Chapter 5
Understanding e–WOM Evolution in Social Media With Network Analysis

Fatih Pinarbasi

https://orcid.org/0000-0001-9005-0324

Istanbul Medipol University, Turkey

ABSTRACT

Today's consumer is in constant interaction with the environment thanks to social media and technology. Consumers who communicate more with each other have pushed businesses to take action on this issue. In this study, network analysis will be processed by marketing approach. Previous studies focus on different aspects of network analysis while examining methodological details. There are a few integrated studies regarding to network analysis from marketing perspective. This study aims to fill this research gap with integrated approach combining marketing scenarios with network analysis methods and social media data. Study consists of two main parts: theoretical background and methodology sections. Theoretical background includes electronic word of mouth, social media and customer networks, network analysis parts. Methodology section includes four different cases regarding to network analysis, social media, and web. Businesses corporating network analysis to their marketing decision-making process can improve their marketing knowledge regarding to changing marketing environment.

INTRODUCTION

Today's business world is witnessing many changes with technological developments and widespread use of the Internet. Internet and social media play an important role in the lives of today's consumers. According to Global Digital Report (We Are Social and Hootsuite, 2019), our world has 7.676 billion people population while penetration rate for internet users is 57% (4.388 billion people) and penetration rate for active social media users is 45% (3.484 billion people). These high rates signal importance of social media for consumers' lives. Today's consumers living in social circles affect each other. Nielsen

report (Nielsen, 2015) indicates that 83% of respondents completely or somewhat trust recommendations of friends or family. This reflects importance of word of mouth in consumers' lives.

Worf of mouth concept simply means interaction and effect of people to other people in social circles. As people use digital technologies, electronic word of mouth concept becomes popular in marketing research. Network analysis is one of methodologies for social media sensemaking which helps to marketing decision making regarding to electronic word of mouth. It simply refers to evaluation of networks which means multiple structures of actors in mathematically and graphically way.

Previous studies employ network analysis with different contexts for word of mouth concept. Hambrick and Pegoraro (2014) use network analysis for examining the 2014 Olympic Games and related communities. In another study Yan et al. (2018) employs network analysis for sport context, 2017 UEFA Champions League Final. On the other hand, Iacobucci et al. (1996) use network analysis for marketing context, brand switch behaviour. Several studies have used network analysis for different contexts, but there is lack of integrity for business or marketing concept. This study aims to fill this gap by providing integrative network analysis cases for different marketing cases, especially for e-wom concept.

The phenomenon of study refers to network analysis of social structures related to electronic word of mouth markets. Network analysis will be used for examining different scenarios regarding to market and these scenarios will refer to different levels of research questions. The research questions of study include;

- How can network analysis be helpful for marketing management decision making?
- How can network analysis help to micro and macro level examination of markets?
- How can structures related to social networks like community, group of nodes be detected employing network analysis?
- How can time dimension be usedtogetherwith network analysis?

The study mainly uses R programming language (R Core Team, 2013), several R code packages and Gephi Software (Bastian et al., 2009). Network analysis is not limited to R programming language, as there are many alternative programming languages and softwares for network analysis. But then R programming language is a good alternative with different available code packages like sna(Butts, 2010), igraph (Csardi&Nepusz, 2006),influenceR (Simon & Aditya, 2015), keyplayer (An & Liu, 2016) for different network analysis methodologies.

Cheung and Thadani (2012) examine impact of e-wom communication and conclude that majority of e-wom studies they examine are related to online consumer review sites, as the other types of e-wom are related to online discussion forums, blogs, social networking sites and online brand/shopping sites. In addition, the contexts which electronic word of mouth are studied on refer to Twitter (Jansen et al., 2009), movies (Liu, 2006), music albums (Morales-Arroyo & Pandey, 2010), hospitality (Ladhari& Michaud, 2015; Tsao et al., 2015;Viglia et al., 2016). The scope of e-wom concept has a wide range, scope of study is limited to social media context for this study.

The study has a theoretical background which is the center of e-wom. In the study, where social media is determined as the study area within the scope of E-wom, there are two parts as theoretical and application. In the theoretical part, e-wom concept will be mentioned and then social media and consumer networks will be explained. Following these two topics, theoretical knowledge related to the subject of network analysis will be covered. In the second part of the study, the subject of network analysis will be explained in an integrated way with marketing scenarios. Following these two main sections, there will be sections of solutions and recommendations, future research directions and conclusions.

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/understanding-e-wom-evolution-in-social-media-with-network-analysis/233962

Related Content

Neuroeconomics as a Factor in the Decision-Making of Women Entrepreneurs in Developing Countries
Jovanna Nathalie Cervantes-Guzmán (2021). *Effective Strategies for Communicating Insights in Business (pp. 87-100).*
www.irma-international.org/chapter/neuroeconomics-as-a-factor-in-the-decision-making-of-women-entrepreneurs-in-developing-countries/278422

Identity and Alterity of the Text in Translation: A Semioethic Approach
Susan Petrilliand Augusto Ponzio (2019). *International Journal of Semiotics and Visual Rhetoric (pp. 46-65).*
www.irma-international.org/article/identity-and-alterity-of-the-text-in-translation/224049

An Exploration of the Use of Emotional Discourse in Parliamentary Deliberations: A Critical Discourse Approach
Magret Jongore (2019). *Argumentation and Appraisal in Parliamentary Discourse (pp. 245-267).*
www.irma-international.org/chapter/an-exploration-of-the-use-of-emotional-discourse-in-parliamentary-deliberations/225340

Intermediality, Quo Vadis?: A Brief Inventory and a Road Map for Six Central Future Research Axes
Juergen E. Mueller (2019). *International Journal of Semiotics and Visual Rhetoric (pp. 24-39).*
www.irma-international.org/article/intermediality-quo-vadis/232271

Kabuki as a Synthetic Narrative: Synthesis and Expansion
(2020). *Internal and External Narrative Generation Based on Post-Narratology: Emerging Research and Opportunities (pp. 109-254).*
www.irma-international.org/chapter/kabuki-as-a-synthetic-narrative/248731