	4.524	.000	.000
Condition 4 – Condition 1	.659	.123	5.354	.000	.000
Condition 4 – Condition 2	1.448	.123	11.761	.000	.000
Condition 3 – Condition 1	.102	.123	.831	.406	1.000
Condition 3 – Condition 2	.891	.123	7.328	.000	.000
Condition 1 – Condition 2	- 789	123	-6 407	000	000

Table 2. Result of Pairwise Comparison of Friedman's 2-way ANOVA with ranks

if the review is given equally good or equally bad, it will affect customer purchase intention in the same way with the review. If both the review is good, the customer will tend to believe that the film was good and the other way around. But for condition 1 and condition 3 where the given review is called a mixed review condition or one reviewer gives a good review while the other reviewer gives a bad review, there is no significant difference between the customer purchase intention with a significance value above 0.05. After the mean of the customer purchase intention in condition 1 and condition 3 is further investigated, the difference in the mean value of the customer purchase condition is indeed not too significant. By contrast, if observed, respondents have more confidence in the good reviews given by fellow customers compared to the good reviews given by critics for the decision-making process to choose what films they watch.

This result is also in line with the results of the questionnaire asking the respondents' opinion what the main motivation of someone is, both critics and fellow customers, in giving a review. 63.5% of respondents believe that film critics will write an honest review to assist others in making the right decisions to select what movies they will watch. However, 84.5% of customers believe that fellow customers will write a film review honestly to help other customers to make the right film selection decision.

5. CONCLUSIONS

This study aims to explore the impact of a film review in the form of a score on customer purchase intention of motion picture industry customers. This study found that the score contained in the online review aggregator is one of the things that became an important variable in making decisions to choose which films customers would watch.

Furthermore, this study also tries to find differences in the effect of the score given by critics and the score from customers on the customer purchase intention of film industry customers. This study also found that if all the review from movie critics and customer is the same or pointing into the same direction. Customers will believe and follow the review, for example, if the review is all bad the customer will not wanting to watch the movie and vice versa. Further investigation found out, despite a very small margin, customers tend to believe more the review that came from other customers to help them decide which films they watch.

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REFERENCES

- Anderson, J. (2011). Spoiler Alert: It Hits an Iceberg. Retrieved from https://www.nytimes.com/2011/04/10/movies/movie-spoilers-thanks-to-the-internet-are-everywhere.html (accessed 25 January 2020)
- Bae, S. & Lee, T. (2011). Gender differences in consumers' perception of online consumer reviews. *Electronic Commerce Research*, *11*, 201–214. DOI: 10.1007/s10660-010-9072-y
- Barbado, R., Araque, O., & Iglesias, C.A. (2019). A framework for fake review detection in online consumer electronics retailers. *Information Processing & Management*, 56(4). DOI: 10.1016/j.ipm.2019.03.002
- Chen, C. (2017). Five-star or thumbs-up? The influence of rating system types on users' perceptions of information quality, cognitive effort, enjoyment, and continuance intention. *Internet Research*, 27(3), 478-494. DOI: 10.1108/IntR-08-2016-0243
- Chiu, Y., Chen, K, Wang, J., & Hsu, Y. (2019). The impact of online movie word-of-mouth on customer choice: A comparison of American and Chinese consumers. *International Marketing Review*, *36* (6), 996-1025. DOI: 10.1108/IMR-06-2018-0190
- Divakaran, P. & Norskov, S. (2015). Are online communities on par with experts in the evaluation of new movies? Evidence from the Fandango community. *Information Technology & People*, 29(1), 120-145. DOI: 10.1108/ITP-02-2014-0042
- Gemser, G., Oostrum, V.M., & Leenders, M.A.A.M. (2006). The impact of film reviews on the box office performance of art house versus mainstream motion

- pictures. *Journal of Cultural Economics*, *31(1)*, 43-63. DOI: 10.1007/s10824-006-9025-4
- Sari, H. & Anggraeni, L. (2019). Peran tipe gambar, tagar, jumlah likes dan informasi harga pada Instagram terhadap intensi membeli. *J@ti Undip: Jurnal Teknik Industri*, 14(2), 71-80. DOI: 10.14710/jati.14.2.71-80
- Hu, N., Liu, L., & Zhang, J. (2008). Do online reviews affect product sales? The role of reviewer characteristics and temporal effects. *Information Technology and Management*, 9(3), 201-214.
- KPMG. (2017). *The truth about online customers. 2017 Global Online Customer Report*. Retrieved from https://assets.kpmg/content/dam/kpmg/xx/pdf/2017/0 1/the-truth-about-online-consumers.pdf
- Labrecque, L.I, vor dem Esche, J., Mathwick, C., Novak T.P, & Hofacker C.F. (2013). Customer power: evolution in the digital age. *Journal of Interactive Marketing*, 27(4), 257–269. DOI: https://doi.org/10.1016/j.intmar.2013.09.002
- Lee, S. & Choeh, J.Y. (2018). The interactive impact of online word-of-mouth and review helpfulness on box office revenue. *Management Decision*, *56*(*3*), 849-866. DOI: 10.1108/MD-06-2017-0561
- Lee, J., Park, D., & Han, I. (2011). The different effects of online consumer reviews on consumers' purchase intentions depending on trust in online shopping malls: An advertising perspective. *Internet Research*, 21(2), 187-206. DOI: 10.1108/10662241111123766
- Moon, S., Park, Y., & Kim, Y.S. (2014). The impact of text product reviews on sales. *European Journal of Marketing*, 48(11/12), 2176-2197. DOI: 10.1108/EJM-06-2013-0291
- Murphy, R. (2019). 35 Online Review Statistics You Need in 2019. Retrieved from https://www.brightlocal.com/resources/online-reviews-statistics-2019/ (accessed 25 January 2020)
- Obiedat, R. (2013). Impact of online consumer reviews on buying intention of consumers in the UK: Need for cognition as mediating role. *International Journal of Advanced Corporate Learning*, 6(2), 16-21. DOI: 10.3991/ijac.v6i2.2910
- Pentheny, J.R. (2015). *The influence of movie reviews on customers* (Honors Theses and Capstones). Retrieved from https://scholars.unh.edu/honors/265
- Piolatto, A. (2015). Online booking and Information: Competition and welfare consequences of review aggregators. *IEB Working Paper*, 11.

- Purnawirawan, N.A., Dens, N., & Pelsmacker, P.D. (2014). Effects of review set balance, review source, and review content. *Journal of Electronic Commerce Research*, 15(3), 162-178.
- Reinstein, D. & Snyder C.M. (2005). The influence of expert reviews on customer demand for experience goods: A case study of movie critics. *The Journal Of Industrial Economics*, 53(1), 27-51. DOI: 10.1111/j.0022-1821.2005.00244.x
- Susanto, H. (2019). *Tumbuh pesat, Indonesia pasar potensial bagi industri film*. Retrieved from https://katadata.co.id/berita/2019/03/16/tumbuh-pesat-indonesia-pasar-potensial-bagi-industri-film
- Tsao, W. (2014). Which type of online review is more persuasive? The influence of consumer reviews and critic ratings on moviegoers. *Electronic Commerce Research*, *14*(4), 559-583. DOI: 10.1007/s10660-014-9160-5
- Rotten Tomatoes. (2019). *Avengers: Endgame*. Retrieved from https://www.rottentomatoes.com/m/avengers_endgame
- Rotten Tomatoes. (2019). *Happy Death Day*. Retrieved from https://www.rottentomatoes.com/m/happy_death_day
- Rotten Tomatoes. (2019). *A Dark Hall*. Retrieved from https://www.rottentomatoes.com/m/down_a_dark_hal
- Rotten Tomatoes. (2019). *Slender Man*. Retrieved from https://www.rottentomatoes.com/m/slender man
- Rotten Tomatoes. (2019). *3 From Hell*. Retrieved from https://www.rottentomatoes.com/m/3_from_hell online
- Alexa. (2019). Competitive analysis, marketing mix and traffic. Retrieved from https://www.alexa.com/siteinfo/rottentomatoes.com

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