Online Advertising Intermediary: How Online Advertising Works?

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ABSTRACT

Applying bleeding edge courses of action in advertising is always a case on the table of decision makers. In online case, lack of a practice to place right advertisement in a right time for the right user has been counted as biggest challenge. On the other hand, “ad clutter”, the key criticism on online advertising, is about to put online advertisement’s benefits away and annoying users more than before. Accordingly, this article aims at scrutinizing this critical problem by incorporating one of the next generation technologies, Lead Generation. This study introduces an e-business framework in advertisement intermediating in the form of a framework so that lets advertisers advertise in customized way. In this approach, the authors focused on displaying a personalized ad for each user by which marketers could redirect their visiting prospects into becoming their own consumers. At the end, the managerial implications are reported.

Keywords: Ad Clutter, Advertising, Framework, Lead Generation, Online Advertisement

ONLINE ADVERTISING: FORMING A NEW PLATFORM

In June 2012, the world population was about 7 billion from whom 2 billion were Internet users. This statistics shows a 566.4% growth from 2000. The Northern America with 78.6% Internet users, has the highest penetration rate of Internet and Asia with 27.5% users is in the seventh position (Internetworldstats.com, 2012). These statistics referring to the importance, penetration percent, and use of Internet among users from around the world, show the increasing trend of using this medium throughout the globe. On the other hand, statistics published in (2012) at the Internet World Stats indicate that the penetration of Internet in small countries like Iceland, Norway, Estonia, etc. is increasing. Hence, the medium of Internet has changed into one of the most powerful communication channel among countries.

On the one hand, other more congruent view are being formed among users that websites can be used for meeting daily needs like

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getting information about new products (Li et al., 2006). On the other, studies reveal that lack of six factors leads to breakdown of newly-emerging websites. According to Hanafizadeh and Behboudi (2012) factors like government support, inseparability of website management, marketing management of the website, and lack of an appropriate business model contribute to the failure of these websites. Lack of a business model makes websites that have managed to attract a good traffic accept advertisement in any way possible. This is the main problem, because although advertising initially creates incomes for them, after a while, due to excessive cluttering of the website (being full of ads), the companies will not be willing to place ads in those websites. In this process, both Internet advertising industry is damaged and loses its unique feature, i.e. “interactive and personalized advertisement”, and companies offering ads will not be interested in using this channel. Although these companies seek a communication channel to their own websites (by placing their banner in a high traffic website), they have found out that users entering their websites (navigated from the advertising website to the advertised one) are not appropriate users of that website and leave it without showing any reaction to persuasive icons. In this regard, the problem is lack of a proper advertising mechanism which specifies how an advertisement appropriate to an individual is published, and how an appropriate individual is targeted rather than any person present in the website. This would reduce the boredom from ads and facilitate the navigation of appropriate individual to appropriate website. In other words, a specialized user is transferred to the specialized company offering ads, that is, a user who is ready for shopping surfs the web, not any users. Considering the necessity of an advertising intermediary e-business model, the present study tries to reach the following objective: Introducing an framework for online advertising intermediary.

WHAT IS ADVERTISING INTERMEDIARY E-BUSINESS MODEL?

E-business model is one of the concepts in the area of Internet about which users and even e-business owners have no clear understanding. This is also true about the definitions of e-business model, because these definitions have not been proposed from a comprehensive perspective including four bases of products innovation, infrastructure management, customer relations, and financial aspects. Researchers have proposed various definitions of e-business model. Some definitions are totally abstract and address the issue from an outsider’s view (e.g. Timmers, 1998; Hamel, 2000; Weill & Vitale, 2002; Hawkins, 2002; Rappa, 2006), while others take a real perspective. For instance, Peter Draker considers business model as the way an organization makes income, i.e. what is the income-making logic of an economic agency? Some common e-business models are B2B, B2C, and C2C. However, one of the most complex and innovative models with a bright outlook is the advertising intermediary e-business model (Hanafizadeh & Behboudi, 2012). In this model, there is an advertising intermediary which connects a number of advertisers to publishers (see Figure 1). The intermediary is the host and executer of all ads and introduces the ads to publishers, or directly, to the end users (DoubleClick Inc., 2004). In addition, the advertising intermediary, according to the content and type of the ad, aligns the selection of publishing website, and in more advanced stages, the geographical position of the ad and publishers. Finally, the intermediary appears as the advertising agency and benefits from marketing activities. Based on this model, several companies have been established since 1995 (Hanafizadeh & Behboudi, 2012). Double Click and Real Media can be regarded as some of the most influential and powerful companies of
Depending on their interest, many researchers have worked on the definition and description of intermediary e-business model. For example, Turban, et al. (2006) studied Double Click’s intermediary publication model. Or, Kazienko and Adamsk (2007) proposed an intermediary publication model. Each of these studies has an attempt to develop a conceptual model including the factors, the interaction among them, and the outcome of this interaction.

THREE KEY ASPECTS

The Condition of Clients

Despite the many advantages of e-commerce, adoption of it by SMEs is still associated with many problems. A survey of 444 small and medium-sized enterprises revealed that many industries are interested in online transactions, but 80% of them use Internet only for communication (through email) or collecting business information (Pratt, 2002). So, doesn’t this mean that senior managers or owners of SMEs have not yet understood the real value of using e-commerce in their businesses? Due to the
important role of e-commerce in SMEs, many researchers have investigated the barriers and factors affecting it (e.g. Kuan & Chau, 2001; Mehr tens et al., 2001; Chang & Cheung 2001; Grandona & Pearson, 2004). On the other hand, Internet advertising is a strategy affecting the adoption of e-commerce by SMEs, because it makes SMEs appear in international market which in turn leads to their profitability. However, adoption of Internet advertising in SMEs depends on factors like government, interactive agencies, audience, etc. (Hanafizadeh et al., 2012). Advertisers as the providers of products and services, are continually interacting with advertising agencies. In the advertising intermediary model, advertisers are considered as the main component. Advertisers, by offering their products or services to the central website can obtain information about the user which finally results in finding the target user. And the user, after being linked to the relevant website through the ads placed in publishing websites, will use their products and services.

**Publishers Qualified to be Attracted in the Network**

The main goal of Internet marketing is producing traffic, and its secondary goal is to persuade potential customer to buy or otherwise to use a commercial website (to capture traffic). A company can spend large sums of money for designing an effective website to gain valuable potential customers. Hence, when the customer enters the website, they would have great interest in shopping. But investment in designing website would be useless unless the site is really visited (KaKui Chan, 2005). Therefore, publishers with high traffic and appropriate performance are required before publishing the ad by advertisers. Interactive agencies are considered as a reference for introducing publishers where publishers can be introduced to advertisers by membership in the central website. Double Click, as the major interactive agency in the world, provides its publishers with services such as Ad serving, optimization, sales management, yield management, sell-side platform, audience management, rich media campaign management, rich media production, etc. (DoubleClick.com, 2012). Publishers by membership in this agency and using such services can reach goals like increasing income, increasing optimization, etc.

**The Mechanism of Mother Website**

When a user uses a web browser dependent upon the advertising server processor, decoding the pages that the user intends to visit depends on what the advertising server processor has placed on the page. This mechanism connects the user’s browser to the advertising server processor, so that the advertising image to information placed on the page can be viewed by user’s browser. The advertising server processor, using the address information or any other information transferred from the browser to the user, e.g. the web page opened by the user, selects a special ad to be shown to a specific user. The information of every user can be collected via clicking on various ads. Also, data can be obtained by tracing the ads displayed, the frequency of visiting the ad by the user, and the time devoted by the user to see the ad (Merriman & O’Connor, 1999). Additionally, one can use database for collecting data in users’ behavior. Marketing based on database is a database which collects data from internal and external sources. The internal source include customers’ file, request registers, previous records of products, warranty cards, and market researches; while external sources include intelligent lists and data exchanges with other companies. Besides, lead generation companies trace users’ behavior in line with databases, the only difference being that the former trace users’ behaviors online. So, they can also be sometimes replaced by database. At the end, the collected data are handed to publishers, advertising agencies, and advertisers to be used (see Figure 2).

Online advertising agencies use a wide variety of parameters for targeting ads for every individual user (Book, 2000). One of the largest
Internet agencies is Double Click which, with more than 11500 websites and by collecting information like IP address, top level domain, browser type and version, operating system, language, local time and date, Internet provider, and page viewed offers services. While this information is intended to target ads relying upon Non-Personally Identifiable Information (Non-PII), Double Click uses specified files for each user in which case users are not identified for advertisers, agencies, and publishers and they do not know their name or address (Book, 2000). Also, this company uses demographic information like age, gender, education level, financial status provided by publishers or advertisers.

When a user visits a website connected to DoubleClick network, there is a personal information request (like name and address for online shopping) through which the website can send personal data to DoubleClick which is related to the personal cookies of every user.
Also, DoubleClick can search for the name of the user in database to find information about their offline shopping behavior. The combination of PII and Non-PII of every user is saved in the online abacus database. But the important problem about tracing users’ behavior is the concern about their privacy, because if the users do not trust a website, they would not display any behavior. For this reason, ensuring the privacy of the users is an important issue in this regard. To this aim, cookies are used in tracing users’ behavior to preserve their information security (the concept of cookie, first introduced in 1996, is a device of information server which is connected to the browser and links the user to the server upon request). This mechanism ensures the privacy of the users because the cookie can be read only by the server specified to it, not any other server, and cookie transfer is performed via a secure channel (Book, 2000).

**DESIGNING ACTION MECHANISM MODEL**

The mechanism of the mother website is considered as one of the main aspects in this study. In this mechanism, the first attempt of the advertising server, in response to the messages received from advertising process, is to identify the user. As a first attempt, users connect from their own computers to Internet, and then, using Internet Explorer, Mozilla Firefox, Google Chorm etc, to search their keywords. After entering the keywords, the browser shows relevant websites, and the users connect to the websites which depends on the server. In this situation, the advertising server sends cookies on users’ browser to trace the offline behavior of the users. Cookies gain access to information like IP address, age, gender, and demographic position of the users. This information is saved in database to be used when necessary.

Users encounter many ads upon entering a website. In this case, they decide to respond to Internet ads and click on different ads with different themes. One of the tracing points occurring at this stage. Lead generation companies trace users’ behavior online. The information obtained through online tracing is saved in packages called lead.

In addition to information about age, gender, geographical location, and education, tracing yield information about the interests of users. This information shows the ads that users like more than others. The data collected through online and offline tracking are sent to advertising agencies, publishers, and advertisers. This information can be used for changing online traffic and electronic address lists to considerable income and adding value for visitors of websites through appropriate content for Internet publishers. It helps advertisers communicate with their target users. It also helps them by providing digital marketing services reach their target users (Mosakhani et al., 2012). However, this information help advertising agencies most. Using this information, advertising intermediaries can reach their target users and display the ads according to their interests in the related websites (publishers). This reduces the annoying from ads, and the target user can only see the ads relevant to their interest (see Figure 2).

**MECHANISM FOR ADVERTISEMENT OF NEW PRODUCT**

Using the mechanism of mother website, the target user can be identified and their interests can be determined. But, do users show interest only in one type of products? Aren’t they interested in changing their ad types? What should be done in case their interest is changed? Since advertising variety is high in the digital media, users enjoy from many choices. Depending on their interest and efficiency, users respond to specific ads, but through time, their interest is directed toward other products. In this case, according to mechanism of action, the tracking...
of customer behavior is repeated, their new interests are determined, and the relevant products are displayed. This process is considered as a kind of repetition. Due to the changes of the attitude to users toward ads, other mechanisms that can determine users’ interest in a shorter time are required. To this aim and for preventing repetition of users’ behavior tracking, the mechanism of advertising new products can be employed. In this mechanism, in a publishing website dependent upon the central server, a link is placed which is connected to an advertising-specific website. This website is full of ads on different issues, products, services, and even newly-produced goods. This website enables the user to see most of the advertised products simultaneously. Then, the user decides to respond to a specific product. At this time, their behavior is tracked again, their new interest is determined, and the ads of the new products are displayed for them (see Figure 3).

This mechanism has three features; first, it enables users to visit numerous ads with different themes in one website. Other websites do not have this possibility, because due to the space and other limitations, each website is able to advertise a limited number of products. Second, newly-introduced produces can be placed in this website. One of the missions of Internet advertising is introducing new products

Figure 3. New advertising mechanism
to users. Due to existence of many websites, the user might not see the advertising of new products and does not respond to it. This might result in losing the considered opportunity and might prevent the advertisers from making profit from the advertising of their products. Third, the website makes it possible for the agency to gain access to the interests of the users in a shorter time.

**RESEARCH METHODOLOGY**

Action research (AR) is “a process whereby, in a given problem area, research is carried out to specify the problem, identify a plan of action, monitor the effectiveness of the action, and identify what has been learned and how this should be communicated” (Bennett & Oliver, 1988). In conventional research, the researcher, seeks to remain detached from what is being researched. Instead, in action research, the researcher is often part of the situation, gets involved and seeks to bring about action both during and after the project (Bennett & Oliver, 1988). According to Krathwohl (1998) the intention of AR is to find solutions or improvements to practical problems. Many researcher have discussed the application of AR to research opportunities in management and organization (for example see Coghlan & Brannick, 2001; Gill & Johnson, 2002; Sarah et al., 2002) and stated that AR is an appropriate methodological tool to be applied to management research problems. Hence, in this study action research method has been employed.

Fact-finding in the present study was based on involving and tracing the mechanisms of websites. We have a closed observation and notepadding from the websites’ algorithms and how they work. Accordingly, a modeling from this websites using the above-mentioned model was conducted in the present study. Websites used for this purpose are; Doubleclick.com, Real Media Inc, Accipiter Solution. Inc, Atlas, Eyeblaster. Inc, Eye Wonder. Inc, Mediaplex. Inc, Podbridge. Inc, PointRole. Inc, Unicastby Viewpoint, Zedo. Inc.

**CONCLUSION**

Excessive placement of ads has become the main challenge for both advertisers and publishers in Internet. Therefore, Internet publishers seeking to find target users, optimize their website, and increase profitability through placing ads (like banners) in their websites, have failed to reach their goals. On the other hand, Internet advertisers trying to introduce their products to users and connect to them have not been able to reach their goals. In this respect, it appears that the main problem of publishers and advertisers is finding the target user which requires using intermediary advertising mechanism. The central website, as the intermediary, gets the ads of products and services from the advertiser and places them on the publisher website. This mechanism, by tracking the users, can reach the target user and determine their interests. Then, the central website works as the advertising agency, identifies the target user, and displays the ads relevant to their interests. This helps publishers and advertisers achieve their purposes, prevents unporpuseful advertising, reduces expenses, and returns expenses as the investments to economic system.

**REFERENCES**


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