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The Effect of eWOM from Identity and Non-Identity Social Media on Movie Sales

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Abstract

Social media platforms differ in the extent to which users reveal their identities, as well as users' ability to detect others' identities, both of which could lead to differential effects of social media generated word-of-mouth (eWOM) on actual consumer behavioral responses. Based on prior research on social identification, and relationship orientation of social networks in marketing, the authors examine whether eWOM on identity-focused (e.g., Facebook) and non-identity-focused (e.g., Youtube) platforms impact an objective consumer response variable: motion pictures box office sales. Using social media posts data for 58 randomly selected movie releases across all platforms during the period November 2014 – February 2017, the authors demonstrate that the overall volume of eWOM across all social media is positively associated with movie box office sales. The authors further find that eWOM on identity and non-identity-focused platforms each have a positive effect on sales, and the magnitude of their effect is not significantly different, suggesting that both types of platforms merit attention from marketing managers.

Keywords: electronic word-of-mouth, identity-focused social media, non-identity-focused social media, movie box office sales

Social media generated word-of-mouth (eWOM) has been a topic of increasing interest for both academics and marketing managers since the dawn of social media. Over the course of the past two decades, social media has become a major part of human communication. The types of social media platforms have also proliferated: social networking platforms, blogs, and forums attract considerable attention and following as they allow people to communicate more frequently and on a larger scale than ever before. According to Hootsuite, there are approximately 3.8 billion active social media users worldwide (Clement, 2020) and the sheer volume of digital communications has exploded to unprecedented levels.

One of the main implications of these developments is the elevation of word-of-mouth (WOM) communications from the offline world to the digital domain. As WOM has transitioned to the digital domain concurrent with the rise of social media, it has become the dominant form of person-to-person communication in cyberspace. Commonly known as eWOM, it refers to “any positive or negative statement made by potential, actual, or former customers about a product or company that can be accessed by a multitude of people and institutions via the internet” (Hennig-Thurau *et al.*, 2004). Despite the increasing importance of social media-enabled digital communications in the form of eWOM, research in marketing has been relatively slow to empirically study its impact on objective consumer response variables. For example, there is somewhat limited research on the ability of eWOM to generate sales (e.g., Baek *et al.*, 2017; Yang *et al.*, 2020) with a few exceptions (e.g., Berger *et al.*, 2010; Duan *et al.*, 2008; Liu, 2006). In addition, as also mentioned by Pelletier *et al.* (2020), marketing studies in this context often use a single source of social media data (i.e., a single social media platform; Dessart, 2017; Hennig-Thurau *et al.*, 2015; Wise *et al.*, 2010; Yang *et al.*, 2016).

Given the importance of eWOM for both marketing academics and practitioners, as well as the limited understanding of its effects in the literature, more research is needed to have a better understanding of the factors that promote its transformation into objective and measurable consumer responses (e.g., Berger, 2014; Berger and Iyengar, 2013; Dellarocas, 2003; Godes and Mayzlin, 2004; Marchand *et al.*, 2017; Meuter *et al.*, 2013). In this research, the authors suggest that it is not simply the volume or valence of social media generated eWOM that may lead to consumer actions, but also the type of social media platform that it originates on. As the proliferation of different social media platforms increased the overall volume of eWOM (Goodrich and Mooji, 2014; Smith *et al.*, 2012), it has also contextualized it in the digital domain. Differences in the type and structure of eWOM arise across platforms (e.g., Marchand *et al.*, 2017; Smith *et al.*, 2012), partially due to the degree of identity authentication required. Research has identified two major groups of social media, depending on the degree of relationship orientation among users: *identity-focused*, and *non-identity-focused*. Identity-focused platforms include Twitter, Facebook, Google Plus, MySpace, and blogs (Kaplan and Haenlein, 2010). The users of these social media platforms interact based on the identity they present, and the identity of others as they attempt to gain trust (Kaplan and Haenlein, 2010). Kietzmann *et al.* (2011) also argue that such relationship centered social media platforms need to validate the authenticity of the users, which requires a disclosure of personal information. Digital platforms that do not feature a self-disclosure aspect, deemphasize the process of relationship building (e.g., forums, YouTube, review sites such as Reddit) and are therefore classified as non-identity-focused. For example, YouTube or Reddit users are likely to voice minority opinions without bearing the cost of social isolation as they have limited identity disclosure, while users on a platform such as Facebook may remain silent if their opinions are not socially desirable in their

network. In summary, an empirical study of the unique impact of each type of platform based on relationship orientation (i.e., identity and non-identity-focused) on customer responses as well as the differences between the magnitude of their effect has been absent from the literature and practitioner press.

This study examines how different social media platforms can drive or inhibit offline consumer behavior through the eWOM contextualizing effect, in the domain of the motion picture industry. In addition, this study investigates whether all social media platforms are equal in the transmission of eWOM to actual customer purchase behavior. Prior research in this context, using single social media platforms as a data source (e.g., primarily Yahoo! Movies), has uncovered that the volume of pre-release and opening weekend eWOM (Duan *et al.*, 2008; Liu, 2006), rather than the valence, matter more in terms of increasing movie revenues. In the current work, the authors make an initial attempt to empirically contextualize eWOM based on systematic differences between the identity orientations across platforms and to empirically evaluate the impact of those differences on an objective variable of interest to academics and practitioners: movie theater box office sales. In particular, the authors attempt to answer the following research question: (1) *Is there a difference in the relative magnitude of the effect of social media posts generated on identity- and non-identity-focused platforms on movie box office revenues?*

To do this, the authors compile an exclusive dataset of all eWOM generated around the time of 58 randomly selected movie releases in a two-year period (November 2014 - February 2017) across all social media platforms available in the U.S. The dataset captures the entire volume of eWOM across both identity-focused and non-identity-focused platforms which mention any of the movie titles. Thus, this approach allows for the empirical investigation of the

relationship between eWOM volume and box office movie sales, while avoiding potential sources of selection and omitted variable bias, as all social media eWOM sources are included.

As such, this study makes the following contributions to the literature and practice; first, it provides the first empirical insights into the unique and differential effects of eWOM generated on identity-focused and non-identity-focused social media platforms on an objective customer response measure. Second, it presents the first evidence of cross-platform eWOM effects on box office movie sales, using data from all available social media platforms. Finally, for practice, the results of this study call for caution as the nature of social-media relationship orientation within platform matters: managers should be cognizant that the volume of eWOM on non-identity-focused social media platforms increases box office revenues similar to eWOM generated on identity-focused ones. Thus, it may be wise to allocate digital advertising and promotions spending across all platforms. See Figure I for the conceptual model of current research.

[Insert Figure I about here]

WOM and eWOM

Conventional WOM is a powerful form of interpersonal communication which serves an important role in influencing consumers' adoption and use of products (Godes and Mayzlin, 2004). eWOM exceeds the limits of traditional WOM because of the variety of media by which consumers share product information (Gelb and Sundaram, 2002). Furthermore, eWOM differs from conventional WOM in terms of the degree of anonymity and discretion allowed, as consumers do not have to disclose their real identities (on some social media), the lack of time and geographic restrictions, the unprecedented speed of information exchange, as well as the permanence of online conversations (Gelb and Sundaram, 2002). All these developments have resulted in an exponential growth of consumer sharing or posting across social media platforms.

In general, online posts are interactive venues for sharing information and personal opinions, recommendations, complaints and feedback about experiences with a variety of goods, services, and companies (Chatterjee, 2001). Such reviews are disseminated through various blogs, review sites, social networking sites, and instant messaging, and have become a major information source for consumers as an aid in their consumption decisions (Lee *et al.*, 2011).

Before the rise of social media, WOM research on purchase intentions had focused exclusively on interpersonal communications (Katz and Lazarsfeld, 1995). Specifically, due to the intangible nature of services, WOM is important in predicting purchases (Murray, 1991; Zeithaml *et al.*, 1993). Some of the early research on social media's impact on sales found that the dispersion of eWOM across many different newsgroups generates more sales (as opposed to looking at overall eWOM volume; Godes and Mayzlin, 2004). Chevalier and Mayzlin (2006) further note that consumer posts on review sites can promote sales: intuitively, positive reviews on these sites strengthen sales, whereas negative reviews diminish sales. Using Yahoo! Movies (a movie review site) web data, Liu (2006) demonstrates that pre-release movie eWOM and opening weekend eWOM have the most explanatory power for movie box office sales. Furthermore, counter to previous research, toward explaining movie box office revenue, the volume of eWOM appears to have more explanatory power than its valence (i.e., the sheer number of reviews is more important than whether consumers were primarily negative or positive in their evaluations; Kim *et al.*, 2019). Similarly, Duan *et al.* (2008) find that increased volume of eWOM on Yahoo! Movies leads to higher movie box office performance.

Overall, research on social media-generated WOM's ability to generate sales suggests a positive effect. Yet, very few of the previous studies (e.g., Baek *et al.*, 2017; Yang *et al.*, 2020) use more than one social (or other) media in their conceptual or empirical models. At the same

time, when assessing the causality claims of prior research, there is the potential for severe omitted variable(s) bias when word of mouth stemming from other social media is not included in the model. It is very likely that Facebook, Twitter, YouTube, review sites, forums, and blogs are all highly correlated with each other, and with the dependent variable (i.e., sales). Yet, it is invalid to assume that one platform can proxy for the entire realm of social media because each social media platform can be categorized into a broader theoretical context, as argued by Kietzmann *et al.* (2011).

Hypothesis Development

In general, eWOM in marketing serves three main purposes from the users' perspective: functional, social, and emotional (Lovett *et al.*, 2013). First, functional needs include information seeking behavior. Second, social needs satiate self-enhancing behavior, and third, emotional needs include sharing excitement and satisfaction (Lovett *et al.*, 2013). Similar to how offline and online communication mediums affect the three said eWOM purposes, the authors suggest that the different social media platforms serve different functional, social, and emotional purposes for the user. One of the ways to examine social media platforms is by the degree of closeness (e.g., relationship intensity) among users (Dubois *et al.*, 2016). Previous research suggested Facebook as a platform in which users share content with others that are closer, while on LinkedIn users share with others that are more distant (see experiment 3 in Dubois *et al.*, 2016). Thus, social media relationships with others can range from being completely immaterial, to being the sole reason people participate in the given social media. Platforms that are *non-relationship* focused may be primarily used for information seeking (i.e., functional) behavior, such as acquiring information, whereas *relationship-focused* platforms are used primarily for social and emotional purposes. The lack of authenticated identity in non-relationship platforms

can inhibit relationship/social building processes. For example, the branding of Facebook and Twitter as social networking sites (focused on connections, e.g., social and emotional need satisfaction) is different from that of forums like Reddit that are focused on information gathering and dissemination (e.g., Record *et al.*, 2018) (e.g., functional need satisfaction) in a relatively anonymous setting.

Although social media platforms have been categorized in multiple ways including social networking, content sharing, and microblogging (e.g., Smith *et al.*, 2012), this study seeks to examine social media along theoretically derived differences, rather than as individual artificial categorizations. Consistent with Kietzmann *et al.* (2011), each social media platform can be categorized into certain key constructs (e.g., identity-focused, conversation-focused). Each digital platform has its own social structure that primes users to give and receive information differently (Brown *et al.*, 2007). Similarly, contingent on the different purposes fulfilled by social media platforms, some may motivate more negative eWOM whereas others may motivate more positive eWOM.

The current work focuses on the theoretical construct of identity and examine the effect of social media platforms' degree of relationship orientation on movie sales. Closely related to the construct of identity, the value of trust is instrumental for relationships to form in social media platforms. Morgan and Hunt (1994) argue that trust exists when "one party has confidence in an exchange partner's reliability and integrity." Previous work has further shown that trust can lead to greater customer satisfaction (Kau and Loh, 2006). The salience of trust in a person's eWOM can be shaped by the reputation and relationship between the users inhabiting the given social network. Given that Twitter and Facebook have a salient information disclosure aspect,

one would expect there to be a difference in how information is processed compared to forums or blogs featuring users with largely anonymous identities.

Digital social media platforms can be divided into two major groups depending on the degree of inherent relationship orientation among users: *identity-focused*, and *non-identity-focused*. Identity-focused platforms include Twitter, Facebook, Google Plus, MySpace, and blogs (Kaplan and Haenlein, 2010). The users of these social media platforms interact based on the identity they present, and the identity of others. Because of this self-disclosure aspect, social identity theory suggests that people (i.e., social media users in this case) are motivated to engage in impression management with others (Goffman, 1959). The process of self-disclosure is an important aspect of relationship building and gaining trust (Kaplan and Haenlein, 2010). Kietzmann *et al.* (2011) also argue that social media that are relationship focused need to validate the authenticity of the users, which requires a disclosure of personal information. Digital platforms that do not have this self-disclosure aspect impede the process of relationship building (forums, YouTube, and review sites such as Reddit) and are therefore classified as non-identity-focused.

Dubois *et al.* (2016) argue that WOM is driven by interpersonal closeness. On the one hand, those who are close to each other tend to share negative word of mouth in order to protect themselves as well as their friends from negative events. Furthermore, consistent with prospect theory (Tversky and Kahneman, 1981), negative perceptions of performance have a greater effect on satisfaction and purchase intentions than do positive perceptions of performance (Lee *et al.*, 2008). On the other hand, users who are distant from each other (i.e., part of non-identity-focused platforms) tend to share positive WOM in order to associate their own self-image with positive attributes (Chen, 2017). Because tie strength is stronger on identity-focused platforms,

and users trust close others more than distant others (Grimes, 2012), the information will have more credibility and weight to the receiving user, and the users with strong ties also interact more frequently and deeply (Brown and Reingen, 1987; Leonard-Barton, 1985). Thus, the following hypothesis is presented:

H₁: eWOM on identity-focused platforms will have a stronger effect on movie box office revenues than eWOM on non-identity-focused platforms.

METHODS

Data

Movie reviews eWOM data was collected and provided by Crimson Hexagon, a proprietary service which collects all mentions of a movie title across all social media platforms. Fifty-eight movies were selected at random over a two-year time period, from November 2014 to February 2017. Data was collected based on mentions of the movie title in the post across all social media platforms (see Table 1 for total mentions of all movies by platform). For example, the data for *Rogue One* was collected by searches for “Rogue One” and “@Rogueone,” and “#RogueOne.” Movie box office revenue data was collected from BoxOfficeMojo.com. Furthermore, the authors did not collect this data, ensuring that classifications were not biased by research objectives. The dependent variable of interest is movie theatre box office revenues. The main independent variables include the number of eWOM posts in identity-focused platforms (i.e., Twitter, Facebook, Tumblr, Google Plus, blogs) and the number of eWOM in non-identity-focused platforms (i.e., forums, review sites, news, YouTube, comments). Moreover, control variables are the number of movie theaters each movie was projected in, a dummy variable indicating if the projection date fell on a weekend (Friday to Sunday), and a variable indicating the number of days from launch to time of data collection.

[Insert Table 1 about here]

Model

In line with previous research (e.g., Asur and Huberman, 2010), a multiple OLS regression was used to test the hypothesis. The sample includes over 280 million eWOM social media mentions across the time period, which is significantly more than prior studies (Duan *et al.*, 2008; Liu, 2006) and significantly reduces sample bias. Accordingly, due to the nature of the sample (multiple time points for each movie for an extended period of time), following Godes and Mayzlin (2004) a panel data linear regression model with fixed effects was used for estimation. In addition to the general fixed effects, movie-specific effects within the sample were controlled for to account for idiosyncratic biases. For example, the fixed effects for each movie potentially capture a combination of effects, such as scheduling influences, production company and director reputation, actor selection, and each movies' intrinsic quality (Godes and Mayzlin, 2004).

Empirical Results

Table 2 lists all results from the estimation models. Consistent with previous literature that all social media seems to drive box office receipts, the results reveal that overall social media eWOM is positively associated with sales ($\beta = 0.1809$, $p < 0.001$; see model 1 on Table 2). More specifically, eWOM on identity-focused social networks increases movie box office revenues ($\beta = 0.1291$, $p < 0.001$; see model 4 on Table 2). At the same time, eWOM generated on non-identity-focused social media also seems to increase box office revenues ($\beta = 0.1862$, $p < 0.001$; see model 4 on Table 2). Based on the magnitude of these effects ($\beta_{non-identity} > \beta_{identity}$), H_1 (i.e., the extent to which the effect of eWOM on identity-focused social networks on box office sales is stronger than eWOM on non-identity-focused social networks) is not supported.

Next, the opposite of H_1 was tested following the procedure suggested by Cumming (2009). The corresponding 95% confidence intervals were estimated via bias corrected bootstrapping (1,000 re-samples). If the confidence intervals overlapped by less than 50%, the beta weights would be considered statistically significantly different from each other (identity-focused: $\beta = 0.1291$, $SE: 0.038$, 95% $CI: 0.055$ to 0.203 ; non-identity-focused: $\beta = 0.1862$, $SE: 0.043$, 95% $CI: 0.101$ to 0.271). Results showed that the confidence intervals overlapped by more than 50% and therefore are not significantly different ($p > 0.05$). This suggests that the effect of eWOM on non-identity-focused platforms on box office revenues is not significantly stronger than eWOM on identity-focused platforms.

[Insert Table 2 about here]

RESEARCH CONTRIBUTIONS AND IMPLICATIONS

The effect of publicity and eWOM on sales is well established in the literature. Supporting existing research, the results provide evidence that the overall eWOM has a positive effect on box office revenue. In addition, the volume of eWOM generated in non-identity-focused social media sites (e.g., review sites such as Reddit, Youtube) as well as identity-focused social media sites (e.g., Twitter, Facebook) seem to both increase sales. Moreover, the effect of eWOM on identity-focused platforms and non-identity-focused platforms is not significantly different.

This work makes several contributions to literature and marketing practice. First, it highlights the importance of the volume of eWOM by offering the first empirical insights in the differential effects of eWOM generated on identity-focused vs. non-identity-focused social media platforms. Although the top three social media platforms that are used by marketers are all identity-focused (e.g., Facebook, Instagram, and Twitter; Stelzner, 2019: 11), this work

underlines the importance of also marketing through non-identity-focused platforms. Indeed, after Facebook with 2.5 billion, YouTube, a non-identity-focused platform, is the second most popular with 2 billion users (Oberlo, 2020), and Reddit is the third most visited social media website in the United States with 1.15 billion visits (following YouTube and Facebook; Semrush 2020). Yet, top two platforms with most digital advertising revenue are Facebook (\$70.7 billion) and Instagram (\$20 billion), followed by Youtube (\$15.1 billion; Business Today, 2020). It seems that while eWOM volume on identity-focused and non-identity-focused platforms both positively affect consumer response, marketers and social media managers should not lose sight of eWOM generated on non-identity-focused platforms as they offer comparable return on investment. The expectation was that the customers would be more reluctant to act on the positive or negative feedback of others on non-identity-focused platforms, leading to a weaker effect of eWOM in non-identity-focused platforms on sales. However, it seems that the effect of eWOM from non-identity-focused platforms is the same as eWOM from identity-focused platforms.

Although not in line with the authors' expectations, this finding is not entirely surprising. Readers' perceptions over the information provided may vary based on the extent to which they are close with the sender of the information and the sender's identity is available. Indeed, people find anonymous messages as more honest (Kang *et al.*, 2016) and believe that others with no tie to themselves provide more novel information (i.e., including positive and negative feedback about a product) than those that they have weak or close personal ties (Morris *et al.*, 2014). Moreover, impression management literature also supports this contention that individuals are motivated to conform to societal norms if they feel visible to others over self-image concerns (Lapinski and Rimal, 2005). Thus, eWOM from non-identity-focused platforms may have unique

characteristics to readers such as reflecting writers' authentic thoughts, which is potentially why its effect on box office revenues is positive and not weaker than eWOM from identity-focused platforms.

Second, this research sheds light on the need to minimize the effects of omitted variable bias in empirical research in the eWOM context by including as much information about the heterogeneity of eWOM across social media platforms. Although results of current research revealed no difference between eWOM from identity-focused and non-identity-focused platforms, previous research shows that not all social media eWOM is created equal (e.g., Cyca, 2018; Roma and Aloini, 2019). For example, Marchand *et al.* (2017) note that eWOM varies across consumer review sites and blogs, and consumers tend to cross reference their information search across different social media platforms. At the same time, social media platforms do not completely overlap, particularly in the degree of relationship orientation of users. These results are in line with Marchand *et al.* (2017)'s findings: each platform is likely to serve different purpose in the information search process. Given this finding, as a best practice, researchers and practitioners must include as many sources of eWOM as possible to avoid such biases.

Third, although researchers could use a single social media platform for predictive modeling, it is important to recognize that such models are underspecified. Even though their effect on box office revenues is equally positive in the current work, the aforementioned characteristics of different social media platforms grant the need to generate inclusive research models with both identity and non-identity-focused platforms. These findings caution marketing practitioners to be aware of the relationship orientation of social media platforms when generating publicity: they should be cognizant that the volume of eWOM on both of identity and non-identity-focused social media platforms equally increases sales. Reports suggest that most of

marketers' attention is on identity-based platforms (e.g., Business Today, 2020; Stelzner, 2019). Reallocating marketing budgets across identity and non-identity social media platforms may be a wise policy without heavy devotion on either.

Limitations and Future Research

There are several limitations and opportunities for future research. Scholars can investigate moderators that could weaken or strengthen the effect of eWOM in social media from identity-focused and non-identity-focused platforms on sales. For example, movie genre, budget, star-power, or director-power can all be considerations to explore. Next, the current work did not focus on valence of eWOM, which is a critical component of eWOM. Research suggests that more positive valence leads to more favorable consumer response (Chevalier and Mayzlin, 2006), unless consumers are warned with potential manipulations over the reviews by retailers (Karabas *et al.*, 2020). Thus, it is possible that positive eWOM and negative eWOM lead to different effects on sales depending on the type of platform and the extent to which consumers perceive eWOM on these platforms as credible. Relatedly, research can examine the type of platform consumers may select as a function of their opinion of the product. As a form of selection bias, it would be interesting to both academics and practitioners to know whether platforms attract a certain type of eWOM (e.g., negative vs. positive, long vs. short). Another limitation is the lack of marketing mix variables at the movie title level. However, this is not a major limitation, as the nature of the product category studied is associated with uniformly heavy advertising and pricing which is likely to lead to non-significant findings (You *et al.*, 2015). In addition, conducting behavioral studies could help strengthen the findings and identify potential mediators to the effect of eWOM from different platforms on sales. Future research is granted to

delve deeper into the ways consumers process information on identity and non-identity platforms.

REFERENCES

- Asur, S., and B. A. Huberman. 2010. "Predicting the Future with Social Media." *IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology* 1: 492-99.
- Baek, H., S. Oh, H. D. Yang, and J. Ahn. 2017. "Electronic Word-of-Mouth, Box Office Revenue and Social Media." *Electronic Commerce Research and Applications* 22: 13-23.
- Berger, J. 2014. "Word of Mouth and Interpersonal Communication: A Review and Directions for Future Research." *Journal of Consumer Psychology* 24(4): 586-607.
- Berger, J., and R. Iyengar. 2013. "Communication Channels and Word of Mouth: How the Medium Shapes the Message." *Journal of Consumer Research* 40(3): 567-79.
- Berger, J., A. T. Sorensen, and S. J. Rasmussen. 2010. "Positive Effects of Negative Publicity: When Negative Reviews Increase Sales." *Marketing Science* 29(5): 815-27.
- Brown, J., A. J. Broderick, and N. Lee. 2007. "Word of Mouth Communication within Online Communities: Conceptualizing the Online Social Network." *Journal of Interactive Marketing* 21(3): 2-20.
- Brown, J. J., and P. H. Reingen. 1987. "Social Ties and Word-of-Mouth Referral Behavior." *Journal of Consumer Research* 14(3): 350-62.
- Business Today. 2020. "Instagram Generated more Ad Revenue than YouTube in 2019." <https://www.businesstoday.in/technology/news/instagram-generated-more-ad-revenue-than-youtube-in-2019/story/395513.html>. [Accessed December 29, 2020]
- Chatterjee, P. 2001. "Online Reviews: Do Consumers Use Them?" *Advances in Consumer Research* 28(1): 129-34.

- Chen, Z. 2017. "Social Acceptance and Word of Mouth: How the Motive to Belong Leads to Divergent WOM with Strangers and Friends." *Journal of Consumer Research* 44 (3): 613-32.
- Chevalier, J. A., and D. Mayzlin. 2006. "The Effect of Word of Mouth on Sales: Online Book Reviews." *Journal of Marketing Research* 43(3): 345-54.
- Clement, J. 2020. "Digital 2020: July Global Statshot Report, page 67." We Are Social; Hootsuite; DataReportal. <https://datareportal.com/reports/digital-2020-july-global-statshot>. [Accessed August 11, 2020]
- Cumming, G. 2009. "Inference by Eye: Reading the Overlap of Independent Confidence Intervals." *Statistics in Medicine* 28(2): 205-20.
- Cyca, M. 2018. "Stop Posting the Same Message on Social Media and Do This Instead." <https://blog.hootsuite.com/cross-promote-social-media/> [Accessed December 27, 2020]
- Dellarocas, C. 2003. "The Digitization of Word of Mouth: Promise and Challenges of Online Feedback Mechanisms." *Management Science* 49(10): 1407-24.
- Dessart, L. 2017. "Social Media Engagement: A Model of Antecedents and Relational Outcomes." *Journal of Marketing Management* 33(5-6): 375-99.
- Duan, W., Gu, B., and A. B. Whinston. 2008. "Do Online Reviews Matter?—An Empirical Investigation of Panel Data." *Decision Support Systems* 45(4): 1007-16.
- Dubois, D., A. Bonezzi, and M. De Angelis. 2016. "Sharing with Friends Versus Strangers: How Interpersonal Closeness Influences Word-of-Mouth Valence." *Journal of Marketing Research* 53(5): 712-27.
- Gelb, B. D., and S. Sundaram. 2002. "Adapting to 'Word of Mouse'." *Business Horizons* 45(4): 21-25.

- Godes, D., and D. Mayzlin. 2004. "Using Online Conversations to Study Word-of-Mouth Communication." *Marketing Science* 23(4): 545-60.
- Goffman, E. 1959. "The Moral Career of The Mental Patient." *Psychiatry* 22(2): 123-42.
- Goodrich, K., and M. De Mooij. 2014. "How 'Social' are Social Media? A Cross-Cultural Comparison of Online and Offline Purchase Decision Influences." *Journal of Marketing Communications* 20(1-2): 103-16.
- Grimes, M. 2012. "Nielsen: Global Consumers' Trust in 'Earned' Advertising Grows in Importance." <https://www.nielsen.com/us/en/press-releases/2012/nielsen-global-consumers-trust-in-earned-advertising-grows/> [Accessed December 27, 2020]
- Hennig-Thurau, T., K. P. Gwinner, G. Walsh, and D. D. Gremler. 2004. "Electronic Word-of-Mouth via Consumer-Opinion Platforms: What Motivates Consumers to Articulate Themselves on the Internet?" *Journal of Interactive Marketing* 18(1): 38-52.
- Hennig-Thurau, T., C. Wiertz, and F. Feldhaus. 2015. "Does Twitter Matter? The Impact of Microblogging Word of Mouth on Consumers' Adoption of New Movies." *Journal of the Academy of Marketing Science* 43(3): 375-94.
- Kang, R., L. Dabbish, and K. Sutton. 2016. "Strangers on Your Phone: Why People Use Anonymous Communication Applications." *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing* 359-70.
- Kaplan, A. M., and M. Haenlein. 2010. "Users of the World, Unite! The Challenges and Opportunities of Social Media." *Business Horizons* 53(1): 59-68.
- Karabas, I., I. Kareklas, T. J. Weber, and D. D. Muehling. 2020. "The Impact of Review Valence and Awareness of Deceptive Practices on Consumers' Responses to Online Product Ratings and Reviews." *Journal of Marketing Communications* 1-31.

- Katz, E., and P. F. Lazarsfeld. 1995. "Between Media and Mass/The Part Played by People/The Two-Step Flow Of Communication." *Boyd-Barrett, Ch. Newbold (red.), Approaches to Media, London*. 124-34.
- Kau, A. K., and E. Wan-Yiun Loh. 2006. "The Effects of Service Recovery on Consumer Satisfaction: A Comparison Between Complainants and Non-Complainants." *Journal of Services Marketing* 20(2): 101-11.
- Kietzmann, J. H., K. Hermkens, I. P. McCarthy, and B. S. Silvestre. 2011. "Social Media? Get Serious! Understanding the Functional Building Blocks of Social Media." *Business Horizons* 54(3): 241-51.
- Kim, K., S. Yoon, and Y. K. Choi. 2019. "The Effects of eWOM Volume and Valence on Product Sales—An Empirical Examination of the Movie Industry." *International Journal of Advertising* 38(3): 471-88.
- Lapinski, M. K., and R. N. Rimal. 2005. "An Explication of Social Norms." *Communication Theory* 15(2): 127-47.
- Lee, J., D. H. Parkand, and I. Han. 2008. "The Effect of Negative Online Consumer Reviews on Product Attitude: An Information Processing View." *Electronic Commerce Research and Applications* 7(3): 341-52.
- Lee, M. K., N. Shi, C. M. Cheung, K. H. Lim, and C. L. Sia. 2011. "Consumer's Decision to Shop Online: The Moderating Role of Positive Informational Social Influence." *Information & Management* 48(6): 185-91.
- Leonard-Barton, D. 1985. "Experts as Negative Opinion Leaders in the Diffusion of a Technological Innovation." *Journal of Consumer Research* 11(4): 914-26.

- Liu, Y. 2006. "Word of Mouth for Movies: Its Dynamics and Impact on Box Office Revenue." *Journal of Marketing* 70(3): 74-89.
- Lovett, M. J., R. Peres, and R. Shachar. 2013. "On Brands and Word Of Mouth." *Journal of Marketing Research* 50(4): 427-44.
- Marchand, A., T. Hennig-Thurau, and C. Wiertz. 2017. "Not all Digital Word of Mouth is Created Equal: Understanding the Respective Impact of Consumer Reviews and Microblogs on New Product Success." *International Journal of Research in Marketing* 34(2): 336-54.
- Meuter, M. L., D. B. McCabe, and J. M. Curran. 2013. "Electronic Word-of-Mouth Versus Interpersonal Word-of-Mouth: Are All Forms of Word-of-Mouth Equally Influential?" *Services Marketing Quarterly* 34(3): 240-56.
- Morgan, R. M., and S. D. Hunt. 1994. "The Commitment-Trust Theory of Relationship Marketing." *Journal of Marketing* 58(3): 20-38.
- Morris, M. R., K. Inkpen, and G. Venolia. 2014. "Remote Shopping Advice: Enhancing In-Store Shopping with Social Technologies." *Proceedings of the 17th ACM Conference on Computer Supported Cooperative Work & Social Computing* 662-73.
- Murray, K. B. 1991. "A Test of Services Marketing Theory: Consumer Information Acquisition Activities." *Journal of Marketing* 55(1): 10-25.
- Oberlo. 2020. "Most Popular Social Media Platforms in 2020."
<https://www.oberlo.com/statistics/most-popular-social-media-platforms>. [Accessed August 21, 2020]
- Pelletier, M. J., A. Krallman, F. G. Adams, and T. Hancock. 2020. "One Size Doesn't Fit All: A Uses and Gratifications Analysis of Social Media Platforms." *Journal of Research in Interactive Marketing* 14(2): 269-84.

- Record, R. A., W. R. Silberman, J. E. Santiago, and T. Ham. 2018. "I Sought It, I Reddit: Examining Health Information Engagement Behaviors Among Reddit Users." *Journal of Health Communication* 23(5): 470-76.
- Roma, P., and D. Aloini. 2019. "How Does Brand-Related User-Generated Content Differ Across Social Media? Evidence Reloaded." *Journal of Business Research* 96: 322-339.
- Semrush. 2020. "Top 100: The Most Visited Websites in the US." <https://www.semrush.com/blog/most-visited-websites/> [Accessed December 27, 2020]
- Smith, A. N., E. Fischer, and C. Yongjian. 2012. "How Does Brand-Related User-Generated Content Differ Across YouTube, Facebook, and Twitter?" *Journal of Interactive Marketing*, 26(2): 102-13.
- Stelzner, M. 2019. "2019 Social Media Marketing Industry Report: How Marketers are Using Social Media to Grow Their Businesses." May. 1-46.
- Tversky, A., and D. Kahneman. 1981. "The Framing of Decisions and the Psychology of Choice." *Science* 211(4481): 453-58.
- Wise, K., S. Alhabash, and H. Park. 2010. "Emotional Responses During Social Information Seeking on Facebook." *Cyberpsychology, Behavior, and Social Networking* 13(5): 555-62.
- Yang, J., K. Basile, and O. Letourneau. 2020. "The Impact of Social Media Platform Selection on Effectively Communicating About Corporate Social Responsibility." *Journal of Marketing Communications* 26(1): 65-87.
- Yang, S., S. Lin, J. R. Carlson, and W. T. Ross Jr. 2016. "Brand Engagement on Social Media: Will Firms' Social Media Efforts Influence Search Engine Advertising Effectiveness?" *Journal of Marketing Management* 32(5-6): 526-57.

You, Y., G. G. Vadakkepatt, and A. M. Joshi. 2015. "A Meta-Analysis of Electronic Word-of-Mouth Elasticity." *Journal of Marketing* 79(2): 19-39.

Zeithaml, V. A., L. L. Berry, and A. Parasuraman. 1993. "The Nature and Determinants of Customer Expectations of Service." *Journal of the Academy of Marketing Science* 21(1): 1-12.

Figure I
Conceptual Model

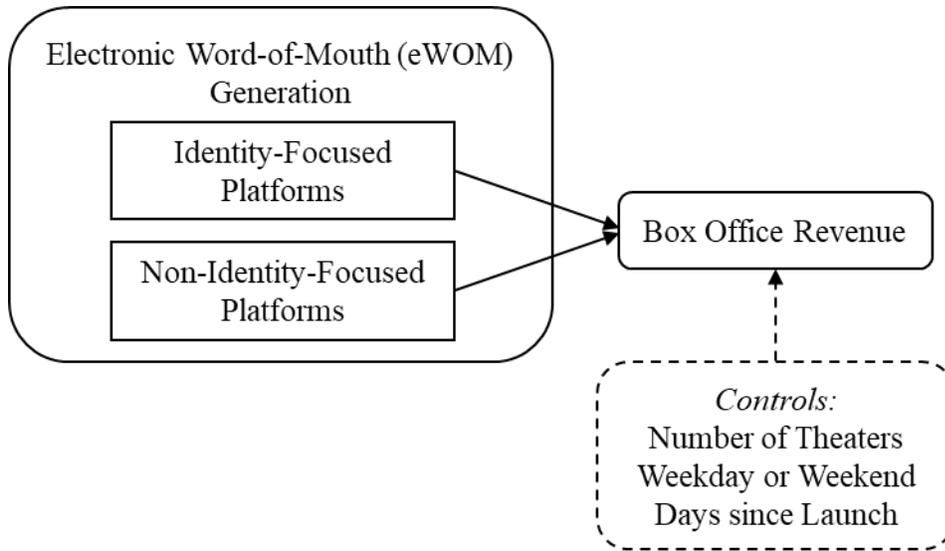


Table 1

Number of eWOM by each Movie on Different Platforms

Movie	Identity-Focused Platforms					Non-Identity-Focused Platforms				
	Blogs	Facebook	Google Plus	Tumblr	Twitter	Comments	Forums	News	Reviews	Youtube
Age of Adaline	2,930	210	1	1,361,093	127,070	141	5,595	8,187	110	294
American Sniper	82,496	35,629	28	2,880,833	3,695,728	3,039	67,690	173,114	6,170	22,401
Angry Birds	7,262	152,207	3	2,470,272	300,247	452	35,806	21,852	462	25,358
Anomalisa	6,235	730	0	737,979	96,461	510	8,985	16,263	92	1,562
Ant-Man	16,623	13,366	22	2,550,325	1,013,803	2,442	50,710	24,515	1,985	22,963
Avengers	56,362	27,954	89	10,266,538	3,690,056	9,944	172,047	65,931	8,503	23,884
Batman v Superman: Dawn of Justice	22,032	441,860	13	4,950,150	1,416,775	3,973	121,549	63,663	4,477	65,734
Bridge of Spies	5,121	760	0	290,092	90,728	543	9,953	20,149	262	2,368
Captain America: Civil War	9,579	169,503	5	3,031,641	411,401	554	46,659	25,420	542	31,322
Central Intelligence	2,180	45,582	1	830,795	151,227	180	10,114	13,602	90	12,980
Cinderella	35,090	17,294	39	2,338,149	2,294,189	3,105	40,165	44,320	7,532	28,049
Conjuring 2	3,012	98,597	0	1,825,260	1,606,971	383	26,201	12,769	443	21,943
Deadpool	11,043	453,804	7	7,318,666	388,286	3,345	100,062	34,951	5,604	30,825
Ex Machina	3,878	341	4	130,757	98,366	410	8,660	5,259	892	349
Fantastic Beasts and Where to Find Them	12,248	9,844	4	2,729,642	1,069,306	1,433	55,420	33,432	468	42,474
Fantastic Four	9,239	5,349	9	963,724	426,698	1,141	25,607	13,875	1,285	10,070
Fifty Shades of Grey	63,207	30,843	9	2,048,104	2,064,355	1,301	20,098	96,357	4,293	38,973
Finding Dory	14,240	113,940	14	3,682,617	2,637,896	1,810	73,047	39,117	1,244	94,445
Girl on the Train	3,968	28,206	2	722,934	151,693	525	10,415	15,146	525	5,585
Good Dinosaur	6,188	3,456	9	1,679,890	221,747	340	13,555	16,659	783	5,859
Hidden Figures	10,929	8,708	4	661,728	622,598	2,156	27,485	45,054	132	10,827
Hotel Transylvania 2	5,050	3,463	3	1,298,386	266,189	253	9,101	14,618	264	7,669
Imitation Game	46,241	4,886	25	580,964	725,482	1,121	37,437	51,726	1,608	20,816
Independence Day: Resurgence	4,303	40,188	2	426,760	120,433	274	16,528	12,737	270	9,399
Jason Bourne	5,779	74,949	6	4,434,522	261,642	700	34,226	21,137	774	27,021
Jurassic World	45,229	33,275	66	8,013,141	4,236,593	6,429	118,952	78,509	15,798	62,390
Kung Fu Panda 2	9,509	172,324	10	5,904,693	591,356	1,325	36,120	39,616	2,489	29,939
La La Land	28,226	23,572	10	829,320	2,438,981	6,546	114,897	125,254	591	47,976
Listen to Me Marlon	177	12	0	746	3,627	2	37	291	0	173
Mad Max: Fury Road	28,243	5,335	16	4,755,355	889,909	3,230	76,966	40,046	5,270	9,490
Magnificent Seven	4,525	33,427	3	712,246	158,391	632	19,804	16,787	328	8,989
Manchester by the Sea	11,307	1,340	4	209,479	171,747	1,555	29,419	69,359	93	8,523
Maze Runner	6,333	3,944	1	1,796,313	938,051	789	18,475	13,420	2,181	16,891
Minions	44,135	106,457	104	4,262,942	5,091,373	12,274	260,080	56,514	20,456	96,770
Mission Impossible	15,501	8,133	16	1,152,875	574,585	1,190	32,600	35,659	3,011	10,486
Moana	16,513	32,052	2	3,145,051	2,219,989	2,150	76,849	40,892	1,096	136,152
Mockingjay	21,129	47,048	4	6,799,567	2,044,702	2,735	89,625	63,716	8,466	103,428
Peanuts Movie	7,886	1,857	5	1,737,055	155,156	323	12,958	19,110	388	9,913
Pete's Dragon	1,409	44,650	2	41,424	104,933	269	10,187	8,520	121	8,739
Pitch Perfect 2	12,368	3,314	5	2,159,418	1,283,030	987	24,378	24,553	1,651	3,758
Ride Along 2	2,282	251,713	1	3,552,276	192,996	217	4,487	9,816	229	2,421
Rogue One	83,462	119,106	64	8,355,465	6,921,424	17,604	813,745	211,673	12,206	602,390
Sing Street	1,092	34,075	0	63,796	66,566	141	3,737	5,176	15	1,218
Spectre	32,109	18,229	47	3,832,557	1,308,461	3,513	167,055	107,113	9,445	54,949
Star Trek: Beyond	7,214	45,864	2	4,842,287	261,084	1,169	46,927	20,951	630	17,397
Star Wars: The Force Awakens	221,852	599,086	365	44,491,283	17,937,238	49,410	1,721,865	464,133	101,445	761,681
Straight Outta Compton	13,873	30,887	7	1,082,931	2,280,689	498	13,520	30,527	632	6,598
Suicide Squad	21,561	207,935	12	9,688,838	4,127,877	6,039	228,719	53,888	3,049	233,583
Taken 3	8,147	1,616	5	58,687	676,104	259	13,687	10,453	1,036	12,467
Terminator	19,829	17,624	42	593,798	930,970	3,507	81,118	33,477	5,303	24,768
The Legend of Tarzan	3,193	53,686	0	1,368,764	131,111	305	12,044	17,241	547	11,885
The Martian	37,976	19,179	37	4,775,433	1,131,161	7,531	137,903	114,798	4,238	18,637
The Purge: Election Year	979	47,025	0	145,254	97,462	81	4,517	5,814	95	5,310
The Revenant	39,074	177,667	26	7,292,768	2,317,271	9,782	181,229	209,270	5,982	34,301
The Secret Life of Pets	7,018	74,146	1	3,003,200	367,746	937	27,223	21,589	377	43,594
Tomorrowland	9,990	2,818	6	1,071,772	934,935	1,392	20,829	15,068	993	1,521
Xmen	5,628	151,853	5	1,691,820	356,124	826	43,816	17,940	1,440	32,847
Zootopia	18,112	392,288	9	18,298,191	2,790,418	3,088	248,152	42,327	2,906	98,289

Table 2**Effect of Identity and Non-Identity Social Media WOM on Movie Sales, Fixed****Effects OLS Regression**

Variable	Model 1	Model 2	Model 3	Model 4
All Social Media eWOM	0.1809			
Identity eWOM		0.1679		0.1291
Non-Identity eWOM			0.2236	0.1862
<i>Controls</i>				
Number of Theaters	0.0008	0.0008	0.0008	0.0007
First week of Opening	-0.0244	-0.0245	-0.0248	-0.0241
Weekend	1.052	1.0518	1.1066	1.082
Observations	5,400	5,400	5,400	5,400
R-squared (within)	0.92	0.92	0.92	0.92

Notes: All coefficients are significant at $p < 0.001$. Each model includes movie-fixed effects. Movie sales, all social media eWOM, and identity- and non-identity eWOM are log transformed to reduce skewness.