

## Chapter 8

# Impact of Blogs on Sales Revenue: Test of a Network Model

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### ABSTRACT

*In this study, blog data were collected and network parameters were captured to represent three common measurements of online Word-Of-Mouth: intensity, influence level, and dispersion. These parameters were then analyzed using a General Estimating Equation (GEE) model to test their effects on average weekly movie box office receipts. Findings indicated that all three parameters were significant in the model. The aggregated degree, representing WOM intensity, was positively significant, which was consistent with results from extant research. Further, diameter of a network, representing WOM dispersion, was observed to be positively significant, which validated the importance of spreading WOM as far as possible. Counter-intuitively, the aggregated size node, representing WOM influence level, was ascertained to be negatively significant, which might be explained by the possible negative stance from opinion leaders with high influence level. Applying network analysis methodology to blog entries, the present work differentiated itself from extant WOM literature that has focused chiefly on content analysis. The findings also provided managerial insights to companies interested in utilizing blogs as online WOM for marketing initiatives and implications for future research.*

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## INTRODUCTION

Since their origin in 1995, blogs have played an indispensable role in information exchange over the internet. A blog (or weblog) is a website where one or more regular authors initiate discussion on topics of their interest. The web site allows comments to be added to the end of the blog author's entry, thus allowing a two-way conversation between author and reader as well as a many-to-many conversation among the readers (Dwyer, 2007). Blog entries are often posted on a regular basis and displayed in reverse chronological order.

The common web services hosting blogs include Blogspot by Google, Typepad, LiveJournal, MSN Space, and Facebook, among others. Further, in the past two years, Twitter, which is known as a micro-blogging service, has gained popularity among individual internet users as well as corporate bloggers (Riemer *et al.*, 2010). Based on the bloggers' interests, contents of blogs vary from political opinions, consumer experiences, and word-of-mouth recommendations to personal or business journal entries (Burns, 2005). Navigating through a blog site, people can easily identify the blogger's preferences for products, opinions on events, and past activities. This channel of capturing and propagating information has attracted prodigious attention from business organizations (e.g., Bampo *et al.*, 2008; Cohen, 2005; Kozinets *et al.*, 2010).

The user-generated contents provide a unique platform for companies to conduct customer segmentation and targeted advertising (Cohen, 2005). Further, business can easily leverage blogs to improve communications both within the organization and with customers. Internal company blogs can be a way of efficiently exchanging information as well as organizational knowledge to facilitate decision making. For example, Microsoft has many internal blog communities based on the product group; as such, developers can share their coding experiences (Yardi *et al.*, 2008). On the other hand, external blogs to the public can be tailored

to perform tasks associated with public relations or customer services (Kelleher & Miller, 2006).

A major distinction between a blog and other online forums or message board communities is the palpability of the blog author. The blog's author is the sole creator who controls the flow of contents on the blog website. More than 133 million blogs have been indexed since 2002 by Technorati, which is one of the leading blog indexing sites (Technorati, 2009). Furthermore, 77 percent of internet users read blogs. Also, 56 percent of bloggers indicate that their blog has helped their company establish a positioning as a thought leader within the industry. In addition, 58 percent aver that their firm is better known in their industry because of their blog (Technorati, 2009).

Notwithstanding the potential importance of the foregoing *self-reported* positive effects of blogs, the present investigation was interested in the impact of blogs on an *objective* metric—revenue generated from a particular service (i.e., movie box office receipts). The impact of blogs was examined using solely selected *objective* (rather than subjective) measures. The study was undergirded utilizing extant word-of-mouth (WOM) research. WOM is a widely studied topic by marketing scholars (e.g., Elberse & Eliashberg, 2003; Eliashberg *et al.*, 2000; Mohr & Nevin, 1990). It traditionally refers to information that individuals obtain through interpersonal communication, such as face-to-face conversations. Bloggers often make reference links to and comment on other bloggers' posts. This observation offers a natural analogy between the linkage of blog posts and WOM communications in the offline community.

Admittedly, owing to the popularity of information exchange in online communities (Artz, 2009), much research (subsequently discussed) has employed WOM in the context of internet channels: social networks, user reviews and ratings posted on E-commerce websites, online discussion groups, blog websites, and so on. In the present study, however, online WOM was captured in the

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