DETERMINING THE RELATIONSHIP BETWEEN FANPAGE CONTENTS AND PTA METRICS

[1]ZOHA RAHMAN, [2]HASMAH ZANUDDIN, [3]KUMARAN SUBERAMANIAN, [4]SEDIGHEH MOGHAVVEMI, [5]MOHD HAIRUL NIZAM BIN MD NASIR

[1]Research Assistant, University of Malaya(UM)
[2]Associate Professor, Department of Media Studies, UM
[3]Associate Professor, Department of Indian Studies, UM
[4]Senior Lecturer, Department of Operation and Management Information System, UM
[5]Senior Lecturer, Department of Software Engineering, UM

Abstract- Social Media is now determined as an excellent communicative tool to connect directly with consumers. One of the most significant ways to connect with the consumers through these Social Networking Sites (SNS) is to create a facebook fanpage with brand contents and to place different posts periodically on these fanpages. According to different posts or contents placed on the fanpages, consumer responses in different ways. Usually users become fans of particular brand fanpages or put like, comments or keep sharing on particular posts of fanpages. These types of consumer activities in fanpages reflect brands' post popularity. Most importantly, in measuring social networking sites' effectiveness, corporate houses are now analyzing metrics in terms of calculating engagement rate, number of comments/share and likings in fanpages .So now, it is very important for the marketers to know the effectiveness of different contents or posts of fanpages in order to increase the fan responsiveness and engagement rate in the fan pages. In the study the authors have analyzed total 1325 brand posts from 14 international brands of Electronics companies. Data of 9 months (From December 2014- August 2015) have been collected for analyses, which are available online from Brand' fan pages. Study explored the impact of contents (most frequently posted contents) on the user actions or PTA (People Talking About) metrics. Cross section Data Regression analysis was conducted by EVIEWS 9 software to analyze the non-parametric data..

Index Terms- Social media, Social networking sites, social media content analysis, social media metrics analysis, online marketing, PTA metrics.

I. INTRODUCTION

In order to implement a successful social media marketing strategy, it is imperative to know and understand the user's behavior towards different posts on brand pages. It is important for the marketers to understand what types of contents motivate users to be engaged in a particular page. It is noticeable that users of the facebook fanpages tend to exhibit favorable brand related engagement and also contribute different brand promoting actions.

Facebook brand pages is a current marketing tool and presently it is being unified as one of the chief components in the brand's marketing campaign to reach out to customers and fans. To keep the brand pages active and to promote the corporate fan pages it is vital to understand the behavior of the consumers online and marketers should also identify the motivational factors that encourage consumers to be engaged in fanpages. It is notable that users or fans of the brand pages tend to exhibit various brand related engagements and buying actions. The purpose of this research is to examine the motivation that influences customer engagement on a Facebook brand page. In order to have a successful social media marketing campaign, it is important to understand the behavior of customers on the brand pages and what motivates them to engage on a Facebook Brand Page which eventually should lead to purchase of the brand's products or services. (BEJTAGIĆ-MAKIĆ, 2013)[1]. With each new fan, the company not only gains a new potential active user but can also reach the fan's private network due to Facebook's technical features. In this study the authors explored the descriptive statistics of 17 Electronic companies, that will help the companies to get a clear idea about the types of contents and their variations in generating different consumer actions or PTA metrics (Like, comments or shares)

II. LITERATURE REVIEW

Fanpage and Its Requisite:

By creating a fan page within Facebook, companies can profit from a range of technical features (Boyd, 2007) [2].Prior research highlights that these technical features allow for a viral distribution and an interactive exchange of information (Gallaugher, 2010) [5] .First, a company can initiate the interaction with users by publishing a company wallpost, i.e., writing on a fan page's message board (so-called "wall"). Thereby, companies can choose a range of media types (e.g., status, link, photo, or app wallpost) in order to spread information in the most adequate way (Yu, 2011)[9] .Second, also the users of Facebook can interact with a company, for example by commenting on a company wallpost. These user comments are listed directly below the corresponding company wallpost in reverse chronological order. Moreover, some companies even allow users to create own user wallposts. In both cases, companies can monitor and even mediate the dialog with users, for

instance by reacting with company wallposts or comments (Gallaugher, 2010)[5].Furthermore, users can endorse company wallposts by liking them (Joinson, 2008)[7]and thereby pushing them in real time into the news feeds of their friends (Debatin, 2009)[3] .Besides this, users can actively and virally spread company wallposts among their friends via Facebook's implemented "share" button. Users can "like" a whole fan page (instead of liking a single company wallpost) and become explicitly a fan of this company. This "opt-in mechanism" for ongoing communication establishes a close contact to the company's fans (Harris, 2011)[6]. As every company wallpost is automatically pushed into the news feed of all fans, they can be easily kept up-to-date and a large audience can be reached. (Debatin, 2009)[3]. Taken together, the described technical features of fan pages within Facebook allow companies to distribute and exchange information virally and highly efficient within the social networking sites.

Overview of Fanpages content Analysis

Many studies have been conducted on fanpages contents in terms of generating like, comments or shares. One study Results suggested that the richness of the content (inclusions of images and videos) raises the impact of the post in terms of likes. On the other hand, using images and a proper publication time are significantly influencing the number of comments, whereas the use of links may decrease this metric (Ferran Sabate, 2014)[4] . The findings indicate that brand post vividness has a significant positive effect on brand post shares, but not on brand post likes. Brand post interactivity has a significant negative effect on both brand post likes and brand post shares. Brand post novelty and brand post consistency have a significant positive effect on both brand post likes and brand post shares. Finally, brand post content type has a significant positive effect on brand post likes, but not brand post shares (Tafesse, 2015) [8]. Results suggest the more richness of the content: the more likes and comments it gains. Moreover, comparing among four benefits components, a hedonic benefit is the most effective type of content that affect word-of-mouth most.

II. STUDY DESIGN

Different contents on fanpage encourage the users to act differently. After exploring all the contents of the electronic companies' fanpages, authors discovered imporatant issues. In this paper the authors identified the effect of video and image contents on the consumer actions. Fanpage users' engagement involve in liking, sharing and commenting on the posts. After investigating, the authors discovered that all the video posting are not same. in case of electronic fanpages, some videos are created to show exactly product feature, showing know-how feature, describing details on how to use product. In this article author indicated this type of videos as feature video. Simultaneously, there are some video that is created just to attract users in a commercial way with an entertaining feature. These videos are neither describing the products' nut and shell nor the using feature. These videos don't show or describe anything about how to use products. These videos are combination of music, human entertaining elements. Author in this paper indicated this types of videos as entertaining video. Similarly, in the fanpages there are different types of images, some posts are only image containing product design or picture. Or the image may be just a profile picture or changing the cover photos or posting companies logos .The author in this paper indicated such types of image as Only Image. These types of image don't contain product details or any texts. Besides these, there are some images that contain details product links with a brief text. The link associated with these images may redirect the users to another social sites or company sites. These images indicate the details of product features through brief texts, the authors are indicating these images as Image with Details for the purpose of analyzing.

The authors have investigated 17 global electronic brands' fanpages and the posts related to video and image. We calculated the number of video and image posting on each fanpages during the last 9 months. Also calculated the number of comments, like and sharing for each posting. Finally the authors explored different posts' impacts on consumers' engagement activities (Like, Comment, Share).

Operationalization of Variables:

In this study the authors indicated PTA metrics as the number of likes, comments and shares of each brand post.

Table 1: Variable clarifications

Variable Name	Characteristics
Only Image post	• Profile cover pictures post • Products' image post
Image with Details post	• Image with details text about product • Image with a link of products' details • Image with a link to other social site • Image with a link to company the authors bsite
Feature Video	• Video demonstrating all parts of a product • Video about tips and user manual • Video describing products' technical issues • Video related to upgrading issues
Entertaining Video	• Videos that do not show product features exactly • Video demonstrating company image • Other entertaining video not related to products

Data Collection procedure:

Sampling Technique: Non-probability sampling technique is used to select Brand pages. The authors selected those brand pages which are active in posting content regularly on fanpages. Also Fanpages was selected according to the number of active users in fanpages of Brands.

Table 2: Collected Data from Fanpages from the month of December 2014- August 2015

Company Name	Only Image posts	Image with Details Posts	Feature video posts	Entertaining Video posts	Total Posts	Total Comments	Total Likes	Total shares
ACER Malaysia	[illegible]	30	[illegible]	3	106	[illegible]	[illegible]	[illegible]
Blackberry	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DELL Malaysia	[illegible]	[illegible]	[illegible]	4	37	[illegible]	[illegible]	95
Electrolux	13	61	[illegible]	[illegible]	77	134	6073	1182
IBM	[illegible]	[illegible]	[illegible]	12	60	[illegible]	37874	[illegible]
INTEL	[illegible]	[illegible]	30	22	[illegible]	[illegible]	[illegible]	[illegible]
LENOVO	11	35	3	33	[illegible]	4653	434453	[illegible]
LG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Microsoft	[illegible]	[illegible]	[illegible]	[illegible]	51	[illegible]	[illegible]	[illegible]
NOKIA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OPPO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PHILIPS	[illegible]	[illegible]	[illegible]	3	[illegible]	[illegible]	[illegible]	[illegible]
PLYSTATION	[illegible]	[illegible]	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Samsung TV	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Samsung Elec	[illegible]	[illegible]	[illegible]	33	[illegible]	[illegible]	[illegible]	[illegible]
SONY EXPEDIA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
XBOX	3	[illegible]	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	167	783	208	187	1325	253226	12107486	548844

III. DATA ANALYSIS

1. Only Image postings:

The authors explored total 17 International fanpages for the duration of 9 months to collects the number of only image posting on their pages.

Table 1: Only Image Post- statistics

Company Name	Only Image	Total Comments	Total like	Total share
ACER	22	447	8388	540
BLACKBERRY	4	800	8420	423
DELL	5	13	197	5
ELECTROLUX	13	43	976	160
IBM	5	352	13813	1290
INTEL	19	2511	578970	4498
LENOVO	11	516	22020	528
LG	0	0	0	0
MICROSOFT	2	132	1534	86
NOKIA	9	3346	45551	1087
OPPO	6	274	27550	450
PHILIPS	7	828	185839	1226
PLAYSTATION	14	10004	54772	3734
SAMSUNG TV	18	1976	426274	5969
SAMSUNG Ele	0	0	0	0
SONY EXPEDIA	29	8165	446340	7842
XBOX	3	1544	71234	1508

Regression Analysis:

Dependent Variable: ONLY_IMAGE
Method: Least Squares
Date: 12/09/15 Time: 01:23
Sample: 1 17
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.129524	2.136396	3.337174	0.0045
TOTAL_COMMENTS	0.001582	0.000688	2.299055	0.0363

Dependent Variable: TOTAL_LIKE
Method: Least Squares
Date: 12/09/15 Time: 01:28
Sample: 1 17
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-35424.42	54706.94	-0.647531	0.5271
ONLY_IMAGE	14934.69	4308.384	3.466441	0.0035

Dependent Variable: TOTAL_SHARE
Method: Least Squares
Date: 12/09/15 Time: 01:30
Sample: 1 17
Included observations: 17

Variable	Coefficient	Prob.
C	-398.4238	0.5163
ONLY_IMAGE	216.2827	0.0004

Interpretation: Data were collected from those fanpages which are active in posting contents. Standard deviation of users are high (SD= 12046736.14255). Per day image postings varies from 0-29 and average comments goes around 1703. Mean of total likes was 111286 and total shares 1726. According to descriptive value. image posting generate more likes compared to comments and sharing. Only image posting is Significant (P= .03) is generating comments and positively related to comments (Beta value= .0015). Only image posting is also significant to Likes (P<.05) and with a higher

beta value (14934.69). Only image posting contributes significantly in producing Shares at a rate of 216.2827(beta value). So, in summarized, only image posting is more efficient in producing likes compared to likes or shares.

2. Image with details:

The authors have collected data on Images containing details information about products from Fanpages .

Table 4: Image with Details- post Statistics

Company Name	Detail image post	Total comment	Total Like	Total Share
ACER	80	1640	28300	2138
BLACKBERRY	54	998	23253	4114
DELL	26	41	648	89
ELECTROLUX	61	140	4922	914
IBM	41	555	16335	2707
INTEL	77	9024	2971974	27261
LENOVO	35	1337	189434	1572
LG	44	2270	98943	3088
MICROSOFT	20	4901	84036	19075
NOKIA	19	5259	77790	3408
OPPO	39	2096	148009	4058
PHILIPS	11	287	63264	635
PLAYSTATIO N	49	25361	410607	34646
SAMSUNG TV	48	8102	1770240	20836
SAMSUNG Elec	41	16858	735595	12736
SONY EXPEDIA	107	14140	1188828	23840
XBOX	31	8200	109014	4256

Regression table:

Dependent Variable: TOTAL_COMMENT

Method: Least Squares

Sample: 1 17

Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2265.517	2723.762	[illegible]	[illegible]
DETAIL_IMAGE_POST	80.07067	71.83383	[illegible]	[illegible]

Dependent Variable: TOTAL_LIKE

Method: Least Squares

Sample: 1 17

Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-27601.68	38601.42	-0.715042	0.4859
DETAIL_IMAGE_POST	1109.16	1018.470	2.168328	0.0477

Dependent Variable: TOTAL_SHARE

Method: Least Squares

Sample: 1 17

Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1350.002	5518.496	0.244705	0.8100
DETAIL_IMAGE_POST	181.8939	106.3976	1.709569	0.1079

Interpretation: Image with Details Information is more active in generating engagement rate compared to Only Image postings. Per day Details Image posting varies from 11- 107 and it is more effective in producing comments at an average rate of around 5954. much higher than only image contents. This content is also more responsive to generate likes compared to shares and comments. Details image posting is not significant in generating comments (p=.28) and sahres (p>.05). So Image with details is only effective to generate Likes.

3. Feature Video Posts:

From Fanpages of 17 companies the authors collected data on the videos containing products' details descriptions and specifications.

Table 5: Descriptive statistics of Feature video posts

Company Name	Feature Video post	Total comment	Total Like	Total Share
ACER	3	44	350	32
BLACKBERRY	2	133	4139	119
DELL	2	4	17	1
ELECTROLUX	3	11	175	108
IBM	17	371	4427	1072
INTEL	30	3323	160706	28235
LENOVO	9	692	60236	1915
LG	12	456	12062	1397
MICROSOFT	10	8813	134775	82628
NOKIA	13	2004	19245	1960
OPPO	13	1573	29827	6812
PHILIPS	0			
PLAYSTATION	39	35110	416412	89219
SAMSUNG TV	3	131	3466	528
SAMSUNG Elec	21	27680	655749	66610
SONY EXPEDIA	8	121	3606	534
XBOX	24	12220	120024	17276

Regression Table:

Dependent Variable: TOTAL_COMMENTS

Method: Least Squares

Sample: 1 17

Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-931.6473	867.8833	-1.073471	0.3000
ENGERTAINING_VIDE O	260.7113	49.35337	5.282542	0.0001

Dependent Variable: TOTAL_LIKE
Method: Least Squares

Date: 12/09/15 Time: 02:15
Sample: 1 17
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-17459.32	8433.664	-2.070707	0.0840
ENTERTAINING_VIDEO	575.4436	536.4696	9.647212	0.0000

Dependent Variable: TOTAL_SHARE
Method: Least Squares
Date: 12/09/15 Time: 02:15
Sample: 1 17
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-787.5866	1474.240	-0.534293	0.6058
ENTERTAINING_VIDEO	399.6934	40.42329	9.888629	0.0000

Interpretation: Feature Video contents are more active in producing share compared to image contents. Posting of feature video varies from 0 to 39 per day and average per day posting is 12.23. Because of its' interactivity, this contents is more responsive towards sharing factor. Per day this content can produce maximum 655749 likes, which is comparatively higher than only image postings. Feature video is significant is producing comments ($p<.05$) and positively related with beta value 761.It is also significant in generating Likes and shares ($p<.05$) and more responsive towards sharing variable.

4. Entertaining Video Posts:

In this part the authors collected video postings that are not describing products features or user's manual descriptions in details.

Table 6: Descriptive statistics of Entertaining posts

Company Name	Entertaining Video	Total comments	Total Like	Total Share
ACER	3	44	359	32
BLACKBERRY	0	0	0	0
DELL	4	0	22	0
ELECTROLUX	0	0	0	0
IBM	12	112	3299	886
INTEL	22	971	42028	4325
LENOVO	33	2180	163509	7842
LG	4	97	3104	343
MICROSOFT	19	10751	153265	22489
NOKIA	0	0	0	0
OPPO	7	128	4814	364
PHILIPS	3	43	1405	122
PLAYSTATION	7	1151	12428	1719
SAMSUNG TV	5	204	6586	711
SAMSUNG Elec	53	16588	271506	21235
SONY EXPEDIA	14	538	7725	1141
XBOX	1	108	948	126

Regression table:

Interpretation: It is less expert in generating user engagement compared to other three posts (mean of likes, comments and shares are less than other three variables). Though Per day entertaining video posting rate ranges from 0- 53, it can generate insufficient like, comments and shares compared to other three posts. But this post is significant in generating comments, likes and shares ($p<.05$) and more effective in producing likes compared to shares or comments.

CONCLUSION

The four types of Posts (Only Image post, Image with Details, Feature Video posts and Entertaining Video) have significant and different impact on producing PTA result. Most electronics fanpages are encouraged to post Images with details compared to other posts. Besides, Feature Video is the most significant content to produce share, comments and likes. In the PTA metrics Analysis, share carries the most weight in terms of WOM (Word of Mouth) value and Feature Video is the vital content to generate Share effectively. This paper will help the managers of Electronics companies to make an effective analysis on postings responsiveness according to users' practical ground floor.

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