Proposed Model for Measuring Acceptance of Online Ads

Arwa Salameh, Nur Fazidah Elias and Nader Abdel Karim
Universiti Kebangsaan Malaysia, Selangor, Malaysia

Abstract: Online advertising, also called online marketing or internet advertising is a form of marketing and advertising which uses the internet to deliver promotional marketing messages to customers. Advertising on the web plays a critical role in e-Commerce. In spite of its purpose there are people who are still not willing to use online ads. Therefore, the aim of this research is to develop a new model for measuring the acceptance of online ads technology by internet users based on UTAUT Model. The proposed model has additional constructors such as ad environment, ads display and brand name. The outcome of this research can contribute by helping the IT developers in designing better online ads based on the factors that affect the acceptance of online ads. This will then attract and convince advertisers to deal with online ads. Advertisers could also become aware of factors that could give impact to online ads so that, they could decide where they can advertise and what kind of online ads should be chosen.

Key words: Online ads, user acceptance model, online-ads effect, UTAUT, e-Shopping

INTRODUCTION

The World Wide Web "WWW" is defined as a "user-friendly graphics-capable component of the internet" and is a cross between an electronic tradeshow and a society flea market (Pugsley and Trites, 2003). The WWW is flexible in that it can display information in numerous ways such as text, picture, audio and video. The multimedia feature of the World Wide Web might make the experience more fun and stimulating in order to attract the attention of online consumers as longer as possible. The WWW has been able to reach more and more people is commonly accepted and available in the majority parts of the globe and supports information in various languages. The WWW has been used to separate information to a lot of customers and more companies are trying to enrol the WWW in order to reach more and more internet customers.

Marketing on the WWW, by all types of companies; particularly purely online ones, plays a very significant role in electronic-commerce (Koufaris and Kambil, 2001). Online advertising currently represents 21% of all advertising in the United States (IAB, 2015). According to the IBA annual report, internet advertising revenues in the United States totalled $49.5 billion for the entire year of 2014. Revenues in 2014 increased 16% over 2013 (which were $42.8 billion) (IAB, 2015). Companies have understood the possible profits of the WWW in direct sales, building brand mindfulness and giving marketplace information for customers. Companies see the WWW as a chance to deliver their advertising, marketing and distribution of some (or all) of their goods or services. In a WWW-based channel, companies can reduce advertising expenses in comparison to other traditional channels for example, TV, radio, journals and etc., (Palanisamy, 2004).

Due to the changes in environmental trends, the marketplace is shifting towards online shopping; consequently, online companies have to focus more on the internet ads. Marketers like to draw internet customer's attention from thousands of other goods or brands to theirs (Palanisamy, 2004). Internet customer features play an important role in designing internet ads and internet customer dealings with goods data are one of the major elements of a B2C electronic commerce environment (Bayan, 2001).

Literature review: The internet is a technology that makes some things simpler, cheaper and easier (Pavlou and Stewart, 2000). It is a new way to communicate with consumers for consumers to communicate with one another and a new way to sell products and services to consumers, when we talking about online ads there is a need to know the factors could be effect on the acceptance of this kind of advertising (Pavlou and Stewart, 2000). There has been a good number of quantitative research studying the effectiveness of online advertisement in the world. This work sheds light on what leads people to believe or not believe what they find online. Some of these studies have examined the construct of "trust" of online ads, most research in this vein focusing on the effect of ads delivery

Coressponding Author: Arwa Salameh, Universiti Kebangsaan Malaysia, Selangor, Malaysia

method, display, characteristics and etc. on the internet users. Other studies have focused on the effect of brand name, ads environment and ads exposure duration. For example, Chan (2011), examined the effectiveness of using online advertising on the social networking site such as Facebook in encouraging university students to connect with their library's Facebook page. Finding showed that the click through rate for the advertisement was high (Chan, 2011).

Manchanda *et al.* (2006), investigate the impact of banner advertising on customers' probabilities to repurchase. The results show that the number of exposures, number of websites and the number of pages all have a positive effect on repeat purchase probabilities whereas the number of unique creatives has a negative effect (Manchanda *et al.*, 2006). Returns from targeting are the highest for the number of advertising exposures. Palanisamy and Ramaraj examines the impact of gender differences on online consumer characteristics on web banner advertising effectiveness. The study results in gave mixed results. In the context of the web-based banner ad, gender influences the following relationships: banner adjudgment and attitude towards the banner ad, focus and planning approach and attitude towards banner ad and consumer expectations and banner ad effectiveness (Palanisamy, 2004).

In order to measure the acceptance of online ads technology we need to refer to one of the most popular models that were used to examine the acceptance of new technologies which is called Technology Acceptance Model "TAM". TAM Model has been adopted from the Theory of Reasoned Action regarding beliefs, attitude, intention and behavior for modeling user acceptance of information systems. The theory of reasoned action is a social psychology model that observes the key elements of intended behaviors. According to the model, an individual's performance of a particular behavior is determined by individual's behavioral intention to perform the behavior and behavioral intention is determined by multiple factors including a person's attitude and subjective norms (Davis *et al.*, 1989).

In 2003, Venkatesh *et al.* (2003) proposed a new model called A Unified Theory of Acceptance and Use of Technology "UTAUT" which is a research model to investigate user acceptance to information technology (Fig. 1) (Venkatesh *et al.*, 2003). It is used to provide a unified view of the user acceptance process towards new technology as previously various models with the different approach are used to study user's behaviour and intention to use information technology. UTAUT had integrated eight different models such as Technology
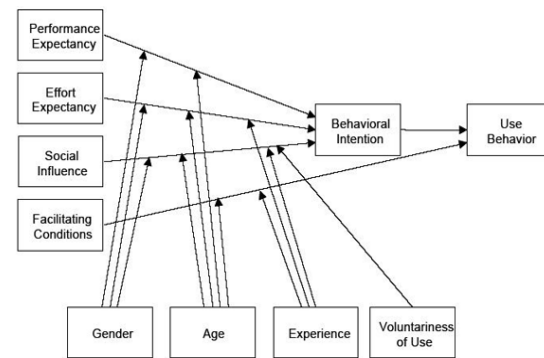

Fig. 1: "Original UTAUT Model by Morris"

Table 1: Origin constructor of UTAUT Model

Construct	Root construct
Performance expectancy	Perceived usefulness
	Outcome expectation
	Extrinsic motivation
Effort expectancy	Perceived ease of use
	Complexity
Social influence	Social factors
	Image
Facilitating condition	Perceived behavioural control
	Compatibility
	Facilitating factors

Acceptance Model (TAM), motivational model, theory of planned behaviour, theory of reasoned action, a combined theory of planned behavior/technology acceptance model, model of PC utilization, innovation diffusion theory and social cognitive theory. UTAUT Model is more common, flexible than TAM and offers more factors that could be used in this research.

As seen from the above figure, UTAUT consists of four main constructs and four moderators which determine the behavioural intention and use behaviour of individual in accepting as well as using new information technology. In this project, the new information technology restricted to m-Commerce. The gender, age, experience and voluntariness of use are the four moderators which could bring great Influence of the four main elements in determine the behavioural intention and use behaviour. Behavioural intention and use behaviour are the dependent variables which could be affected by the constructs. The root construct of the constructs is listed in Table 1.

This research will be based on A Unified Theory of Acceptance and Use of Technology (UTAUT) to develop new model could be used to measure the acceptance and effect of online Ads on the internet users.

MATERIALS AND METHODS

Proposed model: In our proposed design, three additional constructors are added to the UTAUT Model. These
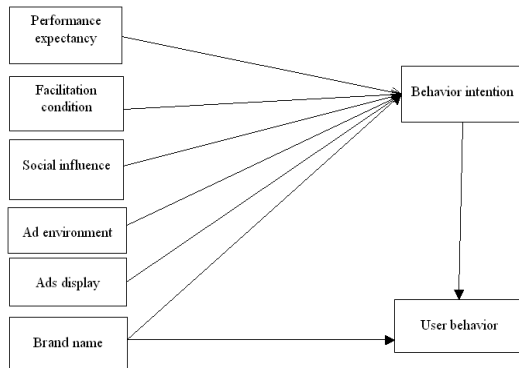
Fig. 2: Research proposed model

constructors are perceived of Ads display, environment and brand name. The existing constructors in the original model are retained but only effort expectancy is not applicable. The reason for this proposed design and selection are explained individually.

In this proposed design referencing to previous studies (Briggs and Hollis, 1997; Rodgers and Thorson, 2000; Ajzen, 2002; Acar, 2007; McCoy *et al.*, 2007; Robinson *et al.*, 2007; Chan *et al.*, 2010; Helft and Vega, 2010; Jeong and King, 2010; Abdollahi and Khorsandnejad, 2011; Wang *et al.*, 2013; Chun *et al.*, 2014), sex factors are suggested to be effect on user behaviour toward online ads. These factors are ads environment, ads display, brand name, facilitation condition, performance expectancy and social influence (Fig. 2).

Model construct overview: Here explain of the constructs that build up the proposed model. It would include the previous researchers' works on those constructors. The proposed constructors are performance expectancy, social influence, facilitating condition, ads display, brand name, ad environment, behavioural intention and use behaviour.

Performance expectancy: Performance expectancy refers to the level to which an individual believes that information system might enhance his/her work performance (Wang and Yang, 2005). Venkatesh *et al.* (2003) define performance expectancy as the "degree to which an individualbelieves that using a system will help him or her to attain gains in job performance".

Social influence: Venkatesh *et al.* (2003) define social influence as the "degree to which an individual perceives that important others believe he or she should use the new system". According to Pahnila *et al.* (2011), "the individual behaviour is influenced by their perception of

how other people look and judge them when they use a system". The judgement of others individuals is considered in making the decision to use the information system. The effect of the opinion is reflected in the individual user behaviour (Zhou *et al.*, 2007). Huang and Dou they said that the e-Community individuals' replies to society ads based on their perceptions of the relevance and value of society ads and these perceptions are either directly/indirectly affected by social identity and group norms (Zeng *et al.*, 2009). Bakshy *et al.* (2012) authors try to examine the impacts of community signals in the internet ads using 2 large field experiments that randomize the number of community signals present in advertisement parts on Facebook. The finding shows that measure social influence via social cues on an economically relevant form of user behaviour (Bakshy *et al.*, 2012).

RESULTS AND DISCUSSION

Facilitating condition: Facilitating conditions can be defined in many ways. Defined it as the "user has the ability and resources to use a system it also plays a significant role in determining the degree of behavioural intention in using a system". It directly effects the use of KMS (Knowledge Management System). In the online adverting facilitating conditions can be taken from the different side. There is an important concept in the online advertisement marketing which called Behavioural Targeting (BT) is a method used by internet marketers to increase the efficiency of their campaigns and is playing a more and more significant role in the online ads market (Yan *et al.*, 2009). In the other hand, viewers are more likely to receive messages that are related and valuable to them (Evans, 2009)

Display ads: Display ads deliver its advertising message visually using text, animations, videos, images or other graphics. The designer of those ads normally aims customers with specific characters to rise the advertisement's influence. Chuna *et al.* (2014), try to investigate the efficiency of contextual advertisements over the web. Basically, they observe the influence of contextual advertisements over the web on brand recall, the results show that the online contextual ads improves brand discrimination and encourages appropriate attitudes towards the advertisements. Besides, users have higher recall rates and attitudes towards the brand when they are showing a less complex contextual ads or when they are exposed to a complex, non-contextual advertisement. Handa investigates the influence of seven innovative features of banner advertisements on

the efficiency of advertising over the internet. One outcome of this research illustrates that long posts on banners were related to higher click-through rates (Robinson *et al.*, 2007).

Brand name: A brand is a name, term, design, symbol or other characteristic that differentiates one seller's artifact from those of others. Brands are used in business, marketing and advertising (Howard, 1989). The brand name is the tool which can certainly change customer's ordering manners. The internet users are extremely affected by artefact brand names (Chan *et al.*, 2010). Upon exposure to other brands, users characteristic a particular way of quality to its goods. For example, in the hotel business, users link hotel brands under Starwood to be of a higher class than those under Choice Hotel (e.g., Holladay Inn, Comfort Inn, Quality Inn). Brands are more possibly to be involved in user's thought set, thus, recalling greater buying aims from users (Chan *et al.*, 2010). Ranjbarian investigate the influence of brand equity on ads efficiency. The respondents of the research have viewed the target ads. The results show that brand equity has a favourable influence on the ads efficiency (Abdollahi and Khorsandnejad, 2011).

Ads environment (hosting website): Ads environment means the type of the web site where the advertisement sited, whether it's in the social network (Facebook, Twitter), web directory, etc., (Ngai, 2003). Applied Analytic Hierarchy Process (AHP) to choose the top website for ads over the internet, the method is based on a pairwise contrast between numerous features that influence the choice of the top web site. Five criteria were applied for assessing sites: impression rate, monthly cost, audience fit, content quality and look and feel. Yongick examines how the web site context within which ads are embedded effects Ad efficiency. They found that a contextually related banner convinced more positive estimating and a larger buying aim toward presented goods than a contextually unrelated counterpart and neither a context related ads nor a contextually unrelated ad was remembered with enhanced precision than the other ads. These results afford inferences for prospected users study and online advertising.

Behavioural intention: McCoy *et al.* (2007), defines behavioural intention as "the indication of how far a person willing to exert effort to perform a particular action. As the intention is getting stronger, people are willing to accept that particular action (McCoy *et al.*, 2007). Also, he said that appearance of online advertisements of any kind, regardless of mode, affect behavioural intentions.

Use behaviour (e-Shopping): The customer would use the advertisements either to explore more info about the advertisements or use it to purchasing goods. As we can see in Aqsa and Kartini who's trying to investigate how the impact of ads over the internet on people purchasing manners as well as how to monitor the behaviour and subjective norms effect the attitudes and welfares of people purchase over the web. The findings indicated that ads over the internet have an effect on person ordering manners and online. Scopes interactivity of ads over the web offers the maximum effect on the attitudes and welfares of people buying over the web.

CONCLOUSIN

The internet is a technology that makes our lives simpler, better and easier. It is a new successful way to communicate with customers and for customers to communicate with each other and a new means to sell products and services. When talking about online ads there is a need to know the factors that could have impacts on the acceptance of this kind of advertising services. The main objective of this research is to develop model could be used to measure the acceptance of online ads technology by internet users based on UTAUT Model. Both, the factors affecting the behaviour intention to use online ads and the factors influencing on positive buying behaviour were studied in this study. A Unified Theory of Acceptance and Use of Technology (UTAUT) is a popular model that integrates key elements from previously well-known models as determinants of behavioural intention to accept new technology. Nevertheless, the original models of UTAUT need to be reviewed to capture individuals' incentives for use of online ad technology. The current research also presents three more constructors in the proposed model. These constructors are display ads, ad environment and brand name. The limitation of this study was the lack of literature review and previous studies about using the UTAUT in the online ads field. Future work will be about including some factors that could affect the online ads acceptance to the proposed model such as Ads exposure time and Ads delivery method.

REFERENCES

Abdollahi, S.M. and A. Khorsandnejad, 2011. The impact of brand equity on advertising effectiveness samsung and snowa brand names as a case study. Interdiscip. J. Contemp. Res. Bus., 3: 229-238.

Acar, A., 2007. Testing the effects of incidental advertising exposure in online gaming environment. J. Interact. Advertising, 8: 45-56.

Ajzen, I., 2002. Constructing a TpB questionnaire: Conceptual and methodological considerations. http://www.uni-bielefeld.de/ikg/zick/ajzen%20construction%20a%20tpb%20questionnaire.pdf.

Bakshy, E., D. Eckles, R. Yan and I. Rosenn, 2012. Social influence in social advertising: Evidence from field experiments. Proceedings of the 13th ACM Conference on Electronic Commerce, June 04-08, 2012, ACM, Valencia, Spain, ISBN:978-1-4503-1415-2, pp: 146-161.

Bayan, R., 2001. Banner ads-still working after all these years?. Link Up, 18: 2-6.

Briggs, R. and N. Hollis, 1997. Advertising on the Web: Is there response before click-through?. J. Advertising Res., 37: 33-46.

Chan, C., 2011. Using online advertising to increase the impact of a library Facebook page. Lib. Manage., 32: 361-370.

Chan, J.C., Z. Jiang and B.C. Tan, 2010. Understanding online interruption-based advertising: Impacts of exposure timing, advertising intent, and brand image. IEEE. Trans. Eng. Manage., 57: 365-379.

Chun, K.Y., H.J. Song, C.R. Hollenbeck and J.H. Lee, 2014. Are contextual advertisements effective? The moderating role of complexity in banner advertising. Int. J. Advertising, 33: 351-371.

Evans, D.S., 2009. The online advertising industry: Economics, evolution and privacy. J. Econ. Perspect., 23: 37-60.

Helft, M. and T. Vega, 2010. Retargeting ads follow surfers to other sites. The New York Times, New York, USA.

Howard, J.A., 1989. Consumer Behavior in Marketing Strategy. Prentice Hall, Englewood Ciffs, NJ.

IAB., 2015. IAB internet advertising revenue report. Interactive Advertising Bureau, New York, USA. https://www.iab.com/insights/iab-internet-advertising-revenue-report-conducted-by-pricewaterhousecoopers-pwc-2/.

Jeong, Y. and C.M. King, 2010. Impacts of website context relevance on banner advertisement effectiveness. J. Promotion Manage., 16: 247-264.

Koufaris, M. and A.P.A.L. Kambil, 2001. Consumer behavior in web-based commerce: An empirical study. Int. J. Electr. Commerce, 6: 115-138.

Manchanda, P., J.P. Dube, K.Y. Goh and P.K. Chintagunta, 2006. The effect of banner advertising on internet purchasing. J. Marketing Res., 43: 98-108.

McCoy, S., A. Everard, P. Polak and D.F. Galletta, 2007. The effects of online advertising. Commun. ACM, 50: 84-88.

Ngai, E.W.T, 2003. Selection of web sites for online advertising using the AHP. Inform. Manage., 40: 233-242.

Pahnila, S., M. Siponen and X. Zheng, 2011. Integrating habit into UTAUT: The Chinese eBay case. Pac. Asia J. Assoc. Inf. Syst., 3: 1-30.

Palanisamy, R., 2004. Impact of gender differences on online consumer characteristics on web-based banner advertising effectiveness. J. Serv. Res., 4: 45-74.

Pavlou, P.A. and D.W. Stewart, 2000. Measuring the effects and effectiveness of interactive advertising: A research agenda. J. Interac. Advertising, 1: 61-77.

Pugsley, D. and G. Trites, 2003. E-Business: A Canadian Perspective for a Networked World. Pearson Education, Toronto, Ontario, Canada,.

Robinson, H., A. Wysocka and C. Hand, 2007. Internet advertising effectiveness: The effect of design on click-through rates for banner ads. Int. J. Advertising, 26: 527-541.

Rodgers, S. and E. Thorson, 2000. The interactive advertising model: How users perceive and process online ads. J. Interact. Adv., 1: 42-61.

Venkatesh, V., M.G. Morris, G.B. Davis and F.D. Davis, 2003. User acceptance of information technology: Toward a unified view. MIS Q., 27: 425-478.

Wang, H.I. and H.L. Yang, 2005. The role of personality traits in UTAUT model under online stocking. Contemp. Manage. Res., 1: 69-82.

Wang, K.Y., E. Shih and L.A. Peracchio, 2013. How banner ads can be effective: Investigating the influences of exposure duration and banner ad complexity. Int. J. Advertising, 32: 121-141.

Yan, J., N. Liu, G. Wang, W. Zhang, Y. Jiang and Z. Chen, 2009. How much can behavioral targeting help online advertising? Proceedings of the 18th International Conference on World Wide Web, April 20-24, 2009, Madrid, Spain, pp: 261-270.

Zeng, F., L. Huang and W. Dou, 2009. Social factors in user perceptions and responses to advertising in online social networking communities. J. Interact. Advertising, 10: 1-13.

Zhou, L., L. Dai and D. Zhang, 2007. Online shopping acceptance model-A critical survey of consumer factors in online shopping. J. Electron. Commerce Res., 8: 41-62.