Motivation and Medium of Information Affectıng Film Viewing in Malaysia

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Abstract

The success of a country's film industry is determined by the collaboration between film producers and audience. This is similar to an economic field, where supply and demand are interactive and interdependent. There is an interaction between the film industry and the audience. So, the aim of this study is to find the significant factors by using multiple regressions that encourage and motivate the audience to go to the cinema. This will then help producers to produce films based on audience's desire. Mathematical modeling concept was used in the methodology where two categorical variables were transformed into dummy. The search for significant factors involved data cleaning, factor analysis, dummy transformation and four-phase model building. Eventually, the best model obtained consists of interest, family, friends, the internet and printed medium of posters and brochures. Thus, this study builds bridges between two different fields that is scientific and non scientific. This helps the marketing in the film industry encouraging the audience to go to cinema.

Keywords: Mathematical modelling, Behavioural patterns, Multiple regressions (MR), Model-building, Significant factors, Film industry.

1. Introduction

Film industry is one of the major contributors to the national income and according to Herwina & Zarith (2012), research interests in the film industry have flourished in recent years as it has emerged as a new dynamic industry in world trade. While Hasrul & Jamaluddin (2014) stated that the film industry's rapid development is often translated into income, the local film industry should look far into the future and beyond the comfortable zone. The local film industry dumped the entry of foreign films that flooded the local market not only through cinema but also through the new media as well. Thus local film producers do not just think of the conventional methods merely to attract the attention of audiences and international markets, but also the need to make a film that can give satisfaction to audience of all ages. So, the viewers were motivated to buy movie tickets. Then there exists a win - win situation for producers and film viewers. Now, film producers try to find out the cause of low ticket sales at the cinema. According to Serimah (2013), the audience may change their taste or become more critical in not wanting to spend almost two hours watching a movie that has not been able to meet their interests. Hence this study attempts to discover the significant factors that affect the audience's interest to go to a cinema.

2. Lıterature Revıew

Kaisa *et al*. (2003) said that cinema-going is a type of leisure culture. They discovered the basic concepts aspects of cinema-going in Europe by doing cross-cultural research on the activity of cinema-going in Finland, Estonia and Portugal. They had a surprise finding in their research where cinema – going was be considered a culture. The comparison in cinema-going, among Finnish, Estonian and Portuguese, found that many more similarities than differences. This brought to a conclusion on European cinema-goers where cinema-going remained the most popular leisure time activity. People go to cinemas despite the changes they encountered.

Mustafa (2009) had studied the Egyptian movie-viewing audience to see what motivated them to go to see a particular movie in a film theatre. This study is more specific in investigating how a person is initially enticed to go to see movie, whether this is through word of mouth, and exposure to various media outlets ranging from movie previews to movie critics in newspapers or on TV, the drawing power of the cast or director, and so on. It identified the mediums that are most efficient in making the Egyptian audience want to see a specific film. The following seven factors/mediums were examined to answer these research questions: movie stars, directors, trailers, general advertising, word of mouth, movie genre, and reviews. The results suggested that both the genre of the movie and the stars are usually the two most important reasons in determining the Egyptian audiences' choices.

Herwina & Zarith (2012) had done the study to identify the challenges faced by the Malaysian film industry under the conditions of increased global competition in the film business by using a qualitative

research approach. They identified the challenges coming from three main areas: the ability to compete with other countries as an attractive location for shooting, the ability to develop the animation sector and the ability to produce film products at international standards. One of the major challenges facing the Malaysian film industry is the small domestic market. It was estimated that the total audience for feature films was approximately 5.29 million in 2008 out of a total population of approximately 28 million. The film industry in Malaysia is a small industry in terms of the quantity of films produced annually as well as its contribution to the economy. So to overcome these challenges, the government plays an important role in nurturing and promoting the development of the indigenous film industry through its policy and regulatory framework. The government, through FINAS, should take the necessary action to promote the development of the indigenous film industry. Nevertheless, much needs to be done to ensure that the government's funds are properly channeled and used in the most efficient way.

3. Methodology

Study area: A large shopping mall that is fully equipped with an entertainment centre such as the cinema will be more appealing at state capitals. The affected areas were Kota Kinabalu, Kuching, Kuala Lumpur, Johor Bharu, Kuantan, and Alor Setar.

Data collection: A total of 1,265 respondents with 612 males and 653 females had participated in this study. The questionnaires were divided into two parts, first the background (consists of age, gender, ethnicity, religion, education, occupation, income, number of times per month to watch in the respondents' category) and second the respondents' perceptions (such as motivation, resources, selection of the film production, gratuities, genre's trends, genre's themes, viewership's of attraction, medium-watching, opinions regarding the Malaysian Malay's films, the suitable show times and public opinions).

3.1. Data Cleaning

Once, the data entry process was completed, data cleaning process is run by recognizing certain types of data that must be cleaned such as data that resided on the same line or purposes and data that were not in line with the questions in the questionnaire; data that were incomplete were discarded. The purpose is to avoid any interruption to the data analysis because of the non contributing data given. Next, the data cleaning had to undergo a preliminary study by using the analysis factor. According to the Hair *et al.* (2006), the method of factor analysis is to seek a solution to the summary of the information or data that consists of several origin variables. These variables should be downsized to a smaller set of combinations between the variables that affect the minimum loss of information. The analysis factors was formed on the subset of the eleven selected variables (the motivation, information resources, the movie production alternative, gratuities, the trends genre, tendencies theme, intriguing viewing, medium-watching, opinions about the Malaysian Malay's films, the suitable show times and general view) that represented all perceptions on viewership. There were two factors that were extracted from the rotated component matrix which were the factor of inducement and information resources. These two components indicated that the dependent variable and independent variable were highly correlated to each other. For the multiple regression analysis, only the two components of parameters will be used. Both variables were in the form of dummy variables that would be included in the process of model building as shown in the Table 1.

Table-1. Description of variable involved in the model.

Variable	Description	Type
Y	Viewers Attraction Score	Quantitative
D1	Motivation of interest	Dummy
D2	Motivation of family	Dummy
D3	Motivation of friends	Dummy
D4	Motivation Boredom of no activities	Dummy
D5	Motivation of box office films	Dummy
S1	Medium - Internet	Dummy
S2	Medium - Television/Radio	Dummy
S3	Medium - Poster/Brochure	Dummy
S4	Medium - Newspaper/Magazine	Dummy
S5	Medium - Story from friends/family medium	Dummy

3.2. Multiple Regression (MR) Models

According to Gujarati (1999), regression analysis is a statistical technique on the study of the relationship between one dependent variable to one or more independent variables. The objective of regression analysis is to predict a single dependent variable (DV) from the knowledge of the one or more independent variables (Aminatul *et al.,* 2012).

The effects of interactions represent the combination of affected variables on the criterion or dependent measure. When an interaction effect is detected, the level of variables to impact will be dependent towards the other variable. A part of the power of MR is the ability to estimate and test the effects of the interaction when the predicator variables are either categorical or continuous. Zainodin *et al.* (2011) also stated that the general form of the Multiple regression is shown as follows:

$$Y = \Omega_0 + \Omega_1 W_1 + \Omega_2 W_2 + \cdots + \Omega_k W_k + u$$

Where, Y is the dependent variable, Ω_0 is constant term, Ω_j is the j-th coefficient of independent variable W_j and W_j is the j-th independent variable (such as single independent variables, interaction

variables, generated variables, dummy variables and transformed variables) where j = 1,2, . . . , k and u is a random error of the model.

4. Results and Discussions

Results from factor analysis for rotated component matrix showed that encouragement and motivation as well medium information had a positive relationship and high correlation with the dependent variable. Table 2 showed the results of rotated component matrix. So both independent variables were chosen to be included in multiple regression model.

Table-2. Rotated Component Matrix[a]

	Component	
	1	2
Viewership's Of Attraction	.694	
Genre's Trends	.684	
Genre's Themes	.673	
Public Opinions	.664	
Gratuities	.627	
Opinions Regarding The Malaysian Malay's Film	.594	
Suitable Show Times	.502	
Medium-Watching	.421	.416
Viewers Attraction (DV)		.729
Encouragement & Motivation		.711
Medium of Information		.628
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.		

Before the model building procedure, the process of transformation into dummy for all variables shown in Table 1 had been done. Respondents that gave answers of Likert scale four and five will be transformed into one while others answer will become 0. By using the model-building procedure for multiple regression where phase one is listing down all the possible models, phase two is the selected models using variance based (VIF) below 5 and coefficient test, then the best model would be obtained using the eight selection criteria (8SC) and lastly goodness of fit using the randomness test and normality test. Best model for this study is M3.0.5: $\hat{y} = \hat{\Omega}_0 + \hat{\Omega}_1 D_1 + \hat{\Omega}_2 D_2 + \hat{\Omega}_3 D_3 + \hat{\Omega}_6 S_1 + \hat{\Omega}_8 S_3$ and Table 3 shows the insignificant variable because the p-value is more than 0.05 so by omitting the variables one by one the significant variable will be obtained as shown in Table 4 where D1 (interest), D2 (family's influence), D3 (friends influence), S1 (internet) and S2 (Poster/Brochure) have significant p-values below 0.05 and VIF value below 5.

Table-3. Process of Elimination of Each Run

Coefficients[a]

M3.0.0	Unstandardized Coefficients				Collinearity Statistics		The REMOVAL is step by step (it is at ONCE) Comment
	B	Std. Error	T	Sig.	Tolerance	VIF	
S5	.102	.243	.419	6.7500E-01	.818	1.223	Not significant (largest p-value > 0.05)

a. Dependent Variable: DV

 Action: Eliminate value S5 then rerun the model with remaining variables

Coefficients[a]

M3.0.1	Unstandardized Coefficients				Collinearity Statistics		The REMOVAL is step by step (it is at ONCE) Comment
	B	Std. Error	t	Sig.	Tolerance	VIF	
S4	.129	.222	.582	5.6050E-01	.882	1.133	Not significant (largest p-value > 0.05)

a. Dependent Variable: DV

 Action: Eliminate value S$_4$ then rerun the model with remaining variables

Coefficients[a]

M3.0.2	Unstandardized Coefficients				Collinearity Statistics		The REMOVAL is step by step (it is at ONCE) Comment
	B	Std. Error	t	Sig.	Tolerance	VIF	
D4	.157	.235	.669	5.0347E-01	.774	1.292	Not significant (largest p-value > 0.05)

a. Dependent Variable: DV

 Action: Eliminate value D$_4$ then rerun the model with remaining variables

Coefficients[a]

M3.0.3	Unstandardized Coefficients				Collinearity Statistics		The REMOVAL is step by step (it is at ONCE) Comment
	B	Std. Error	T	Sig.	Tolerance	VIF	
S2	-.189	.223	-.850	3.9562E-01	.962	1.039	Not significant (largest p-value > 0.05)

a. Dependent Variable: DV

 Action: Eliminate value S$_2$ then rerun the model with remaining variables

Coefficients[a]

M3.0.4	Unstandardized Coefficients		T	Sig.	Collinearity Statistics		The REMOVAL is step by step (it is at ONCE)
	B	Std. Error			Tolerance	VIF	Comment
D5	.357	.258	1.381	1.6755E-01	.761	1.314	Not significant (largest p-value > 0.05)

a. Dependent Variable: DV

Action: Eliminate value D_5 then rerun the model with remaining variables

Table-4. The Coefficients For Best Model

Coefficients[a]

Model		Unstandardized Coefficients		t	Sig.	Collinearity Statistics		Comment
		B	Std. Error			Tolerance	VIF	
	(Constant)	2.920	.231	12.634	1.5570E-34			
	D1	1.801	.234	7.690	2.9426E-14	.867	1.153	Significant
	D2	.943	.218	4.335	1.5739E-05	.978	1.023	Significant
	D3	.808	.224	3.601	3.2879E-04	.890	1.124	Significant
	S1	-.449	.215	-2.086	3.7155E-02	.936	1.069	Significant
	S3	.764	.214	3.566	3.7576E-04	.956	1.046	Significant

5. Conclusıon

This study showed that the significant factors come from interest and encouragement from family and friends while the second category is from the medium (i.e. internet and poster / brochure). This implies that the Malaysian movie industry should focus on these factors or medium in order to get people to see movies in the cinemas. Besides that, producers should produce more film with concepts on family, love and human relationships. On the other hand, there were variables that were not significant especially variables with interactions which did not contribute to this study. This does not mean that such factors were not important in choosing a specific movie to be viewed by the audiences; perhaps they were not the most important reasons that could attract audiences to cinemas.

In addition, this study could help the film industry in the form of marketing. It was found that the film producer should use the right medium to promote their movies, like using the internet in cutting down cost compared to other mediums. This study also suggested closer cooperation and improved relationship between the scientific and non-scientific. Obviously, data collected from non-scientific organizations could utilize several available techniques in the scientific field so as produce a quality and acceptable product.

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References

Aminatul Hawa Yahaya, Noraini Abdullah & Zainodin H.J. 2012. Multiple Regression Models up to First-order Interaction on Hydrochemistry Properties. Asian Journal of Mathematics and Statistics, **5**(4): 121-131

Gujarati, D.N. 1999. Essentials of Econometrics. 2nd Edition., New York: McGraw-Hill.

Hair, J.F., Anderson, R.E., Tatham, R.L. & Black, W.C. 2006. Multivariate data analysis with reading. 6th edition. New Jersey: Prentice Hall inc.

Hasrul Hashim & Jamaluddin Aziz. 2014. Filem Dan Revolusi Teknologi: Persepsi Penggunaan Cgi Dari Aspek Estetik & Kreativiti. Jurnal Komunikasi Malaysian Journal Of Communication. 30: 95-106

Herwina Rosnan & Zarith Delaila Abdul Aziz. 2012. Film Business in Malaysia: Challenges and Opportunities. International Journal of Humanities and Social Science, 2(12)

Kaisa Lipponen, Jelena Jefimova & Acacio Rebelo. 2003. Semiotics of cultures: The Notion of "Cinema-going'. Available from: http://www.semionet.fr/ressources_enligne/Enseignement/03_04/03_04_Bayreuth/Projets/cinemagoing.pdf. Archive date: 27/03/2015

Mustafa Mahmoud Yousry. 2009. Going to the Movies: An Investigation of Factors Influencing Egyptian Audiences' Movies Choices. Available at: http://offscreen.com/view/going_to_the_movies

Serimah Mohd Sallehudin. 2013. Pasang surut industri filem tempatan. Berita Harian. 1 Jan: 24 -25

Zainodin, H.J., Noraini, A. & Yap, S.J. 2011. An Alternative Multicollinearity Approach in Solving Multiple Regression Problems. Trends in Applied Science Research, 6 (11): 1241 -1255.