What Mobilizes Information Contribution to Electronic Word-of-Mouth System? Explanations from a Dual-Process Goal Pursuit Model

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Abstract: Electronic word-of-mouth systems (EWOMS) facilitate electronic commerce tremendously. Although adequate consumption information supply is critical for these systems and to some extent for electronic commerce to succeed, there is a lack of investigations on information provision as current studies related to EWOMS mainly concentrate on the consequences of the deployment of the systems. We do not have a systematic understanding of what may motivate consumers to engage in electronic word-of-mouth activities. This study attempts to address the knowledge gap by constructing a dual-process goal pursuit model to explain consumers’ initial participation in electronic word-of-mouth activities. We conceptualize the consumer’s participation as a joint behavioral product of the consumer’s both conscious and unconscious responses to electronic word-of-mouth systems to pursue some goals that are either embedded in the participation process itself or endowed by the consequences of the participation behavior by devoting multiple resources such as effort, cognitive resources, and time to the activity. The consumer’s habitual dependence on online communication and opinion leadership behavior are identified as intrinsic goals that the consumer pursues automatically without cognitive processing. Additionally, the consumer would also perceive and derive extrinsic goals based on the incentives such as status and economic rewards that are offered by the system and on her past consumption experience. However, these extrinsic goals operate within the consumer’s cognitive context. The consumer’s assessment of the attractiveness and attainment expectancy of the goals would moderate the effects of the goals on electronic word-of-mouth participation.
1. Introduction

Empowered by various information systems, word-of-mouth activities have moved beyond small groups and communities and their impact on businesses has attained an unprecedented level (Dellarocas 2003). Online consumer opinions in the form of product feedback, evaluations and reviews have proven to effectively address some electronic commerce limitations such as information asymmetry, risk, and lack of trust and are being used extensively. For example, in a survey of 5,500 web consumers, 44% of respondents revealed that they had consulted opinion sites before making a purchase and 59% considered consumer-generated reviews more valuable than expert reviews (Riller 1999). Similar results have been found by DoubleClick (DoubleClick 2004).

However, although the rapid growth of the power of Internet word-of-mouth has attracted researchers’ attention to the word-of-mouth systems, studies have primarily focused on the consequences of this phenomenon and the needed theoretical guidance for promoting online consumption information contribution is lacking. A deeper understanding of the factors that drive voluntary participation in online feedback systems and the circumstances under which these factors operate will allow researchers and practitioners to have a theoretical foundation to devise effective mechanisms and programs to attract more contribution (Dellarocas, Fan, and Wood 2004).

Against the backdrop of current research of electronic product feedback systems, this study explores what may motivate consumers to initiate their word-of-mouth activities through electronic channel. In particular, we focus our exploration on the cognitive mechanism that underlies consumers’ response to word-of-mouth systems. We look at consumers’ participation as a goal-directed behavior and develop a dual-process model to explain their initial participation behavior by drawing on goal theories, especially the information processing and automatic perspectives on goal pursuit.

2. Electronic Word-of-Mouth Systems

Researchers have observed the emergence of electronic word-of-mouth (Dellarocas 2003), an extension of offline word-of-mouth, whereby consumers exchange consumption information
publicly and electronically so that product or company information is available to a multitude of people and institutions via the Internet (Dellarocas 2003, Hennig-Thurau et al 2004).

2.1 Typology of Electronic Word-of-mouth Systems (EWOMS)

At the core of the electronic word-of-mouth phenomena are various information systems that support consumption information exchange among consumers (Ba and Pavlou 2002, Dellarocas, Fan and Wood 2004, Hennig-Thurau et al 2004, Resnick et al. 2000, Swaminathan 2003). These systems fall into two categories, the repository type and the dynamic interaction type, in terms of how consumers access them. Examples of repository systems include eBay, Amazon.com, ePinions.com, ratebeer.com, dooyoo.com, etc. These Internet-based information systems allow consumer to upload their reviews, comments, and ratings of products, services, and exchange partners to their database systems and present the information in an organized way on the web. Online discussion forums (BBSs) that facilitate consumers’ real-time and interactive communication on consumption related topics represent dynamic and interactive electronic word-of-mouth systems. While both types of systems have influential impact on consumer purchase and consumption decisions and overall sales, the repository type of EWOMS seems to outweigh the interaction BBS systems due to the following considerations.

First, compared to BBS in which consumers must find an appropriate posting through scrutiny, repository EWOMS allow for greater ease of access in the sense that information seekers can easily select a product or service and view the relevant opinions. Second, word-of-mouth communications in repository systems tend to have longer “shelf life” than in BBS systems where old postings are replaced by or buried away in new ones quickly. Third, and probably most important, repositories can be readily and systematically integrated with electronic commerce platforms, making electronic word-of-mouth information more useful and powerful. For example, Amazon.com uses consumer reviews to help consumer in gaining rich product information. Also dealtime.com has been collaborating with ePinions.com, one of the most famous EWOMS, to reap the commercial potential of consumers’ word-of-mouth information.

2.2 The Participation Promoting Mechanisms
Some EWOMS, such as Amazon.com and ePinions.com, have recognized the importance of participation and employed many incentives to attract, increase, and maintain consumer participation. The commonly used incentive programs include status identification, monetary rewards, community networks, and offline complementary communication opportunities.

Status identification programs grant participants such prestigious positions as “top 10 reviewers” or “product adviser” based on the quantity and quality of their review contribution and displays the status tags next to reviewers’ names. Reviews from these top reviewers will also be positioned strategically at the top of review lists. Participants with special status are more likely to gain respect and trust from users of the system than ordinary reviewers.

Monetary rewards represent another type of motivation mechanism (Resnick and Zeckhauser 1999). Epinion.com is a notable example adopting this mechanism. Individuals accumulate points through their contributions and the electronic word-of-mouth system converts the points into money and compensates contributors.

Community network is observed in ePinions.com where individuals can indicate which contributors they trust. In doing so, members of the system gradually form an intertwined network of ties. Members with close ties read and comment each other’s product reviews, making the review process interesting and rewarding.

Offline complementary activities are also held in Amazon.com and ePinion.com. Meetings and social gatherings are arranged to strengthen contributors’ interactions and enhance the stickiness of the community. Such promoting mechanism also increases the penetration of the electronic word-of-mouth system into the real lives of contributors.

While monetary and status incentives could be applicable to both potential and actual contributors, community network and offline complementary activities would be more appealing to existing contributors to sustain their participation. Given the study’s focus on potential contributors, we will consider the first two incentives when constructing the research model.
2.3 Current Studies on Electronic Word-of-Mouth Participation

Currently most EWOMS studies concentrate on effects and consequences of electronic word-of-mouth in electronic commerce (e.g., Ba and Pavlou 2002, Godes and Mayzlin 2004), and very limited endeavor has been devoted to participation investigation. Two notable exceptions are the studies conducted by Dellarocas, Fan, and Wood (2004) and Hennig-Thurau et al (2004).

Dellarocas, Fan, and Wood (2004) examined information contribution behavior of participants of eBay rare coin auction. They found that the participation was largely explained by the participant’s self-interest. People tended to comment more on their partners in exchange of reciprocal feedback from their partners, which would lead to high reputation scores if they performed activities frequently. Information provision hence was practiced to facilitate participants’ business prospect.

Hennig-Thurau et al (2004) examined what motivated consumers to articulate their consumption opinions. Five significant motivations emerged from a study of 2063 consumers who had written online comments. Consumers tended to comment on products when they were concerned about others and wanted to improve others’ purchase decisions, when they felt that the comments would exhibit a wise and successful image of themselves, when they had a positive perception of this way of communication, when they could receive certain form of rewards, and when they purposefully sought others’ advise on their consumption decisions.

While Dellarocas, Fan, and Wood (2004)’s study provides insights into consumers’ motivation to participate in EWOMS, their study context of partner review systems in online auctions is quite different from our focus of product review systems. On the other hand, we are interested in two important issues which have not been addressed in the study by Hennig-Thurau et al (2004). First, their respondents were review contributors. Given that participants in online word-of-mouth activities still constitute a small proportion of consumers and more participation should be promoted, there is a need to examine what may motivate people to initiate their engagement in such activities. Second, Hennig-Thurau et al took a behavioral view of electronic word-of-mouth participation and did not unravel the underlying cognitive mechanism sof consumer
participation. The neglect of the cognitive mechanisms of individuals’ electronic word-of-mouth contribution results in limited understanding of this important phenomenon.

As revealed in our survey of extant literature, despite the great impact of EWOMS on electronic commerce, word-of-mouth provision, especially the initial participation, in the electronic channel, has not been systematically studied and constitutes an important research agenda. The research agenda of electronic word-of-mouth participation should be expected to identify what may motivate consumers to initiate their consumption information contribution to EWOMS and how the motivation system operates. Additionally, the answers should also shed light on how EWOMS can be designed to stimulate consumers’ initial participation. To this end, this study attempts to tackle these unexplored research questions by developing and testing a model of electronic word-of-mouth participation. Meanwhile, we will concentrate on the static word-of-mouth systems given its potency.

3. Literature Review

3.1 Literature on Conventional Word-of-mouth

Word-of-mouth is defined as a type of informal, person-to-person communication between a perceived noncommercial communicator and a receiver regarding a brand, a product, an organization, or a service (Harrison-Walker 2001). Word-of-mouth referral has been credited as one of the most important information sources that influence consumption decisions (Whyte 1954; Katz and Lazarsfeld 1955). Assumed to be a less biased and manipulated source of information, word-of-mouth information is more relied upon than information from formal marketing channels such as advertising.

The supply of product or service opinions, information, evaluations determines the continuous function of word-of-mouth systems and to some extent the efficiency of markets. Thus attempts have been made to identify factors that may drive and moderate consumers’ motivation to engage in conventional word-of-mouth activities.

Word-of-mouth is a type of social communication. Communication theory posits that social communication is a natural living state for everyone, bringing about both physical and
psychological well-being, and that individuals have an intrinsic need for interaction with others (Dimbleby and Burton 1992, Tubbs and Moss 2000). In fact, marketing researchers have found that consumption information provides an important conversation topic for consumers to express their love, neighborliness, friendship, and connections in social encounters (Schiffman and Kanuk 2000). Therefore, commercial information communication is an integral part of consumers’ social communication and provides general communicative utility that serves the consumers’ need to build, maintain, and enhance their interpersonal relationships in a social context (Zinkhan et al 2003).

Consumption information provision follows actual commercial engagements. Post-consumption researchers observe that consumption experience communications in particular satisfy consumers’ communication needs that are aroused from their involvement in the product and use situation (Dichter 1966). Three dimensions of involvement have been identified, namely product involvement, self-involvement, and other-involvement (Dichter 1966, Westbrook 1987).

In essence, post-consumption communication aroused by product-involvement is a way to reciprocate the product and service received (Soderlund 1998). For example, after negative encounters, consumers could relieve their psychological discomfort by giving complaint through interpersonal communications (Schiffman and Kanuk 2000). The complaints could generate pivotally influential effects on other consumers’ similar consumption decisions; therefore the complainants are compensated psychologically. Empirically, researchers have observed a strong association between negative word-of-mouth transmission and the perceived negativity of consumption experience. On the other hand, findings of positive word-of-mouth communication have been mixed. While there has been the belief that neutral or positive consumptions produce no or weaker cognitive and affective discomfort than negative encounters, studies also found that some consumer characteristics like loyalty may increase positive word-of-mouth (Robinson and Berl 1980).

Consumers may also engage in post-consumption communications to gain attention, recognition, image or status. Hence communicating consumption experience may satisfy self-involvement utility of consumers (Westbrook 1987). Some studies of consumer communications find that
product and service knowledge is an antecedent to the desire to gain recognition from others. Actually it has been articulated that providing advice and feedback is out of the desire people feel to share information about which they consider themselves expert (Hamilton 2001).

Post-consumption communication can help other consumers in obtaining product and service quality information, which is otherwise not easy to obtain from formal marketing sources, and improving consumption decisions. Providing product and service information might be a result of some consumers’ desire to help others (Hamilton 2001). Therefore communicating with people about the actual consumption experience can help a consumer derive other-involvement utility (Westbrook 1987). However, studies also indicate that helping behavior is mainly performed among consumers with relational ties (Engel, Blackwell, and Miniard 1993).

Overall, studies of conventional word-of-mouth systems highlight that consumers pursue goals while engaging in product information provision. While some of the goals such as expertise expression and those that are derived from product involvement are transferable to the Internet based word-of-mouth activities, goals like social communication and helping that are contingent on established social networks are less likely to establish online, especially for consumers who encounter the EWOMS for the first time. Therefore, offline word-of-mouth participation findings could not be readily applied to online context. To better understand and model what may motivate EWOMS participation, we need to closely examine how motivation and goal systems operate.

3.2 Goal Theories
The goal is defined as “a desirable future state of affairs one intends to attain through action” (Kruglanski 1996, p600). Goals lend meanings to activities people perform (Markman and Brendl 2000) and play a central role in guiding behaviors (McClelland 1987, Deci and Ryan 2000, Harackiewicz, Durik and Barron 2005). Goals have been conceptualized as a type of information (Bargh 1990, Kruglanski 1996) to which people attend when dealing with various stimuli and cues. There are two predominant views on how goals operate to affect behavior. One school of thoughts views goals operate through individuals’ intentional reasoning and conscious choice. The information processing perspective on goal operation believes that individuals
process goals cognitively before they purposefully engage in an activity (e.g. Ajzen 1985, Ajzen 1991, Harackiewicz, Durik and Barron 2005). However, recently there has been a growing recognition that many social behaviors are performed in an almost automatic, spontaneous fashion, without conscious cognitive processing (Bargh et al 2001, Forgas, Williams and Laham 2005, Weinberger and McClelland 1990). The next two sections introduce the thrusts of the two perspectives on goal-directed behavior and highlight their implications for our study.

3.2.1 The Information Processing Perspective on Goal Operation

Social cognition theorists posit that human behaviors reflect complex mental information processing outcomes. Antecedent to an information processing process are certain stimuli that originate either from internal cognition or external environment. The perceived stimuli are subjected to a complex cognitive process whereby they are encoded, interpreted, and integrated, resulting in a mental representation of the behavior that will lead to a further decision as to whether to avoid or approach the focal behavior (Fiske and Taylor 1991, Revell 1993). Figure 1 depicts the stages of information processing (Revell 1993).

![Figure 1: Conceptual Stages of Information Processing (Adapted from Revell 1993)](image)

The information processing perspective of goals has two major implications for our study. First, this perspective identifies antecedents of goal activation, goal processing and the subsequent goal
pursuing behavior. As clearly illustrated in Figure 1, there are two primary sources of antecedents that may evoke goal-related cognitive activities when the individual encounters a new situation. The first is the existing cognitive condition developed from past experience. The second source is dependent on environmental stimuli, which could be more important than the first source of antecedents from a practical perspective as it delineates possible approaches to inducing desirable behavior through enhancing and strengthening stimuli such that they can be easily perceived, selected, and assimilated by intended targets.

The second important implication is that the perceived stimuli are subjected to extensive cognitive processing within an individual’s particular cognitive context. Given the fact that many individual characteristics such as personalities, past experiences, knowledge, skills, norms, and habits can produce a variety of cognitive contexts, different interpretations and evaluations of the perceived stimuli and subsequent behavior will result (Harackiewicz, Durik and Barron 2005).

In the goal pursuit context, the cognitive processing of perceived goals centers on the individual’s evaluation of the attractiveness of the goal (Brehm and Self 1989, Wright and Brehm 1989) and the probability of goal attainment (Austin and Vancouver 1996, Heckhausen 1977). The cognitive evaluative processing outcomes determine the extent to which the perceived goal is really accepted by the targets (Janiszewski and van Osselaer 2005).

The perceived goal may yield varied attractions to different subjects due to their individual characteristics such as dispositions, interests, and competence (Brehm and Self 1989, Wright and Brehm 1989). Therefore two individuals would perform quite differently even when they both perceive the same goal. It is reasonable to conceive that the individual will be more likely to pursue a goal that is attractive than unattractive to her. Hence the perceived attractiveness of a goal is expected to moderate the link between a goal and the individual’s response to the goal.

The expectancy of the attainment of the perceived goal is another critical moderator of the causal link between the goal and the actual goal accomplishment (Heckhausen 1977, Wofford, Goodwin, and Premack 1992). The expected probability of goal attainment reflects the difficulty of achieving the aroused goal. In analyzing the individual’s beliefs regarding the probability of
goal attainment, personal agency belief model (Ford 1992) identifies two components of the beliefs: context beliefs and capability beliefs. Context beliefs reflect the actor’s perception of the responsiveness of the environment surrounding the goal. Capability beliefs are equivalent to self-efficacy beliefs regarding personal resources such as time and effort that individuals have for accomplishing the goal. Generally, the individual will feel a low probability to attain a goal if the environmental uncertainty is high or she lacks the required capability. Hence, low attainment expectancy indicates high difficulty and uncertainty in securing the benefits of goal achievement and therefore usually forces the individual to give up the goal.

3.2.2 The Automatic Process View of Goal Pursuit

Increasingly researchers have shown interests in goal pursuit automaticity because of voluminous observations of instances where people’s behaviors are determined not by their conscious intentions and deliberate choices but by mental processes that are put into motion by features of the environment and that operate outside of conscious awareness and guidance (Bargh and Chartrand 1999, Bargh et al 2001, Dijksterhuis et al 2005, Wood, Quinn and Kashy 2002). For example, attitudes toward social and nonsocial objects alike have been found to become active without conscious reflection or purpose within a quarter of a second after encountering the objects (Bargh et al 1992, Bargh et al 1996, Fazio et al 1986).

The fundamental reason of goal pursuit automaticity is that the individual’s limited cognitive resources cannot afford to accommodate every single stimulus around her. To save cognitive resources for more cognition-intensive activities, people over time have developed a route to pursue certain goals readily and efficiently without the involvement of much cognition. Therefore, a dual route model has been proposed to account for both the intentional cognitive-intensive and unconscious goal pursuit processes displayed in human behaviors (Bargh and Chartrand 1999, Weinberger and McClelland 1990). Figure 2 (Bargh and Chartrand 1999) depicts and compares the two routes to goal pursuit and accomplishment.
Model A presents the information processing perspective of goal pursuit which was discussed in the previous section. People are mobilized to the accomplishment of the goal through the mediation of conscious and intentional cognitive activities. Model B illustrates the dual-route model in which goal activation could be elicited either simply by environmental cues or through a conscious means or both. The addition of the direct path between the situation and goal-related activities indicates that the individual sometimes engages in activities without fully thoughtful deliberation of the implications of an activity to herself.

Automatic goal pursuit operates when people are exposed to a situation that they are familiar with. Repetitively dealing with a familiar environment produces habitual patterns of responses (Wood, Quinn, and Kashy 2002). The habit reflects an established direct connection between environmental cues and an ultimate mental structure that mobilizes the reaction (Oullette and Wood 1998). This connection eliminates the need for the individual to activate, integrate, and process the mental entities that are related to the environmental cues in order to come up with a responding strategy. Thus actions can emerge from implicit guides developed through past performance under similar conditions.
Researchers have also noted that intrinsic goals often operate under low consciousness whereas goals associated with external ends tend to be cognitively attended to (Austin and Vancouver 1996, Powers 1973, Weinberger and McClelland 1990). For example, individuals’ intrinsic orientations such as need for achievement, need for power, need for affiliation (Weinberger and McClelland 1990) and drive for competence (Powers 1973) are found to shape behaviors without the actor’s conscious control. Intrinsic goals enable the mental elements which are consistent with the goals to be more accessible than others (Bargh and Thein 1985). When the individual performs in a relevant situation, the easily activated mental elements will be integrated with situational cues and a mental structure that gears the response toward intrinsic goals will develop. Intrinsic goals operate chronically. Over time, the individual will be able to evolve a stable set of responses to environments that involve the operation of the intrinsic goals so long as she does not suffer any major consequences or is not subject to social norms (Rook and Fisher 1995). Consequently, the individual can achieve efficiency in the pickup of behaviors relevant to her chronically accessible trait constructs as the set of responses acts as a hard-wired template such that cognitive information integration and processing is skipped (Bargh and Thein 1985).

In contrast, extrinsic motivation is promoted by external sources of control. As long as the individual has the freedom of decision, the determination of the response to external stimuli is mainly based on the benefits that could be obtained as a result of the choice (Vallerand 1997). The decision process therefore should involve analyses of external incentives, of the importance and relevance of the benefits, and on how likely the benefits could be reaped if an approach response is made. As such the pursuit of external goals often involves active cognition operations.

4. The Research Model and Hypotheses
We conceptualize consumers’ participation in EWOMS as a joint behavioral product of the consumer’s both conscious and unconscious response to EWOMS to pursue some goals that are either embedded in the participation process itself or endowed by the consequences of the participation behavior by devoting multiple resources such as effort, cognition, and time to the activities. This conceptualization leads to a dual-process model that explains the grand mechanism underlying consumers’ information contribution behavior toward EWOMS. The
4.1 The Unconscious Process

The individual may engage in a behavior automatically in a familiar and often-exposed-to environment as she has formed a stable patterned response to the environment through experience. Since contributing consumption information through EWOMS integrates behaviors of using Internet communication systems and spreading consumption information, consumers’ responses to EWOMS could be unconsciously shaped by their current habits of using Internet-based communication systems and of disseminating product and consumption information in daily life.

Figure 3: A Dual-Process Model of Electronic Word-of-Mouth Participation

4.1.1 The Effect of Media Dependence

Electronic word-of-mouth participation is an activity taking place on the Internet. The advent of the Internet and various Internet-based communication applications has dramatically changed human’s communication habits. The Internet has become an inseparable medium for people to interact with the world. People express and reveal their thoughts, experiences, interests, and even
part of lives on the Internet and look for information, advises, and psychological support from the cyberspace (e.g., Schau and Gilly 2004, Zinkhan et al 2003).

The media uses and gratification theory posits that people obtain gratification from their use of communication media (Palmgreen 1984, Rubin 1994). The perceived gratifications in communication from a particular medium result in consumption dependence on the medium and produce a pattern of media use (Rubin 1994). Miller and Reese (1982) have documented that individuals’ reliance on a type of medium would increase their behavioral and psychological engagement with the contents on that medium and commented that “dependence on a medium appears to enhance the opportunity for that medium to have predicted effect” (p. 245). Studies of information systems in general and Internet communication applications in particular have also attested to their hedonic and gratifying utility that people may perceive through usage (Eighmey and McCord 1998, Luo 2002, Van Der Heijden 2004).

Extending these observations, we expect that consumers who have a habitual usage of Internet for communication may perceive an intrinsic gratification of the usage itself. They may develop a favorable attitude and behavioral tendency to a new Internet-based communication application through simply exposing to it to pursue the gratification and would not bother to initiate deliberate considerations of what they can gain from the system. Therefore, we suggest that:

\[ \text{P1: There is a positive relationship between the habitual dependence on Internet communication and consumption information contribution to the EWOMS.} \]

4.1.2 The Effect of Opinion Leadership Behavior

Conventional word-of-mouth studies have consistently noticed that some consumers tend to exhibit a habit of disseminating product and consumption information and giving opinions and advices to influence others’ choices and decisions. The concept of opinion leadership has been used to describe the trait of this group of consumers (Childers 1986, Flynn, Goldsmith and Eastman 1996, King and Summers 1970).
The major drive for opinion leaders in spreading product information is their expertise and knowledge in products and consumption. A high correlation has been found between individuals’ opinion leadership scores and their self-reported expertise for a particular type of product (Wojnicki and Godes 2004). Consumers with extensive product knowledge are high in perceived competence. Individuals’ needs for competence can generate strong intrinsic goals that would mobilize them to look for opportunities to satisfy the needs (Deci 1975, Deci and Ryan 2000). In the context of conventional word-of-mouth communications, opinion leadership behavior reflects
how intense an individual’s intrinsic goal to express her knowledge and competence is. The same pattern of participation behavior driven by the pursuit of competence is therefore expected to occur when the individual is exposed to a similar environment – EWOMS (Jin, Bloch, and Cameron 2002).

Initially a consumer’s opinion leadership behavior was examined with a specific category of product. However, later investigations showed that similar behavior could be observed on an individual across product categories (King and Summers 1970). Empirical findings also confirm that, apart from product knowledge and expertise, an individual’s personality could also account for some variance of individuals’ product information dissemination (Chan and Misra 1990).

Based on the above analysis that the overt opinion leadership behavior is both performed habitually and a reflection of an individual’s personality, we anticipate the consumer could extend their offline product information dissemination behavior to online context by automatically forming a positive attitude to the electronic word-of-mouth system and demonstrating a high participation tendency.

P2: There is a positive relationship between the opinion leadership behavior and consumption information contribution to the EWOMS.

4.2 The Conscious Process

Although consumers may have a positive response to EWOMS automatically, participation is by no means effortless. Therefore, we believe that the positive response generated from the automatic goal pursuit process could not fully account for and guarantee consumer’s provision of consumption information to EWOMS. However, if EWOMS are associated with certain extrinsic goals that are of interest to the consumer and are perceived by the consumer to be relatively easy to attain, the participation likelihood will increase tremendously.

The starting point of pursuing an extrinsic goal is that the goal is perceived by the individual. The information processing perspective of goal pursuit indicates two major inputs of goal perception. One source of input is environmental stimuli; the other is the individual’s memory of
past relevant experiences. In the context of electronic word-of-mouth communication, environmental stimuli represent the various incentives offered by the system. Meanwhile the consumer’s memory of her past consumption encounters might also produce certain goals. According to the goal theories, the perceived goals from different sources will be subjected to cognitive evaluations before they become operative and direct the consumer to act accordingly.

4.2.1 The Effect of Economic Incentive

Information contributed to publicly accessible information system becomes a type of public good. The important feature of public goods is that nobody can claim the sole ownership to seek compensation from others’ consumption. Research indicates that without proper external intervention, people tend to enjoy free-rider benefits and hold back their participation and contribution. To promote contribution, many intervention programs have been devised and monetary compensation is one of the most commonly adopted methods (Avery, Resnick and Zeckhauser 1999). For example, a recent study in the context of open source software development, another type of public goods production, has validated that the extrinsic goal for gaining economic rewards was positively related to programmers’ contribution level (Roberts, Hann, and Slaughter 2004). Practically, ePinions.com, one of the major online word-of-mouth systems, adopts this strategy and provides monetary rewards to information contributors. The economic goal is relatively rare in offline word-of-mouth, which is often part of an individual’s social communication.

The awareness of the economic reward stimuli associated with EWOMS allows the consumer to recognize that her information contribution to the system may help her earn the reward. This is a cognitive process of stimuli detection whereby the individual perceives goal stimuli imparted by the system. Whether the consumer can transform the goal stimuli to the goal she would like to pursue depends on two additional cognitive processes.

Firstly, the attractiveness the goal stimuli will determine if the consumer can be motivated by it. Only when the consumer develops an interest in the economic and monetary rewards introduced

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1 The consumer can be aware of the rewards through several ways. For example she may know it from her friends or other consumers, the system introduction and policy online, or an email soliciting feedback from the system. Currently in this study, we treat the awareness from different channels equally.
by the system can she be mobilized to capture the rewards. As consumers’ preferences for compensation differs, they will have varying assessments of the attractiveness of the rewards. When an individual perceives the economic rewards offered to be attractive, we expect she will also develop a favorable attitude toward the system and will be energized to reap the rewards. On the other hand, if the goal stimulus does not interest the individual, the intended extrinsic motivation effect could not occur. As such, we propose:

P3: There is a positive relationship between the perceived economic goal associated with EWOMS and consumption information contribution to EWOMS when the consumer perceives the economic goal to be attractive.

Secondly, the individual focuses on the outcome when performing extrinsically motivated behavior. When the individual cognitively processes the extrinsic goal information for coping decision, the probability of goal attainment is a key consideration (Gist and Mitchell 1992). In the case of contributing consumption reviews to an electronic word-of-mouth system that claims to offer economic rewards, the individual would speculate how likely she can gain the reward given her product knowledge and consumption experience. The thinking leads to a judgment of the probability of obtaining the economic reward. If the probability is low, the individual will not be motivated to participate.

P4: There is a positive relationship between the perceived economic goal associated with EWOMS and consumption information contribution to EWOMS when the consumer perceives the economic goal to be attainable.

4.2.2 The Effect of Status Incentive

The recognition of an individual’s effort, knowledge, helpfulness, and contribution in the form of prestigious status is another incentive deployed in some EWOMS. Such recognition is another type of payoff to compensate the individual’s contribution (Butler et al 2002). To some extent, identity on the Internet is a type of asset to some individuals. Gaining the status asset could be a goal that energizes the individual to engage in information contribution in EWOMS. Researchers
have found that status is an important driver for programmers to contribute codes in open source software communities (Raymond 1999, Roberts, Hann and Slaughter 2004).

However, as what generally happens to an extrinsically induced goal, the operation of the status goal is moderated by the individual’s interest in the goal and the assessment of the probability of gaining the status. The status may mean a lot to one but nothing to another. Thus the individual who values the online status would accept and respond to the system more favorably than the individual who does not. Additionally, status means extraordinary contributions. There is little chance for the status goal to operate if the individual perceives that her product knowledge and acceptable level of contribution effort would not lead to the attainment of the status goal.

P5: There is a positive relationship between the perceived status goal associated with EWOMS and consumption information contribution to EWOMS when the consumer perceives the status goal to be attractive.

P6: There is a positive relationship between the perceived status goal associated with EWOMS and consumption information contribution to EWOMS when the consumer perceives the status goal to be attainable.

4.2.3 The Effect of Consumption Reciprocation Goals
The reciprocation goal has been associated with offline word-of-mouth communication and also observed in online channel (Bailey 2004). People are found to share their satisfaction with a product through recommendations or to warn others against a bad product through complaints. We define the reciprocation as the act of returning the positive or negative residue that the individual obtains in consumption through influencing other consumers’ engagement with the product. Past discussions of reciprocation centers on the dyadic relationship between two social entities. Recently, the theory of reciprocal altruism (Buunk and Nauta 2000) proposes that reciprocal behavior can occur in groups of related individuals. We adopt the conceptualization of the theory of reciprocal altruism and use the notion of reciprocation in the general sense.
Consumption processes may yield cognitive and emotional residue which constitutes the product memory. Negative and positive consumptions are believed to generate more intense and accessible emotion (e.g., anger, regret, disappointment, and happiness, etc) and cognition (e.g., how the consumer is dealt with, how the product performs, etc) during and after consumption than neutral consumptions, and consequently memories of negative and positive consumptions are relatively easy to be activated when the consumer enters a consumption information provision context like EWOMS. The activated memory may arouse consumers’ reciprocation goals such that those with negative experiences tend to complain and those with positive experiences tend to compliment the product through EWOMS.

Although the consumption memory could be activated and the reciprocation goals may be perceived through EWOMS exposures, especially for consumers with positive or negative consumption experiences, individuals process these cognitive elements differently. It has been found that individuals demonstrate different positive and negative reciprocal behaviors, which researchers believe arise from two distinct personality traits, positive and negative reciprocity norms\(^2\) (Gouldner 1960, Eisenberger et al, 2004). Positive reciprocity norm serves as a mechanism that encourages individuals to invest resources in those who have helped them whereas negative reciprocity norm reflects individuals’ beliefs on retribution for physical, psychological, and symbolic mistreatment (Helm, Bonoma, and Tedeschi 1972). We anticipate consumers with positive consumption experiences and holding positive reciprocity norm and consumers with negative consumption experiences and holding negative reciprocity norm will have strong interests in reciprocation and therefore would respond to EWOMS favorably.

P7: The relationship between the perceived negative (positive) reciprocation goal associated with EWOMS and consumption information contribution to EWOMS will be positive for consumers who have negative (positive) product experiences and at same time endorse the negative (positive) reciprocity norm.

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\(^2\) We do not examine the consumer’s interest in the positive (negative) reciprocation directly as we do with economic and status goals as the reciprocation goal is derived from consumption by the consumer. The attractiveness of the goal therefore does not involve an explicit evaluation. Instead, it reflects the individual’s personal disposition toward positive (negative) reciprocation.
Moreover, the assessment of the goal attainment probability will be instigated when the consumer develops the reciprocation idea. As now the ultimate executor of the reciprocation is the electronic word-of-mouth system, the consumer’s estimation of the ability of the system in influencing other consumers’ consumption decisions will moderate her attitudinal and behavioral response to the system.

P8: The relationship between the perceived negative (positive) reciprocation goal associated with EWOMS and consumption information contribution to EWOMS will be positive for consumers who have negative (positive) consumption experiences and at same time perceive the online reciprocation to be attainable.

5. Discussion and Conclusion
The present paper studies an increasingly important electronic commerce supporting system - electronic word-of-mouth systems (EWOMS). We attempt to address an unexplored research question pertaining to EWOMS, consumers’ initial participation in consumption information contribution to EWOMS. We draw upon goal and motivation theories to model the underlying motivation mechanism that mobilizes the consumer to provide consumption information to EWOMS. Classifying the mechanism into automatic and intentional sub-processes, we develop a dual-process goal pursuit model which suggests consumers’ initial adoption of EWOMS is both shaped by their intrinsic goals unconsciously and driven by extrinsic goals induced by the systems and consumption experiences. The study is expected to make substantial contributions given that it is among the first to explore information provision to EWOMS and that it examines the effects of both the conscious and the automatic cognitive mechanisms.

First, the study will enhance our understanding of online word-of-mouth phenomenon. The majority of EWOMS literature focuses on the consequences of the systems currently, resulting incomplete and imbalanced knowledge of EWOMS. However, understandings of information provision are equally important as they can lead to effective promoting interventions, which are greatly needed for EWOMS to function properly to support electronic commerce.
Second, the study will provide important implications for EWOMS designers and practitioners to promote system adoption and usage. While studies have suggested economic rewards as a means to encourage participation, empirical research developed from the propositions outlined here could show the relative magnitude of the contribution of economic rewards as compared to other participation drivers. If the effects of status goals, reciprocation goals, and unconscious intrinsic goals could be validated by empirical findings, system practitioners who attempt to solicit consumption information could exploit the complementarities among these drivers to devise effective yet economic participation promoting mechanisms.

Third, the paper has great potentials to demonstrate the importance of the moderating impact of individuals’ cognitive contexts on their interpretations of incentives offered by EWOMS. If the moderation effect could be validated, system practitioners might consider how to influence the consumer’s cognitive activities to a favorable end. For instance, in our analyses, we propose the attractiveness is an important aspect of consumers’ assessments of extrinsically goals. EWOMS designers thus can use reviewers’ positive comments on the rewards they have earned from the system to induce a high attractiveness assessment.

The dual-process modeling of EWOMS has two significant theoretical contributions as well. First, the information processing perspective stresses that users may respond differently to the same interventions that are deployed to increase system adoption and usage. While prior studies tend to relate external interventions to increased adoption and usage directly, our paper employs rich and well-developed cognitive literature to highlight the need to incorporate system users’ cognitive operations of external influences when examining information system adoption and usage. We expect this study will enhance the theorizing of information system adoption in general.

Second, the conceptualization of automatic response as an important driver for information system usage will draw IS researchers’ attention to cognitive and behavioral automaticity, a research perspective that has yet to be explored in IS arena. Current information system research is dominated by studies that assume people are highly rationale and perform behavior based deliberate and extensive cognitive activities. For example, theoretical foundations that are widely
adopted in IS research, including the theory of reasoned action (TRA) and the theory of planned behavior (TBP), and the technology adoption model (TAM), all suggest that people choose a particular behavior after comprehensive evaluations of the various implications of the behavior to them. While findings obtained from these theoretical perspectives certainly explain a great deal of human behavior in general and information system adoption and usage in particular, we believe that automatic responses are also operative and need further investigation given human’s limited cognitive resources and abilities.

References:


