

Identifying the Factors Affecting Internet Memes to Become Viral on Social Media

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ABSTRACT

Memes is a post that social network user usually post in social network to convey messages, feeling or opinion in sarcastic ways. The tendency of people using memes nowadays should be exploited by the people in good and more useful ways. The aim of the study is to examine the factors contributing to the largest number of internet memes shares or its virality. The data of the study is obtained from a famous Malaysian Facebook named 'Gag Malaysia'. Negative Binomial Regression was used to find the factors that affects the number of shares. In the Negative Binomial Regression analysis indicates that all variables are significant except for the main effect of Types of Memes and Self-enhancing, the main effect of day of posting and Weekdays and the Number of Comments.

KEYWORDS: memes, viral, social media, statistics

1 INTRODUCTION

In this modern 21st century, the rise of social media and social networking has transformed communication landscape drastically. Nowadays, any information and news can be easily shared and received anywhere and anytime by just using the internet. Even though this situation has given a lot of advantages, it also can produce some bad effects if it is not used properly.

The Internet *memes* is a term commonly used to spread contents such as jokes, pictures, and rumors from online users to others through the webpage. The example of the content of *memes* is shown on Fig. 1. The meteoric growth of community websites, such as Facebook, Twitter and LinkedIn, have brought the world into a new era of social media (M.Saravanakumar, 2012). It is supported by (Shifman, 2013), who found that *memes* are just like genes, will go through the processes of competition, selection, and preservation. *Mememes* also need to compete among themselves to gain from peoples.

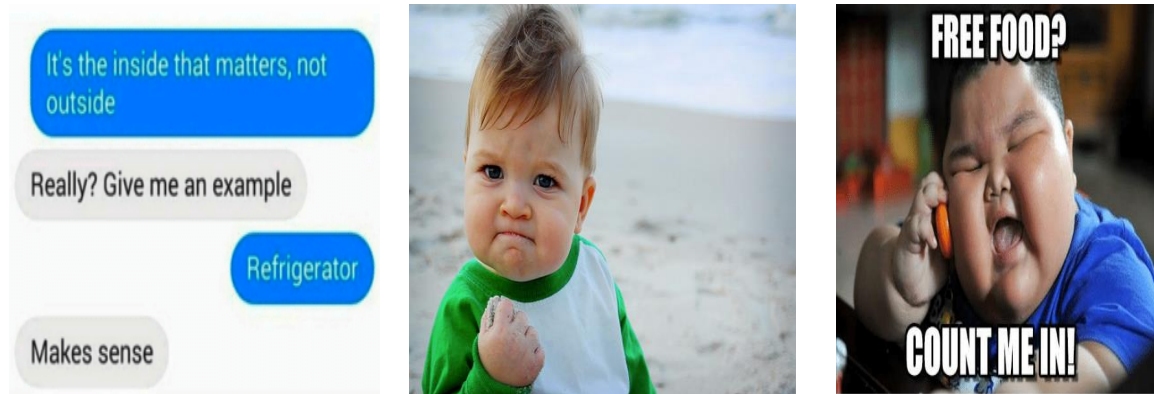


Fig.1 Example of *memes* with the content of text, image only and both image and text (*image by google*)

When there is a post that is famous or trending among online users in social network, it will become 'viral'. 'Viral' came from the word 'virus' which generally defined small infectious agent that replicates only inside the living cells of an organism (Moreau, 2019). On the internet, however, when people are "infected" when they see it, a piece of content will spread like a virus. According to Moreau (2019), the infection will influence a social network user to share the post so that they can relate it with other people and discuss how they feel about it. The more people share the post, the higher the tendency for the post to appear in our latest feed. Therefore, we can say that the virality of a post is based on number of shares.

Nowadays, *memes* are used as a platform for social network users such as Facebook, Instagram, Snapchat and Twitter to convey their messages in form of images towards other social network users. The characteristic of *memes* is contagious. It means that a *meme* is easily spread and viral among social network users if other people find it interesting.

2 OBJECTIVE

The objective of this study is to analyze the factors that contribute to the number of shares of internet *memes*.

3 SIGNIFICANCE (S)

The significance of this research will give benefit mostly to online users. The online users will find a more effective and suitable ways to spread an information widely in the social network. This study shows the type and criteria of *memes* that have high number of likes and shares. In social media, advertisers and advertising professionals working on the viral campaign can use the information to efficiently and creatively promote their new product or advertisement using *memes*. This is called 'viral marketing', which is widely used by business online users in social network in this era. Finally, this study also propose the type of *memes* which have the greatest number of shares and likes for the advertisers to be included on their viral campaign.

4 TECHNIQUE

Nowadays, most people, who are likely a social network user, tend to express their humour in social network using *memes*. An interesting *meme* will be easily spread and gone viral in social network. This study explores the 'Gags Malaysia' page in Facebook. This page has about

589000 likes. This page is chosen because it is a portal that collects and posts internet jokes in picture format on a daily basis.

Gags Malaysia already have shares more than 10 thousand *memes* or jokes in image format. Three hundred *memes* were chosen from the *memes* that posted from 3rd December 2018 to 23rd of August 2019. In summary, there are many factors contribute to number of shares such as number of like, number of comments, line of text content, days of posting and types of *memes*. Table 1 shows the explanation and the role of the variables. However, there are only several factors which can give positive impact significantly to the number of shares.

Table 1 Description of variables

NO	VARIABLES	DESCRIPTION	ROLE
1.	Type of <i>memes</i>	Consists of four types: Affiliative, Aggressive, Self-Defeating, And Self-Enhancing. It will be divided by researcher's judgement on the <i>memes</i> based on the keyword below: Affiliative: funny things, jokes, cheerfulness, relationship satisfaction, positive moods and emotions Self-Enhancing: self-esteem, avoid negativity, healthy defence mechanism Self-Defeating: negative feelings, emotional neediness, low self-esteem, depression, anxiety Aggressive: Sarcasm, teasing, put down, anger	Input
2.	Number of likes	Number of people that liked the post.	Input
3.	Content	Consist of two types: image, text or both.	Input
4.	Line of texts	Number of texts written in the <i>meme</i> .	Input
5.	Day of posting	In what day the <i>meme</i> is posted.	Input
6.	Number of comments	Number of people commented at the post.	Input
7.	Number of shares	Number of peoples who shared the post.	Output

The method chosen in this study to find out the relationship between independent and dependent variables. It helps to identify the significant factors that affect the number of shares or rate of virality of a *meme*. The methods that used was Negative Binomial (NB) regression as follows. The Negative Binomial Regression was applied because there was over-dispersion issue exist when using Poisson Regression where the data is countable.

$$P(y | X) = \frac{\Gamma(y + \alpha^{-1})}{y! \Gamma(\alpha^{-1})} \left(\frac{\alpha^{-1}}{\alpha^{-1} + \mu} \right)^{\alpha^{-1}} \left(\frac{\mu}{\alpha^{-1} + \mu} \right)^y$$

where α^{-1} = dispersion parameter

5 RESULT

Based on the analysis and findings the result for Negative Binomial Regression method, all variables are significant except for the main effect of Types of Memes and Self-enhancing, the main effect of day of posting and Weekdays and finally the Number of Comments as depicts in Table 2.

Table 2 The significance of parameter of negative binomial regression

Interaction Within Variables	Parameter Estimate	p-value
Constant	3.902	0.000
Main effect of Types of Memes and Affiliative	0.352	0.049
Main effect of Types of Memes and Self-enhancing	0.225	0.176
Main effect of Types of Memes and Self-defeating	0.666	0.000
Main effect of Types of Memes and Aggressive	0.000	0.000
Number of likes	0.000	0.0000
Main effect of Content and Image	0.377	0.0211
Main effect of Content and Text	0.532	0.008
Main effect of Content and Both	0.000	0.014
Line of Texts	0.063	0.002
Main effect of Day of Posting and Weekdays	0.108	0.420
Main effect of Day of Posting and Weekends	0.000	0.000
Number of Comments	-0.00005541	0.748

6 CONCLUSION

Negative Binomial Regression method was used to find the factors that affect the number of shares. The analysis of Negative Binomial Regression shown that all variables are significant since all of p-value is less than 5% significance level except for the main effect of Types of Memes and Self-enhancing, the main effect of day of posting and Weekdays and the Number of Comments. The further research should consider to increase the sample size to get more accurate and precise result. It is recommended to add different variables that may affect the number of shares.

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