Viral effects of social network and media on consumers' purchase intention☆

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ABSTRACT

This study applies structural equation modeling (SEM) and fuzzy-set qualitative comparative analysis (fsQCA) method to data from social network media (SNM) users' surveys to identify possible SNM viral effects on consumers' purchase intention. SEM assesses the relationship between the criteria; fsQCA assesses the cause-and-effect process. Data from 36 valid variables validate the research model. This research surveys SNM users who use at least three major SNM platforms (i.e. Facebook, Instagram, and Youtube). Combination of Theory Reasoned Action (TRA), Information Adaption Model (IAM), perceived risk, and social interaction as additional external constructs shows source credibility and social influence critically affect attitude and subjective norms, which lead to purchase intention. SEM results show that social integration has no direct effect on subjective norms. However, fsQCA results show that social influence together with perceived risk in SNM sites affects consumers' purchase intention.

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1. Introduction

Since last decade, social network and media (SNM) sites are growing rapidly (Farooq & Jan, 2012). SNM sites benefit marketers and consumers. Online SNM sites such as Twitter, Facebook, and Instagram affect individual's lives significantly by creating links among individuals that trust SNM sites.

Scholars define SNM as a graph of relationships and interactions within a group of individuals, often mediating in spreading information, ideas, and influence among the members (Kempe, Kleinberg, & Tardos, 2003). Most web-based SNM services provide means for online interaction, allowing the sharing of ideas, activities, events, and interests within individual networks. These services act as word-of-mouth (WOM) because participants repeat the information on SNM (Zhaveri, 2013).

SNM viral marketing is a special form of electronic WOM (eWOM) marketing that encourages and facilitates consumers' exchange of favorable opinions on products/services, companies, or brands; this eWOM also allows passing along promotional messages to relatives and friends on SNM sites. Companies are adopting viral marketing strategy because of its low-cost management.

This study addresses the research gap regarding the importance of understanding SNM viral marketing's effect on consumers' purchase intention. The purpose is to measure SNM sites' viral effect on product/service purchase intention with Theory Reason Action (TRA),

Information Adoption Model (IAM), and the perceived risk. This approach allows researchers and practitioners to deepen their knowledge and to take advantage from SNM viral marketing.

2. Literature review

This study combines three popular theories to predict consumers' purchase intention and information adoption: TRA (Ajzen & Fishbein, 1980), IAM (Sussman & Siegal, 2003), and perceived risk (Bauer, 1960).

2.1. Viral marketing

Viral marketing is the consumers' act of eWOM on SNM sites; viral marketing spreads like a virus and takes advantage of multiplication to transmit the message to thousands and even millions (Vilpponen, Winter, & Sundqvist, 2006). According to Oden and Larsson (2011), viral marketers use buzzwords, images, videos, and blog articles/reviews. Viral marketing has a low cost, provides a high-and-rapid response rate, and offers an unprecedented opportunity to connect both domestically and internationally (Yang, Liu, & Zhou, 2011). Therefore, companies adopt this strategy to disrupt consumers via online, creating a digital "hype" to promote product/services. Individuals' attitudes towards viral messages in SNM determine those people's participation in the process that leads to purchase intention (Camarero & San José, 2011). Viral marketing is also demanding on social interaction, often regarding products, to attract users to virtual communities that influence their buying decision (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). Because viral marketing offers product/service online reviews, users' risk perceptions in purchasing a product owe primarily to the

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information and interaction in those sites. (Beldad, Jong, & Steehouder, 2010).

2.2. Theory Reasoned Action (TRA)

TRA (Ajzen & Fishbein, 1980) is a model to predict behavior. Ajzen (2005) reports that attitude and subjective norms influence the intention to perform a particular behavior. TRA assumes that intentions capture the motivational factors influencing behavior: attitudes toward the behavior (the degree to which a person has a favorable or unfavorable evaluation of the behavior) and subjective norms with respect to the behavior (the perceived social pressure to perform or not perform the behavior). Peer communication between consumers, as an information giver, has a strong influence on consumers' decision-making (Smith, Menon, & Sivakumar, 2005). In SNM settings, consumers learn attitudes and purchase-intentions through written messages that peers send (Wang, Yu, & Wei, 2012). Likewise, subjective norm in technology acceptance refers to social norms in terms of external influence (Bhattacherjee & Sanford, 2006).

In line with these studies, this research proposes the following propositions:

P1. Consumers' attitude toward information usefulness positively affects intention to purchase virally marketed product/service.

P2. Consumers' subjective norm positively affects intention to purchase virally marketed product/service.

2.3. Information Adoption Model (IAM)

IAM (Sussman & Siegal) is an integration of Technology Acceptance Model (TAM) (Davis, 1989) and Elaborated Likelihood Model (Petty & Cacioppo, 1986; Petty, Cacioppo, & Goldman, 1981) with dual-process models of informational influence. According to Sussman and Siegal (2003), TAM and TRA models are not fit for information adoption. Participants of virtual communities (e.g., SNM sites) seek information and knowledge (Zhang & Hiltz, 2003). In online environments, people have complete freedom to publish and express their feelings. Therefore, users consider the expertise and trustworthiness of the contributors before adopting or rejecting the information (Cheung, Lee, & Rabjohn, 2008). In opinion posts, users scan the information before making purchase decisions (Pitta & Fowler, 2005).

Consumers' argument quality and source credibility affects consumer's attitude toward information usefulness. Argument quality refers to arguments' persuasive strength (Bhattacherjee & Sanford, 2006). Source credibility refers to the extent to which consumers perceive that an information source is believable, competent, and trustworthy (Petty & Cacioppo, 1986). The quality of arguments determines consumers' attitude toward information usefulness. Further, source credibility has a high influence on opinion; high credibility sources have a greater role on opinion change than low credibility sources do.

P3. Argument quality on SNM sites positively affects consumers' attitude towards product/service information usefulness.

P4. Source credibility on SNM sites positively affects consumers' attitude towards product/service information usefulness.

2.4. Social interaction

Qiu and Benbasat (2005) report that the best marketing strategy is offering information and interactivity in product/service. Stromer-Galley (2004) defines interactivity as the interpersonal communication occurring through an SNM medium. The communication processes in these sites create social interaction. In SNM contexts, social interaction

is the subjective norm that refers to social pressure in performing or not performing the behavior. Online social pressure is a form of social interaction. This research divides social interaction into two independent predictors: social integration and social influence. According to Rubin, Watt, and Ramelli (2012), social integration refers to members' transparency regarding personal, faith, and community interactions in the merging world of SNM applications; transparency on SNM sites could influence consumers' subjective norms to decide a product/service.

Weber (1947) defines social influence as a practice of two or more people trying to influence each other's intentions to bring such social pressure into their behavior. Subjective norm reflects how the perception of references and interpersonal influences (e.g. family, friends, and relatives) affects and shapes consumers' behavior (Lin, 2007).

P5. Social integration positively affects consumers' subjective norm.

P6. Social influence positively affects consumers' subjective norm.

2.5. Perceived risk

Perceived risk refers to the nature and amount of risk a consumer perceives in a particular purchase (Bauer, 1960). This study defines perceived risk as what consumers would lose and how the individual would feel if the consequences of a behavior were negative. In SNM sites, uncertainty in perceived risk derives from three factors: (1) consumers' own ability to accurately judge the resulting experience, (2) consumers' difficulties in making an overall evaluation on the sites, and (3) the difference between expectations and experience in product/service.

This study groups and modifies existing types of risk to adapt to viral marketing on SNM sites (intangibility) expectation and context. The types of risks are (1) performance risk, (2) financial risk, (3) social risk, and (4) psychological risk. Perceived risk is powerful in explaining consumers' behavior considering influences often motivate consumers to avoid mistakes rather than to maximize utility in purchasing and expecting loss.

P7. Consumers' perceived risk negatively affects intention to purchase a virally marketed product/service.

3. Method

3.1. Data collection

This study uses data from electronic surveys that users receive through SNM sites, emails, and Internet forums. Non-random snowball sampling method for cost effectiveness and respondents' distribution of questionnaires to friends with similar characteristics increase response rate. Ho and Dempsey (2010) report young adults are the demographic group with the highest rate of Internet adoption and SNM sites use; thus, this study collects data from college students of different majors in Indonesia. The sample of participants has experience in at least three of the following SNM sites: Facebook, Twitter, Instagram, Pinterest, or Youtube, and admits connection to those sites' viral contents for 4–6 years through buzzwords, blogs, images, or videos. Users acquainted with at least three different types of SNM sites will most likely understand the term viral. Hence, results fit predictability and generality.

3.2. Procedure

This research uses a translated version of the questionnaire from previous studies to distribute in Indonesia. The Indonesian version has minor modifications and different item sequence; this version