Viral Marketing – A Perception Study on the Higher Education Students in West Bengal

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Abstract:

With the rapid transformation in the world of advertising and marketing, Digital Marketing has proved to be one of the most widely used and successful media or channel to spread product or service related information among the target audience. Viral marketing can be said to be a byproduct of the use of digital media for advertising, where the audience and viewers of an advertisement share the ad-content over the digital media and help its' spreading over the web space at an exponential speed at minimal or zero cost. Viral Marketing aims at spreading marketing messages using help of internet and internet based services like social networking sites, e-mails, online video sites, chatrooms etc. Viral marketing is also known by terms like Network enhanced word of mouth marketing, Stealth Marketing, electronic Word of Mouth (e-WOM), etc. This study, with the help of a questionnaire survey aims at finding out the factors which influence on awareness of the concept of viral marketing and the inclination of the respondents towards viral marketing in the selected study area. Use of Secondary data and collection of Primary data through questionnaires from 230 valid respondents. Analysis has been done with Exploratory Factor Analysis (EFA) using Principal Component Analysis (PCA) in SPSS 17.0. The research has identified three exploratory factors which have statistical influence on awareness of the concept of Viral marketing and the inclination of the respondents towards Viral Marketing.

I. INTRODUCTION

In an era of progressive change in all the components of marketing, we are evidencing a sea change taking place in the world of advertising too. A huge amount of advertising is taking place over the digital media. Digital platforms like the Social Networking sites, Mails, Blogs, Chat-rooms etc are being used to advertise the products and services of several organizations. This advertising over the digital platforms using the internet is known as Digital Advertising or Online Advertising.

Viral marketing can be considered to be a more recent event, where people seeing advertisements over the digital platforms tend to share those messages further, creating a multiplier effect on the spreading of the advertisement.

Several studies have been conducted worldwide to understand the reasons behind sharing the messages, platforms through which viral marketing can be conducted, the positives and negatives of viral marketing etc.

Objective

Objectives of the present study are as follows:

1.   To study and understand the concept of viral marketing.

2.   To study the perception of Post-Graduate students of HEIs in West Bengal to have an in-depth knowledge about their awareness and inclination towards Viral Marketing.

II.   VIRAL MARKETING: CONCEPT & REVIEW OF AVAILABLE LITERATURE

Viral marketing concept refers to the rapid spreading of product or service related information to a massive audience through the use of the internet based services like Emails, social networking sites (Face book, Instagram etc.), company websites, blogs, tweets etc. These Viral marketing Campaigns are considered to be very effective as the cost involved in spreading the message is either zero or minimum and the speed at which the messages are spread is really high. All advantages of viral marketing stem from the fact that it uses the internet and the existing network among the people as its platform for disseminating product and service related information. As a result the speed of spreading information is high and the cost is low.

Kiss & Bichler (2008) state that Viral marketing can be referred to as a marketing practice which uses the internet networks and the social media to spread product and service related information and generate brand awareness about the product or service among target audience. Kim and Lowrey (2010)2 define Viral Marketing as a tool which stimulates people to share and spread product and service related messages among each other. Kaplan & Haenlein (2011)3 have said that Viral Marketing takes the form of e-WOM or electronic - Word of Mouth communication in which the internet and the social media are used to pass on a message about the organization and/or its products at a prompt speed. Devi (2015)4 has remarked that viral marketing is an online marketing method that induces people to pass on marketing messages to others. Smith, M. (2014)5 clearly states that online

advertising is growing at a compounded annual growth rate of 20% and it is now the second largest advertising media in the US. This is mainly because people are nowadays hardly interested going through other traditional advertising media/ channel. Gladwell (2002)6 has mentioned reference to the "Law of Few" according to which the spreading of messages is largely depends on the active participation of people who possess certain set of social gifts. He further referred to the Pareto Principle which says that 80% of the information is spread by 20% of the participants.

Higher Education Scenario in West Bengal

According to AISHE7 2018-19 there is 1 Central University, 7 Institutes of National Importance, 25 State Public Universities, 1 State Open University, 10 State Private Universities & 1 Deemed Private University. West Bengal has 1371 Colleges (494 – government / government aided & 877 private) and 1170 average enrolment per college. The total enrollment in Private and Government/ Government aided colleges during the Report period is 1603185 (ranking 5th among Indian States). Out of these enrolments, 619532 are in private institutions and 983653 are in government institutions. Out of total enrolments of 1603185 for Higher education in West Bengal 129909 are at the Post Graduate Level.

III.   EMPIRICAL STUDY AND ANALYSIS METHODOLOGY

The study has been carried out with using both Primary & Secondary data. The Primary data has been collected with the help of a structured questionnaire and the secondary data has been collected from national and international research papers, books and published reports.

Study Area:

As evident from the literature review, Viral Marketing is mainly used by the urban people. Moreover, **Shavitt, Lowrey & Haefner (1998)[8]** have found in their study that young people are more comfortable in viewing advertisements. Further, The Hindu dated 11th November, 2014 shows that Kolkata was holding the third position among Indian cities in

terms of Mobile usage. Considering all these factors, post-graduate students of five public and Private Universities in and around Kolkata have been selected as the study area.

a.   Sampling Method

As the study is on higher education students of West Bengal, the sampling method used is Perceived Judgmental Sampling.

b.   Sample size

A total of 233 questionnaires has been collected, out of which three being incomplete are rejected and the study has been conducted on 230 valid questionnaires. This constitutes 0.178% of total Post Graduate Enrolment during 2018-19 in the State.

c.   Tools for analysis

The collected data has been analysed using SPSS 17.0 and descriptive statistics; Exploratory Factor Analysis (EFA) using Principal Component Analysis (PCA) has been carried out with Varimax technique with Kaizer Normalisation. Histograms have been used to depict the findings of some data.

Empirical Data Analysis:

d.   Age of the respondents:

Table 1- Age of the respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
20	3	1.3	1.3	1.3
21	28	12.2	12.2	13.5
22	55	23.9	23.9	37.4
23	62	27.0	27.0	64.3
24	39	17.0	17.0	81.3
25	12	5.2	5.2	86.5
Valid 26	9	3.9	3.9	90.4
27	10	4.3	4.3	94.8
28	7	3.0	3.0	97.8
29	3	1.3	1.3	99.1
34	1	0.4	0.4	99.6
36	1	0.4	0.4	100.0
Total	230	100.0	100.0	

Source: Compiled from Primary Data using SPSS 17.0
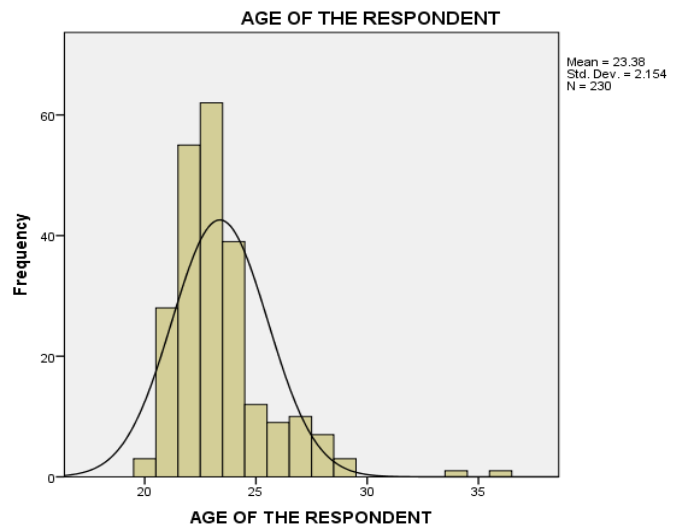

Figure 1- Age of the respondents
Source: Compiled from Primary Data using SPSS 17.0

The table and graph depicts that 89.2% of the respondents belong to the age group of 21-26. This implies that Higher Education students within the age group of 21-26 are more inclined towards Viral marketing perhaps due to their digital efficiency.

e. Gender of the respondents:

Table 2- Gender of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	112	48.7	48.7	48.7
	FEMALE	118	51.3	51.3	100.0
	Total	230	100.0	100.0	

Source: Compiled from Primary Data using SPSS 17.0
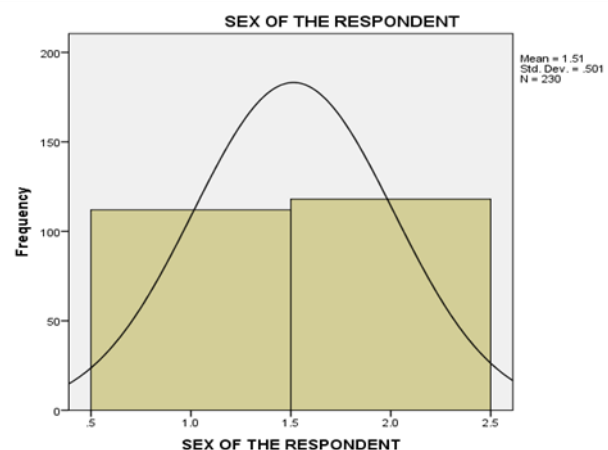

Figure 2- Gender of the respondents

Source: Compiled from Primary Data using SPSS 17.0

The table shows that 51.3% of the total respondents are female.

The above table clearly shows that as all respondents are primarily students, as large as 93.9% of the respondents are unmarried.

f. Qualification of the respondents

Table 3- Qualification of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	POST GRADUATE	230	100	100	100

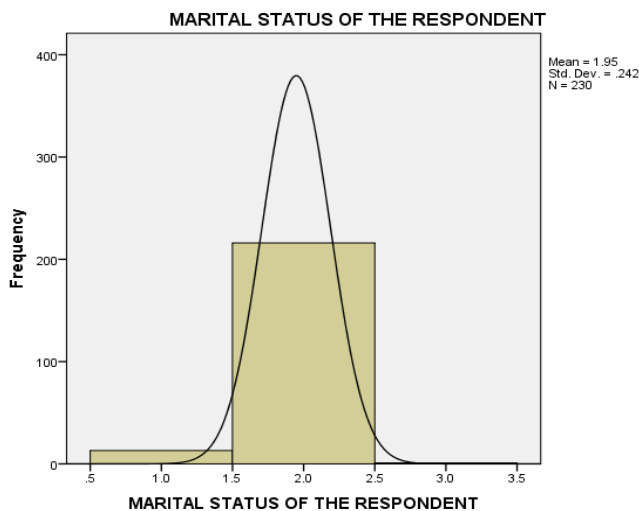**Source: Compiled from Primary Data using SPSS 17.0**

Considering the nature of the sample, 100% (i.e. all 230) respondents are postgraduate students.

g. Marital Status of the Respondents:

Table 4- Marital Status of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MARRIED	13	5.7	5.7	5.7
	UNMARRIAED	216	93.9	93.9	99.6
	WIDOW / WIDOWER	1	0.4	0.4	100.0
	Total	230	100.0	100.0	

Source: Compiled from Primary Data using SPSS 17.0

Figure 3- Marital Status of the respondents
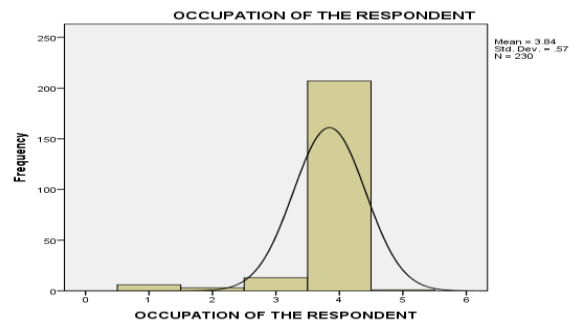**Source: Compiled from Primary Data using SPSS 17.0**

e. Occupation of the respondents

Table 5- Occupation of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SERVICE	6	2.6	2.6	2.6
	BUSINESS	3	1.3	1.3	3.9
	PROFESSION	13	5.7	5.7	9.6
	OTHERS	208	90.4	90.4	100.0
	Total	230	100.0	100.0	

Source: Compiled from Primary Data using SPSS 17.0

Figure 4- Occupation of the respondents
Source: Compiled from Primary Data using SPSS 17.0

As seen in the above table, out of 230 respondents, as many as 203 have responded as "others" which implies that 90.4% of the student respondents who do not belong to either service, business or profession are more inclined towards viral marketing perhaps due to increased leisure hours.

Exploratory Factor Analysis relating to perception Study of respondents in selected Sample area

    i. KMO & Bartlett's Test of Sampling Adequacy

Table 6- KMO & Bartlett's Test of Sampling Adequacy

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.607
Bartlett's Test of Sphericity	Approx. Chi-Square	386.445
	Df	45
	Sig.	0.000

Source: Compiled from Primary Data using SPSS 17.0

The above table shows that the sample size is more or less adequate as the KMO measure of sampling adequacy is .607 which is more than .5 and it is found statistically significant at 45 degrees of freedom.

j. Total Variance Explained

Table 7- Total Variance explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.126	21.264	21.264	2.126	21.264	21.264	2.056	20.559	20.559
2	1.783	17.829	39.092	1.783	17.829	39.092	1.809	18.093	38.652
3	1.701	17.010	56.103	1.701	17.010	56.103	1.745	17.451	56.103
4	0.948	9.477	65.580						
5	0.800	8.003	73.583						
6	0.711	7.108	80.691						
7	0.592	5.916	86.607						
8	0.520	5.198	91.804						
9	0.424	4.244	96.048						
10	0.395	3.952	100.000						

Extraction Method: Principal Component Analysis
Source: Compiled from Primary Data using SPSS 17.0

The selected variables are merged into 3 exploratory factors which explain 56% of the total variance. The factors are identified in the next table 8.

1. The first exploratory factor is named '**Preference'** which comprises the variables X36, X37 ,X38 & X39, which have their usual notations as 'MY FAMILY MEMBERS ALSO PREFER VIRAL MARKETING TOOLS RATHER THAN THEIR PHYSICAL COUNTERPARTS', 'I PREFER ONLINE ADVERTISING AS IT IS SAFEST TO USE.' , 'VIRAL MARKETING IS MORE EFFECTIVE THAN WORD-TO-MOUTH MARKETING' & 'MOST OF MY PURCHASES ARE FROM ONLINE ADVERTISING' and the

multiple regression equation for this exploratory factor "Preference" is greater than 1 and is –

$$\beta 1 = 0.782X36 + 0.684X37 + 0.675X38 + 0.600 X39$$

2. The second exploratory factor is named '**Internet Effort & Cost'** which comprises the variables X41, X42 & X43, which have their usual notations as 'I AM KNOWLEDGEABLE ABOUT THE USE OF INTERNET', 'COMPANIES SHOULD USE ONLINE ACTIVITIES IN THEIR MARKETING EFFORTS' & 'ONLINE ADVERTISING REDUCES ADVERTISING COSTS' and the multiple regression for this exploratory factor "Internet Effort & Cost" is greater than 1 and is

β2 = 0.809X41 +0.726X42+0.644X43

3. The third exploratory factor is named **'Restlessness'** which comprises the variables X44 & X45, which have their usual notations as 'I DO NOT PREFER TO SPEND MUCH OF MY TIME IN PURCHASE OF ANY COMMODITY' & 'I DO NOT REQUIRE MUCH INFORMATION TO TAKE PURCHASE DECISION' and the multiple regression for this exploratory factor "Restlessness" is greater than 1 and is

β3 = 0.827X44 +0.802X45.

Table 8- Rotated Component Matrix

Rotated Component Matrix^a	Component		
	Preference	Internet Effort & Cost	Restles sness
MY FAMILY MEMBERS ALSO PREFER VIRAL MARKETING TOOLS RATHER THAN THEIR PHYSICAL COUNTERPARTS	0.782		
I PREFER ONLINE ADVERTISING AS IT IS SAFEST TO USE.	0.684		
VIRAL MARKETING IS MORE EFFECTIVE THAN WORD-TO-MOUTH MARKETING	0.675		
MOST OF MY PURCHASES ARE FROM ONLINE ADVERTISING	0.600		
I AM KNOWLEDGEABLE ABOUT THE USE OF INTERNET		0.809	
COMPANIES SHOULD USE ONLINE ACTIVITIES IN THEIR MARKETING EFFORTS		0.726	
ONLINE ADVERTISING REDUCES ADVERTISING COSTS		0.644	
I DO NOT PREFER TO SPEND MUCH OF MY TIME IN PURCHASE OF ANY COMMODITY			0.827
I DO NOT REQUIRE MUCH INFORMATION TO TAKE PURCHASE DECISION			0.802
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 4 iterations.			

Source: Compiled from Primary Data using SPSS 17.0

The variable X40 is found to be a redundant variable due to very insignificant weightage.

The multiple regression analysis of the factors are made where factors **β1, β2 & β3** are considered as variables with usual notations **'Preference', 'Internet efforts & cost' & 'Restlessness'.**

After regressing suitably and after undergoing F-test & ANOVA it is found that the F-value is 1.239 which is statistically insignificant i.e. greater than 0.000 which implies that there is no direct relationship between these three exploratory factors.

Table 9 ANOVA

ANOVAª					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	0.361	3	0.120	1.239	0.296ᵇ
Residual	21.922	226	0.097		
Total	22.283	229			
a. Dependent Variable: AWARENESS OF THE CONCEPT OF VIRAL MARKETING					
b. Predictors: (Constant), REGR factor score 3 for analysis 1 REGR factor score 2 for analysis 1 REGR factor score 1 for analysis 1					

Source: Compiled from Primary Data using SPSS 17.0

Table 10- T-test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.109	0.021		53.987	0.000
REGR factor score 1 for analysis 1	0.022	0.021	0.071	1.071	0.286
REGR factor score 2 for analysis 1	-0.032	0.021	-0.104	-1.569	0.118
REGR factor score 3 for analysis 1	-0.007	0.021	-0.022	-0.332	0.740

Source: Compiled from Primary Data using SPSS 17.0

IV.   CONCLUSIONS

As per the findings of the study, there are three exploratory factors $\beta1$ - (Preference), $\beta2$ - (Internet Efforts & Cost) & $\beta3$- (Restlessness) of which two are behavioral or controllable variables and one is non-behavioral or non-controllable variable which have statistical influence on awareness of the concept of Viral marketing and the inclination of the respondents towards Viral Marketing in the selected study area.

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