Exploring Factors Affecting the Effectiveness of Web-Advertising

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Abstract

Social media sites allow companies to enhance customer interaction to a more personal level and enable businesses to build closer relationships with their customers as well as expand the market to the customers whom they could not reach before. For marketers, assessing the effectiveness of their ads on social networking sites is an important area. They need to have a good understanding of factors that can help them to design effective web-ads for gaining maximum profit. The aim of this paper was to explore important factors from customers' point-of-view for effective web-ads placed on various social networking sites. Purposive sampling was used to collect data with the help of structured questionnaire and factor analysis was used for data analysis. Results of the study revealed five factors which are important for any web-ad to make it more attractive to the target customers. These five factors are named as Web-ad placement, Web-ad Presentation, Web-ad Content, Celebrity in Web-ad, and Web-ad Duration.

Keywords: web-ads, Facebook, Twitter, factor analysis, social media

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Social media acts as a new marketing communication platform for the successful delivery. of advertising messages to a large number of customers (Castronovo & Huang, 2012). It can be considered a new medium for promoting products or services and as a means for increasing consumption and brand awareness (Castronovo & Huang, 2012). Usage of social networking sites is a necessary ingredient in today's business environment and is one of the fastest growing additions to the world of online marketing.

The social media period that started approximately 13 years ago began with LinkedIn (in 2003) followed by MySpace & Facebook (in 2004), YouTube (2005), and Twitter in 2006 (Curtis, 2011). According to Burson-Marsteller (2010), 86% of the 100 largest companies on the Fortune 500 list use at least one of the social media sites such as Facebook, Twitter, YouTube, or blogs, and 28% of them use all four platforms. According to Social Media Marketing Industry Report (2015), Twitter, YouTube, and LinkedIn held the top spots for future plans as 93% of the marketers used Facebook and 57% of the marketers used videos in their marketing. Facebook and LinkedIn are the two most important social networks for marketers. When allowed to only select one platform, 52% of marketers selected Facebook, followed by LinkedIn at 21%.

Global organizations spend big sums of money for marketing and public relations in the direct and indirect form. Marketers were expected to spend $540 billion globally on advertising in 2015, a 4.6% increase over 2014 (Sebastian, 2015). Global ad spending is expected to climb 5% year-over-year in 2016 according to the report. The report includes 59 markets across the Americas, Asia Pacific, Europe, Africa, and the Middle East and illustrates that digital media, particularly mobile and video, are commanding larger share in marketing activities.

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Advertisements through social media are a powerful tool to communicate messages and to create awareness about products (Sebastian, 2015).

Social media sites also allow companies to enhance customer interaction that has already been established through traditional media (i.e. TV ads, print ads) to a more personal level and enabled businesses to build closer relationships with their customers as well as to expand the market to the customers that they could not reach before (Rooney, 2011 ; Sofat, 2011). For marketers, assessing the effectiveness of their advertisements (ads hereafter) on social networking sites is an important area. They need to have a good understanding of factors that can help them to design effective web-ads for gaining maximum results. For marketers, this is an important research area which needs to be explored (McCarthy, 2000 ; Srivastava & Mishra, 2011). With this objective in mind, the present study revolves around exploring factors that are deemed very important from customers point-of-view for effective web-ads placed on various social networking sites.

Review of Literature

Role of social media is very important in conversion of a passive customer into an active buyer. Younger Facebook users between the age group of 18-24 years more actively participate than the other users (Corbett, 2010) ; this was the fastest-growing segment of users in 2010 which covers 40.8% of the users (Corbett, 2010). Social networking sites like Facebook and Twitter provide information about outdoor programming trips, special events, and more. The advertising methods have shifted from print media to social media and have created more awareness for consumers.

A survey done by Burst Media in 2007 found that 33.0% of the college students spent more than 10 hours and 19.6% spent more than 20 hours per week on the Internet. This shows that the usage of the Internet is more than that of television and radio (Burst Media, 2007). Oh and Arditi (2000) showed that although the number of Internet users are increasing, but Facebook or Twitter do not act as a substitute for an integrated marketing plan to contact a target customer. Empathica (2012) conducted a survey among the U.S. consumers who used social websites for shopping. They found that in case of 6,500 U.S. consumers, over 55% customers "Liked" a brand's Facebook, and 73% claimed that their purchases were influenced by a social website. Share of Twitter was very low in customer influence. Just 14% customers replied that Twitter influenced their buying behaviour (Dugan, 2012).

Akrimi and Khemakhem (2012) argued that social websites play a very important role to influence the buyers. Facebook has more than a billion users since its beginning in 2004. Social networks have strongly changed the spread of information by making it really easy to share (Akrimi & Khemakhem, 2012). As high-profile people are connected to Facebook, it is measured that if businesses are not available on Facebook, then it has no existence in the online world. Facebook has become an essential part to communicate strategies and facilitate marketing activities. It acts as an essential channel to position firms and its brands in the market (Khan & Khan, 2012).

Chu (2011) studied the relationship between age and attitude of consumers and found that social website users' attitude toward blogs, video, and brand channel or pages varied with age group. The users between 18-28 of age had strong positive attitudes towards blogs, videos, and brand channel advertisements. However, interfering activities such as pop up, expandable, or floating formatted ads were disliked by users (Cox, 2010). This is an important finding for marketers who keep bombarding advertisements to potential customers   by using social networking sites.

Display of advertisements is very important in most visual marketing strategies. Some of the reasons for effective web-ads have been cited as: bigger is better, and maximizing available ad space with the biggest ad sizes works best. Weintraub (2012) found that use of clean images with bold colours and fonts makes the ad more interesting. Also, highlighting a benefit rather than a feature and providing them free trial makes an advertisement more acceptable. To get consumers' attention towards an advertisement, it is necessary to create an attractive format with color that could highlight the advertisement and make it easy to read.

Research Methodology

(1) Sampling Design & Sample Size : The target population for this study included respondents, irrespective of gender, having an Internet/GPRS connection (either on a PC, laptop, or on a smart phone) and exposed to web-ads on various social media sites. Only those respondents who had previous experience of such ads were selected for final data collection. Purposive sampling technique was used to collect data from 150 respondents in Punjab district using a structured questionnaire in the year 2015.

(2) Demographic Analysis : Out of the total respondents, 62% were men and 38% were women. It was found that 58.93% of the selected respondents were in the age group of 15-20 years, 21.15% were in the age group of 20-25 years, 12.32% were in the age group of 25-30 years, and only 2.05% respondents were aged above 30 years. It was also observed that majority of the respondents (98%) had seen web-ads and only 2% of the respondents had not seen any web-ad or were not aware of web-ads. These respondents were then removed from the final data analysis procedure. Regarding educational qualifications, 56% of the respondents were post-graduates ; whereas 25% were undergraduates and only 4% were doctoral faculties.

(3) Questionnaire Design : The final questionnaire used in the study consisted of 15 questions, which were selected after doing an extensive review of literature. The questionnaire was divided into two sections seeking demographic information and information related to study objectives which were related to bold and big letters, interesting colours, right position, maximum discount schemes, celebrity endorsements, maximum views and ratings, good looking models, information that interests consumers, real projections, environment friendly, high involvement of time, good sense of humour, and timely updated advertisements. The data was measured using 5-point Likert scale being labeled as 1 – *strongly disagree* to 5 – *strongly agree* so as to ensure the generation of metric data. Extensive review of literature was done to ensure strong construct validity and the relevancy of the questionnaire was analyzed by screening each question.

Analysis and Results

✷ **Factor Analysis :** Data collected from the target respondents on the effectiveness of web-ads was subjected to dimension reduction technique using factor analysis to explore different factors using SPSS. An inter-correlation matrix was first calculated to explore the possibility of applying factor analysis. Bartlett's test of Sphericity and Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) were used for the purpose (Table 1).

The KMO value of 0.677 bordering around meritorious suggests that the factors extracted account for a substantial amount of variance. Further, Bartlett's test of sphericity also suggests that inter-correlation matrix is not an identity matrix and is factorable, and factor analysis can be applied to the current data. The communalities of the variables are as shown in the Table 2.

Principal component method was used to find the initial solution which is the most commonly used method. Eigen value criteria and the scree plot method were used for the confirmation of the initial solution, which suggests

Table 1. KMO & Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.677
Bartlett's Test of Sphericity	Approx. Chi-Square	319.556
	df	105
	Sig.	.000

Table 2. Communality Matrix

	Initial	Extraction
Web-ads with bold & big letters are interesting.	1.000	.664
Web-ads with interesting colours are interesting.	1.000	.592
Web-ads placed in right position are interesting.	1.000	.622
Web-ads with maximum discount schemes are interesting.	1.000	.492
Web-ads with good looking models are interesting.	1.000	.628
Web-ads with maximum views & ratings are interesting.	1.000	.638
Web-ads endorsed by a celebrity are interesting.	1.000	.609
Web-ads with info that interests the consumers are interesting*.	1.000	.323
Web-ads which provide detailed info about products are interesting.	1.000	.452
Web-ads that are real & not statistical projections are interesting.	1.000	.483
Web-ads that are environment friendly are interesting*.	1.000	.223
Web-ads with high involvement of time are interesting.	1.000	.543
Web-ads with a good sense of humour are interesting.	1.000	.618
Web-ads that are timely updated are interesting .	1.000	.455
Web-ads lead a consumer to the actual purchase*.	1.000	.243
Extraction Method: principal component analysis		

*- items dropped for further analysis

Table 3. Initial Solution of Factor Analysis

	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	3.045	20.300	20.300	3.045	20.300	20.300	2.115	14.099	14.099
2	1.506	10.037	30.336	1.506	10.037	30.336	1.733	11.556	25.656
3	1.447	9.649	39.985	1.447	9.649	39.985	1.616	10.771	36.427
4	1.168	7.786	47.771	1.168	7.786	47.771	1.437	9.577	46.004
5	1.079	7.192	54.963	1.079	7.192	54.963	1.344	8.959	54.963
6	.972	6.478	61.440						
7	.927	6.179	67.619						
8	.876	5.837	73.456						
9	.820	5.467	78.923						
10	.647	4.310	83.233						
11	.626	4.173	87.406						
12	.523	3.485	90.891						
13	.484	3.229	94.120						
14	.468	3.117	97.237						
15	.414	2.763	100.000						

Extraction method: Principal Component Analysis

that five factors have an Eigen value greater than 1 and the factor pattern is consistent across the sample, which is easy to interpret since the items loaded heavily on a single factor. The Eigen value for the first factor is 3.045 and it explains 20.300% of the variance. The second factor has an Eigen value of 1.506 and it explains 10.037% of the

Table 4. Rotated Component Matrix

	Component				
	1	2	3	4	5
Web-ads placed in the right position are interesting.	0.76				
Web-ads placed with related websites are effective.	0.57				
Web-ads that are timely updated on related websites are interesting.	0.61				
Web-ads with bold & big letters are interesting.		0.69			
Web-ads with interesting colours are interesting.		0.72			
Web-ads promoting maximum discount schemes are interesting.			0.51		
Web-ads with a good sense of humour are interesting.			0.75		
Web-ads with good looking celebrities / models are interesting.				0.78	
Web-ads endorsed by a celebrity are interesting.				0.62	
Web-ads appearing for short duration of time are interesting.					0.40
Web-ads that appear on the click of customers are interesting.					0.43
Web-ads with high involvement of time are interesting.					0.72

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

variance. The third factor has an Eigen value of 1.447 and it explains 09.649% of the variance. The fourth factor has an Eigen value of 1.168 and it explains 7.786% of the variance. Finally, the fifth factor has an Eigen value of 1.079 and it explains 7.192% of the variance. Together, the five factors explain 54.963% of the total variance. The total proportion of variance explained for each item is presented in the communality matrix suggesting that the five-factor solution explains the variance between the range of 34.9% - 73.2%, with a majority of the values being above 50% (refer Table 3).

In the component matrix, some of the items load on more than one factor, making the interpretation of the factors ambiguous. We ,therefore, rotate the initial factor solution to identify a clear factor pattern. The component matrix indicates the correlation of each variable with each factor. For rotation, we use the Varimax method as it the most common method used to rotate the component matrix. The rotated component matrix is presented in the Table 4. The final solution for the current study is as shown in the Table 5.

Discussion and Managerial Implications

The results of the factor analysis (Table 5) reveal that five factors affect the effectiveness of web-ads, in general, and are important for any web-ad to make it attractive to the target customers. These five factors are named as Web-ad placement, Web-ad Presentation, Web-ad Content, Celebrity in Web-ad, and Web-ad duration. Web-ad placement is the first factor that should be considered important by marketers who are advertising using online platforms.

Web-ad Placement reflects where the Web-ad has been placed and deals with the position of the ad and its placement. Marketers need to put their web-ads at the right places where they are easily visible. It is important to put web-ads in related search engines which can enhance their effectiveness. Web-ad presentation is the second most important factor that has the potential to attract customers to the web-ads. A web-ad deals with the font size, font style, and use of color in the ad to make it more attractive for the target customers. Web-ad presentation also helps a web-ad to stand out differently from other ads in a clutter. Web-ad content is another important factor which deals with how the content is showed to the target customers including the content of the advertisement as well as

Table 5. Final Solution Using Factor Analysis

Statement	Web-ad Placement	Web-ad Presentation	Web-ad Content	Celebrity in Web-ad	Web-ad Duration	Cronbach's Alpha
Web-ads placed in the right position are interesting.	0.76					0.75
Web-ads placed with related websites are effective.	0.57					
Web-ads that are timely updated on related websites are interesting.	0.61					
Web-ads with bold & big letters are interesting.		0.69				0.71
Web-ads with interesting colours are interesting.		0.72				
Web-ads promoting maximum discount schemes are interesting.			0.51			0.82
Web-ads with a good sense of humour are interesting.			0.75			
Web-ads with good looking celebrities / models are interesting.				0.78		0.77
Web-ads endorsed by a celebrity are interesting.				0.62		
Web-ads appearing for short duration of time are interesting.					0.40	0.80
Web-ads that appear on the click of customers are interesting.					0.43	
Web-ads with high involvement of time are interesting.					0.727	

the color, text font, and style. The content of the web-ad needs to be full of information, it should be humorous, and it should trigger a response from the customers' end. The role of celebrity in web-ads cannot be avoided because it affects the effectiveness of web ads since consumers like web-ads that are endorsed by good looking celebrities. Leveraging the benefit of celebrities in web-ads is another way marketers could make it more effective. The last factor is the duration of the web-ad to which respondents were exposed to. It was found that customers were more inclined towards watching web-ads that showed up for an appropriate duration of involvement time. Marketers are advised to invest in web-ads which can appear on a click by the customers rather than pop-up ads, which have the potential of irritating a customer. Furthermore, web-ads of appropriate time duration need to be made and need to be released on related web platforms to gain better results. Social media marketers need to be aware of the factors that can help them in making good and customized advertisements for social media. The five factors explored by the current study can help managers in leveraging the benefits by attracting the attention of the marketers.

Limitations of the Study and Scope for Further Research

One of the limitations of the current study is that data was collected from respondents belonging to a select city of India only, which could affect the results. Future studies can examine the effectiveness of web-ads using a bigger geographical region and including a wider age group. Another limitation of the study is the context area. The current study puts more emphasis on web-ads placed on social networking sites. Though the Internet is very wide and there are different platforms where marketers can place their web-ads, the findings of current study are limited to the use of web-ads on social networking sites only. Researchers are encouraged to conduct similar studies involving a broader context area for generalized results. Researchers are also encouraged to validate the scale in future studies.

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