

The Effect of Online Advertising, Pop-up Ads, and Website Features on Millennials Buying Behavior

Samim Zafari, Muhammad Imran Wazir
Institute of Management Sciences, Peshawar

Abstract

This research focuses on investigating the presence of effects of Online Advertising, Website Features, and Pop-up ads on Millennials Buying Behavior. Millennials are one of the biggest groups of people in the population, therefore, it is important to understand the effect of these variables on their behavior. The study focuses on the Millennials and their buying behaviors, objectively, as well as it encompasses the millennials of the whole region. The tests conducted for the study, reveal that there is a positive impact of online advertising on millennials buying behavior, but there is a negative relation between female millennials and online buying behavior; thus, providing another research area, as to why online advertising is considered differently by the two genders. However, website features have a positive effect on millennials buying behavior. Whereas the research also establishes that pop-up ads have a negative effect on millennials buying behavior, due to their recurrence. It is an interesting finding since pop-up ads are still utilized by e-businesses.

Keywords: Online Advertising, Pop-up ads, Website Features, Consumer Behavior, Millennials, Millennials Buying Behavior.

The millennials fall within the year 1979 to 1994 (Sweeney, 2006). According to Pew Research Centre (2014), Millennials are the group of people that would fall within age group of 18-33 as of 2014. They are the second largest group of consumers and are expected to bring in a change in the market place (Paul, 2001). According to Fuller (2014), they have very high expenditure power, which marketers have estimated to be around \$200 billion. Thirty-four percent of Millennials use websites as their primary source of news (Marketing Breakthroughs Inc. 2008). Chatterjee (2008) found that consumers are developing negative response towards digital marketing; especially those ads that interrupt their activities while they are on their mobile phones, laptops, computers and other devices. It is important to develop online advertising strategies in accordance with the millennial's buying behaviour for it to be effective and fruitful. Therefore, it is important to identify the online advertisements that are most effective towards millennials, as well as those advertisements that are less-effective. Online Advertising is advertising of your product by utilizing digital technology (Eighmey & Farnall 2000). Ha (2008) stated that the internet has now become the fastest mean of advertising. Online Advertising has been of great help for small and medium business. Li, H., Edwards, S.M., & Lee, J.-H. (2002) stated that pop-up ads could be the most intrusive form of advertising, since it stops users from continuing their online tasks. Considering that online advertising, which includes pop-up ads take place on websites; it is important to understand and study different areas of a website as well.

There are various website features which leads to have an influence on a millennial behaviour. These features are as: graphics of a website, interactive website, bright colours on a website, personalization of a website for every user, a simple and professional layout, favourable return policy, the use of the word free on the website, along with this, good shipping rates and updated product information on a website.

While a lot of research has already been done on Online Advertising, Website Features, Pop-up ads and its effect on millennials buying behavior, it is important to study these variables in our context as well. Smith (2011) and Le Wang et al., (2014) studied the preferences of millennials in US and Ghana, respectively. But it is important to find out whether the results which were attained in US or Ghana are the same as of Pakistan, to adapt or reject the strategies. In case of high differentiation, what different strategies could be adapted by Digital Marketers in Pakistan? Although the findings of the current research study cannot be generalized to the whole population of Pakistan, however, better guidelines can be obtained towards the millennials. Towards that goal, in this paper, we aim to answer the following questions:

1. Does online advertising affect millennials buying behavior?
2. Do website features affect millennials buying behavior?
3. Do pop-up ads affect millennials buying behavior?

Literature Review

Consumer Buying Behavior

Jagdish and Sheth (2014) defines consumer behavior as the mental and physical activities followed by a consumer which leads to purchase decision of a specific product or service. Godey et al (2016).found that consumer is influenced by marketing done on social media, which leads to him in a state of brand loyalty, paying premium prices and providing preference to certain brands. Moreover, they state that consumer behavior is likely to be influenced, if the social media marketing includes three aspects: it is entertaining, trending and interactive.

The literature provides a comprehensive knowledge of consumer behavior, whereas we will be considering the definition by Hofacker, Malthouse & Sultan (2016) of consumer behavior being influenced using websites and online advertising. In further literature, we will be considering websites and online advertising.

Millennial Buying Behavior

According to Prensky (2001), Millennials are the ones where digital world emerged. Millennials are very demanding consumers and consider many different factors, such as: variety of items, personalization when it comes to advertisements, customization of goods and services, along with instant gratification (Howe & Strauss, 2003). Millennials are provided with great freedom by the internet to compare different brands, to choose from different options and to express their opinions, which greatly influences other millennials online, as well as the outcomes for businesses (Smith, 2011). Ordun, G. (2015) found that millennials buying behavior is greatly influenced by social media. Moreover, it was also found that they prefer what they see online, rather than what they are told in real life. One of the two important features are "online advertising" and "website features" that are often directed towards millennials (Chatterjee, 2008). Studying the relation between millennials and their managers, it was found that millennials desire feedback which is positive and personal. Millennials are often using website as their primary source of information (Marketing Breakthroughs Inc. 2008). According to Bazaar Voice: Talking to Strangers: Millennials Trust People over Brands (January 2012), 52% of millennials will buy online after doing their research online. A millennial would be more attracted towards family-life and you could try to reflect the values of family-life in digital marketing. Some of the millennials might be influenced by the personalization in a website, while others by the graphics of the same website. Some maybe influenced by the coupon ads, while some can be influenced by the ads that appear of the same website on a YouTube video (Smith, 2011). Therefore, for the purpose of this paper, our operational definition will be of Smith (2011), who states that millennials are influenced by different strategies in digital world, it could be website features, or online advertisements.

Online Advertising

Online advertising is advertising of your product by utilizing digital technology (Eighmey & Farnall, 2000). Online advertising is a means of advertising product or service to internet users, by means of online websites, through emails and text messages. Whereas, Smith (2011) defines online advertising as a mean of advertising your product to end users, through different channels. Ying Wang et al., (2009), defines online advertising as a medium of advertising your product to end consumers through digital technology. Smith (2011) found that certain means of online advertising have a significant and positive effect on millennials, such as side-panel ads, YouTube ads and coupon ads. Cho, Lee & Tharp (2001). states that pop-up ads are those ads which opens a new window, showing an advertisement directed towards users. Li et al. (2002) stated that pop-up ads could be the most intrusive form of advertising, since it stops users from continuing their online tasks. Whereas McCoy, Everard, Polak and Galletta (2007) found that compared to banner ads, pop-up ads are remembered better.

The above literature provides a comprehensive knowledge about online advertising, its different dimensions and its effectiveness. Ying Wang et al. (2009), define online advertising as a medium of advertising your product to end consumers through digital technology. He addresses five broad areas that needs to be satisfied, in order to online advertising be effective: Information Seeking, Entertainment, Credibility, Economy and Volume Corruption. Whereas, the operational definition for pop-up ads is that of Le Wang., et al (2014), stating pop-up ads to be, intrusive, disturbing, annoying and forceful in nature which interferes in the tasks of the users.

Website Features

Smith (2011) found that there are various website features which lead to have an influence on a millennial behavior. These features were as: graphics of a website, interactive website, bright colors on a website, personalization of a website for every user, a simple and professional layout, favorable return policy, the use of the word free on the website, good shipping rates and updated product information on a website. Song & Zahedi (2001) defined features of a website to be in five broad categories: Promotion, Service, Informational Influence, Self-Efficacy and Resource Facilitation. Li & Zhang (2002) found that website design has a significant effect on online shopping attitudes, intentions and behavior. A website with good graphics will lead to visitors staying on the website for longer period (Spritz Web Solutions, nk). Whereas, Shergill and Chen (2005) stated that the consumer buying behavior can be affected by website design, with positive effects on consumers buying behavior, named: entertainment, ease of use and usefulness. Smith (2011) holds that there are various website features which lead to have an influence on a millennial behavior, as mentioned earlier.

The literature about website and its features provides us a comprehensive overview of different dimensions of website and its features that could be considered in finding out its effect on millennials buying behavior. Whereas, our operational definition is that of Smith (2011).

Underpinning Theory

The theory of technical determinism will serve as the basis for this research. Technical determinism is an attempt to reduce society to its technical components to prove a cause-and-effect relationship between the two (Thomas, 2017). The theory of technological determinism states that when civilizations progress from one technological era to another, media technologies impact not just people's ideas, emotions, and actions, but also the functioning of those societies. Studies of Heitor and Bravo (2010), and Mutekwe (2012) supports the idea that innovations in communication technology led to significant changes in the social fabric. Given that the internet is a prime example of technical determinism that has the potential to influence the course of human history, it follows that digital advertising technology may be directly associated with technological determinism to apply this theory to the research (Țicău & Hadad, 2021).

As discussed in the literature, there are different forms of online advertisements that can influence millennials. There were some findings that were totally against online advertising, the majority supported online advertising as mean of selling their products and influencing the behavior of millennials. Majority of millennials tend to buy online, instead of going to stores, which pushes us to put a lot of emphasis on online advertising and shows a positive effect of online advertising on millennials behavior. Moving towards being more specific, according to finding of Smith, K. (2011) coupon ads tend to be the most preferred form of advertising by millennials. In addition, an advertising banner on the Internet can level the playing field between large and small companies (Smith 2009). But, Chatterjee (2008) states that consumers are beginning to develop negative perceptions towards digital marketing, mainly because of ads that are interruptive in nature and stop users from continuing their work. This could lead us to our H₁: There is effect of online advertising on millennials buying behavior. While discussing Website features, it was made clear that all the website features need to be well-equipped and well utilized in order to grab the attention of millennials. According to the finding of Smith, K. (2011) the use of graphics is the most effective way to grab the attention of millennials on a website so that they could stay on the website and have a decreased bounce rate. In addition, the majority of literature suggests that website features have a positive influence on buying behavior, but it is important to find this in the context of millennials in Pakistan; hence leading to our H₂: There is effect of website features on millennials buying behavior. The majority of the literature review suggests online advertising and website features will have a positive effect on millennials buying behavior, but Chatterjee (2008) opposes it. That is why it is important to answer this question in the context of Pakistan. Further adding to it, Li et. al (2002) stated that pop-up ads could be the most intrusive form of advertising, since they stop users from continuing their online tasks, in addition to interruption that can cause annoyance and negative effect on the consumer. McCoy et. al (2007) find that along with the work interruption of the user, such interruptions caused could interfere in the attention being paid by the user which limits the amount of information received and understood as well. It leads to our H₃ of pop-up ads having effect on millennials buying behavior. It is important to find the effect of these different variables on millennials buying behavior in our context, since we are moving towards more of a digital world and soon the digitization will be all over Pakistan. However, the answer is there, but that is in the context

of other countries. That is why it is important to fill the gap and answer these questions in the essence of Pakistan.

Following is the theoretical framework and relevant hypotheses for this work.

Theoretical Framework and Hypotheses

Figure 1

Theoretical Framework



Following are the hypotheses for this study based on the review of the literature.

H₁: Online Advertising will have effect on millennials buying behavior.

H₂: Website features will have effect on millennial's buying behavior.

H₃: Pop-up ads will have effect on millennial's buying behavior.

Our theoretical framework in this work is inspired from three different papers. In particular, the questions in the questionnaire related to the first hypothesis are inspired from the work of Ying Wang et al., (2009), who studied the effect of Online Advertising on Consumer Buying Behavior in China. For the second hypothesis, where we study the effect of different website features on millennials, the related questions/items in the questionnaire are adapted from the work of Smith (2011). To study the effect of pop-up ads on the social media users, the questions in our questionnaire were inspired from the work of Le Wang et al., (2014). Hence, we jointly analyze the impact of online advertisement, website features and pop-up ads on millennial's buying behavior.

Methodology

The research is quantitative hence, the survey method was used. The primary data was gathered through questionnaires using convenience sampling. The questionnaires in the survey were adopted from previous studies such as Ying Wang et al., (2009), Smith (2011) and Le Wang et al., (2014). The questionnaires were distributed among students of different universities across Pakistan. Once we collected the data, SPSS was used as the data analysis tool, which is widely used by different papers. We ran different statistical tests to evaluate the collected data. To test that our independent variables did not have multi-collinearity, Bivariate Correlations were run, which provided a gate pass to proceed towards linear regression. Linear Regression was run to test our hypothesis, by computing independent and dependent variables, which resulted in either rejecting Null Hypotheses or accepting it.

Discussion

This section contains the analysis done of the responses of respondents obtained about website features (WF), online advertising (OA) and pop-up ads (PUA) and how do these three variables effect the millennials buying behavior (MBB). It contains reliability of the questions asked, by running Cronbach Alpha, descriptive statistics of the demographic questions, as well as different variables followed by the Bivariate Correlations of the variables; to make sure that there is no multi-collinearity between the independent variables; which could lead us to dropping an independent variable. It also presents the results of the Linear Regression run to test out the hypotheses. Likert Scale was used for the questions asked, where 1 being "strongly disagree", 2 "disagree", 3 "neutral", 4 "agree" and 5 being "strongly agree".

Cronbach Alpha

To test out the reliability of the items of the variables, initially pilot testing was done to make sure that there is reliability in the questions asked. The reliability test on 62 items of questionnaire was run, which resulted in the Cronbach Alpha value of 0.869.

Table 1*Reliability Statistics*

Cronbach Alpha	Number of items
0.869	62

Demographics

The following table will contain the frequency and percentages of the responses related to the questions of demographics. It will provide us with comprehensive knowledge of the respondents and their characteristics, such as gender, education and university.

Table 2*Demographics*

Variables	Classification	Number	Percent %
Gender	Male	163	58.2%
	Female	117	41.8%
	Total	280	100%
University	IMS	131	46.8%
	NUST (Islamabad)	42	15%
	Riphah University Islamabad	32	11.4%
	Iqra University Peshawar	16	5.7%
	Fauji Foundation Medical College	29	10.4%
	UET Peshawar	21	7.5%
	Peshawar University	9	3.2%

The above table shows that there were many respondents from IMS Peshawar, whereas a good number of respondents were from NUST Islamabad as well. Moreover, there is a good number of respondents from other universities as well.

H₁: Online Advertising and Millennials Buying Behavior: A regression test was run to test our hypothesis no 1, to see whether there is an effect of online advertising on millennials buying behavior or not. Here, our dependent variable was Millennials Buying Behavior and our independent variables were Online Advertisement, Age, Education, University and Gender.

Table 3*Regression Test (1)*

Model Summary		
	R-Square Value	.192
	Adjusted R-Square Value	.177
ANOVA	p-value	.000
Online Advertising	p-value	0.000
	B	0.429
Age	p-value	0.459
Education	p-value	0.240
Gender	p-value	0.011
	B	-0.165
University	p-value	0.863

The above table represents the linear regression test result. It indicates that there is an effect of online advertising on millennials buying behavior. The R-Square value is that of 0.192, indicating that there the independent variables can explain the dependent variable by 19.2%. The p-value for online advertising and millennials buying behavior is that of 0.000, indicating that there is an effect of online advertising on millennials buying behavior, resulting in us rejecting null hypotheses and accepting alternate hypotheses. Further, the co-efficient value is that 0.429, meaning that the millennials buying behavior will be influenced by 0.429 by online advertising. Whereas, the p-value of gender is 0.011, which shows significance. The co-efficient value is that of -0.165 (since male is labelled as 0 and females 1), therefore online advertising will have a negative effect on females buying behavior.

H₂: Website Features and Millennials Buying Behavior: Linear Regression was run to test our hypotheses no 2, to see whether there is an effect of website features on millennials buying behavior or not. Here, our dependent variable was Millennials Buying Behavior and independent variables were Website Features, Education, Age, University and Gender.

Table 4*Regression Test (2)*

Model Summary		
	R-Square Value	.405
	Adjusted R-Square Value	.395
ANOVA	p-value	.000
Website Features	p-value	0.000
	B	0.629
Age	p-value	0.478
Education	p-value	0.237
Gender	p-value	0.837
University	p-value	0.798

The above table represents the linear regression test result, to see whether there is an effect of website features on millennials buying behavior. The R-Square value is that of 0.405, indicating that there the independent variables can explain the dependent variable by 0.405 or 40.5%. The p-value for website features and millennials buying behavior is that of 0.000, indicating that there is an effect of website features on millennials buying behavior, resulting in us rejecting null hypotheses and accepting alternate hypotheses. Further, the co-efficient value is that 0.629, meaning that the millennials buying behavior will be influenced by 0.533 by website features

H₃: Pop-up advertisements and Millennials Buying Behavior: Linear Regression was run to test our hypotheses no 3, to see whether there is an effect of pop-up ads on millennials buying behavior or not. Here, our dependent variable was Millennials Buying Behavior and independent variables were Pop-up ads, Age, Education, University and Gender.

Table 4*Regression Test (3)*

Model Summary		
	R-Square Value	.083
	Adjusted R-Square Value	.066
ANOVA	p-value	.000
Pop-up ads	p-value	0.000
	B	-0.195
Age	p-value	0.401
Education	p-value	0.687
Gender	p-value	0.972
University	p-value	0.406

The above table represents the linear regression test result, to see whether there is an effect of pop-up ads on millennials buying behavior. The R-Square value is that of 0.083, indicating that the independent variables can explain the dependent variable by 0.083 or 8.3%. The p-value for pop-up ads and millennials buying behavior is that of 0.000, indicating that there is an effect of pop-up ads on millennials buying behavior, resulting in us rejecting null hypotheses and accepting alternate hypotheses, that there is an effect of pop-up ads on millennials buying behavior. Further, the co-efficient value is that -0.293, meaning that the millennials buying behavior will be influenced by -0.195 of pop-up ads. As noted, there is a negative relationship between pop-up ads and millennials buying behavior, the value of -0.195 indicates that whenever there will be pop-up ads, millennials buying behavior will be negatively affected.

Conclusion

The main purpose of the study was to find the effects of Online Advertising, Website Features and Pop-up ads on Millennials Buying Behavior. The objective of the first hypotheses was to see the effect of online advertising on Millennials Buying Behavior. The results of the tests indicate that there is a positive effect of online advertising on millennials buying behavior. However, it was also found that there is a negative relation between female and online buying behavior; hence putting a new finding that female would be less likely to buy online. We also conclude that the website features have an effect on millennials buying behavior. Further, the coefficient value for website features was positive, signaling a positive effect of website features on millennials buying behavior. Furthermore, our analysis also showed that pop-up ads have a negative effect on

millennials buying behavior. In future, we intend to study participants outside universities such as in workforce. Furthermore, we also intend to study the reason behind female being less likely to rely on online shopping.

References

- Abdul-Muhmin, A. G. (2007). Explaining consumers' willingness to be environmentally friendly. *International Journal of Consumer Studies*, 31(3), 237-247.
- Akram, U., Hui, P., Khan, M. K., Tanveer, Y., Mehmood, K., & Ahmad, W. (2018). How website quality affects online impulse buying. *Asia Pacific Journal of Marketing and Logistics*.
- Bonnie Fuller. "Baby-boomer marketers are misreading millennials' media behavior".
- Broadbridge, A. M., Maxwell, G. A., & Ogden, S. M. (2007). 13_2_30: experiences, perceptions and expectations of retail employment for Generation Y. *Career Development International*.
- Chatterjee, P. (2008). Are Unclicked Ads Wasted? Enduring Effects of Banner and Pop-Up Ad Exposures on Brand Memory and Attitudes. *Journal of Electronic Commerce Research*, 9(1).
- Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing*, 77(4), 511-535.
- Cho, C. H., & as-, U. O. T. A. A. I. A. (2004). Why do people avoid advertising on the internet?. *Journal of Advertising*, 33(4), 89-97.
- Cho, C. H., Lee, J. G., & Tharp, M. (2001). Different forced-exposure levels to banner advertisements. *Journal of Advertising Research*, 41(4), 45-56.
- Godey, B., Manthiou, A., Pederzoli, D., Rokka, J., Aiello, G., Donvito, R., & Singh, R. (2016). Social media marketing efforts of luxury brands: Influence on brand equity and consumer behavior. *Journal of business research*, 69(12), 5833-5841.
- Hauer, T. (2017). Technological determinism and new media. *International Journal of English Literature and Social Sciences*, 2(2), 239174.
- Heitor, M., & Bravo, M. (2010). Portugal at the crossroads of change, facing the shock of the new: People, knowledge and ideas fostering the social fabric to facilitate the concentration of knowledge integrated communities. *Technological Forecasting and Social Change*, 77(2), 218-247..
- Hofacker, C. F., Malthouse, E. C., & Sultan, F. (2016). Big data and consumer behavior: Imminent opportunities. *Journal of Consumer Marketing*.
- Hoyer, W. D., & MacInnis, D. J. (2004). *Consumer Behavior*, (3rd ed), Boston.
- Huizingh, E. K. (2000). The content and design of web sites: an empirical study. *Information & Management*, 37(3), 123-134.
- In: Advertising Age. <http://adage.com/article/guest-columnists/marketers-losing-moneymisreading-millennials/241407/>(accessed October 24, 2014) (2013).
- Jeong, S. W., Fiore, A. M., Niehm, L. S., & Lorenz, F. O. (2009). The role of experiential value in online shopping. *Internet Research*.
- Li, H., Edwards, S. M., & Lee, J. H. (2002). Measuring the intrusiveness of advertisements: Scale development and validation. *Journal of Advertising*, 31(2), 37-47.
- Li, N., & Zhang, P. (2002). Consumer online shopping attitudes and behavior: An assessment of research. *AMCIS 2002 Proceedings*, 74.
- McCoy, S., Everard, A., Polak, P., & Galletta, D. F. (2007). The effects of online advertising. *Communications of the ACM*, 50(3), 84-88.
- Montgomery, A. L., & Smith, M. D. (2009). Prospects for Personalization on the Internet. *Journal of Interactive Marketing*, 23(2), 130-137.
- Mutekwe, E. (2012). The impact of technology on social change: a sociological perspective. *Journal of research in peace, gender and development*, 2(11), 226-238.
- Ordun, G. (2015). Millennial (Gen Y) consumer behavior their shopping preferences and perceptual maps associated with brand loyalty. *Canadian Social Science*, 11(4), 40-55.
- Peng, J., Zhang, G., Zhang, S., Dai, X., & Li, J. (2014). Effects of online advertising on automobile sales. *Management Decision*.
- Pitta, D. A., & Fowler, D. (2005). Internet community forums: an untapped resource for consumer marketers. *Journal of Consumer Marketing*.
- Robinson, H., Wysocka, A., & Hand, C. (2007). Internet advertising effectiveness: the effect of design on click-through rates for banner ads. *International Journal of Advertising*, 26(4), 527-541.
- Shergill, G. S., & Chen, Z. (2005). Web-Based Shopping: Consumers'attitudes Towards Online Shopping In New Zealand. *Journal of Electronic Commerce Research*, 6(2), 78.

- Sheth, J. N., & Parvatiyar, A. (1995). The evolution of relationship marketing. *International Business Review*, 4(4), 397-418.
- Smith, K. T. (2011). Digital marketing strategies that Millennials find appealing, motivating, or just annoying. *Journal of Strategic Marketing*, 19(6), 489-499.
- Smith, K. T. (2012). Longitudinal study of digital marketing strategies targeting Millennials. *Journal of Consumer Marketing*, 29(2), 86-92.
- Song, J., & Zahedi, F. (2001). Web design in e-commerce: a theory and empirical analysis. *ICIS 2001 Proceedings*, 24.
- Strauss, W., & Howe, N. (2003). Millennials go to college: Strategies for a new generation on campus. *American Association of Collegiate Registrars, Washington, DC*.
- Țicău, I. R., & Hadad, S. (2021). Technological Determinism vs. Social Shaping of Technology. The influence of activity trackers on user's attitudes. *Management dynamics in the knowledge economy*, 9(2), 147-163.
- Turkylmaz, C. A., Erdem, S., & Uslu, A. (2015). The effects of personality traits and website quality on online impulse buying. *Procedia-Social and Behavioral Sciences*, 175, 98-105.
- Wang, L., Ampiah, F., Xu, L., & Wang, X. (2014, November). The influence of pop-up advertising on consumer purchasing behavior. In *2014 International Conference on Mechatronics, Electronic, Industrial and Control Engineering (MEIC-14)*. Atlantis Press.
- Wang, Y. and Sun, S. (2010), "Examining the role of beliefs and attitudes in online advertising: A comparison between the USA and Romania", *International Marketing Review*, Vol. 27 No. 1, pp. 87-107. <https://doi.org/10.1108/02651331011020410>
- Wang, Y., Sun, S., Lei, W., & Toncar, M. (2009). Examining beliefs and attitudes toward online advertising among Chinese consumers. *Direct Marketing: An International Journal*.
- Wolfenbarger, M., & Gilly, M. C. (2003). eTailQ: dimensionalizing, measuring and predictingetail quality. *Journal of Retailing*, 79(3), 183-198.
- Zha, W., & Wu, H. D. (2014). The Impact of Online Disruptive Ads on Users' Comprehension, Evaluation of Site Credibility, and Sentiment of Intrusiveness. *American Communication Journal*, 16(2).