Research Note

Search engine marketing is not all gold: Insights from Twitter and SEOClerks

Reema Aswani\textsuperscript{b}, Arpan Kumar Kar\textsuperscript{a}, P. Vigneswara Ilavarasana\textsuperscript{a}, Yogesh K. Dwivedib\textsuperscript{a,⁎}

\textsuperscript{a} DMS, Indian Institute of Technology, Delhi, India
\textsuperscript{b} Emerging Markets Research Centre (EMaRC), School of Management, Swansea University, Swansea, UK

\textbf{A R T I C L E I N F O}

Keywords:
Search engine optimization
Search engine marketing
Social media
Twitter analytics
Digital marketing

\textbf{A B S T R A C T}

The study highlights how digital marketing is often detrimental, when it is done by unskilled service providers. It highlights how the hyped services of search engine marketing (SEM) are not as successful as they seem to be and sometimes affect firms negatively. This study uses social media analytics to derive insights from Twitter using descriptive, content and network analytics. Methods like hashtag analysis, polarity and emotion analysis, word analysis, topic modeling and other relevant approaches have been used to mine user generated content. A qualitative case study on an e-market is used for validation of findings. SEM services provided by small organizations and freelancers are not as beneficial as the ones by established players. The services provided by these firms proved detrimental for the customers based on user experiences surrounding these services in the social media and forum specific discussions. This study highlights how SEM often not only fails to provide benefits but also destructs value if not done properly. Transaction costs like agency problems, coordination costs, loss of non-contractible value and cost of fit are also identified with potential fallout which affect the long-term benefits. Inputs will be beneficial to practice in planning SEM and outsourcing.

1. Introduction

The investigation of marketing and retail activity on the web established that web interactivity is one of the key aspects of success (O’Keefe, O’Connor, & Kung, 1998). The internet and the use of ICTs have completely transformed the customer supplier relationship and the subsequent marketing strategies for business (Pires, Stanton, & Rita, 2006; Shiu, Dwivedi, & Yang, 2017; Simintiras, Dwivedi, Kaushik, & Rana, 2015; Simmons, 2008). With the emergence of Web 3.0, increasingly firms are striving to have a stronger presence on the internet in general and search engines (SE) in particular (Dwivedi, Kapoor, & Chen, 2015). SE have emerged as the most popular platform that users across the globe are now using to garner information (Hennig-Thurau et al., 2010; Rangaswamy, Giles, & Seres, 2009). Studies demonstrate the effectiveness of these SE in retrieving relevant documents from the web and directing traffic towards relevant offerings from brands (Dou, Lim, Su, Zhou, & Cui, 2010; Jansen & Molina, 2006). This has resulted in launch of popular advertising formats including search engine marketing (SEM) (Green, 2003) and optimization (SEO) approaches. SEM works primarily on keyword based searches and visibility of websites on the SE. The new entrants often face a cold start problem lacking experience and data to determine ranks that may maximize profit from keywords (Abou Nabout, 2015). A comparative effectiveness of various SEM campaigns highlight that the advertising budget and keyword matching play a vital role in engaging customers (Olbrich & Schulz, 2014). Literature highlights that SEM strategies are used in electronic markets to enhance search and promote sponsored results (Chen, Shih, Chen, & Chen, 2011; Ghose & Yang, 2009; Shih, Chen, & Chen, 2013). Further, studies also highlight that by identifying the key determinants for hit-rate may be of great value to both small and large scale firms by enhancing their web visibility (Dholakia & Rego, 1998).

Literature reveals that the order in which results are displayed on the SE greatly impacts the brand equity of an organization and helps shape brand perceptions among consumers (Drèze & Zufryden, 2004; McCoy, Everard, Polak, & Galletta, 2007; Rangaswamy et al., 2009). Firms have realized that a first page ranking in search engine results page (SERP) is necessary for it to be visible for the target customer (Davis, 2006; Sen, 2005). Higher visibility on SE positively impact brand equity, higher offering visibility and revenue from sales (Dou et al., 2010; Keane, O’Brien, & Smyth, 2008; Skiera, Eckert, & Hinz, 2010), due to which consulting firms have started providing SEM services. SEM is a broader discipline that encompasses SEO. SEM includes both paid search results and organic search results (Chen, Shih, Chen, & Chen, 2011; Ghose & Yang, 2009; Shih, Chen, & Chen, 2013). Further, studies also highlight that by identifying the key determinants for hit-rate may be of great value to both small and large scale firms by enhancing their web visibility (Dholakia & Rego, 1998).

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Corresponding author.
E-mail address: y.k.dwivedi@swansea.ac.uk (Y.K. Dwivedi).

http://dx.doi.org/10.1016/j.ijinfomgt.2017.07.005
Received 20 May 2017; Accepted 19 July 2017
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information access is mediated by SE operators who compete in a race for dominance. This results in SEO services being provided at dramatically different price points. These website owners get into a continuous process of buying visibility additionally using link building approaches resulting in a local self-reinforcing imitation. Depending on the pricing, the services may use techniques that may result in a short-term gain of visibility but with the downside of being massively penalized in the long run.

The digital marketing (DM) sector has witnessed exponential growth over the past decade and has taken several leaps (Ryan, 2016). Studies highlight the use of specific internet tools and their applicability in creating brand equity including metrics like experience, traction and search characteristics (Pakkala, Presser, & Christensen, 2012; Simmons, Thomas, & Truong, 2010). It is predicted that business firms would be spending an estimated $613 billion for DM services worldwide (Sullivan, 2016). Further, it is predicted that the SEM industry will continue to boom to $79 billion by 2020 growth (DeMers, 2016). Considering the rampant growth of the SEM industry, several new service providers enter this industry every year. Further, most of the barriers to entry is less impactful because the new entrants perceive that the industry is not resource/knowledge intensive (Porter, 1991). Further there is no significant upfront capital investment required to start the business. Since, most of the entry barriers are not applicable in the SEM industry, several firms provide these services at varying costs. This exponential industry expansion raises question whether all these companies are successfully able to provide effective DM services or not.

The purpose of this study is thus to highlight how digital marketing often proves to be detrimental, when such services are outsourced to less reputed and low priced (often less skilled) service providers who often lack required domain knowledge. The primary focus of the study is to explore how the hype of services of SEM are often not as effective as they seem to be. These services sometimes may even have adverse effects on the firms outsourcing to low cost inexperienced service providers. The study uses user generated content (UGC) extracted from Twitter on discussions surrounding SEM to examine the effectiveness of these DM initiatives. Further, the transaction cost dynamics associated with the same are also explored to highlight the adverse effects of non-reliable services provided by the small-scale firms and freelancers at low costs. A mixed research methodology has been adopted in the current study which draws inspiration from both big data analytics in social media and case study based research.

The remaining sections are organized as follows. Section 2 establishes the basis of gauging the effectiveness of SEM using Twitter discussions surrounding it. Section 3 and 4 explore the content, descriptive and network analytics aspects for the analysis of the UGC surrounding SEM. Section 5 validates the results of Section 4 through a case study conducted on an e-marketplace called SEOClers.com. Subsequently discussions are made on the contribution of the study, the implications to practice, existing limitations and the future research directions.

2. Is SEM as glorious as it seems to be?

The domain and approaches of SEM are highly hyped and firms are investing substantial resources to achieve this objective. The SE operators often promote their marketing services on social media (SM) platforms like Twitter/Facebook and e-markets like SEOClers.com to engage with their potential target customers. This makes these SM platforms a great source of UGC and discussions surrounding the domains and the quality of services. These platforms thus may be utilized to get a holistic picture about the customer satisfaction in the domain. The focus of this study is to mine these discussions in SM for gaining a good understanding of the dynamics of this niche industry. The insights gained from the analysis can be used to evaluate whether this hyped industry of SEM is that glorious and beneficial as it seems to be from outside. For meeting this objective, the following research questions have been identified:

1. What are the dominant themes of discussion surrounding SEM?
2. What are the dominant sentiments surrounding these discussions?
3. What is the structure of the network that participates in these discussions?
4. Are the customers satisfied with the services surrounding SEM?
5. What are the drivers for dissatisfaction if any?

The analysis of the data retrieved from Twitter discussions, is basically used to see the customer satisfaction in the services provided by this niche domain. It highlights how the industry of DM, specifically SEM related services and doesn’t always result in long term benefits for the customers. For answering these questions, the study attempts to analyze tweets using specific analysis like descriptive analysis, content analysis and network analysis, the details of which are provided in subsequent sections.

3. The research approach

The mixed research methodology is heavily dependent on the approaches adopted for SM analytics to draw inferences in line with the research questions. SM analytics is rapidly emerging as a prominent area of research which can provide key intelligence through the analysis of both structured and unstructured data. There are numerous instances where it has shown signs of enabling organizations with competitive insights on their products, customers and the industry. SM data has been mined for getting insights in domains like stock price fluctuations, prevention of diseases, event monitoring, election result predictions, disaster management, brand management, public relations, public opinion polling and domain specific exploration (Arias, Arratia, & Xuriguera, 2013; Chae, 2015; Hughes & Palen, 2009; Kim, 2014; Lipizzi, Iandoli, & Marquez; Williams, Terras, & Warwick, 2013; Wu & Shen, 2015).

This study uses Twitter’s UGC for analyzing whether the hype about domain of SEM is actually gold and worth investing resources by the firms in a race for web visibility. We collected a total of 61,456 tweets related to SEO/SEM, over a period of four months to understand and gain insights on the same. The tweets are extracted through the R’s Twitter API, by means of a hashtag and keyword based search, hashtags #seo, #sem and #digitalmarketing. This process was performed periodically repetitively to enable the collection of a larger sample of data. Cleansing of tweets is important from the analysis perspective for improving the quality of findings. Further, topic modeling is done for identifying most discussed topics/themes, so that analysis could be done on these clustered tweets. Also, a clustering algorithm implemented to isolate the tweets for separate analysis.

The study incorporates three main approaches or analyzing the user generated content extracted from SM including descriptive analysis, content analysis and network analysis (Chae, 2015; Joseph et al., 2017). This gives a holistic view of the knowledge that may be mined from the Twitter discussions surrounding SEM. An overview of the various types of analysis that may be possible for each type is illustrated in Fig. 1, with a special focus on the analysis which is adopted in this study.

4. Results

This study incorporates key analytical techniques to extract actionable insights from Twitter data on SEO and SEM. The following analysis is carried out on the collection of 61,456 tweets extracted from Twitter within a period of four months from 11th January 2016 to 9th May 2016. The descriptive statistics provide an overview of the nature of tweets, the nature of users who engage in Twitter and nature of content which gets shared (Bruns & Burgess, 2013). Among 61,456 tweets; 49% were original tweets, 26% were replies to these tweets and 25% were retweets. This indicates that there is very strong interaction among the different stakeholders who discuss the theme of SEM and
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