IJIBC 17-3-4

# A Study on SNS Applications in Broadcasting Based on Analysis on KBS' Reaches on Facebook

Jong-su Lee<sup>1</sup>, Man-seok Pyo<sup>1</sup>, Soon-chul Kwon<sup>1\*</sup>, Seung-hyun Lee<sup>1</sup>

<sup>1</sup>Department of Holography 3D Contents, Kwangwoon University, Seoul, Korea competbank@gmail.com, pyopd@hanmail.net, \*ksc0226@kw.ac.kr, shlee@kw.ac.kr

#### Abstract

According to the material about the analysis of digital consumers' lifestyle in Korea published at the end of 2016, 100% had experienced a smartphone before, and 91% had joined in digital communications. Among digital contents, 85.5% had experienced music, and 78.6% had used TV contents before. Also, SNS utility rate equaled 83.3%, and the Facebook utility rate of those in the 10's and 20's exceeded 80%. It means that it is necessary to conduct research on SNS utility in broadcasts. Based on the results of operating KBS Facebook accounts, this paper aims to compare the reaches of entertainment, drama, and culture genres and analyze correlation between the reaches and 'like' friends on Facebook and also correlation between the reaches and ratings. To address the goal, among the Facebook mentions operated within a year, 2016, this researcher analyzed 2,526 mentions to publicize entertainment, drama, and culture genres and the results of 834 million reaches and also used the data of original broadcasts' ratings. To analyze the data, this study employed SPSS Ver. 18.0 to perform the independent sample t-test and Pearson's correlation analysis. The conference interval is set as 95%, and p<0.05 is regarded to be statistically significant. According to the results, more reaches are found in entertainment, drama, and culture genres in order, and it is found to have strongly positive correlation with the frequency of 'like's. The reaches and ratings have no correlation, and there is no statistical significance found in it. It is expected that the results of this study can be applied to publicize programs efficiently for broadcasting.

Keywords: SNS, Facebook, Mobile TV, Broadcasting Ratings, Media Trends, Digital Life Style

## 1. Introduction

It is expected that in 2017, quantitative expansion of the media market is expected to be stagnating, and screens represented as 3-screens will be reduced while 2-screen users and single mobile users will increase. Also, it is predicted that the three ground-wave companies producing TV contents will face decrease in their share, and centering around CJ E&M, Comprehensive Programming Channels and cable TVs will see rise in their share in terms of contents [1-3]. Either upper groups or TV broadcasting business operators are making efforts to extend their business by adopting mobiles as their second screen, and particularly, ground-wave

Manuscript Received: June. 2, 2017 / Revised: June. 12, 2017 / Accepted: June. 25, 2017

\*Corresponding Author: ksc0226@kw.ac.kr Tel: +82-2-940-8637. Fax: +82-50-4174-3258

Graduate School of Information and Contents, Kwangwoon University, Korea

business operators are devising 'Me Too' strategies to use competitiveness in their existing contents and expand their platform [4].

Therefore, the media that are grounded on mobile strategies and take the lead with such mobile strategies by figuring out the points of contact should be the SNSs. In the global perspective, lately, Korea's media industry is endeavoring multilaterally with large-scale dramas or K-POP star marketing, and despite economic cooperation with many other countries through capital investment or production, publicity & marketing still remains as a separate issue to be resolved. KBS' Facebook account has a number of 'like' friends globally, and the activities of this account can be used as a crucial means for marketing to spread K-POP, K-Drama, and K-Culture. The purpose of this study is to examine the characteristics and growth cases of SNS media and also the cases of Facebook operation showing the most stable growth among them, investigate reaches through 'like' friends and the types of contents preferred by Facebook fans, and analyze correlation between actual reaches and ratings.

# 2. Theoretical background

## 2.1 The environment of media consumption

From 2010, smartphones started to be widely distributed, and with the increase of SNS users, the trends of consuming media changed dramatically. Previously, a comfortable, lean-back type of TV viewing was prevalent, but it is evolving to a lean-forward type, that is, users watching TV while searching related information on their smartphone, watching another channel with a tablet, buying products, or using SNSs simultaneously. ATLAS defined such changing trends of TV viewing behavior with four types: VOD viewing (rapidly increasing), binge viewing, second screen, and social TV [5]. This is similar to the results of analyzing the Korean market in 2016. First, VOD viewing behavior increased. Second, visual media viewing through a mobile increased. Third, the needs to view contents right for their taste increased. In fact, from 2013, digital cable TV subscribers have been increasing averagely as 800 thousand each year, and IPTV subscribers are increasing as 2 million every year. The ground-wave TV companies' union, POOQ, is also revealing a net addition of subscribers, and Netflix is targeting the VOD market in its entrance into Korea. Considering those indexes, we can anticipate that growth in the VOD market including binge viewing will continue afterwards [6].

## 2.2 The prospect of SNS environment and analysis on the growth of Facebook

According to what e-Marketer, a market research institute, announced, in 2016, the entire number of social media users in the world is approximately 2.13 billion, and the growth rate increased as 8.7% from the previous year [7]. In Korea, people use social media for 41.5 minutes averagely each day, and the device they mainly use is a smartphone, and it is mostly to contract or communicate with their acquaintances. Concerning the types of media, Facebook is used for 33.6 minutes averagely each day, and Instagram for 30.3 minutes, and the next are Kakaostory, Band, and Twitter in order [8]. In Table 1, you can see the status of using social media in Korea. Among messengers, Kakaotalk ranked first, among video platforms, Youtube was on top, and out of SNSs, Naver Band was in first place.

1st 2nd 3rd 4th 5th Facebook Kakaotalk Line Hangout (Google) Telegram Messenger Messenger (97.1%) (9.7%)(3.2%)(7.5%)(19.8%)Youtube Naver Media Oksusu (SK B/B) MX Player LGU Video Video (77.1%)Player (20.3%) (11.8%)(8.9%)Portal (7.5%) Band (Naver) Kakaostory Facebook Instagram Google Plus **SNS** (59.3%)(54.5%)(40.4%)(22.6%)(22.1%)

Table 1. Top 5 users of mobile app services (Jan, 2016)

(Unit:%)

Table 2. Active users in social platforms (Jan., 2016)

	FACEBOOK	QZONE	TUMBLER	INSTAGRAM	TWITTER
Active Users	15.9	6.53	5.55	4.00	3.2

(Unit: 100 million)

As shown in Table 2, Facebook has 1.59 billion users. Facebook can be defined as service belonging to the category of interpersonal SNSs (Social Network Services) on which users communicate with their friends [9]. Compared to other kinds of SNSs, Facebook has been growing rather stably, and the reasons can be summed up as following three points:

First, the information that users provide when signing up for it is mostly real. Users can choose their private information they want to open to the public and also open an account with fake information, but to make friends on it, they should use their real private information. This is why information on Facebook tends to be real and accurate. Based on that, Facebook started advertisement service that fit user characteristics. Second, instead of giving a large amount of information, Facebook decided to provide user information that users can trust. Also, they figure out how communication-related technology is changing precisely and develop and provide services according to that. Technologically, they apply semantic search and adopt 'optimization'-oriented search instead of 'quantity'-oriented search. They provide services with which users can reach information they want easily. Third, their target users are youngsters. 42% of its users are in their 20's to 30's, and they provide the UI/UX which those in the 30's or in the middle of 40's can also use easily [10].

#### 2.3 The status of KBS' SNS operation

From October, 2010, KBS opened an official account for Twitter as a start to go into its SNS operation. Although some of the individual programs' production crew operated SNSs before, it was the first time that the broadcasting system's PR department ran an official account representing it. Its Facebook page opened from April, 2011, and the account was operated mainly for introducing its drama, entertainment, or culture programs. About 10.1 Facebook mentions were uploaded per day averagely, and it was operated in a way of attaching videos, shared links, or photos to them. According to the results of analyzing the reaches, mentions to which a video is attached indicate a higher reach.

DATE **FACEBOOK TWITTER** Oct., 2010 100 100 Apr., 2011 16,808 Dec., 2012 14,508 97,607 Dec., 2013 33,231 181,828 Dec., 2014 492,798 285,073 Dec., 2015 847,335 432,187 Dec., 2016 1,343,490 682,227 Mar., 2017 1,483,335 757,753

Table 3. Comparison on KBS' Facebook / TWITTER followers (Source: from KBS)

(Unit: person)

As shown in Table 3, difference between the number of fans in Twitter and Facebook has great correlation with the extension of platforms. The Twitter account started to be operated six months faster, but in terms of the number of friends, Facebook's friends are almost double, and you can see the growth of Twitter slowing down.

Table 4. KBS' Facebook[@KBSPR] fans per country (Mar., 2017, from KBS)

Country	The number of Friends	Percentage
KOREA	402,000	27.1%
PHILIPPINES	184,080	12.4%
THAILAND	126,830	8.6%
INDONESIA	120,750	8.1%
VIETNAM	112,140	7.6%
TAIWAN	88,410	6.0%
MALAYSIA	81,010	5.5%
MYANMAR	54,890	3.7%
MEXICO	39,500	2.7%
OTHERS	273,725	18.5%

In Table 4, you can see the distribution of KBS Facebook fans by country. @KBSPR (the PB department's representative account) is an account operated in Korean to deliver information about original broadcasts in Korea. Fans from around the globe either study Korean or exchange information with each other in the 'Review' section using a translating machine or something. English-based @KBSWORLD (the global business department's account) is also being additionally operated for global fans. Separately from broadcasts in Korea, the @KBSWORLD account is being operated through a week or so hold-back organization according to the organization of the 'KBS World' channel.

# 3. Study methods

## 3.1Study design

This study has analyzed mentions to publicize entertainment, drama, and culture programs out of Facebook mentions uploaded by @KBSPR (the PR department's representative account) in 2016 by genre and compare the program genres to figure out what is preferred by socialians according to the reaches in the following three aspects:

- 1) Comparison on the reaches by genre (entertainment:drama, entertainment:culture, & drama:culture)
- 2) Analysis on correlation between the reaches and ratings
- 3) Analysis on correlation between the reaches of the mentions and those clicked 'like' on the page

## 3.2 The status of KBS' SNS operation

This study analyzed 2,526 mentions to publicize entertainment, drama, and culture programs out of 3,694 Facebook mentions operated by @KBSPR (the PR department's representative account) for a year, from January until December, 2016, and the data were gained from Facebook Insight (bigfoot9).

Table 5. The results of 2016 @KBSPR mentions (Source: from KBS)

Division	Total reaches	Mentions	Mean reaches per mention
Culture	104,750,990	562	186,390
Drama	280,400,571	821	341,535
Entertainment	448,924,773	1,143	392,760
Sum	834,076,334	2,526	330,196

## 3.3 Analysis on data

For data analysis, SPSS (Ver. 18.0 for Window, SPSS Inc, Chicago, IL, USA) was used to perform the independent sample t-test and Pearson's correlation analysis. The confidence interval was set as 95%, and p<0.05 is regarded to be statistically significant.

## 4. Test results and consideration

## 4.1 Test results

The results of comparing the reaches between entertainment and drama programs were analyzed through the independent sample t-test. According to the comparison on the reaches of entertainment and drama programs, the reaches of entertainment programs (392760.10±565383.70) tend to be higher than those of drama programs (341535.41±410108.47), which is found to be statistically significant (p=0.020).

Table 6. Comparison on the reaches of entertainment and drama programs

	Entertainment (n=1143)	Drama (n=821)		n voluo
	M±SD	M±SD	ι	p-value
Reaches	392760.10±565383.70	341535.41±410108.47	2.327	0.020

SD: Standard Deviation

The results of comparing the reaches of entertainment and culture programs were analyzed through the independent sample t-test. According to the comparison on the reaches of entertainment and culture programs, the reaches of entertainment programs (392760.10±565383.70) tend to be higher than those of culture programs (186389.66±443681.74), which is found to be statistically significant (p<0.001).

Table 7. Comparison on the reaches of entertainment and culture programs

	Entertainment (n=1143)	Culture (n=562)	t	p-value
	M±SD	M±SD	·	p varue
Reaches	392760.10±565383.70	186389.66±443681.74	8.222	p<0.001

SD: Standard Deviation

The results of comparing the reaches of drama and culture programs were analyzed through the independent sample t-test. According to the comparison on the reaches of drama and culture programs, the reaches of drama programs ( $341535.41\pm410108.47$ ) tend to be higher than those of culture programs ( $186389.66\pm443681.74$ ), which is found to be statistically significant (p<0.001).

Table 8. Comparison on the reaches of drama and culture programs

	Drama (n=821)	Culture (n=562)	+	n voluo
_	M±SD	M±SD	ι	p-value
Reaches	341535.41±410108.47	186389.66±443681.74	6.585	p<0.001

SD: Standard Deviation

According to the results of analyzing correlation between the reaches of entertainment programs and ratings, there is no correlation found between the reaches and ratings  $(0.1 \ge r \ge -0.1)$ , and it is not statistically significant (r=0.002, p=0.991).

Table 9. Analysis on correlation between the reaches of entertainment programs and original broadcasts' ratings (N=39)

variable	Reaches	Ratings
Reaches	1	
Ratings	0.002 (0.991)	1

(\*: p<0.05)

According to the results of analyzing correlation between the reaches of entertainment programs and those clinking 'like' on the page, there is very strongly positive correlation found  $(1.0 \ge r \ge 0.7)$ , and it is also statistically significant (r=0.800, p<0.001).

Table 10. Analysis on correlation between the reaches of entertainment programs and those clicking 'like' on the page (N=39)

Variable	Reaches	'Like'
Reaches	1	
'Like'	0.800* (<0.001)	1
		(4. 0.05)

(\*: p<0.05)

According to the results of analyzing the ratings of entertainment programs and those clicking 'like' on the page, there is no correlation found between the ratings and those clicking 'like' on the page  $(0.1 \ge r \ge -0.1)$ , and it is not statistically significant (r=-0.066, p=0.692).

Table 11. Analysis on correlation between the reaches of entertainment programs and those clicking 'like' on the page (N=39)

Variable	Ratings	'Like'
Ratings	1	
'Like'	-0.066 (0.692)	1

(\*: p<0.05)

#### 4.2 Consideration

By analyzing the results gained, we have led to two meaningful results. First, information preferred by KBS' Facebook friends is entertainment, drama, and culture in order. About the types of contents attached, more reaches are found in videos, photos, and shared links in order. In entertainment programs, there are many entertainers appearing including K-POP idol singers or actors and actresses representing Korea. There are more reaches found in them than drama programs because global fans can encounter more videos or photos there in which a lot of Korean stars are appearing.

Second, according to the results of analyzing correlation between the reaches of entertainment programs and those clicking 'like' on the page, there is strongly positive correlation found. This result implies that there exists difference in terms of loyalty or interest between information they find through sharing with others and that they receive directly from KBS' Facebook account by clicking 'like' on it.

Third, there is no correlation found between the reaches of the mentions of entertainment which is most preferred in Facebook and the ratings and also between the ratings of entertainment programs and those clicking 'like' on the page, and this is not statistically significant. It is because as shown in Table 4, over 72% of KBS' Facebook fans are foreigners, so they can hardly influence original broadcasts' ratings.

## 5. Conclusion

This study has analyzed data from Facebook exclusively out of many SNS media operated by KBS. The results tell us what information types are preferred by global fans, and also in operating mentions, the reaches of videos or photos directly attacked to the main screen are much higher than those of shared links. Also, KBS' Facebook 'like' friends show far higher reaches to the information than non-fans, so it is needed to hold events constantly to secure 'like' friends at all times because the number of fans to the account is

directly associated with the influence. It is expected that the results of this study will be used by media companies operating Facebook as their publicity or marketing platform. Follow-up research should be done to deal with the operation of accounts not only in Facebook but in Instagram by focusing on its growth and influence.

## Acknowledgement

The present Research has been conducted by the Research Grant of Kwangwoon University in 2017

## References

- [1] Analysis Report of Digital Consumer and Digital Lifestyle, DMC Report, pp. 3-6. 2016.
- [2] Profile Report, Nasmedia, pp. 22-23, 2016.
- [3] Neilsen Media Research Report, Neilsen Korea Media Research Department, pp. 4-27, 2016.
- [4] LG Economic Research Institute, http://www.lgeri.com/uploadFiles/ko/pdf/busi/20162928092909089.pdf.
- [5] Netizen C. M. Park, A Study on the Social TV Motivation and Interaction, Ph.D. Thesis. Seoul National University of Science and Technology, Seoul, Korea, 2015.
- [6] 2016 Korea Advertising Expenditure, Kobaco, 2016.
- [7] eMarketer, <a href="https://www.emarketer.com/attention/">https://www.emarketer.com/attention/</a>.
- [8] H yunchul Shin, Analysis of user characteristics and usage determinants of Social Network Service, Master Thesis, Hanyang University, Seoul, Korea, 2017.
- [9] IT Issue Report Information Industry, FKII Research, pp. 52-55, 2009
- [10] Tae-Yang Kim and Dong-Hee Shin, "User Experience(UX) of Facebook: Focusing on Users' Eye Movement Pattern and Advertising Contents," The Journal of the Korea Contents Association, Vol. 14, No. 7, pp. 45-57, 2014.