THE EFFECT OF INTERNET ADVERTISING ON ATTITUDE TOWARDS INTERNET ADVERTISING OF UNIVERSITY STUDENTS IN KENYA

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ABSTRACT

The internet is fast emerging as an important advertising medium in Kenya. The enhanced ICT infrastructure in Kenya resulting in improved and faster internet connection along with a drop in prices for internet services has not only raised the volume of internet users, but also prompted interest in the growth of businesses on the internet with estimates projecting spending on internet advertising to increase. However, despite this unprecedented growth, minimal empirical research has been undertaken to explore the effect of internet advertising on attitude towards internet advertising in Kenya with many studies having been conducted in other contexts other than Kenya’s. This study therefore sought to determine the effect of internet advertising on attitude towards internet advertising in Kenya. A cross sectional survey research design was adopted with university students as the target population. A pre – test on the survey instrument was conducted to check on the format and suitability of questions with Cronbach’s alpha statistic used as the measure of reliability. A multiple linear regression analysis was used to test for causal relationships among the variables. Results of the unified model that included both male and female students, found interactivity, credibility, entertainment and irritation to be the key determinants of attitudes towards internet advertising. Whereas interactivity, credibility, entertainment had a significantly positive effect, irritation had a negative effect. While interactivity had the greatest impact, informativeness wasn’t a significant predictor. However, considered separately, differences emerged on factors influencing attitude formation towards internet advertising. Interactivity and informativeness were the main predictors for males and both impacted positively with interactivity having the greatest impact while females had interactivity, entertainment, credibility and irritation as the main predictors with interactivity having the greatest impact. Interactivity, entertainment and credibility impacted positively while irritation had a negative effect.

Keywords: Internet advertising, Interactivity, Irritation, Credibility, Informativeness, Entertainment and Attitude towards internet advertising.
BACKGROUND INFORMATION

Traditional advertising is evolving today to digital advertising as a result of recent technological developments creating expansion in the use and penetration of the internet as a marketing medium (Whiteside, 2008). Advertising through the internet is now an important source of consumer information as the number of internet users continues to increase (Cheung, 2006). Internet penetration has been on the rise globally with 40% of the world population having an internet connection (ITU, 2014). Indeed this growth has moved from 0.3% in 1993 to about 40% in 2013. Estimates place the number of internet users at global level at 2.9 billion as of July 2014 accounting for 40% internet penetration worldwide (ITU, 2014). Internet penetration by region puts North America ahead of the park at 81%, Western Europe at 78%, Oceania at 63%, Central and Eastern Europe at 54%, East Asia at 48%, South America at 47%, South East Asia at 25%, and Africa at 18%. This therefore would explain the enormous worldwide investment in digital advertising given these trends in penetration and usage creating a huge internet market. Indications so far show an exponential growth in penetration and internet usage from 1993 to date.

Globally, spending on internet advertising rose among marketing platforms in 2013 as traditional media continued to suffer a decline (Arjun, 2014). Of the global market share of all advertising spending, display internet adverts grew by more than 32 percent in the first three quarters of 2013 compared to the same period in 2012 making them the fastest growing advertising media (Arjun, 2014; Ingrid, 2014). According to the latest estimates of worldwide paid media spending by (eMarketer, March, 2014), projected digital advertising will make up a quarter of the total media advertising spending around the world while spending on advertising served to internet connected devices such as desktop, laptop computers, mobile phones and tablets will reach U.S.$137.53 billion by end of 2014. This will be up from about a fifth of spending in 2012, and it is set to rise to nearly a third of the total advertising spending by the end of 2018, when advertisers around the world are expected to invest US$204.01 billion in digital advertising. These revelations therefore serve to illustrate the seriousness with which firms globally attach to internet advertising.

According to research agency (TNS RMS, 2012), there has been tremendous growth in Kenya as far as internet usage is concerned. The rise in internet usage and penetration in Kenya has been quite sharp, making the country the 4th in Africa behind Nigeria, Egypt and South Africa and position 33 in the world (ITU, 2014). According to Communications Commission of Kenya second quarter statistical report for the period 2013/2014, the number of internet users in Kenya stood at 21.2m by December 2013 more than 50% of the country’s total population with penetration rate at 52.3% of the population (CCK, 2014). During the same period the estimated number of internet subscribers in Kenya grew by 13 percent to stand at 13.1 million subscribers up from 11.9 million in the previous quarter. The report attributed the rapid growth to increased
use of mobile data services mainly by young people on social networking sites and intensified promotions by marketers.

With the growing importance of the mobile phone as a platform for communication and content in Kenya, new and significant opportunities are being created for marketing. Marketers therefore need to seize opportunities offered by this emerging market. Already (PWC, 2014) projects the internet to not only be the fastest growth area for expenditure, but also the largest market, worth approximately US$961 million by 2017. This therefore means that consumer internet access and usage rates will be phenomenal as goods and services are sought, and that advertisers and marketers will look to the internet as a key medium to engage consumers.

Statement of the Problem

Internet usage trends and advertising in Kenya has been growing faster than any other media (Synovate, 2010). The high penetration rate, improved infrastructure, faster internet speeds along with a drop in prices for internet services has raised the volume of internet users thereby prompting interest in the growing amount of businesses in the e-commerce sector (Kenya ICT Board, 2010; Synovate, 2010, CCK, 2012) with indications of increased spending on internet advertising (Kinyanjui, 2010). Indeed the rise in usage and penetration has been quite sharp, making the country the 4th in Africa behind Nigeria, Egypt and South Africa and 33rd in the world (ITU, 2014).

Despite this unprecedented growth, little empirical research has been undertaken to explore the effect of internet advertising on attitude towards internet advertising in Kenya. Most studies undertaken in this area have been in other contexts (Haque, et al., 2007; Wu et al., 2006; Wang, et. al., 2009; Kwek, et. al., 2010; Narges, et. al., 2011; Cheng, et. al., 2010; Shelly et. al., 2000 & Wei, et. al., 2010) making it difficult to draw inferences on the Kenyan consumer. This study therefore sought to address this gap by establishing the effect of internet advertising on attitude towards internet advertising of university students in Kenya.

Research Objective

The main objective of the study is to investigate the effect of internet advertising on attitude towards internet advertising of university students in Kenya.

Research Hypotheses

H1: Credibility of internet advertising has a significant and positive influence on attitude towards internet advertising.
H2: Informativeness of internet advertising has a significant and positive influence on attitude towards internet advertising

H3: Interactivity of internet advertising has a significant and positive influence on attitude towards internet advertising.

H4: Entertainment value of internet advertising has a significant and positive influence on attitude towards internet advertising.

H5: Irritation of internet advertising has a significant and negative influence on attitude towards internet advertising.

Significance and Justification of the Study

The Internet is developing a new marketplace, and establishing new channels of delivery for electronic commerce. Besides, the internet potentially offers marketers a number of benefits that may enhance the value of advertising. There is also an important opportunity to understand how advertising emerging in this new medium can best serve the needs of both marketers and consumers. Background knowledge therefore about consumer needs, characteristics, perceptions, preferences and behaviours will enable marketers develop effective strategies to promote products and services through taking advantage of the underpinning drivers explored in this study thereby increasing consumer satisfaction.

The market place has become very dynamic with consumers today being more informed and sophisticated than before. Consumers too use the internet for a variety of tasks thus creating opportunities for web inclined businesses to place relevant and targeted advertising messages. With the dynamism of the market place, there is need for marketers to keep abreast with the ever changing environment. Therefore with a good understanding of consumers’ online purchase behaviour specific insights can be used to inform marketing tactics directed at specific consumer groupings in line with the changes. Results of this research therefore will help online advertising designers to develop targeted and effective adverts thus drawing in more business.

With indications showing increased usage and accessibility levels among consumers in Kenya, more businesses are expected to take advantage and ensure a digital presence in order to reach consumers since unlike the traditional marketing, the internet will ensure that information about products is accessible throughout besides providing the leverage of being able to reach a wider clientele in the shortest time possible. This realization is expected to stir competition as marketers scramble for a pie of this emerging market. The likelihood therefore of competing parties using crude marketing techniques is real. Policy makers and regulators therefore can utilize findings of this research to promote online businesses by coming up with appropriate legislation regarding internet advertising since the internet is likely to continue to play a major role in individuals' lives in the foreseeable future.
LITERATURE REVIEW

Internet Advertising

Internet advertising also referred to as web advertising or online advertising has been defined as a form of commercial content available on the internet that is designed by any business or entity to inform consumers about a product or service (Schlosser, et al., 1999). It began in the mid-1900s when the first banner advertisements were placed in commercial websites (Zeff et al., 1999). According to (Daniel, 2007) advertising has always played a vital part in the business environment and the significance of that part continues as marketing possibilities move into internet advertising. Indeed advertising through the internet is now an important source of consumer information as the number of internet users continues to grow (Cheung, 2006). Internet advertising now provides firms with low cost ways to serve personalized advertising to consumers across web and mobile interfaces while relying heavily on contextual and behavioral targeting. To date there exist several forms of internet advertising, such as display advertising, affiliate marketing, social media advertising, search engine marketing (SEM), and mobile advertising among others.

Factors of Internet Advertising

Research on factors of internet advertising that will influence consumer attitude toward internet advertising has been undertaken widely with researchers employing various factors to try and determine factors that will adequately explain attitude formation towards internet advertising. Most of these studies however have mainly explained internet advertising in other contexts’ other than Kenya's. Factors determined have varied in terms of significance and impact depending on the applicable context.

Mobile advertising influence on attitude formation has seen informativeness, entertainment, credibility, irritation and self-efficacy determined as factors that will influence attitude formation towards internet advertising. Whereas (Xiang, 2008) on an empirical study of what drives consumers to use mobile advertising in China found informativeness, entertainment and credibility of the advertising information to be the most important factors influencing the consumers' acceptance of mobile advertising,(Lee et al., 2011) determined the influence of mobile self-efficacy on attitude towards mobile advertising using five factors of entertainment, informative, irritation, credibility, and self-efficacy and found all to have a significance influence on consumers' attitude towards mobile advertising. Still, Maidul (2013), on a study to investigate the relationships between mobile advertising characteristics and consumers’ attitude towards mobile advertising found informativeness and credibility had significant impacts on attitude towards mobile advertising where as other factors such as entertainment, irritation, and interactivity were not statistically significant.
Studies on SMS advertising have too determined factors that will influence attitude formation. Sabokwigina, et al., (2013) on factors affecting consumer attitudes towards SMS advertising in Tanzania found informativeness and credibility to have a significant and positive influence on predicting customer attitude towards SMS advertising with irritation and frequency having a significant and negative influence. Still on SMS advertising, (Mohammad, et al., 2013) while investigating significant factors that influence consumers attitude towards and acceptance of SMS advertising in Jordan, found informativeness, entertainment, credibility, clarity, incentive, personalization, relevancy, as well as subjective norms to have a positive and significant influence on consumer attitude and acceptance of SMS advertising. Message irritation, brand familiarity and consumer control had negative significant influences. Van der Waldt, et al., (2009) too found consumers’ perceptions of the entertainment value, informativeness and credibility of SMS advertisements to be positively correlated to consumers’ overall attitudes towards SMS advertisements. Irritation of SMS advertisements negatively correlated with consumers’ attitudes towards SMS advertisements.

Internet advertising formats too have been used to try and explain attitude formation towards internet advertising. Kelli, et al., (2008) for instance on a study that investigated attitudes and the perceptual antecedents of attitudes toward six online advertising formats and tested the ability of perceptions to predict attitude toward the advert format and click through behaviour on adults found web users to possess significantly different attitudes across formats, users to hold varied combination of perceptions about each format. The study found the entertainment, annoyance and information to have a significant impact on advertising format. Comparisons have also been made between countries. For instance (Ashill, et al., 2005) while examining similarities and differences in the dimensionality of advertising attitudes between Turkish and New Zealand consumers found advertising attitudes to consist of social and economic dimensions. Other studies have focused on entire countries as targeted populations. Kwek, et al., 2010 on the determinants of consumers’ attitude towards advertising in Malaysia found credibility, informative, hedonic/ pleasure and good for economy to relate positively with consumers’ attitude towards advertising. In a study conducted on online users in Thailand, (Chiu et al., 2005) concluded that online stores are perceived as more user friendly to facilitate online store visits. The consumer attitude towards online applications is influenced by perceived ease of use. Perceived value of ads is influenced by a set of factors including entertainment, informativeness, irritation, credibility, interactivity, and privacy. Shergill (2005) on consumers’ attitudes towards online shopping in New Zealand found that website design, website reliability/fulfilment, website customer service and website security/privacy are the four dominant factors which influence consumer perceptions of online purchasing.

Wang, et al., (2009) in their study on examining beliefs and attitudes toward online advertising among Chinese consumers identified five factors of entertainment, information seeking, credibility, economy, and value corruption that had an effect on Chinese consumers' attitudes
toward online advertising. Among these factors, information seeking was found to be the most significant predictor of attitudes toward online advertising. Wei, et al., (2010) on a study of online advertising among Malaysian consumers found the features of online advertising to generate positive influence on purchase intentions with multimedia, picture and content features having a significant influence on attitude toward online advertising. Mahmoud, (2013) on a study on Syrian consumers: beliefs, attitudes, and behavioral responses to internet advertising found that attitudes were influenced positively by information, and entertainment; and negatively by irritation and values’ corruption.

Still others compared the various forms of internet advertising. Cheng et al. (2009) examined different consumer attitudes toward advertising in the contexts of internet websites, e-mail, short message service, and multimedia messaging service based on the advertising attributes of entertainment, informativeness, and irritation. Results showed websites and multimedia messaging service advertising to be more informative and entertaining than e-mail and short message service advertising. Additionally, websites and multimedia messaging service advertising were less irritating than e-mail and short message service advertising. Internet advertising has too been significant among young people. Ayesha, (2013) on black generation Y students’ attitudes towards web advertising value found informativeness and consumer benefits antecedents to be particularly important predictors of the perceived web advertising value. Cardoso et al., (2011) too on a study on adolescents in Portugal, found information, entertainment, and trustworthiness factors to positively correlate with attitude toward internet advertising, while irritation had a significant but negative correlation.

Many studies have determined internet advertising to have a positive influence on consumer attitudes. Raman, (2013) when establishing the effect of internet advertising on consumer attitudes, found internet advertisement to have a significantly positive influence on consumer attitudes. Ducoffe (1996) too on his study on the relationship between the perceptual antecedents (entertainment, informativeness, and irritation), web advertising values and consumer attitudes toward web advertising, found web advertising to be generally informative and entertaining, although more informative than entertaining. Schlosser et al., (1999) while studying the relationship between attitudes toward internet advertising and several belief dimensions found informativeness and entertainment to explain 43% of the variance in overall internet advertising. Wang, et al. (2002) on understanding consumers attitude toward advertising found entertainment, informativeness, irritation, credibility, interactivity, and demographic to affect attitude towards advertising. Brackett et al., (2001) found informativeness, entertainment, irritation and credibility to have a direct relationship with advertising value besides having a direct relationship with attitude toward advertising. Korgaonkar et al., (2002) found internet advertising to be honest, believable, entertaining, enjoyable and informative.
Still others like (Tsang et al. 2004) found entertainment, credibility, irritation and informativeness to be significant factors affecting respondents’ attitudes toward mobile advertising. Faraz et al., (2013) on assessment of web advertising found product information, hedonic, social role, and irritation were significant predictors of attitude towards web advertising. Attitude towards web advertising were found to be a significant positive predictor of consumer's web advertising behavior and purchase intention. Campbell, et al., (2008) on understanding the role of relevance and interactivity on customer attitudes toward repetitive online advertising found advertisement interactivity to significantly affect attitudes toward the online advertising, the website, and the product featured in the advertisement. Personal relevance too significantly affected attitude toward the advertising. Tahereh et al., (2012), too while investigating effective factors on the perceived values and attitudes of internet advertisements users, found irritation, entertainment, credibility, and interaction to directly correlate with the attitude. Li-Ming, (2013) on predictors of attitude towards online advertising identified usability, trust and information as the three constructs to predict consumer attitude toward online advertising.

Few studies in Kenya have sought to determine the effect of internet advertising on behavior intention. Whereas there is agreement that Kenya is ripe for internet marketing (Mbote, 2012) little research has been done in understanding the dynamics in this segment with great potential. Kariuki, (2012) & Muchuku, (2011) identified social network platforms as a forum for online marketing in Kenya. They however do not demonstrate the effectiveness of these platforms in influencing behavior intention. Other studies have been on media advertising where (Nabea, 2009) while investigating media advertising in Kenya with special reference to development and current trends of the industry found TV as the most preferred medium for obtaining advertising message with 46.7% of correspondents having selected it. Radio is the most used medium, closely followed by newspapers and then the internet. The findings also showed that respondents are embracing new forms of advertising for instance 79% of respondents indicated that they pay attention to digital outdoor advertising erected along busy streets and junctions, and 78% of respondents visit websites while browsing. Still others indicated that they receive advertising messages through their mobile phones via SMS. The key component however emanating from this study is the recommendation that media advertisers should take bold steps to improve on message construction and selecting the most appropriate medium that is easily accessible to the target audience.

Still, (Mwangi, 1991), on determining the extent to which advertising agencies and advertisers evaluated the advertising effectiveness of their advertising programs in Kenya found, that while most Kenyan advertising agencies &advertisers evaluated advertising effectiveness, they however were not accurate and lacked competent personnel, finance and time. He recommends advertising agencies and advertisers to seriously invest in evaluation of advertising effectiveness. Osewe, (2013) on a study on the effectiveness of internet advertising on consumer behavior of
university of Nairobi students was an attempt to addressing the effectiveness of internet advertising. Results indicated that internet advertising was a key determinant in influencing consumer behaviour since it had a significant relationship with purchase decision of consumers. The study also revealed a positive relationship between internet advertising and consumer purchase decision. This study mainly focused on university of Nairobi students and findings cannot therefore be inferred on the entire university student population in Kenya.

Wanjoga’s (2002) study on consumer attitudes towards online advertising in Nairobi focused on advertising forms. Findings showed that consumers were aware of the online adverts though with no specific preference to the advertising forms available. This study did not address the effectiveness of internet advertising on consumers. Wakukha, (2011) undertook a similar study on the use of internet advertising within the Kenyan mobile telephone industry but limited it to explaining forms of internet advertising in use, the challenges and success and faced in its use and the level of adoption. The study did not address the effectiveness of internet advertising. Otieno, (2012) on the use of internet advertising by the Kenyan mobile telephone industry concluded that search engine and viral advertising were the most prevalent forms of internet advertising while video and affiliate advertising were least used. Internet advertising was the most preferred because of its wider reach. A lot still needs to be done on understanding advertising effectiveness. Thumbi, (2012), on a study on the effect of media strategy on advertising effectiveness among the mobile service providers in Kenya recommends that mobile service providers’ regularly analyze both internal and external factors as a way of being in a better position to measure their influence on advertising effectiveness. This view is shared by (Kimani, 2011) who on the effectiveness of advertising strategies adopted by Safaricom in marketing M-pesa services recommends that there is a need for businesses to decisively measure effectiveness of advertising strategies to ensure that the main objective of the advertising within the organizations is achieved so as to improve the firm financial performance.

Determinants of attitudes towards internet advertising as presented by various researchers have been explored from the literature. These determinants have been used to explain attitude formation towards internet advertising. Table 1 below presents a summary of key factors used as determinants of consumers’ attitude towards internet advertising.

Table 1: Key determinants of consumers’ attitude towards internet advertising

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<th>Author</th>
<th>No.</th>
<th>Key Factors</th>
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<tr>
<td>(Cardoso et al., 2011)</td>
<td>4</td>
<td>Information, Entertainment, Trustworthiness, Irritation</td>
</tr>
<tr>
<td>Bassam, (2012)</td>
<td>5</td>
<td>Information, Entertainment, Social role, Falsity and Value corruption</td>
</tr>
<tr>
<td>Brackett, et al.</td>
<td>4</td>
<td>Informativeness, entertainment, irritation and credibility</td>
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Based on the above extant literature, researchers have employed many internet advertising factors in explaining attitude formation towards internet advertising. However, five factors stand out as the most prevalent among the studies reviewed in the extant literature. These factors are informativeness, entertainment, credibility, interactivity, and irritation. Researchers have consistently used these factors to explain attitude formation towards internet advertising in different contexts. What is clear though is that the results have not been the same. Results show that there are variation in the degree of influence and significance. For instance while (Tsang et al. 2004) found entertainment, credibility, irritation and informativeness to be significant factors affecting respondents’ attitudes toward mobile advertising, (Maidul, 2013), found informativeness and credibility to significantly impact on attitude towards mobile advertising whereas entertainment, irritation, and interactivity were not statistically significant.
This study used informativeness, entertainment, credibility, interactivity, and irritation as identified by (Chiu et al., 2005 & Wang, et al., 2002) as factors of internet advertising that will have an effect on attitude formation towards internet advertising. A summary discussion on each factor is provided in the section below.

**Summary of factors of internet advertising**

This section explores available literature on selected factors of internet advertising and their impact on attitude formation towards internet advertising. Included in this section is a discussion on the effectiveness of informativeness, irritation, credibility, entertainment and interactivity as determinants of attitudes towards internet advertising.

**Informativeness of internet advertising**

Informativeness refers to the ability of adverts to effectively convey and pass information to the targeted consumers (Ducoffe, 1996; Rubin, 2002). It is an important predictor of the value of adverts and is crucial to the effectiveness of advertising (Ducoffe, 1996). Advertising creates awareness to consumers about products and services and how competing products are different (Soberman, 2004). The quality of information placed on advertisements which should include qualitative features like accuracy, timeliness, and usefulness will have a direct influence on the consumers’ perceptions of the advertisements and the products they seek to promote (Siau et al., 2003).

Studies carried out show informativeness of an advertisement as an important determinant of attitude towards advertising. Haghirian et al., (2005) in their study on consumer attitude toward advertising via mobile devices among Austrian users, determined that the higher the informativeness of mobile advertising message, the higher the perceived advertising value to the consumer. According to Tsang et al., (2004), informativeness of an advertisement has a positive correlation with consumers overall attitude. Wang, et al., (2009) examined beliefs and attitudes toward online advertising among Chinese consumers and found informativeness to be the most significant predictor of attitudes. (Haghirian et al., 2005; Petrovici et al., 2007) all lend support that there is a strong and significant relationship between content informativeness and consumers’ attitude towards advertising. This therefore suggests consumers will develop favourable attitudes towards advertising that they perceive as informative. While (Reyck et al., 2003) maintain that advertisements containing interesting and customized information that matches customer preferences will result into positive attitude towards mobile advertisements, (Blanco et al., 2010) concur that customers usually perceive low level of informativeness in mobile advertisements that they find boring thereby developing negative attitude towards them. This position is further supported by (Kelly et al. 2010) who suggest that consumers avoid
advertisements on social networking sites for a number of reasons, one of which is as a result of the type of information provided in those advertisements. On the whole from extant literature, many researchers have found message informativeness to be an important factor that affects consumers’ attitude, hence, it is predicted that informativeness of internet advertising is expected to have a positive effect on attitude towards internet advertising.

Irritation of Advertisement

Irritation in advertising can be defined as an advertisement that generates annoyance, discontent, and even brief intolerance (Aaker et al., 1985). Internet advertising can provide an array of information that can confuse, distract and even overwhelm the recipient (Stewart, et, al., 2002). Consumers are likely to feel unhappy about it and react negatively. Therefore whenever advertising employs techniques that end up annoying, offending, insulting or are overly manipulative, consumers are likely to perceive it as unwanted and irritating (Ducoffe, 1996). Several studies have reported negative perceptions of internet advertisements. Wegert, (2002) found advertisements that pop up to make consumers feel violated and molested by their presence. Whereas some studies have found irritation to negatively influence the value of mobile advertising (Further, et al., 2009; Haghirian, 2005) others have found irritation to negatively correlate with the overall advertising value (Xu, 2007). Li et al. (2002) reported that online consumers perceive online advertising as more intrusive than those in other media, leading to negative attitudes, and impairing intentions to return to the site. Chakrabarty et al., (2005) found attitudes toward web advertising to be negatively related to perceived irritation of web advertising. Tsang et al. (2004) reported that perceived irritation of mobile advertising affected consumers’ attitudes toward mobile advertising. Sabokwigina, et al., (2013) on factors affecting consumer attitudes towards SMS advertising in Tanzania found irritation to have a significant and negative influence on the prediction of customers’ attitude towards advertising. Whereas some studies have identified several potential factors that may trigger perceived advertising irritation, such as advertised products, advertising intrusiveness, and perceived loss of control in one's behavior (Edwards, et al., 2002 & Fennis et al., 2001), others have focused on characteristics of advertising that could cause irritation such as targeting the wrong audience, manipulative messages, misplacements, frequent and rather excessive advertising placements, and forced exposures (Li, et al., 2002). All these factors are likely to be on the raise with the cut throat competition for consumers by marketers. The upshot being loss of control, freedom and even privacy by consumers thereby exacerbating irritation. We therefore conclude that irritation will have a negative effect on attitude towards internet advertising.

Credibility of Internet Advertising
MacKenzie et al., (1989) define advertising credibility as consumers’ perception of the truthfulness, reliability, trustworthiness and believability of advertising. Lafferty et al., (1999) affirm that advertising credibility is a key factor that affects the formation of attitude and behavior. Previous studies found advertising credibility to be significantly relevant to the advertising value of internet advertising (Brackett et al., 2001). Xu, (2007) found credibility to be a major factor that affects the overall attitude towards advertising. Further, et al., (2009) found consumers’ perceptions of the credibility of short message service advertisements to positively correlated to consumers overall attitudes towards them. Still other studies have concluded that credibility of the advertising message has a positive influence on consumers’ attitude towards advertising (Tsang, et al., 2004; Haghirian et al., 2005). Similarly other studies have shown that an increase in consumer trust on the online vendor increases purchase intention (Kim et al., 2005). Bauer et al (2005) argues that consumers worry about data manipulation which encompasses illegal data access, and unwanted tracking of their usage patterns along with the privacy concerns thereby adversely affecting consumers’ attitudes toward mobile marketing. However, Chu et al., (2008) argues that if the blogger’s trustworthiness is high the blog readers will be willing to trust the information provided on blog and would read the arguments made and vice versa. The upshot of this is the more credible consumers find the internet advertising the more positive is the impact on them and therefore their attitude towards the advertising. We therefore conclude that credibility of the internet advertising message will have a positive effect on attitudes towards internet advertising.

**Entertainment as a factor of Internet advertising**

Entertainment denotes the full ability of an advert to fulfill consumers’ needs to arouse aesthetic enjoyment (Oh et al., 2003). In general, consumers’ feelings of enjoyment positively affect overall attitude towards advertising and play the greatest role in accounting for it (Haghirian et al., (2005); Xu, 2007). Entertainment is an important predictor of the value of advertising besides being a crucial factor for internet advertising (Teo et al., 2003). For an advertisement’s message to immediately capture consumers’ attention, it is essential that it is concise and funny (Zia, 2009; Katterbach, 2002). Alwitt et al., 1992 content that consumers like and prefer to see advertisements that have more entertainment and pleasurable elements. Studies on internet advertising show that entertainment in advertising can fulfill audience needs for escapism, diversion, aesthetic enjoyment, or emotional release, and thus, have a positive impact on consumers’ attitudes toward the advertising (Munusamy et al., 2007; Petrovici et al., 2007). Tsang et al., (2004) found entertainment to be positively correlated to overall attitude. (Munusamy et al., 2007; Petrovici et al. 2007) also argue that hedonic benefit is positively related to consumers’ attitude towards advertising. Palka et al., (2009) identifies entertainment as one of the key indicators of mobile marketing acceptance among consumers and that they will demonstrate positive response towards funny and amusing messages. Gangadharbatla (2008) adds that web sites that enhance visitors’ perceived sense of control, entertainment, interactivity,
and brand experiences are most likely to draw out positive consumers’ attitudes thus resulting in acceptance of the products and services offered on the sites. On the basis of the extant literature entertainment is a key factor that should be incorporated into advertising messages to capture recipients’ interest and to generate favorable consumers’ attitude. We therefore conclude that entertainment value of an advertising message will have a positive effect on attitude towards internet advertising.

**Interactivity of Internet Advertising**

The element of interaction in online adverts is to sell a product. It has the potential to reduce the difficulties commonly encountered in clearly communicating an advertising message (Hairong, et al., 2004). Research on interactivity has evolved into two major sub streams. Whereas McMillan et al., (2002) focuses on perceptions of interactivity by users, Liu et al., 2002) view interactivity as an objective characteristic of a medium. In this research, we consider perceived interactivity given that research findings show that it plays an important role in shaping online consumers behavior, including their attitude towards internet advertising (McMillan et al., 2002; Wu, 2005).

The importance of interactivity in advertising has been emphasized by (Priyanka, 2012) who opines that the goal of advertisers is to make their advertising more involving and that interactive advertising engages consumers allowing them to initiate most activities. She adds that experiences consumers undergo during interactions are likely to influence brand attitudes noting that the trend in internet advertising is moving towards interactivity with new approaches such as pop-up windows, daughter windows and side frames. She concludes by stressing that feedback is one of the strengths of internet sites, and an effective site captures information from visitors in a systematic way that can be used in strategic planning. Studies have identified three key dimensions as central to the concept of interactivity. These include two-way communication, synchronicity, and user control (Liu, 2003; Sundar, 2004). The two-way communication concept emphasizes the flow of information between the site and its users (Hwang, 2002) and in particular, the user’s ability to talk back (Huang, 2003; McMillan et al., 2002). Dholakia et al., (2000) on websites interactivity argue that interactivity should be capable of providing feedback which represents the site’s ability to carry out a conversation with users. Controllability as another key component of interactivity emphasizes user choice and input and represents the extent to which the user can choose the timing, content and sequence of a communication (Dholakia et al, 2000). It is commonly agreed that an interactive website should allow users to control the flow of information by allowing them determine what they want to see and how it will be presented. The more control the user exerts over the selection and presentation of the content the more interactive the experience (Sundar, 2004). The third key element of interactivity is synchronicity which is the ability of the advertisement to provide users with real-time
feedback. This key component focuses on fast responses and the speed at which messages and transactions are processed (Liu, 2003; Scilia et al., 2005; McMillan et al., 2002).

The perceived interactivity of the internet has been widely regarded as a unique characteristic that distinguishes the internet from other channels of communication and commerce (Yadav et al., 2005). Most studies undertaken have found interactivity to have a positive impact on attitude toward online advertising (McMillan et al., 2002; Jee et al., 2002). Sundar, et al., (2005) on a study of interactivity and persuasion with a focus on influencing attitudes with information and involvement found the level of interactivity to positively associate with attitudes. In this study therefore we posit that the interactivity of internet advertising will have a positive impact on attitude towards Internet advertising.

RESEARCH METHODOLOGY

Research Design

The study adopted a cross sectional study in determining the effect of internet advertising on attitude towards internet advertising of university students in Kenya. Cross – sectional surveys involve the study of a group within a population over a specified period of time where information on the population is gathered at a single point in time (Shaughnessy, et. al., 2011; Martyn, 2010).

Population

In this study the target population was composed of all students in Kenyan universities estimated at 153,591 as summarized in appendix V (Commission for Higher Education, 2010). This was further broken down into male – 96,098, female – 57,493.

Sample Design

In this survey, the sampling frame consisted of students in Kenyan universities. Krejcie et. al., (1970) approach on determination of sample size was used to determine the number of students who formed the sample size of 383 respondents.

Data Collection Instrument

A closed ended survey questionnaire administered by research assistants was used to collect primary data on informativeness, interactivity, entertainment, credibility, irritation and attitude towards internet advertising. All variables were measured on a 5-point likert scale (i.e. 1=Strongly Disagree, 2=Disagree, 3=Undecided 3=Agree 5=Strongly Agree). Likert scales were employed since they offer advantages of speed, and ease of coding (Neuman, 1994). Many
researchers have employed the scale in their research work on internet shopping (Haque, et al., 2007; Kwek, et. al., 2010).

Reliability Test

In this study, Cronbach’s (1951) alpha coefficient was used as a quality indicator of the scale items. This statistic has widely been used in research as a quality test indicator (Klaas, 2009). Cronbach’s alpha value of 0.7 was considered as the minimum acceptable threshold of questionnaire reliability (Nunnally, 1978; Garson, 2006; Hair et al., 2006; & George et al., 2003). Table 2 below presents reliability statistics findings.

Table 2: Reliability Statistics

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informativeness</td>
<td>0.741</td>
<td>7</td>
</tr>
<tr>
<td>Interactivity</td>
<td>0.693</td>
<td>4</td>
</tr>
<tr>
<td>Entertainment</td>
<td>0.824</td>
<td>4</td>
</tr>
<tr>
<td>Credibility</td>
<td>0.833</td>
<td>3</td>
</tr>
<tr>
<td>Irritation</td>
<td>0.815</td>
<td>6</td>
</tr>
<tr>
<td>Attitudes towards internet advertising</td>
<td>0.727</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Survey data (2013)

Data Analysis

Inferential analysis that sort to address the hypotheses in the study was carried out. The Statistical Package for Social Scientists (SPSS) version 17.0 was used for analysis. The stages are discussed below.

Testing Assumptions of Multivariate Analyses

Underlying the multivariate analyses and statistical tests is the assumption that all variables are normally distributed. Statistical assumptions of normality were checked to ensure that all variables were normally distributed. This was carried out using the numerical approach (Park, 2008). For a perfectly normally distributed variable, both skew and kurtosis values should be zero. However in the real world variables are rarely perfectly normally distributed.

Skewness and kurtosis critical ratios (Z scores) for each variable were computed (i.e. $Z_{\text{Skewness}} = \text{Skewness Statistic} / \text{Standard Error}$ and $Z_{\text{Kurtosis}} = \text{Kurtosis Statistic} / \text{Standard Error}$) (Ghasemi, et al., 2012; Tabachnick et al., 2007 & Kline, 2005). Absolute Z score values greater than 1.96 at $p < 0.05$ were significant (Ghasemi, et al., 2012) and indicated substantial departure from normality and were therefore considered non normal. Non-normal variables were transformed using both square root and logarithmic functions. An inspection of the degree skewness and
kurtosis of the transformed variables to determine whether there was improvement was carried out.

Multicollinearity was tested by assessing the Variance Inflation Factor (VIF) for the predictors in the regression models once the regression had been run. No formal criterion for determining the threshold of VIF exist. Various recommendations for acceptable levels of VIF have been published by various researchers. Whereas (Hair et al., 1995; Cohen et al., 2003 & Leech et al., 2008) recommend 10 as the maximum acceptable level, other researchers (Rogerson, 2001) have recommended a maximum value of 5 with (Pan et al., 2008) recommending a maximum value of 4. Since the higher the VIF index the higher the variance in the estimated parameter, this study considered a VIF value of 4 as the maximum acceptable level. VIF values greater than 4 indicated significant multicollinearity. Multicollinearity test was necessary to rid the model to be regressed of redundant information not needed for analysis (Tabachnick et al., 2007).

**Inferential Analysis**

Inferential analysis which included multiple linear regression analysis and the independent sample t – test analysis was undertaken to test formulated hypotheses and thus determine the effect of internet advertising on purchase intention. Researchers in social and behavioural spheres commonly utilize these approaches in analysis (Fox, 1991). Abelson, (1995) has argued that to a certain extent, ordinal and interval data cannot be distinguished as the border line between them is very vague. Among researchers in marketing who have employed these quantitative techniques in analyzing qualitative data include; (Mao, D. 2010, Haque, et al., 2007) with t – test analysis, (Haque, et al., 2007, Ghajarzadeh, et al., 2010) with analysis of variance – ANOVA, and (Narges, et al., 2011, Kwek, et al., 2010, Faraz, et al., 2011, Mohd, et al., 2006, Guohua, 2005) with multiple linear regression analysis. The analysis approaches used are discussed below

**Regression approach employed in the study**

This study employed stepwise regression analysis a form of multiple linear regression approach that has found application in educational and psychological research to evaluate the order of importance of variables and select useful subsets of variables (Thompson, 1995) to test hypotheses H1, H2, H3, H4 and H5. At each stage of the analysis entered predictors were deleted in subsequent steps if they no longer contributed appreciably unique predictive power to the regression when considered in combination with newly entered predictors (Thompson, 1989). The stages of the analysis are enumerated below.

In running the stepwise regression analysis, first, the goodness of fit was examined. The degree of explanation of the dependent variable by the predictors was represented by the magnitude of
the coefficient of determination $R^2$ at each stage of the stepwise regression. This was followed by an assessment of the overall model by examining the F-ratio in the ANOVA table. A $p$-value < 0.05 was statistically significant and therefore the null hypothesis that the regression model is not a good fit of the data was rejected (Haynes, 2010). The regression model was subsequently considered a good fit of the data.

This was followed by an assessment of the statistical significance of each of the predictor variables by examining their standardized beta coefficients, $t$-values and $p$-values. A predictor with a $p$-value < 0.05 was statistically significant and therefore the null hypothesis that the predictor coefficient was equal to 0 was rejected. The coefficient was therefore considered to be significantly different from 0. The standardized beta coefficients for the predictors were then assessed for their contribution on the dependent variable with the sizes of the coefficients indicating the degree of contribution given a unit change in each predictor. Finally a big absolute $t$-value suggested the degree of impact the predictor had on the dependent variable.

The theoretical multiple regression model for the five hypotheses (H1, H2, H3, H4 and H5) was specified as follows:

$$\text{Att} = \beta_0 + \beta_1 \text{Cre} + \beta_2 \text{Inf} + \beta_3 \text{Int} + \beta_4 \text{Irr} + \beta_5 \text{Ent} + e \tag{Eq - 1}$$

Where; Att – Attitude towards internet advertising, Cre– Credibility, Inf– Informativeness, Int– Interactivity, Irr– Irritation, Ent– Entertainment, $\beta_0$ – the intercept, ($\beta_0$, $\beta_1$, $\beta_2$, $\beta_3$, $\beta_4$, $\beta_5$) – Estimated parameters and $e$ – the error term.

**FINDINGS AND DATA REPRESENTATION**

**Normality Assumption Tests**

Following the Zscore computation for skewness, with the exception of irritation ($|Z_{\text{skewness}}| = |–1.449| < 1.96$), all computed absolute Z score values for informativeness ($|Z_{\text{skewness}}| = |–6.273| > 1.96$), interactivity ($|Z_{\text{skewness}}| = |–2.460| > 1.96$), entertainment ($|Z_{\text{skewness}}| = |–7.835| > 1.96$), credibility ($|Z_{\text{skewness}}| = |–2.716| > 1.96$), attitude towards internet advertising ($|Z_{\text{skewness}}| = |–2.964| > 1.96$) substantially departed from normality since their $|Z\text{score}|$ of skewness was greater than 1.96 and therefore significant, at $p < 0.05$. The skew statistic ($Z_{\text{skewness}}$) and kurtosis statistic ($Z_{\text{kurtosis}}$) values for the variables before transformation are presented below in Table 3.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>SE</td>
</tr>
<tr>
<td></td>
<td>Statistic/SE</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Normality distribution for variables before transformation
Investigating kurtosis Zscore for irritation ($|Z_{kurtosis}| = |–3.323| > 1.96$) revealed substantial departure from normality. All variables (informativeness, interactivity, entertainment, credibility, attitude towards internet advertising) were subsequently transformed in order to minimize the skewnessand kurtosis in their distributions.

Logarithmic transformation was used to transform informativeness (Inf) and entertainment (Ent) while interactivity (Int), credibility (Cre), irritation (Irr) and attitude towards internet advertising (Att) underwent a square root transformation. The transformations resulted in significant improvement in the distributions of irritation ($|Z_{skewness}| = |–0.942| < 1.96$), interactivity ($|Z_{skewness}| = |–0.366| < 1.96$), entertainment ($|Z_{skewness}| = |0.805| < 1.96$), credibility ($|Z_{skewness}| = |0.213| < 1.96$), attitude towards internet advertising ($|Z_{skewness}| = |–0.600| < 1.96$) with the resultant absolute Z score values computed for skewness being less than 1.96. Informativeness ($|Z_{skewness}| = |–6.273| > 1.96$) was still significant though its skew statistic moved closer to zero; having moved from –0.803 to –0.271 and with its kurtosis Zscore value ($|Z_{kurtosis}| = |1.027| < 1.96$) being non-significant. The following variables though having a non-significant skew had absolute kurtosis values that were significant credibility ($|Z_{kurtosis}| = |–2.631| > 1.96$) and irritation ($|Z_{kurtosis}| = |–2.871| > 1.96$). However, despite the significance of the absolute $Z_{kurtosis}$ values for credibility and irritation being significant their kurtosis statistic had moved closer to zero; for credibility (from –0.846 to –0.684) and irritation (from –0.851 to –0.735).

The transformed skew statistic $Z_{skewness}$ and kurtosis statistic $Z_{kurtosis}$ values for informativeness, interactivity, entertainment, credibility, irritation and attitude towards internet advertising are presented below in Table 4.

Table 4: Normality distribution for variables after transformation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>SE</td>
</tr>
<tr>
<td>Informativeness (Inf_RLog)</td>
<td>-0.271</td>
<td>0.128</td>
</tr>
</tbody>
</table>
Hypothesis Testing

Multiple linear regression analysis was carried out to determine the direct effects of Informativeness (Inf_RLog), Interactivity (Int_RSqrt), Credibility (Cre_RSqrt), Entertainment (Ent_RLog) and Irritation (Irr_RSqrt) on Attitude towards internet advertising (Att_RSqrt). The results are presented in the sections below

The effect of internet advertising on attitude towards internet advertising

In determining the effect of internet advertising on attitude towards internet advertising, five hypotheses were tested by running a multiple regression analysis which analyzed the linear relationships between the dependent variable (Attitude towards internet advertising – Att_RSqrt) and five independent variables (Credibility – Cre_RSqrt, Informativeness – Inf_RLog, Interactivity – Int_RSqrt, Entertainment – Ent_RLog, and Irritation – Irr_RSqrt). An estimation of variable coefficients was done and significance determined. Figure 1 below shows the hypothesized relationship between the factors of internet advertising and attitude towards internet advertising.

Figure 1: Effect of internet advertising on attitude towards internet advertising

<table>
<thead>
<tr>
<th>Internet Advertising</th>
<th>H1</th>
<th>H2</th>
<th>H3</th>
<th>H4</th>
<th>H5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informativeness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertainment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attitude towards internet advertising
The hypotheses to be tested and formulated as a result of extant literature were:

**H1:** Credibility of internet advertising has a significant and positive influence on attitude towards internet advertising

**H2:** Informativeness of internet advertising has a significant and positive influence on attitude towards internet advertising

**H3:** Interactivity of internet advertising has a significant and positive influence on attitude towards internet advertising.

**H4:** Entertainment value of internet advertising has a significant and positive influence on attitude towards internet advertising.

**H5:** Irritation of internet advertising has a significant and negative influence on attitude towards internet advertising.

Following transformation, the theorized model specified to analyze the determinants of attitude towards internet advertising was specified as:

\[
\text{Att\_RSqrt} = \beta_0 + \beta_1 \text{Cre\_RSqrt} + \beta_2 \text{Inf\_RLog} + \beta_3 \text{Int\_RSqrt} + \beta_4 \text{Irr\_RSqrt} + \beta_5 \text{Ent\_RLog} + e --- \]

(Eq – 2)

Where;

- \(\text{Att\_RSqrt}\) – Attitude towards internet advertising,
- \(\text{Cre\_RSqrt}\) – Credibility,
- \(\text{Inf\_RLog}\) – Informativeness,
- \(\text{Int\_RSqrt}\) – Interactivity,
- \(\text{Irr\_RSqrt}\) – Irritation,
- \(\text{Ent\_RLog}\) – Entertainment,
- \(\beta_0\) – the intercept,
- \((\beta_1, \beta_2, \beta_3, \beta_4, \beta_5)\) – Estimated parameters and \(e\) – the error term.

### Unified model on the effects of internet advertising on attitudes towards internet advertising

In determining the effects of internet advertising on attitude towards internet advertising of the unified model, the goodness of fit test was first assessed. This was done to determine how much of \(\text{Att\_RSqrt}\) is explained by the predictors \((\text{Inf\_RLog}, \text{Int\_RSqrt}, \text{Ent\_RLog}, \text{Cre\_RSqrt}, \text{Irr\_RSqrt})\). The results on the goodness of fit test as presented in Table 20 show that the final model 4 accounted for 34.6% of the variance \((R^2 = 0.346)\). The results are presented in Table 5 below.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
</table>

Table 51: Variance in attitude towards internet advertising in the unified model (Model Summary)
The low value of variance explained could be attributed to the number of predictors in the model. This model had only five predictors; informativeness, interactivity, credibility, entertainment and irritation that had been determined from extant literature to have an effect on attitude formation regarding internet advertising. Of the five, one was not statistically significant. Internet marketing being very dynamic there could be other factors not captured in this study that could help yield a higher $R^2$. Possible additional factors for inclusion include multimedia, picture, economy, and even privacy. It has been argued before that inclusion of additional predictors in a regression model with few predictors increase the $R^2$ value (Martin, 2012, Frost, 2014). Some researchers have even argued that studies in psychology have $R^2$ values less that 50% because people are fairly unpredictable (Frost, 2014). However, we proceed to assess the significance of the overall model since $R^2$ is only an indicator of the completeness of the regression model (Haynes, 2010) and in this model the predictors have explained some variance in attitude towards internet advertising.

The significance of the overall model was assessed by an examination of the F – ratio in the ANOVA results. The final prediction model yielded $F_{4,357} = 47.322, p < 0.001$. This therefore meant, the overall regression model was a significant fit to the data and at least one of the independent variables (informativeness, interactivity, entertainment, credibility and irritation) was a significant predictor of attitude towards internet advertising. Study findings are presented in Table 6 below.

Table 6: Significance of the overall unified attitudinal model (ANOVA)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>6.759</td>
<td>4</td>
<td>1.690</td>
<td>47.322</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>12.748</td>
<td>357</td>
<td>.036</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>19.508</td>
<td>361</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey data (2013)

Having assessed the significance of the overall model next was to determine the significance of each of the predictor variables in the model. This was done by determining the significance of variable coefficients. Coefficients with $p – values > 0.05$ were not statistically significant. Study findings as presented in Table 24 in the final model 4 suggest that Int_RSqrt was statistically significant and exerted the greatest impact ($\beta = 0.470, p < 0.001$) on Att_RSqrt, followed by Ent_RLog ($\beta = 0.178, p < 0.006$), then Cre_RSqrt ($\beta = 0.117, p < 0.001$). Irr_RSqrt with ($\beta = – 0.131, p < 0.001$) was statistically significant but negatively impacted on Att_RSqrt. Inf_RLog was not a statistically significant predictor in the model. It had a $p – value = 0.102 > 0.05$. The
VIF ratio for each of the four significant predictors was less than 4 suggesting absence of multicollinearity (Pan et al., 2008). Study findings are presented in Table 7 below.

Table 7: Significance of factors affecting attitude towards internet advertising (Coefficients)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>4</td>
<td>(Constant)</td>
<td>.790</td>
<td>.105</td>
<td>7.507</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Int_RSqrt</td>
<td>.470</td>
<td>.060</td>
<td>.398</td>
<td>7.873</td>
</tr>
<tr>
<td></td>
<td>Ent_RLog</td>
<td>.178</td>
<td>.064</td>
<td>.134</td>
<td>2.770</td>
</tr>
<tr>
<td></td>
<td>Cre_RSqrt</td>
<td>.117</td>
<td>.032</td>
<td>.169</td>
<td>3.599</td>
</tr>
<tr>
<td></td>
<td>Irr_RSqrt</td>
<td>-.131</td>
<td>.037</td>
<td>-.157</td>
<td>-3.528</td>
</tr>
</tbody>
</table>

Source: Survey data (2013)

The final model 4 in the study findings as presented in Table 8 below on excluded variables show that Inf_RLog was not statistically significant and had a p – value = 0.102 > 0.05.

Table 8: Excluded variables from factors affecting attitude towards internet advertising

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta In</th>
<th>t</th>
<th>Sig.</th>
<th>Partial Correlation</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>4</td>
<td>Inf_RLog</td>
<td>.082</td>
<td>1.641</td>
<td>.102</td>
<td>.087</td>
</tr>
</tbody>
</table>

Source: Survey data (2013)

The prediction equation as presented below based on the unstandardized coefficients was statistically significant, F 4,357 = 47.322, p < 0.001, and accounted for approximately 34.6% of the variance of Att_RSqrt (R² = 0.346, Adjusted R² = 0.339). Att_RSqrt was primarily predicted by Int_RSqrt, Ent_RLog, Cre_RSqrt and Irr_RSqrt

\[
\text{Att_RSqrt} = 0.790 + 0.470\text{Int_RSqrt} + 0.178\text{Ent_RLog} + 0.117\text{Cre_RSqrt} – 0.131\text{Irr_RSqrt} -----
\]

---

(Eq – 3)

With the exception of informativeness (Inf_RLog) of internet advertising which was statistically not significant, the statistical significance of Int_RSqrt, Ent_RLog, Cre_RSqrt, and Irr_RSqrt were consistent with the extant literature. The negative influence of irritation (Irr_RSqrt) on
attitude has been supported. From extant literature irritation (Irr_RSqrt) has been found to negatively influence attitude towards internet advertising (Further, et al., 2009; Haghirian, 2005; Xu, 2007; Chakrabarty et al., 2005; Tsang et al., 2004) Entertainment (Ent_RLog) as an important predictor of the value of advertising besides being a crucial factor for internet advertising (Teo et al., 2003), has been supported. Studies contacted on internet advertising find entertainment to have a positive effect on attitude (Munusamy et al., 2007, Petrovici et al., 2007; Tsang et al., 2004). Based on extant literature credibility (Cre_RSqrt) of internet advertising has been found to be significant to the advertising value. Studies carried out on the factors affecting attitude towards advertising by (Brackett et al., 2001; Xu, 2007; Further, et al., 2009; Tsang, et al., 2004; and Haghirian et al., 2005) have found credibility to be a major factor that affects the overall attitude towards advertising. Interactivity (Int_RSqrt) of internet advertising has also been found to have a positive impact on attitude toward online advertising (McMillan et al., 2002; Jee et al., 2002).

These findings echo findings of previous works which have demonstrated entertainment, irritation, credibility and interactivity to be predictive of attitude towards internet advertising (Wang et al., 2009; Chiu, et al., 2005) in addition to the works of (Campbell et al., 2008) on interactivity, (Mohmoud, 2013) on irritation and entertainment and (Lee et al., 2011) on entertainment, irritation and credibility. The study findings show that out of the five hypotheses the study sought to test, five (H1, H3, H4, and H5) were supported while one (H2) was not supported. A summary of the findings are presented in Table 27 below.

The effects of internet advertising on attitude towards internet advertising: A case for males

For the males only model the results showed that the five predictor variables (informativeness, interactivity, entertainment, credibility and irritation) accounted for 26.6% of the variance ($R^2 = 0.266$) in Att_RSqrt. The results are presented in Table 9 below.

Table 9: Variance of attitude towards internet advertising in the male model (Model Summary)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>.516$^b$</td>
<td>.266</td>
<td>.259</td>
<td>.17982</td>
</tr>
</tbody>
</table>

Source: Survey data (2013)

An assessment of the significance of the overall model by examining the $F$ – ratio as presented by model 2 showed that the prediction model was statistically significant with $F_{2,216} = 39.168, p < 0.001$. The model was therefore a significant fit to the data. Study findings are presented in Table 10 below.
A determination of the variable coefficients as presented in the final model 2 suggest that Interactivity – Int_RSqrt ($\beta = 0.522, p < 0.001$) was statistically significant and exerted the greatest impact on attitude towards internet advertising – Att_RSqrt, followed by informativeness – Inf_RLog ($\beta = 0.215, p < 0.034$). The VIF ratio for each of the two predictor variables (Int_RSqrt and Inf_RLog) was less than 4 suggesting absence of multicollinearity (Pan et al., 2008). Still some predictor variables in the model ended up being considered statistically not significant, as presented in Table 11 below.

### Table 11: Significance of attitude towards internet advertising coefficients in the male model (Coefficients)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>.655</td>
<td>.111</td>
<td>5.901</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Int_RSqrt</td>
<td>.522</td>
<td>.077</td>
<td>.441</td>
<td>6.823</td>
</tr>
<tr>
<td></td>
<td>Inf_RLog</td>
<td>.215</td>
<td>.101</td>
<td>.138</td>
<td>2.132</td>
</tr>
</tbody>
</table>

Source: Survey data (2013)

The final model 2 in the study findings as presented in Table 12 above on excluded variables show that Entertainment – Ent_RLog ($p – value = 0.079 > 0.05$), Credibility – Cre_RSqrt ($p – value = 0.160 > 0.05$) and Irritation – Irr_RSqrt ($p – value = 0.061 > 0.05$) were not statistically significant.

### Table 12: Excluded variables from factors affecting attitude towards internet advertising in the male model (Excluded Variables)

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta In</th>
<th>t</th>
<th>Sig.</th>
<th>Partial</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
</table>

Source: Survey data (2013)
The prediction equation as presented below based on the unstandardized coefficients was statistically significant, $F_{2,216} = 39.168, p < 0.001$, and accounted for approximately 26.6% of the variance of Att_RSqrt ($R^2 = 0.266$, Adjusted $R^2 = 0.259$). Att_RSqrt was primarily predicted by Int_RSqrt and Inf_RLog

$$\text{Att_RSqrt} = 0.655 + 0.522\text{Int_RSqrt} + 0.215\text{Inf_RLog}$$  \hspace{1cm} (Eq – 4)

These findings echo findings of pervious works which have demonstrated informativeness and interactivity to be predictive of attitude towards internet advertising (Chiu et al., 2005 & Wang, et al., 2002).

The effects of internet advertising on attitude towards internet advertising: A case for females

The goodness of fit test on the females only model revealed that the five predictor variables (informativeness, interactivity, entertainment, credibility and irritation)accounted for 41.3% of the variance ($R^2 = 0.413$) in Att_RSqrt. The results are presented by the final model 4 in Table 13 below.

Table 13: Variance of attitude towards internet advertising in the female model (Model Summary)

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R$ Square</th>
<th>Adjusted $R$ Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>.643</td>
<td>.413</td>
<td>.396</td>
<td>.20737</td>
</tr>
</tbody>
</table>

Source: Survey data (2013)

This was followed by a determination of the significance of the overall model by an assessment of the $F$ – ratio. The results as presented by the final model 4 below show that the prediction model was statistically significant with $F_{4,138} = 24.293, p < 0.001$. The model was therefore a significant fit to the data. Study findings are presented in Table 14 below.

Table 14: Significance of the overall female attitudinal model (ANOVA)
Next, a determination of the significance of the five predictor variables in the model was carried out. Results as presented by the final model 4 in Table 15 below suggest that Int_RSqrt, Ent_RLog, Cre_RSqrt and Irr_RSqrt were statistically significant in the model with Int_RSqrt ($\beta = 0.425$, $p < 0.001$), Ent_RLog ($\beta = 0.258$, $p < 0.016$), Cre_RSqrt ($\beta = 0.168$, $p < 0.004$) and Irr_RSqrt ($\beta = -0.154$, $p < 0.018$). The VIF ratio for each of the four variables was less than 4 suggesting absence of multicollinearity(Pan et al., 2008).

Table 15: Significance of attitude towards internet advertising coefficients in the female model (Coefficients)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>4 (Constant)</td>
<td>.813</td>
<td>.175</td>
<td>.360</td>
<td>4.638</td>
<td>.000</td>
</tr>
<tr>
<td>Int_RSqrt</td>
<td>.425</td>
<td>.096</td>
<td>.360</td>
<td>4.435</td>
<td>.000</td>
</tr>
<tr>
<td>Ent_RLog</td>
<td>.258</td>
<td>.106</td>
<td>.186</td>
<td>2.435</td>
<td>.016</td>
</tr>
<tr>
<td>Cre_RSqrt</td>
<td>.161</td>
<td>.055</td>
<td>.212</td>
<td>2.903</td>
<td>.004</td>
</tr>
<tr>
<td>Irr_RSqrt</td>
<td>-.154</td>
<td>.065</td>
<td>-.163</td>
<td>-2.390</td>
<td>.018</td>
</tr>
</tbody>
</table>

Source: Survey data (2013)

The final model 4 in the study findings as presented in Table 16 below on excluded variables show that Inf_RLog ( $p – value = 0.609 > 0.05$) was not statistically significant.

Table 16: Excluded variables from factors affecting attitude towards internet advertising in the female model (Excluded Variables)

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta In</th>
<th>t</th>
<th>Sig.</th>
<th>Partial Correlation</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>4 Inf_RLog</td>
<td>.042d</td>
<td>.512</td>
<td>.609</td>
<td>.044</td>
<td>.628</td>
</tr>
</tbody>
</table>
The prediction equation as presented below based on the unstandardized coefficients was statistically significant, \( F_{4,138} = 24.293, p < 0.001 \), and accounted for approximately 41.3% of the variance of \( \text{Att}_{RSqrt} \) (\( R^2 = 0.413 \), Adjusted \( R^2 = 0.396 \)). \( \text{Att}_{RSqrt} \) was primarily predicted by \( \text{Int}_{RSqrt} \), \( \text{Ent}_{RLog} \), \( \text{Cre}_{RSqrt} \) and \( \text{Irr}_{RSqrt} \).

\[
\text{Att}_{RSqrt} = 0.813 + 0.425\text{Int}_{RSqrt} + 0.258\text{Ent}_{RLog} + 0.161\text{Cre}_{RSqrt} - 0.154\text{Irr}_{RSqrt} \\
\text{-----------------------------------------------} \text{(Eq – 5)}
\]

These findings are consistent with findings of previous works which have demonstrated entertainment, irritation, credibility and interactivity to be predictive of attitude towards internet advertising (Wang et al., 2009; Chiu, et al., 2005) in addition to the works of (Campbell et al., 2008) for interactivity, (Mohmoud, 2013) for irritation and entertainment and (Lee et al., 2011) for entertainment, irritation and credibility.

**Summary of findings**

The study sought to determine the effect of internet advertising on attitude towards internet advertising of university students in Kenya using five factors of informativeness, interactivity, credibility, entertainment, and irritation identified following a review of the extant literature. A unified model that included both male and female students was first examined, followed by a males’ only model and lastly a females’ only model was assessed. Following a multiple regression analysis on the unified model that included both male and female students, out of the five factors four had a significant effect on attitude formation towards internet advertising in line with the reviewed extant literature. Specifically, the study found interactivity (\( \text{Int}_{RSqrt} \)), entertainment (\( \text{Ent}_{RLog} \)), credibility (\( \text{Cre}_{RSqrt} \)) and irritation (\( \text{Irr}_{RSqrt} \)) to have an effect on attitude towards internet advertising as predicted. Whereas irritation negatively impacted on attitude towards internet advertising (\( \text{Att}_{RSqrt} \)), interactivity(\( \text{Int}_{RSqrt} \)), entertainment(\( \text{Ent}_{RLog} \)), and credibility (\( \text{Cre}_{RSqrt} \)) had a positive impact. Informativeness (\( \text{Inf}_{RLog} \)) was not a statistically significant predictor in the model. Out of the four significant predictors, interactivity (\( \text{Int}_{RSqrt} \)) was found to exert the greatest impact on attitude towards internet advertising (\( \text{Att}_{RSqrt} \)).The prediction model for attitude towards internet advertising was statistically significant and accounted for approximately 34.6% of the variance of attitude towards internet advertising.

The males’ only model identified interactivity (\( \text{Int}_{RSqrt} \)) and informativeness (\( \text{Inf}_{RLog} \)) as significant predictors that had a positive effect on attitude towards internet advertising. Interactivity (\( \text{Int}_{RSqrt} \)) had the greatest influence among the two predictors. Entertainment (\( \text{Ent}_{RLog} \)), credibility (\( \text{Cre}_{RSqrt} \)) and irritation (\( \text{Irr}_{RSqrt} \)) were not significant predictors of
attitude towards internet advertising as predicted. The prediction model for attitude towards internet advertising was statistically significant and accounted for approximately 26.6% of the variance of attitude towards internet advertising.

The females’ only model identified interactivity (Int_RSqrt), entertainment (Ent_RLog), credibility (Cre_RSqrt) and irritation (Irr_RSqrt) as significant predictors of attitude towards internet advertising. Whereas irritation negatively impacted on attitude towards internet advertising (Att_RSqrt), interactivity (Int_RSqrt), entertainment (Ent_RLog), and credibility (Cre_RSqrt) had a positive impact. Informativeness (Inf_RLog) was not a statistically significant predictor in the model. Interactivity (Int_RSqrt) had the greatest influence among the two predictors. The prediction model for attitude towards internet advertising was statistically significant and accounted for approximately 41.3% of the variance of attitude towards internet advertising.

Conclusions

This research has determined the effect of internet advertising on purchase intention. Internet advertising factors that have an effect on attitudes toward internet advertising among university students in Kenya have been identified. Attitude towards internet advertising has been found to positively influence purchase intention. Empirically this research reaffirms the notion that the determinants of attitude towards internet advertising can generally be applied in the Kenyan environment with interactivity, entertainment, and credibility as factors that will have a positive effect while irritation will have a negative effect. The study identified interactivity as the most influential factor in the determination of attitude towards internet advertising. Further, though no significant attitudinal differences exist between male and female respondents regarding their attitude towards intent advertising, differences do exist when it comes to factors affecting attitude formation. While male had interactivity and informativeness having an impact, females had interactivity, entertainment, credibility and irritation as factors that influenced attitude formation. The implication is that marketers can employ different strategies while developing their promotional campaigns depending on the target population in. Market segmentation will ensure that advertising is more targeted and therefore help generate positive attitudes toward buying online. This study therefore contributes to the understanding of the factors influencing attitude towards internet advertising and establish empirical support for the relationship between factors of internet advertising and attitude formation.

These results are consistent with the existing literature which suggests that interactivity, entertainment, and credibility have a positive influence on attitude towards advertising while irritation has a negative influence on attitude towards advertising (Lee et. al, 2011; Brackett et. al, 2001; Wang et.al, 2009; Wei et. al, 2010; Tsang et. al, 2004; Further, et al., 2009; Haghirian, 2005). This research therefore offers for online retailers not only insight into aspects in which
efforts should be made to shore up positive attitudes in online shoppers, but also directions to enhance future purchase intentions by taking interactivity, entertainment, and credibility into consideration.

Recommendations

Based on the findings of this study to examine the effect of internet advertising on attitude towards internet advertising of university students in Kenya, several implications on theory, management practice, marketing practitioners, policy directions and directions on future research are proposed below.

Implications for theory

This study sought to address the effect of internet advertising on purchase intention in Kenya. A gap determined from extant literature. Theoretical implications emanating from the findings are presented below.

The internet is fast growing in usage and penetration going by findings in the extant literature and Kenya is among one of the countries in the sub Saharan Africa where this growth has been phenomenal. There are also indications of tremendous growth in usage of the internet by firms as they try to engage consumers. Projections already show that firms will invest colossal amounts of money in internet advertising. Understanding the dynamics of this new medium is therefore key if firms are to make realistic investments. The significant results of the five internet advertising factors (informative ness, interactivity, credibility, irritation and entertainment) used to explain attitude formation towards internet advertising is similar to those in the extant literature. Interactivity had the strongest impact on attitudes and therefore was the strongest factor in influencing attitude formation towards internet advertising in the hypothesized model.

These findings show that consumers in Kenya would like advertising that is interactive, a significant advantage internet marketing offers over other forms of mass media. This study therefore contributes significantly to the existing literature as the majority of previous empirical studies were based in other contexts other than Kenya’s. It thus expands the body of knowledge in this particular field. In addition, knowledge from this study can be utilized by firms as they target consumers in Kenya including new entrants in online marketing in Kenya.

Implications for managerial practice

The phenomenal growth of internet usage has spurred growth in the e-commerce sector causing many businesses in Kenya striving to have an internet presence without knowing the actual impact of this new medium on their business. Findings in this study have shown that considered together interactivity, entertainment, credibility and irritation will have an effect on attitude
formation and thus purchase intention. Separately the findings demonstrate that whereas male respondents will be influenced by interactivity and informativeness, female respondents will be influenced by interactivity, entertainment, credibility and irritation. Knowledge of consumers’ online attitudinal formation and subsequent behavior intention is useful in helping firms prioritize their resources in terms of investing in the most effective and efficient way. From the managerial point of view therefore, this study has demonstrated the need for firms to put in place strategies that segment the market in terms of offerings. There are advertising that will appeal to both sexes and those that will appeal to the sexes separately.

The significance of the irritation factor would suggest that internet advertising isn’t entirely in sync with the marketers’ agenda to have internet advertising perceived positively. There clearly are concerns about internet advertising with increased usage and competition from marketers to get to consumers. These findings are critical for marketers in the sense that there may be need to come up with intervention strategies that establish a threshold of the internet advertising information to avoid reaching irritating levels that are bound to put off consumers. With the findings herein, marketers can put in place strategies in as far as the marketing mix is concerned that will manipulate these factors by enhancing the levels of interactivity, entertainment, and credibility while suppressing the effects of irritation for advertising messages that target both sexes, focus on interactivity and informativeness for advertising messages that target male consumers and finally focus on enhancing interactivity, entertainment, and credibility while suppressing the effects of irritation for advertising messages for female.

**Implications for internet advertising developers**

Today’s market place has increasingly become dynamic coupled with the entrance of many players. To stay competitive and relevant a clear understanding of the consumer is vital. Results of this study show that there are three distinct groups factors of internet advertising; internet advertising factors that will appeal to both the sexes, internet advertising factors that will appeal to males and those that will appeal to females. Additionally, there was no attitudinal difference between male and female university students. They both exhibited positive attitudes towards internet advertising. These findings therefore are useful and beneficial to advertising designers in a number of ways. First, they will serve as guidelines for developing internet advertisements and secondly designers will have to pay more attention of attributes that enhance interactivity besides infusing other factors depending on the targeted group given that interactivity has been found to have the greatest influence on attitudinal formation across the groups.

Designs should infuse aspects that impact on referent others since they have a direct influence on purchase intention. Consumers loathe advertising campaigns that are intrusive, confusing, distracting and even messy. Given that ultimately the goal for the internet advertising designer is to ensure that the advertising captures the attention of the consumers and lead to the intended
behaviour, these findings will help the designers to create more targeted and effective advertising by infusing significant traits, thus maximizing the behavior intention besides increasing the likelihood of the desired behavior being realized.

**Implications to policy makers and regulators**

The evolution of the internet in Kenya in terms of penetration and usage has brought about new opportunities to various stakeholders to engage with consumers. The rise in internet usage and penetration in Kenya has been quite sharp, making the country the 4th in Africa (ITU, 2014). According to (CCK, 2014) quarterly statistical report, the number of internet users in Kenya stood at 21.2m in December 2013 more than 50% of the country’s total population. This therefore means that proper infrastructure has to be put in place to placate the current and future demand. Additionally the level of internet advertising expenditure in Kenya has too been on the rise with many firms scrambling to gain a share of this budding sector (Kinyanjui, 2010). The prevalence of internet advertising, has led to significant concerns among the consumers with many finding them irritative. There may be need therefore for policy makers and regulators to put in place appropriate policies and legislation to protect consumers. A review of the current ICT policy developed in 2006 may therefore be necessary given the evolving internet environment. Still, proper enforcement of the online advertising industry on the created policies will have to be done lest marketers float them. This will protect consumers against disguised promotional campaigns that irritate.

**Implications for academicians and directions for future research**

With the rise in penetration and usage of the internet in Kenya, it is important that more empirical research is done in the area of internet advertising to try and understand behavioural changes in consumers given the dynamic nature of the internet. This study provides knowledge on the effect of internet advertising on purchase intention in Kenya. Most studies on internet advertising had been in other contexts other than Kenya’s. Future study should be undertaken in order to explore and refine factors of internet advertising used in determining attitude formation and subsequent purchase intention in Kenya. Repeated testing of these factors should be conducted and examined to determine whether findings from this study hold true. This will determine whether these findings can be replicated. Additionally, this study was based on respondents from Kenyan universities. The use of student subjects may limit the generalizability of the findings. This study explored only five factors (interactivity, informativeness, credibility, entertainment and irritation) that were found prevalent from extant literature. Future research should explore more internet advertising factors like multimedia, picture, economy, privacy, size, placement, delivery etc.
References


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