Exploring the Determinants of Influential eWOM in Virtual Communities: An Empirical Study

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Background and Research Goal: Word of mouth (WOM) has been widely recognized as an important source influencing consumers' decision making process (Sen and Lerman, 2007). Electronic WOM (eWOM) exerts an even more significant influence on consumers ((Bickart and Schindler, 2001). Virtual community refers to a network of people with common interests who use electronic means to communicate and share interests, valuable resources, experiences and knowledge (Kardaras et al., 2003). Users of product virtual communities tend to have higher social interaction than users of product review websites (Fogel and Nehmad, 2009). Despite the overall higher influence of eWOM over Marketer Generated Contents, influence of an individual eWOM depends on many characteristics of the eWOM itself (e.g. wording, personal perspective, or sentiment). Identification of the key characteristics associated with influential eWOM messages would be valuable for companies. Recently, there have been research started to investigate the determinants of influential eWOM in terms of interpersonal influence and content quality (Chu and Chintagunta, 2011; David Stuart et al., 2014). However, the generalization of these research findings is limited by the methodological approaches. Existing research was mainly based on data collected via survey of consumers' response to hypothetical scenarios or in experimental settings. This current study, using observational data, aims at providing empirical evidence on the impact of those determinants on the influence of eWOM in virtual communities.

Research Hypotheses: eWOM behaviors in product virtual communities have several unique characteristics. First, product virtual communities are often organized by topics or product categories without focusing on a specific brand (Muniz and O'Guinn, 2001). Second, virtual communities involve primarily spontaneously collaborating and sharing resources when others requesting them (Rheingold, 1993). Thus, eWOM on virtual communities is usually constructed by original messages (e.g. information seeking request or experience sharing) and replies from other members (e.g. comments or suggestions). Members' social behaviors in the community are typically classified as posting a message, replying to a message (content co-creation), and viewing the message. Third, the participants in the virtual communities can obtain product knowledge and also develop relationships with others who share similar interests (Bickart and Schindler, 2001). Existing research suggested that both eWOM contents and the credibility of the authors would play an important role in the social interactions in virtual communities, which will eventually affect the influence the eWOM (Ridings and Gefen, 2004). Therefore, this study proposed a social dynamic among the contents of the eWOM (argument quality), other members'

reply to the original eWOM (content co-creation), characteristics of the author of the eWOM (source credibility), and the number of view of the original eWOM (influence of the eWOM). Specifically, the following hypotheses were proposed:

H1. Argument quality is positively associated with the influence of eWOM.

H2. Argument quality is positively associated with members' participation in content co-creation.

H3. Members' participation in content co-creation is positively associated with the influence of eWOM.

H4. Source credibility is positively associated with the influence of eWOM.

H5. Source credibility is positively associated with members' participation in content co-creation

Methodology: A random sample containing 1651 consumers' online behavioral data was collected from a product forum. Web Scraping and HTML parsing were conducted to obtain the data using Python 2.7 (Stein, 2002). Text mining (Tan, 1999) was conducted to transform the original textual data extracted from the forum into numerical data for further data analysis. A series of data analysis were employed to test the hypotheses including log linear transformed regression analysis, Principal Component Analysis (PCA), and Singular value decomposition (SVD) using R 3.1.2 and SAS 9.3.

Results: The research findings suggest that argument quality (in terms of *brand names and product characteristics*) and source credibility were significantly correlated with the influence of eWOM. Content co-creation not only significantly affected the influence of eWOM, but also was suggested as the most important factor leveraging the influence of eWOM. Meanwhile, both argument quality and source credibility were significantly correlated with content co-creation. However, content co-creation was primarily affected by argument quality.

Conclusion and Implications: Theoretically, the results provide support to existing literatures on the antecedents of influential eWOM. More importantly, this study contributes to the field by suggesting both direct and indirect influence of argument quality and source credibility on the influence of eWOM via content co-creation. This study suggests a dynamic process of consumer's eWOM viewing behaviors. Other members' participation in the discussion associated with the original posting will attract more members to view the original message. Managerially, the findings of this study can help companies to identify influential consumers in virtual communities. Also, the argument quality (product and brand characteristics) can provide great insights to companies regarding benefits consumers seek and also issues consumers have in their consumption of the products in question.

Reference Available upon Request