Comparing Perceptions of Different E - Advertising Formats

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Abstract

Ever since the Hot Wired sold its first banner ad to AT&T Corp. in 1994, e-advertising is continuously evolving. With the availability of increased bandwidth and advanced technologies, more sophisticated e-advertising formats are available. For effective advertising, it is important to understand how consumers perceive different e-advertising formats. Previous studies have confirmed that consumers have significantly different perceptions across formats. The present study investigated consumers' perception of six e-advertising formats (banner ads, pop-ups, keyword search, sponsorships, interstitials, e-mail) in terms of five perceptual measures (information value, entertainment value, trustworthiness, offensiveness, and effect on product price). It was found that consumers' perceptions across e-advertising formats were different and each e-advertising format was perceived differently on each perceptual measure under study.

Keywords: e-advertising, consumers' perception, e-advertising formats, Internet users

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In the year 2015, e-advertisement spend in India outperformed industry expectations and by the year 2020, it is expected to cross INR 255 billion (KPMG - FICCI, 2016). The soaring e-advertising revenue and spending reflect advertisers' and marketers' enthusiasm about the Internet and their keenness to spend heavily for using this media. Despite this growth, marketers are still doubtful about the relative effectiveness of different e-advertising formats. A wide range of e-advertising formats is available, and the interactive advertising model argues that different e-advertising formats would result in different processing and outcomes (Rodgers & Thorson, 2000).

Over the past few years, e-advertising has transformed drastically, from modest advertising formats like e-mail, the popular banner ads to high-tech interactive, 3D formats. E-advertising formats are continuously evolving. The cluttered e-advertising environment and the promising growth of e-advertising suggests that the advertising industry should be concerned about Internet users' perception towards different e-advertising formats. While many studies have analyzed consumers' attitude towards advertising in a particular media, very few have addressed the presence of several advertising formats within one media. Most of the previous studies of e-advertising measured consumers' attitude towards e-advertising in general, without reference to any specific ad format (Ducoffe, 1996; Schlosser, Shavitt, & Kanfer, 1999).

Until 2006, banner ads were the only researched topic under attitude towards e-advertising (Korgaonkar & Wolin, 2002) or had not made any distinction among e-advertising formats (Brackett & Carr, 2001; Previte & Forrester, 1998; Schlosser, et al., 1999). However, these general measures failed to provide useful insights to the advertisers. In 2006, a study by Burns and Lutz (2008) was the first to investigate consumer attitudes toward e-

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advertising formats extended beyond banner ads to pop-ups, floating ads, skyscrapers, large rectangles, and interstitials. The study strongly suggested that the type of e-advertising format is an important feature that influences consumers' response towards it. Thus, for effective e-advertising campaign, understanding consumers' perception of different e-advertising formats is important.

Review of Literature

Online advertising is also known as e-advertising (Srivastava & Mishra, 2012) and an advertising format is defined as "the manner in which an ad appears" and the Internet is capable of supporting a variety of online advertising formats (Rodgers & Thorson, 2017). E-advertising debuted as the banner ad on hotwired.com and at that time, 44% of Internet users who saw it, clicked on it. Originally, these were created to direct the attention of Internet users via a click to the website of the advertiser. Consequently, the users learned about a product or service, and the advertiser's website received more traffic (Margarida Barreto, 2013).

While actually only a few consumers click on the banner ads today, and some even claimed that they did not notice it (Benway & Lane, 1998), but the research indicated that even an unclicked banner ad could create an exposure effect as strong as a clicked banner ad could do (Yoon & Lee, 2007). Bleier and Eisenbeiss (2015) found that banner ads by trusted retailers resulted in their increased click through rates. Sponsorships are another e-advertising format which involves placing the sponsor's identity (logo and/or brand name) on the sponsored websites to enhance the goodwill more than just generating traffic to its site (Li & Leckenby, 2004). Rodgers (2003) investigated the effect of a sponsor on consumers' reaction to it and found that relevant sponsors were more likely to bring stronger brand recall, brand evaluations, and purchase intentions than irrelevant sponsors. With the introduction of the Internet as an advertising medium, many interruption-based online advertising formats have evolved. Advertisements that interfere with the users' primary tasks are termed as intrusive, particularly when interference is disturbing (Li, Edwards, & Lee, 2002).

Pop-ups are one of the most common and representative formats of interruption-based ads (Chan, Jiang, & Tan, 2010). These are non-integrated, HTML-based, intrusive ads that get opened in different windows of the browser, when a user opens or leaves a webpage. Pop-ups have the potential of annoying a customer (Farhan & Yousaf, 2016). As pop-ups distract the user from navigating through the main content of webpages, they are perceived as annoying by most of the users. Bittner and Zondervan (2015) recommended that small display time of pop-ups seconds will make users feel less interrupted. Verma and Saranya (2014) cautioned e-advertisers regarding the size/ length of the ad as too short ads can be ignored by the users. Interstitials are rich media ads that use graphics and interactive text across the full - screen display - often referred to as 'splash' pages. Interstitials appear within seconds between the user's request to open a site and the actual download of the webpage (Barnes, 2002).

Email has evolved as an essential part of companies' marketing mix with a potential to enhance marketing success and uplift the brand image (Tezinde, Smith, & Murphy, 2002). Email advertising is very popular because it is cheaper, and can produce a faster response from consumers through a rapid dissemination of an advertising message to the global target market. Due to their high-penetration, e-mails are hard to avoid. Chang, Rizal, and Amin (2013) reported that permission-based email was more effective than spam and had a greater influence on consumers' acceptance of e-mail advertising.

Hartemo and Hartemo (2016) indicated that existing e-mail marketing strategies are required to be updated for the maximum benefit of the format. Keyword search advertising is a multibillion-dollar business and one of the leading forms of e-advertising (Zenetti, Bijmolt, Leeflang, & Klapper, 2014). Keyword search advertising is simply a process in which search engines place advertisements in the search results of certain keywords and the search engine providers charge fees on pay per click basis from the advertisers. A keyword search on a search engine displays two categories of search results relevant to the search query: organic results and sponsored results. Organic results are information-based web pages, while the sponsored links are decided by using online auctions

where advertisers bid to be displayed in response to the consumers' queries and are more commercial (Jerath, Ma, & Park, 2014). In the year 2016, the global keyword search advertising market volume was about US\$ 90.7 billion and with a share of 46% of the digital advertising market search, advertising was the biggest market in digital advertising (Statista, 2016). To survive in a highly competitive business environment, search engine visibility for e-retailers should be enhanced (Lu, Chau, & Chau, 2017).

As there is a proliferation of e-advertising formats and each format possesses unique features, perceptions of eadvertising definitely differ across formats. Many studies have confirmed that the type of e-advertising format may influence consumers' perceived advertising value. Therefore, e-advertising format, while certainly not the only consideration in the development of an e-advertising campaign, is an important factor because the perception of different formats can affect other important advertising objectives. Thus, understanding consumers' attitude of e-advertising formats is important and requires an investigation of the perception from which this attitude is developed (Burns & Lutz, 2006). Regarding perception and attitude, there exist two views, the first considers perception and attitude towards advertising as identical and interchangeable both conceptually and operationally (Mehta, 2000; Schlosser et al. 1999), while the second suggests that perception of advertising is an antecedent of its attitude (Ducoffe, 1996).

The present study is based on the second view as it seems to be gaining popularity in the recent research on the topic. The perceptual measures considered in the study are information value, entertainment value, trustworthiness, offensiveness, and effect on product price; these are adopted from the research work of Shavitt, Lowrey, and Haefner (1998). The e-advertising formats included in the study are based on studies conducted by Cheng, Blankson, Wang, and Chen (2009); Tutaj and Van Reijmersdal (2012); Burns and Lutz (2006, 2008); and Kobylanski (2012).

Objectives of the Study

\$\to\$ To find the perceived effectiveness of different e-advertising formats in terms of informational value, trustworthiness, entertainment value, offensiveness, and effect on product prices.

\$\to\$ To compare the consumers' perception of different e-advertising formats in terms of information value, entertainment value, trustworthiness, offensiveness, and effect on product price.

To offer suggestions to e-advertisers regarding the effectiveness of different e-advertising formats.

Research Methodology

The present study is descriptive cum exploratory in nature. Both primary and secondary data were used in the study. Primary data were collected with the help of a structured questionnaire while secondary data were collected from various journals, websites, industry reports, and books.

- (1) Sample Size: The study includes a survey of Internet users in Delhi NCR. Simple random sampling was used to collect the data. To achieve the specific objective, a structured questionnaire was distributed among 500 respondents and 357 filled questionnaires were received. After data cleaning, only 318 questionnaires were found suitable to be included in the study. The data for the study were collected from January - August 2016.
- (2) Measures: The study aims at finding the perceived effectiveness of different formats of e-advertising in terms of informational value, trustworthiness, entertainment value, offensiveness, and effect on product prices and comparing different e-advertising formats on these perceptual measures. All the five perceptual measures for each

of the six e-advertising formats under study were measured on a 5 - point scale ranging from "strongly disagree" to "strongly agree".

(3) Statistical Tools: To find the perceived effectiveness of different formats of e-advertising and to compare different e-advertising formats in terms of stated perceptual measures, one way ANOVA along with Games - Howell post hoc comparison was used.

Analysis and Results

This section of the paper discusses the results of the study along with their interpretation.

(1) Comparing Perceived Effectiveness of Different Formats of E-Advertising: The Table 1 shows the Levene's statistics. It is calculated to test if the samples have equal variance. Levene's statistics in Table 1 is statistically significant at the .05 level, stating that the variances across the e-advertising formats are significantly different. Thus, one of the assumptions of ANOVA, that is, homogeneity of variances has been violated. Consequently, Welch test and Games - Howell post hoc test are performed instead of one-way ANOVA.

Table 1. Test of Homogeneity of Variances

	Levene's Statistic	df1	df2	Sig.
Banner Ads	75.799	4	1585	.000
Pop-up	223.131	4	1585	.000
Keyword Search	180.572	4	1585	.000
Sponsorships	77.497	4	1585	.000
Interstitial	23.282	4	1585	.000
Email	189.053	4	1585	.000

Table 2. Robust Tests of Equality of Means

		Statistics ^a	df1	df2	Sig.
Banner Ads	Welch	268.599	4	748.586	.000
	Brown-Forsythe	133.556	4	1.335E3	.000
Pop-up	Welch	5.763E3	4	739.364	.000
	Brown-Forsythe	703.277	4	935.827	.000
Keyword Search	Welch	1.756E3	4	765.437	.000
	Brown-Forsythe	693.459	4	960.468	.000
Sponsorships	Welch	498.028	4	771.836	.000
	Brown-Forsythe	321.429	4	1.294E3	.000
Interstitial	Welch	407.305	4	784.913	.000
	Brown-Forsythe	356.204	4	1.443E3	.000
Email	Welch	473.597	4	648.394	.000
	Brown-Forsythe	206.238	4	1.265E3	.000

a. Asymptotically *F* distributed.

Table 3. Multiple Comparisons

4-3 -		1-1 - :			
(I) Perceptual Measure	Mean Value	(J) Perceptual Measure	Mean Value	Mean Difference (I-J)	Sig.
Information Value	3.3491	Entertainment Value	2.9434	.40566*	0.001
		Trustworthiness	2.5723	.77673*	0
		Offensiveness	2.1635	1.18553*	0
		Effect on Product Price	1.3679	1.98113*	0
Entertainment Value	2.9434	Information Value	3.3491	40566*	0.001
		Trustworthiness	2.5723	.37107*	0.007
		Offensiveness	2.1635	.77987*	0
		Effect on Product Price	1.3679	1.57547*	0
Trustworthiness	2.5723	Information Value	3.3491	77673*	0
		Entertainment Value	2.9434	37107*	0.007
		Offensiveness	2.1635	.40881*	0.001
		Effect on Product Price	1.3679	1.20440*	0
Offensiveness	2.1635	Information Value	3.3491	-1.18553*	0
		Entertainment Value	2.9434	77987*	0
		Trustworthiness	2.5723	40881*	0.001
		Effect on Product Price	1.3679	.79560*	0
Effect on Product Price	1.3679	Information Value	3.3491	-1.98113*	0
		Entertainment Value	2.9434	-1.57547*	0
		Trustworthiness	2.5723	-1.20440*	0
		Offensiveness	2.1635	79560*	0
Information Value > Entert	ainment Value	> Trustworthiness > Offensivene	ess > Effect on	Product Price	
Information Value	2.0975	Entertainment Value	2.5	40252*	0.002
		Trustworthiness	1.0849	1.01258*	0
		Offensiveness	4.8679	-2.77044*	0
		Effect on Product Price	1.7453	.35220*	0.001
Entertainment Value	2.5	Information Value	2.0975	.40252*	0.002
		Trustworthiness	1.0849	1.41509*	0
		Offensiveness	4.8679	-2.36792*	0
		Effect on Product Price	1.7453	.75472*	0
Trustworthiness	1.0849	Information Value	2.0975	-1.01258*	0
		Entertainment Value	2.5	-1.41509*	0
		Offensiveness	4.8679	-3.78302*	0
		Effect on Product Price	1.7453	66038*	0
Offensiveness	4.8679	Information Value		2.77044*	0
				2.36792*	0
		Trustworthiness			0
		Effect on Product Price			0
Effect on Product Price	1.7453				0.001
	2.7 100				0.001
		Trustworthiness	1.0849	.66038*	0
	Information Value Entertainment Value Trustworthiness Offensiveness Effect on Product Price Information Value > Entert Information Value	Information Value 3.3491 Entertainment Value 2.9434 Trustworthiness 2.5723 Offensiveness 2.1635 Information Value > Entertainment Value 1.3679 Information Value > Entertainment Value 2.0975 Entertainment Value 2.5 Trustworthiness 1.0849 Offensiveness 4.8679	Information Value 3.3491 Entertainment Value Trustworthiness Offensiveness Effect on Product Price Entertainment Value 2.9434 Information Value Trustworthiness Offensiveness Effect on Product Price Information Value Trustworthiness Offensiveness Effect on Product Price Information Value Entertainment Value Offensiveness Effect on Product Price Information Value Entertainment Value Offensiveness Effect on Product Price Information Value Entertainment Value Trustworthiness Effect on Product Price Information Value Entertainment Value Trustworthiness Offensiveness Effect on Product Price Information Value Trustworthiness Offensiveness Effect on Product Price Information Value Entertainment Value Offensiveness Effect on Product Price Information Value Entertainment Value Offensiveness Effect on Product Price Information Value Entertainment Value Offensiveness Effect on Product Price Information Value Entertainment Value Offensiveness Effect on Product Price Information Value Entertainment Value Offensiveness Effect on Product Price Entertainment Value Entertainm	Measure	Measure Value Measure Value Offernomation Value 3.3491 Entertainment Value 2.9434 .40566* Information Value 3.3491 Entertainment Value 2.1635 1.18553* Effect on Product Price 1.3679 1.98113* Entertainment Value 2.9434 Information Value 3.3491 40566* Trustworthiness 2.5723 3.7107* 0ffensiveness 2.1635 .77987* Trustworthiness 2.5723 Information Value 3.3491 77673* Effect on Product Price 1.3679 1.20440* Offensiveness 2.1635 4.0881* Effect on Product Price 1.3679 1.20440* Offensiveness 2.1635 1.18553* Effect on Product Price 1.3679 1.18553* Effect on Product Price 1.3679 1.77987* Effect on Product Price 1.3679 1.77987* Effect on Product Price 1.3679 7.7950* Effect on Product Price 1.3679 7.7950* Effect on P

			Offensiveness	4.8679	-3.12264*	0
	Offensiveness > Entertainn	nent Value > Inf	ormation Value > Trustworthine	ess > Effect on I	Product Price	
Keyword Sear	ch Information Value	4.4182	Entertainment Value	3.7107	.70755*	0
			Trustworthiness	4.805	38679*	0
			Offensiveness	1.3145	3.10377*	0
			Effect on Product Price	2.5692	1.84906*	0
	Entertainment Value	3.7107	Information Value	4.4182	70755*	0
			Trustworthiness	4.805	-1.09434*	0
			Offensiveness	1.3145	2.39623*	0
			Effect on Product Price	2.5692	1.14151*	0
	Trustworthiness	4.805	Information Value	4.4182	.38679*	0
			Entertainment Value	3.7107	1.09434*	0
			Offensiveness	1.3145	3.49057*	0
			Effect on Product Price	2.5692	2.23585*	0
	Offensiveness	1.3145	Information Value	4.4182	-3.10377*	0
			Entertainment Value	3.7107	-2.39623*	0
			Trustworthiness	4.805	-3.49057*	0
			Effect on Product Price	2.5692	-1.25472*	0
	Effect on Product Price	2.5692	Information Value	4.4182	-1.84906*	0
			Entertainment Value	3.7107	-1.14151*	0
			Trustworthiness	4.805	-2.23585*	0
			Offensiveness	1.3145	1.25472*	0
	Trustworthiness > Informa	tion Value > Ent	ertainment Value > Effect on Pr	oduct Price > C	Offensiveness	
Sponsorships	Information Value	4.0597	Entertainment Value	3.3176	.74214*	0
			Trustworthiness	1.3648	2.69497*	0
			Offensiveness	1.7075	2.35220*	0
			Effect on Product Price	2.9465	1.11321*	0
	Entertainment Value	3.3176	Information Value	4.0597	74214*	0
			Trustworthiness	1.3648	1.95283*	0
			Offensiveness	1.7075	1.61006*	0
			Effect on Product Price	2.9465	.37107*	0.007
	Trustworthiness	1.3648	Information Value	4.0597	-2.69497*	0
			Entertainment Value	3.3176	-1.95283*	0
			Offensiveness	1.7075	34277*	0
			Effect on Product Price	2.9465	-1.58176*	0
	Offensiveness	1.7075	Information Value	4.0597	-2.35220*	0
			Entertainment Value	3.3176	-1.61006*	0
			Trustworthiness	1.3648	.34277*	0
			Effect on Product Price	2.9465	-1.23899*	0
	Effect on Product Price	2.9465	Information Value	4.0597	-1.11321*	0
			Entertainment Value	3.3176	37107*	0.007
			Trustworthiness	1.3648	1.58176*	0
			Offensiveness	1.7075	1.23899*	0
	Information Value > Entert	ainment Value	> Fffect on Product Price > Offer	nsiveness > Tru	stworthiness	

Information Value > Entertainment Value > Effect on Product Price > Offensiveness > Trustworthiness

Interstitial	Information Value	3.7296	Entertainment Value	4.0943	36478*	0.001
			Trustworthiness	1.8491	1.88050*	0
			Offensiveness	4.4937	76415*	0
			Effect on Product Price	2.2138	1.51572*	0
	Entertainment Value	4.0943	Information Value	3.7296	.36478*	0.001
			Trustworthiness	1.8491	2.24528*	0
			Offensiveness	4.4937	39937*	0
			Effect on Product Price	2.2138	1.88050*	0
	Trustworthiness	1.8491	Information Value	3.7296	-1.88050*	0
			Entertainment Value	4.0943	-2.24528*	0
			Offensiveness	4.4937	-2.64465*	0
			Effect on Product Price	2.2138	36478*	0.001
	Offensiveness	4.4937	Information Value	3.7296	.76415*	0
			Entertainment Value	4.0943	.39937*	0
			Trustworthiness	1.8491	2.64465*	0
			Effect on Product Price	2.2138	2.27987*	0
	Effect on Product Price	2.2138	Information Value	3.7296	-1.51572*	0
			Entertainment Value	4.0943	-1.88050*	0
			Trustworthiness	1.8491	.36478*	0.001
			Offensiveness	4.4937	-2.27987*	0
	Offensiveness > Entertains	ment Value > In	formation Value > Effect on Pro	duct Price > Tru	ıstworthiness	
Email	Information Value	2.8742	Entertainment Value	1.8082	1.06604*	0
			Trustworthiness	2.2138	.66038*	0
			Offensiveness	3.566	69182*	0
			Effect on Product Price	1.0157	1.85849*	0
	Entertainment Value	1.8082	Information Value	2.8742	-1.06604*	0
			Trustworthiness	2.2138	40566*	0.001
			Offensiveness	3.566	-1.75786*	0
			Effect on Product Price	1.0157	.79245*	0
	Trustworthiness	2.2138	Information Value	2.8742	66038*	0
			Entertainment Value	1.8082	.40566*	0.001
			Offensiveness	3.566	-1.35220*	0
			Effect on Product Price	1.0157	1.19811*	0
	Offensiveness	3.566	Information Value	2.8742	.69182*	0
			Entertainment Value	1.8082	1.75786*	0
			Trustworthiness	2.2138	1.35220*	0
			Effect on Product Price	1.0157	2.55031*	0
	Effect on Product Price	1.0157	Information Value	2.8742	-1.85849*	0
			Entertainment Value	1.8082	79245*	0
			Trustworthiness	2.2138	-1.19811*	0
			Offensiveness	3.566	-2.55031*	0
	Offensiveness > Information	on Value > Trust	tworthiness > Entertainment Va	lue > Effect on	Product Price	

^{*.} The mean difference is significant at the 0.05 level.

The Table 2 presents the Welch statistics and Brown-Forsythe statistics for banner ad, pop-up, keyword search, sponsorships, interstitials, and emails. It is clearly indicated that all the values of these two statistics for all the e-advertising formats are significant at the .000 level, suggesting that there are statistically significant differences in the variances between the perceptual measures for each e-advertising format.

The Table 3 represents the multiple comparisons based on the observed means of five perceptual measures for the six advertising formats using ANOVA. As the results of test of homogeneity of variances and robust tests of equality of means in Table 1 and Table 2 have shown overall statistically significant differences in the perceived effectiveness of different formats of e-advertising, thus the Games - Howell post hoc test is run to confirm where these differences occurred. Mean scores of the perceptual measures of each of the e-advertising formats are significantly different at the .05 level as depicted in the Table 3.

Banner ads are perceived as more informative, entertaining, moderately trustworthy, and less offensive with least effect on product price (similar results were obtained by Burns & Lutz, 2008). Pop-ups are perceived as highly offensive, entertaining, moderately informative, less trustworthy with minimum effect on product price. The third e-advertising format under study is keyword search, and it is perceived as highly trustworthy, informative, moderately entertaining, with some effect on product price and least offensive. Sponsorships are another e-advertising format under study, which are perceived as more informative and least trustworthy (similar results were obtained by Kobylanski, 2012). The mean values of entertainment value, effect on product price, and offensiveness secured second, third, and fourth positions (similar results were obtained by Tutaj & Van Reijmersdal, 2012). Interstitials are perceived as highly offensiveness and entertaining, moderately informative, with less effect on product price, and not at all trustworthy (similar results were obtained by Burns & Lutz, 2008). Email advertising is perceived as more offensive with very less effect on product price.

Information value, trustworthiness, and entertainment value secured second, third, and fourth perceptual positions (similar results were obtained by Chang, Rizal, & Amin, 2013). Therefore, the results are in line with the findings of the previous studies.

(2) Comparison of Consumers' Perception of Different Formats of E-Advertising: The Table 4 clearly shows that the variances across samples are significantly different as the Levene's statistics is statistically significant at the .05 level. Thus, the assumption of homogeneity of variances has been violated again. So, instead of one-way ANOVA, Welch test, Brown- Forsythe test, along with Games-Howell post hoc comparison of means are performed.

As shown in the Table 5, the results of Welch and Brown- Forsythe statistics for information value, entertainment value, trustworthiness, offensiveness, and effect on product price are statistically significant at the .000 level. The statistics suggest that the variances between the perceptual measures for each e-advertising format are significantly different.

The Table 6 presents multiple comparisons of the observed means of five perceptual measures for six different e-advertising formats of Games - Howell post hoc tests using ANOVA. It is evident from the Table 6 that the mean differences among all the e-advertising formats are significantly different at the .05 level for each perceptual

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	Levene's Statistics	df1	df2	Sig.		
Information Value	34.620	5	1902	.000		
Entertainment Value	22.904	5	1902	.000		
Trustworthiness	195.892	5	1902	.000		
Offensiveness	135.368	5	1902	.000		
Effect on Product Price	236.855	5	1902	.000		

Table 4. Test of Homogeneity of Variances

Table 5. Robust Tests of Equality of Means

		Statistics ^a	df1	df2	Sig.
Information Value	Welch	200.310	5	876.520	.000
	Brown-Forsythe	168.363	5	1.698E3	.000
Entertainment Value	Welch	158.562	5	885.483	.000
	Brown-Forsythe	137.469	5	1.823E3	.000
Trustworthiness	Welch	3.230E3	5	840.306	.000
	Brown-Forsythe	594.041	5	1.155E3	.000
Offensiveness	Welch	2.041E3	5	846.309	.000
	Brown-Forsythe	772.373	5	1.294E3	.000
Effect on Product Price	Welch	279.629	5	773.653	.000
	Brown-Forsythe	143.973	5	1.253E3	.000

a. Asymptotically F distributed.

measure. Keyword search advertising is perceived as highly informative, followed by sponsorship and interstitial; banner ads are perceived as moderately informative, while email advertising and pop-ups are perceived as less informative. Another perceptual measure is entertainment value. Consumers seem to enjoy interstitial the most followed by keyword search, while sponsorships and banner ads are moderately entertaining, but pop-up and email are perceived as less entertaining e-advertising formats. In terms of trustworthiness, keyword search advertising is a highly trustworthy e-advertising format, and pop-ups are the least trustworthy. Second, third, and fourth trustworthiness positions are secured by banner ads, email, interstitial and sponsorship. As far as offensiveness is concerned, pop-up is the most offensive e-advertising format, followed by interstitial; email advertising and banner ads are perceived as moderately offensive, while sponsorship and keyword search are perceived as the least offensive e-advertising formats. In terms of effect on product price, sponsorship is perceived as having the highest effect on product price and email as having the least effect on product price. Keyword search, interstitial, and pop-up secured second, third, and fourth ranks.

The results of the study are supported by earlier research. Burns and Lutz (2008) compared banner ads, pop-ups, and interstitials for entertainment, annoyance, and information. They reported that interstitials were more entertaining than banner ads and pop- ups were the least entertaining. Pop- ups were found to be highly annoying, and banner ads were the least annoying format. Banners were reported to be highly informative and pop-ups were least informative, while interstitials were perceived as a moderately informative format. Tutaj and Van Reijmersdal (2012) found that the subtle sponsored ads were perceived as more informative, more entertaining, and less irritating than the prominent banner ads. Dynamic Logic's (2001) study concluded that consumers had more favourable attitudes toward banners than pop-ups and interstitials.

Findings

\$\text{The most informative e-advertising formats are keyword search, sponsorships, interstitials, banner ads, emails, and pop-ups. Campaigns that require informing consumers should use one of these formats.

\$ Interstitials, keyword search, sponsorship formats are perceived as entertaining - these formats can be effective in capturing the attention of users.

\$ Respondents perceived keyword search and banner ads to be more trustworthy, and sponsorships and pop-ups format score significantly low on the trustworthiness factor.

Table 6. Multiple Comparisons

Games-Howell						
Dependent	(I) Advertising	Mean	(J) Advertising	Mean	Mean	Sig.
Variable	Format	Value	Format	Value	Difference (I-J)	
Information Value	Banner	3.3491	Pop-up	2.0975	1.25157*	0
			Keyword Search	4.4182	-1.06918*	0
			Sponsorship	4.0597	71069*	0
			Interstitial	3.7296	38050*	0.001
			Email	2.8742	.47484*	0
	Pop-up	2.0975	Banner	3.3491	-1.25157*	0
			Keyword Search	4.4182	-2.32075*	0
			Sponsorship	4.0597	-1.96226*	0
			Interstitial	3.7296	-1.63208*	0
			Email	2.8742	77673*	0
	Keyword Search	4.4182	Banner	3.3491	1.06918*	0
			Pop-up	2.0975	2.32075*	0
			Sponsorship	4.0597	.35849*	0
			Interstitial	3.7296	.68868*	0
			Email	2.8742	1.54403*	0
	Sponsorship	4.0597	Banner	3.3491	.71069*	0
			Pop-up	2.0975	1.96226*	0
			Keyword Search	4.4182	35849*	0
			Interstitial	3.7296	.33019*	0.004
			Email	2.8742	1.18553*	0
	Interstitial	3.7296	Banner	3.3491	.38050*	0.001
			Pop-up	2.0975	1.63208*	0
			Keyword Search	4.4182	68868*	0
			Sponsorship	4.0597	33019*	0.004
			Email	2.8742	.85535*	0
	Email	2.8742	Banner	3.3491	47484*	0
			Pop-up	2.0975	.77673*	0
			Keyword Search	4.4182	-1.54403*	0
			Sponsorship	4.0597	-1.18553*	0
			Interstitial	3.7296	85535*	0
	Keyword Se	earch > Sponsorshi	p > Interstitial > Banner Ads	> Email >Pop-uլ	0	
Entertainment Val	ue Banner	2.9434	Pop-up	2.5	.44340*	0.001
			Keyword Search	3.7107	76730*	0
			Sponsorship	3.3176	37421*	0.006
			Interstitial	4.0943	-1.15094*	0
			Email	1.8082	1.13522*	0
	Pop-up	2.5	Banner	2.9434	44340*	0.001
			Keyword Search	3.7107	-1.21069*	0
			Sponsorship	3.3176	81761*	0
			Interstitial	4.0943	-1.59434*	0
			Interstitial	4.0943	-1.59434*	U

					55 4 5 5 14	_
			Email	1.8082	.69182*	0
	Keyword Search	3.7107	Banner	2.9434	.76730*	0
			Pop-up	2.5	1.21069*	0
			Sponsorship	3.3176	.39308*	0.001
			Interstitial	4.0943	38365*	0
			Email	1.8082	1.90252*	0
	Sponsorship	3.3176	Banner	2.9434	.37421*	0.006
			Pop-up	2.5	.81761*	0
			Keyword Search	3.7107	39308*	0.001
			Interstitial	4.0943	77673*	0
			Email	1.8082	1.50943*	0
	Interstitial	4.0943	Banner	2.9434	1.15094*	0
			Pop-up	2.5	1.59434*	0
			Keyword Search	3.7107	.38365*	0
			Sponsorship	3.3176	.77673*	0
			Email	1.8082	2.28616*	0
	Email	1.8082	Banner	2.9434	-1.13522*	0
			Pop-up	2.5	69182*	0
			Keyword Search	3.7107	-1.90252*	0
			Sponsorship	3.3176	-1.50943*	0
			Interstitial	4.0943	-2.28616*	0
	Interstitial	> Keyword Search >	Sponsorship > Banner Ads	>Pop-up > Email		
Trustworthiness	Banner	2.5723	Pop-up	1.0849	1.48742*	0
			Keyword Search	4.805	-2.23270*	0
			Sponsorship	1.3648	1.20755*	0
			Interstitial	1.8491	.72327*	0
			Email	2.2138	.35849*	0.014
	Pop-up	1.0849	Banner	2.5723	-1.48742*	0
			Keyword Search	4.805	-3.72013*	0
			Sponsorship	1.3648	27987*	0
			Interstitial	1.8491	76415*	0
			Email	2.2138	-1.12893*	0
	Keyword Search	4.805	Banner	2.5723	2.23270*	0
	no, no a con on		Pop-up	1.0849	3.72013*	0
			Sponsorship	1.3648	3.44025*	0
			Interstitial	1.8491	2.95597*	0
			Email	2.2138	2.59119*	0
	Sponsorship	1.3648	Banner	2.5723	-1.20755*	0
	эронзоганир	1.5040	Pop-up	1.0849	.27987*	0
			Keyword Search	4.805	-3.44025*	0
			Interstitial		48428*	
				1.8491		0
	loto votiti- l	1.0404	Email	2.2138	84906* 	0
	Interstitial	1.8491	Banner	2.5723	72327*	0
			Pop-up	1.0849	.76415*	0

				4.005	2.05507*	0
			Keyword Search	4.805	-2.95597*	0
			Sponsorship	1.3648	.48428*	0
	e 11	2.2422	Email	2.2138	36478*	0.003
	Email	2.2138	Banner	2.5723	35849*	0.014
			Pop-up	1.0849	1.12893*	0
			Keyword Search	4.805	-2.59119*	0
			Sponsorship	1.3648	.84906*	0
			Interstitial	1.8491	.36478*	0.003
	Keyword Se		> Email > Interstitial > Spons			
Offensiveness	Banner	2.1635	Pop-up	4.8679	-2.70440*	0
			Keyword Search	1.3145	.84906*	0
			Sponsorship	1.7075	.45597*	0
			Interstitial	4.4937	-2.33019*	0
			Email	3.566	-1.40252*	0
	Pop-up	4.8679	Banner	2.1635	2.70440*	0
			Keyword Search	1.3145	3.55346*	0
			Sponsorship	1.7075	3.16038*	0
			Interstitial	4.4937	.37421*	0
			Email	3.566	1.30189*	0
	Keyword Search	1.3145	Banner	2.1635	84906*	0
			Pop-up	4.8679	-3.55346*	0
			Sponsorship	1.7075	39308*	0
			Interstitial	4.4937	-3.17925*	0
			Email	3.566	-2.25157*	0
	Sponsorship	1.7075	Banner	2.1635	45597*	0
			Pop-up	4.8679	-3.16038*	0
			Keyword Search	1.3145	.39308*	0
			Interstitial	4.4937	-2.78616*	0
			Email	3.566	-1.85849*	0
	Interstitial	4.4937	Banner	2.1635	2.33019*	0
			Pop-up	4.8679	37421*	0
			Keyword Search	1.3145	3.17925*	0
			Sponsorship	1.7075	2.78616*	0
			Email	3.566	.92767*	0
	Email	3.566	Banner	2.1635	1.40252*	0
			Pop-up	4.8679	-1.30189*	0
			Keyword Search	1.3145	2.25157*	0
			Sponsorship	1.7075	1.85849*	0
			Interstitial	4.4937	92767*	0
	Pop-up > In	terstitial > Email >	Banner Ads > Sponsorship >	Keyword Search		
Effect on Produc	ct Price Banner	1.3679	Pop-up	1.7453	37736*	0
			Keyword Search	2.5692	-1.20126*	0
			Sponsorship	2.9465	-1.57862*	0
			Interstitial	2.2138	84591*	0

		Email	1.0157	.35220*	0			
Pop-up	1.7453	Banner	1.3679	.37736*	0			
		Keyword Search	2.5692	82390*	0			
		Sponsorship	2.9465	-1.20126*	0			
		Interstitial	2.2138	46855*	0			
		Email	1.0157	.72956*	0			
Keyword Search	2.5692	Banner	1.3679	1.20126*	0			
		Pop-up	1.7453	.82390*	0			
		Sponsorship	2.9465	37736*	0.016			
		Interstitial	2.2138	.35535*	0.018			
		Email	1.0157	1.55346*	0			
Sponsorship	2.9465	Banner	1.3679	1.57862*	0			
		Pop-up	1.7453	1.20126*	0			
		Keyword Search	2.5692	.37736*	0.016			
		Interstitial	2.2138	.73270*	0			
		Email	1.0157	1.93082*	0			
Interstitial	2.2138	Banner	1.3679	.84591*	0			
		Pop-up	1.7453	.46855*	0			
		Keyword Search	2.5692	35535*	0.018			
		Sponsorship	2.9465	73270*	0			
		Email	1.0157	1.19811*	0			
Email	1.0157	Banner	1.3679	35220*	0			
		Pop-up	1.7453	72956*	0			
		Keyword Search	2.5692	-1.55346*	0			
		Sponsorship	2.9465	-1.93082*	0			
		Interstitial	2.2138	-1.19811*	0			
Sponsorsh	Sponsorship > Keyword Search > Interstitial >Pop-up > Banner Ads > Email							

^{*.} The mean difference is significant at the 0.05 level.

- Pop-ups were perceived as extremely offensive, neither trustworthy nor having much effect on product price.
- \(\bar{\text{ Keyword search advertising scored high in terms of trustworthiness and low on offensiveness.} \)
- \$\triangle\$ Sponsorships were found to be more informative, more entertaining, and less offensive and trustworthy.
- \$\times\$ Consumers perceived interstitials as more offensive as well as entertaining but less trustworthy.
- 🕏 Emails scored high in terms of offensiveness and information value and low in terms of the effect on the product price.

Pop-ups, interstitials, and emails are the most offensive e-advertising formats; so these formats should be used with care.

^{\$\}text{In terms of the effect on product price, sponsorships were perceived as having maximum effect on product price, while emails had a minimum effect.

Banner ads were perceived as more informative, entertaining, and less offensive with less effect on product price.

Recommendations

- Advertisers should consider the goals of their campaigns and select the format that best matches their goals. As keyword search and sponsorships were perceived as most informative of the six advertising formats tested, campaigns requiring informing consumers should choose either of these formats.
- Interruption based e-advertising should use animation as a managing tool to control perceived intrusiveness as it has been reported that use of multimedia enhances the entertainment value of the ads.
- Pop-ups were perceived as extremely annoying by the respondents; so these should be used sparingly, if at all.
- As Internet users hold unique perceptions for each e-advertising format, thus formats should be profiled in a way that is useful to advertisers.

Managerial Implications

Mere suggestions to online advertisers to "use the right format" are of no use without an understanding of what the right format is. Understanding consumers is the foundation of understanding the right format, yet much of what has been reported about consumers' perceptions towards online advertising is anecdotal. The current study will have practical implications for the advertising professional in the selection and use of e-advertising formats for the development of advertising campaigns and media planning. It will also provide advertisers, marketers, and academia with a better understanding of different e-advertising formats in terms of how these are perceived by the consumers. E-advertising practitioners can refer to the study in the future development of e-advertising as well as in the use of current formats.

Conclusion

The results of the study indicate that each e-advertising format is perceived differently. Banner ads are perceived as informative; pop-ups as offensive; keyword search and sponsorships as trustworthy; and interstitial and e-mails are perceived as offensive. The most informative e-advertising format is keyword search, interstitials are most entertaining, keyword search is most trustworthy, pop-ups are most offensive, and in terms of the effect on product price, sponsorships are perceived as having the maximum effect. As the Internet today is a prominent advertising medium, and many innovative e-advertising formats are available to the e-marketer, exploring consumers' perceptions of these formats is important. Consequently, the results of the study provide some useful insights for both the academicians and practitioners interested in the study of consumers' perception of different formats of e-advertising. It seems reasonably evident that e-advertising is effective and has a long way to go.

Limitations of the Study and Scope for Future Research

The present study is not free from limitations. Despite of its contributions, the current research leaves a number of questions unanswered, which should be further investigated. First of all, it is acknowledged that the small sample size and limited area of Delhi NCR limit the generalizability of the results of the study. Thus, further studies covering a larger sample size and area should be undertaken. Secondly, there are many e-advertising formats available, but this study considers only six of them, so it would be desirable to explore how other e-advertising formats are perceived by the consumers. Last but not the least, it would be interesting to explore the role of consumers' attributes in their perception towards different formats of e-advertising.

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