

UNDERSTANDING SOCIOTECHNOGRAPHICS OF THE SOCIAL NETWORKING SITE USERS

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Received: 05 May 2020 Revised: and Accepted: 15 July 2020

ABSTRACT: There has been a disruption in the way media communicates to its audiences after the arrival of “web 2.0” with interactivity being the main proposition. Studies point to the fact that despite majority of decision makers in technology oriented firms engage on this dynamic platform in their business communications but marketers have not leveraged on this opportunity to influence the consumer purchase decision process. Articles also bring forth the fact that many marketers are blindly using social media to influence their audiences but without understanding their social media user behaviour. Using technology as a fashion makes it a less efficient tool and these need profiling the customer social media behaviour so as to match technology to their interests and activities. Hence this paper is a research into the social media user behaviour as this may help marketers in building more sustainable communities that may lead to productive engagements.

KEYWORDS: Collectors, Creator, Critics, SNS Tools, Sociotechnographics

I. INTRODUCTION

Social media is not only ubiquitous in nature but it has made inroads into the world of media in specific and also permeates the general public at large. Twitter or Facebook is no longer just for the early adopters, it's now open to their fathers, mothers, grandparents and their cousins added and removed as per the user's willingness. Millions are sharing their views and updates on Facebook, searching and saving ideas/ dreams on Pinterest, and engaging with a wide variety of other niche social platforms. These audiences with their varying interest and engagement levels within the social media cannot be treated the same. Most of these users utilize these platforms completely different from one another, and thus marketers engagement tactics with a consistent user who “likes” and “comments” the same way they would with somebody who only posts on Facebook or tweets on Twitter once a year. Thus it makes it very much important to understand the user behaviour on the various social networking sites. There has been a disruption in the way media communicates to its audiences after the arrival of web 2.0 with its high level of interactivity. It is no more a monologue and the power has shifted to the audience as the new media interacts in a dialogue model. There is an increasing adoption of social networking sites (SNS) among the marketers. However this seems to be due to competitive pressure and following the leader approach. As a website content analysis of top 20 automobile brands in India showed competitive postings. If one automobile major was posting on its social cause like encouraging start ups in innovation, we could see another doing a similar drive.

II. REVIEW OF LITERATURE

Social media has indeed made an indelible impact in the areas of education, culture, business, media communication and economy furthermore, this has changed the way marketers communicate to their target audiences (Kim et al., 2009: 668). As social and technological developments over the years have molded man, so the dynamic media on which rests the social media tools have a significant impact in defining their socio-psychological factors which affect consumer purchase decision process.

Forrester research reveals the fact that majority of decision makers in technology oriented firms engage on this dynamic platform in their business communications but marketers have not leveraged on this opportunity to influence the consumer purchase decision process. Articles bring forth the fact that many marketers are blindly using social media to influence their audiences but without understanding their social behaviour. Using technology as a fashion makes it a less efficient tool and these need profiling the customer social media behaviour so as to match technology to their interests and activities. It is being established that marketers need to design a social media tactics that would complement their traditional and current media strategy. A standard socio-technographics profile scale has been devised to understand the media behaviour. Forester study has used

a socio technographics ladder that places people on seven different personas or rungs namely “creators, conversationalists, critics, collectors, joiners, spectators and inactives”. This would enable the marketers to develop content that would be of their interest and need. This would also help in better usage of the technology in hand. In this model developed by “Charlene Li and Josh Bernoff”, based on the activity engaged in by the social media users and on the demographics like age, location, and gender the users are grouped into personas. These personas are similar to “demographics and psychographics” but are strictly based on technology behaviors.

This study is thus based on understanding the socio technographics profile of the sample taken for the study to see if there is distinct social media behaviour among the audiences. This would enable better content designing and usage of the SNS tools.

III. OUTLINE OF OBJECTIVES

The objectives outlined are: to summarize social networking site user habits, to determine the social media behaviour of SNS users (sociotechnographics) with reference to the activities engaged by them and hence make necessary implications for marketers to make better meaning out of their business interactions through SNS.

IV. RESEARCH METHODOLOGY

A self administered online survey using Google docs was used for data collection. The sample incumbents (University level academicians and research scholars) of 112 members were selected through volunteer sample method. The rationale behind choosing a specific sample unit was it allowed for exploring the findings of the study to be augmented into real life engagement of SNS users. This is based on what Robson (2002) suggests should be included in the research design. Further hierarchical multiple regression will be used and hence the sample size chosen for the study 112 also justifies the use of this method as it was greater than the sample calculator (106) suggested by Tabachnick & Fidell (2007) for using this method.

V. DISCUSSION AND FINDINGS

A. Sample characteristics

The Table-I shows the “socio demographic status” of the respondents selected for the study;

Table -I: “Socio demographic status” of sample

Age Group	Frequency	%
21 - 30 years	44	39.2
31 - 40 years	46	41.1
41 - 50 years	20	17.9
60+ years	2	1.8
Total	112	100
Income Group	Frequency	%
Less than Rs. 10,000	20	17.8
Rs.10,001 - Rs. 25000	24	21.4
Rs. 25,001 - Rs.50,000	30	26.8
Rs.50,001 - 1,00,000	34	30.4
More than Rs. 1,00,000	4	3.6
Total	112	100
Job Classification	Frequency	Percent
Student	36	32.1

Business	12	10.7
Employed full time	56	50.0
Employed part time	2	1.8
Home maker	2	1.8
Looking for work	4	3.6
Total	112	100

The sample comprised of male respondents (60%) and female respondents (40%). Thus we can say that the sample is representative of the SNS users in India (IAMAI-IMRB, 2017).

B. Sample characteristics in terms of SNS Tools used

Almost 86% of the respondents had an account on Facebook. This is in line with IAMAI – IMRB (2018) report. The next most visited sites were YouTube, Wikipedia, Blogger, LinkedIn and Twitter.

Table -II: SNS tools usage of sample

	N	Minimum	Maximum	Mean	Std. Deviation
Facebook	112	1	7	4.66	2.520
Twitter	112	1	7	2.25	1.872
YouTube	112	1	7	5.39	1.694
Instagram	112	1	7	2.21	1.966
Wikipedia	112	1	7	4.64	2.151
Blogger	112	1	7	2.34	2.133
LinkedIn	112	1	7	3.23	2.114
Social Networking Sites Used	110	1	7	2.78	2.503
Valid N (listwise)	110				

C. Sample characteristics on social media (SNS) and internet use behavior

Table -III: SNS tools and internet usage behaviour of sample

Experience in usage of SNS	Frequency	%
More than 6 months but less than a year	8	7.1
1 year	8	7.1
2 years	26	23.2
More than 2 years	70	62.5
Total	112	100.0
Frequency of Usage of SNS	Frequency	%
1-2 no: of times a day	52	46.4
3-5 no: of times a day	30	26.8
More than 5no:: of times a day	28	25.0
Total	112	100
Length of usage on an average day	Frequency	%

Less than 30 minutes	42	37.5
30 mins to 1 hour	38	33.9
1 to 2 hours	10	8.9
2 to 3 hours	10	8.9
more than 3 hours	10	8.9
Total	112	100

We thus see the respondents have been using the various SNS tools for more than two years. The frequency of usage is about 2-4 times on an average in a day. They spend a maximum of 30 minutes to 1 hour on SNS tools in a day.

D. Sample characteristics of the SNS usage behaviour in terms of activity

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I publish, maintain or update my blog or website	112	1	5	2.45	1.300
I upload videos I created	112	1	5	1.89	1.134
I share videos	112	1	5	2.55	1.300
I post comments/feedback/ratings of the videos I watch	112	1	5	2.79	1.166
I comment on someone else's blog	112	1	5	2.48	1.230
I contribute to the forums or online group discussions	112	1	5	2.50	1.123
I add tags to the videos website pages	112	1	4	2.04	1.106
I add videos to "my favorite"	112	1	5	2.48	1.369
I update/maintain my profile	112	1	5	3.21	1.052
I add comments to my friends profile	112	1	5	2.71	1.269
I watch videos from other users	112	1	5	3.07	1.198
I read the online forum discussion groups	112	1	5	3.37	1.015
I read the users feedback/rating/online reviews	112	1	5	3.36	1.161
I read someone else's blog	112	1	5	2.68	1.261
Valid N (listwise)	112				

The above descriptive statistics shows the scale that was adapted to study sociotechnographics (Li, C., and Bernoff, J. *Groundswell* (2008); Teo, T.; Lim, V.K.G.; and Lai, R.Y.C. (1997)) to understand the SNS usage behaviour in terms of the user activity. It is seen that the statements have a mean ranging between 1.89 to 3.37. In order to understand the commonality among these factors and to make a better analysis exploratory factor analysis was conducted. The KMO value was 0.794 (greater than 0.5) and this indicates that factor analysis was meaningful for this data. Then factor analysis was run and the statements were grouped into the following 4 factors as shown in the Table- IV.

Table- IV: Grouping of factors with their factor loadings

Active/Passive factors	Component				
	1	2	3	4	5
Creators					
"I publish, maintain or update my blog or	0.782				

web site”	0.747				
“I upload videos I created”					
“I share video”	0.640				
“I contribute to the forums or online group discussions”	0.640				
“I update/maintain my profile”	0.875				
<u>Critics</u>					
“I post comments/feedbacks/ ratings of the videos I watch”		0.731			
“I comment on someone else’s blog”		0.741			
“I add comments to my friends profile”		0.733			
<u>Collectors</u>					
“I add tags to the videos web site pages”			0.522		
I add videos to “My favorite”			0.400		
<u>Spectators</u>					
“I watch videos from other users”					0.593
“I read the online forum discussion groups”					0.809
“I read the users feedback/ratings/online reviews”					0.778
“I read someone else’s blog”					0.746

Based on the exploratory factor analysis results the 14 - item final scale is grouped into 4 factors and the relevant factors explained 70.091 % of variance in the total scale. Social science supports this variance and the reliability analysis for the scale items was carried out. Cronbach’s Alpha (α) value was also high and this justified the internal consistency of the scale items being used. Rotation by Varimax method helped in identifying 4 factors to define social media behaviour, and on the basis of the relationship exhibited by the items within the factors the names of the factors was justified as in Table-IV (Hair et al., 2014: 118):

E. Cluster analysis

In line with the objectives laid by the study, it is said that 4 factors resulting from the factor analysis and based on sociotechnographics scale represent users’ social media usage behaviour and in other words they explain the activities engaged by the users’ on social media platforms.

Cluster analysis was then done to generate clusters representative of the sample characteristics and on the basis of the 4 factors. Taking into account that answers of 112 respondents included in the sample survey we can estimate a difference or similarity in their behaviour patterns. This can be studied well using cluster analysis and the resultant clusters.

“K-means method” a non-hierarchical clustering method was then applied. Especially for large samples k-means method is considered suitable as the cluster structure is derived after trying various alternatives (Celik, 2013). Thus starting with 2 clusters different clustering options was tried and for each case a review of Anova table, the number of clusters and final cluster centres tables were done and the desirable cluster was identified (Hair et al., 2014: 446).

The trial generated a 2 -cluster structure, and hence the social media users behaviour patterns could be grouped into 2 clusters depending on their similarity The Anova test showing uniqueness of the variables in forming 2 clusters in the sample of this study is presented in Table-V.

Table-V: Anova results of cluster analysis

	Cluster		Error		F	Sig.
	Mean square	Df	Mean square	Df		
“Creators”	37.006	1	.574	110	64.445	.000
“Critics”	54.667	1	.499	110	109.563	.000
“Collector”	102.610	1	.340	110	301.950	.000
“Spectators”	14.028	1	.668	110	21.002	.000

ANOVA showed the uniqueness of the 4 factors identified for the study ($p < 0.05$) (Hair et al., 2014: 469-470). Therefore, H1 hypothesis was supported. Thus the most suitable cluster structure identified for the study was shown as haing 2 clusters.

Results of final cluster centres are presented in Table-VI. This table shows the nearness of each cluster to variables used in clustering. Values close to 5 bring forth the view that social media platform users exhibit such behaviour more strongly.

Table- VI: Final Cluster Centers

Factors	Cluster	
	1	2
“Creators”	3.01	1.99
“Critics”	3.34	1.93
“Collectors”	3.19	1.26
“Spectators”	3.47	2.74

Based on the dominant behaviour pattern in the two clusters identified, they were named and their features are explained as follows;

F. Cluster 1: Sun Burners

These have been users who have just not been staring at the social media tools but have been active users in terms of their behaviour like publishing original content and also dominantly post photographs, audio and video content. They also show behaviour of commenting, watching, reading and sharing of content. They seem to be very alert to the content and are immediate in responding to them.

G. Cluster 2: Moon Rakers

These users seem to be very low in their involvement on social media but seem to be silent spectators by reading and watching content posted in their communities and on blogs. This calls for content that would engage them in conversations and co-creation.

The number of cases in clusters (Table-VII) was analysed, it is seen that cluster of “Sun Burners” and the cluster of “Moon Rakers” almost had similar number of cases.

Table- VII : Number of Cases in each Cluster

Cluster	1	58
	2	54
Valid		112
Missing		.000

VI. CONCLUSION AND RECOMMENDATIONS

This study aimed to reveal social media usage behaviour of University level academicians and research scholars and analyses the different clusters emerging for any specific pattern user behavior. This study on analysis of the 4 user behaviors identified resulted in two dominant cluster groups among social media users. This behaviour can be listed as “*Creators, Critics, Collectors and Spectators*”. The processing and analysis of the sample data clearly divided the sample into two distinct in terms of their user behaviour in social media platforms and each and every cluster has its own unique characteristics. The results of this study are in line with the findings of the earlier studies.

It is thus clear that social media behaviour varies among the same group of respondents. The sample group not only uses the SNS tools for knowledge sharing but uses it for entertainment. Thus marketers should not just stop with connections but understand the situations that lead to engagement and co-creation among the respondents on social media. They should initiate productive engagement at the time of purchase or information search and thereby get the active users into a more sustainable engagement through entertainment and interaction.

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