

**Stimulate social interaction between consumers: a network-oriented framework**

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**Abstract**

It appears networks arise in every sphere of human activity (Batten *et al.*, 1996). This article focuses on social networks in which consumers are embedded. Despite the widely acknowledged significance of consumer networks, social network theory has rarely been integrated into marketing theory (Reingen, 1994). This peculiar absence will be addressed in the following. First, a marketing view will be proposed extending the classical dyadic relationship view to a triad. Furthermore, an aggregated marketing model will be outlined that views word of mouth not only as an output variable, but as variable that can be influenced. Implications are given in order to initiate, stimulate and control social interaction between consumers – excluding mass communications.

Key words: Social Networks, Network Perspective in Marketing, Word of Mouth, Consumer-to-Consumer Interaction (C2C)

## **Stimulate social interaction between consumers: a network-oriented framework**

### **Background: Social Network Analysis**

The academic literature on networks has grown dramatically in recent years, especially in the management field (Hutt and Walker, 2006). The term network is used to refer to a variety of concepts, such as industry and collaboration networks, co-authorship networks, social networking sites such as Facebook and MySpace as well as terrorist-networks or networking at a dinner party. Social network analysis is the study of social structure. Besides its function as a statistical tool to analyse social structures, social network analysis (SNA) is also a theoretical perspective, following the understanding of modern sociological network analysis. This perspective highlights the importance of networks and their influence on individual actions. Instead of examining individual behaviours or attitudes, SNA explores social entities or actors, their interactions, and how these interactions constitute a structure that serves as the focal point for analysis (Wasserman and Galaskiewicz, 1994). Hence, actors are described by their relations, not by their attributes. The network perspective then focuses on the relationships among actors and on the patterns and implications of these relationships (Wasserman and Faust, 1998). One of the main advantages of network analysis is its ability to examine different levels of aggregation, depending on the research question: macro level effects such as network structure, change and stability; social capital on a micro level and also mixed level effects, such as the relevance of network structure on an actors' motivation for recommendation (Algesheimer and Wangenheim, 2006). Albeit the high complexity that comes along with SNA – i.e. individuals being embedded in networks that are embedded in networks that are embedded in networks (Hanneman and Riddle, 2005) – Iacubucci (1996) clearly stated the benefit of an intensifying collaboration between SNA and marketing:

- Much of Marketing is relational.
- Networks are an excellent means of studying relational phenomena.
- Networks are an excellent means of studying much of marketing.

In recent years, many insights into properties of social networks have been gained due to a growing amount of available data, more sophisticated tools to analyse data and an intense multi-disciplinary interest (Borgatti and Foster, 2003; Leskovec *et al.*, 2007; Richardson and Domingos, 2002; Welser *et al.*, 2007). At this point, the objective is to integrate this perspective into the firm's view of the market, in order to exploit the potential of SNA to a greater extent.

### **From the sales to the relationship marketing-view towards a network-oriented view**

The relationship marketing approach has unquestionably been a paradigm shift compared to the transaction orientation that dominated marketing during the industrial age. The focal point of the relational view is the customer; the firm's objective is to better meet customer's needs in comparison to other competitors, thereby attaching customer to the firm and increasing customer profitability in the long run. These underlying principles are not questioned. However, the dyadic relationship approach argues from a perspective of two business partners and neglects the fact that individuals are embedded in their social network. The increasing importance of social interaction between consumers is undisputed (Muniz and O'Guinn, 2001; Mayzlin and Godes, 2004) and first applications of the network approach to

the customer equity management are promising (Algesheimer and Wangenheim, 2006). Compared to the traditional business-to-consumer (b2c) perspective, the network-oriented view seeks a business-to-consumer-to-consumer (b2c2c) view. The unit of analysis is thus switched from the customer to the customer's network. Therefore, returning the call for a revised view of the customer due to the recent change on the 'market stage'. Applying Prahalad and Ramaswamy's (2000) theatre metaphor, the change of consumer behaviour can be described as follows: While customers used to sit back in their seats and passively watch the show, they have now moved out of the audience and onto the stage to initiate an active and explicit dialogue with manufacturers, agencies, consumers worldwide and other market players. The interaction between the firm and the consumer is becoming the locus of value creation and value extraction. As value shifts to experiences, the market is becoming a forum for conversation and interaction between consumers, consumer communities and firms (Prahalad and Ramaswamy, 2004). Any attempt to understand co-creation of value and consumer experiences inevitably involves a consideration of C2C interactions (Ramaswamy, 2008).

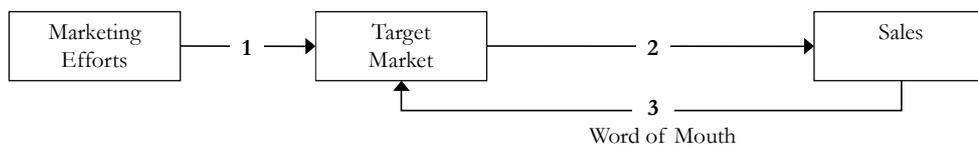
In this network-oriented view, the firm explicitly integrates the social structure and relations consumers share with their network (Achrol and Kotler, 1999). Hence, prospective consumers are also taken into account. They are defined as potential future buyers – in the sense of the target market –, as well as individuals who exert or might exert some kind of personal influence on existing or future consumers. Consequently, three different types of consumer interactions can be differentiated: consumer-to-consumer, consumer-to-prospective consumer, and prospective consumer-to-prospective consumer. From a management perspective this approach should then lead to continuously focusing on exchange relations between consumers, treating them individually, yet analysing and respecting their social consuming environment. Therefore, gathering and analysing data about communication networks while monitoring the content and activated channels of interaction facilitates greater insights into the consumer's behaviour. While managerial and organizational consequences of this view are to be addressed in depth (e.g. new product development with consumer groups, etc.) the focus here are the firm's communication activities. In order to systematically analyse, plan and execute marketing efforts a fundamental understanding of the relationship between product-related social interaction, social networks and non-traditional communication efforts has to be established first.

### **Concept of an aggregate network-oriented market model**

Over the last decade, consumers have become increasingly sceptical, even rejecting mass marketing tactics and strategies. With this raise in consumer cynicism, marketers are more apt to turn to new and alternative means of marketing communication that partially yield enormous return on investment (Kiss and Bichler, 2008; Ferguson, 2008). Although many different names are given, marketers are turning to the most powerful marketing tool: word of mouth (Arndt, 1967; Engel *et al.*, 1995). The managerial literature provides a plethora of suggestions on how to stimulate WOM. However, they are often advocated as the 'silver bullet' by those who want to earn money with the specific approach. Sound theoretical and conceptual frameworks are missing and the focus is on descriptive case-studies and how-to-manuals for specific communication channels. On the other hand, a vast number of academic publications covering WOM exists, yet the research focuses primarily on WOM as a dependent variable (Nyilasy, 2006). Apart from some recent exceptions (Carl, 2006; Godes *et al.*, 2005), insights about firm-initiated WOM are rare. Blackwell *et al.* (2001) even explicitly advise against the use of WOM marketing. It seems as if the basic understanding of the

underlying mechanisms between target market, sales and WOM in the literature still follows the new-product-diffusion models as depicted in figure 1.

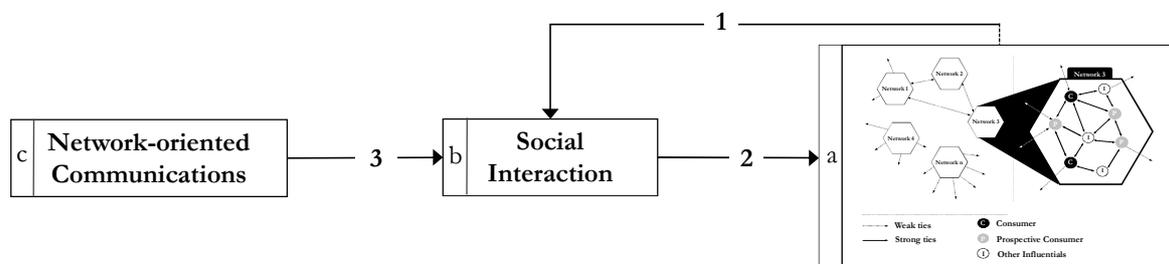
**Figure 1** Structure of New-Product Diffusion Models



Marketing efforts act as a controllable input variable and impact the identified target market (1); individuals from this target market then eventually make a purchase (2) and exert personal influence in form of WOM on prospective customers (3). WOM is modelled as personal influence between buyers and the target market, thus as a function of cumulative sales. In this case, the level of sales will impact the strength and amount of path 3 – if WOM is generated as a by-product of cumulative sales, then the new product will penetrate the market quicker. The possible strategy of directing marketing efforts directly to stimulate WOM or to other influential populations, who then in turn influence the target market, is thus not adequately modelled.

Based on a first extension by Bayus (1984), the new-product diffusion model is now further extended to incorporate the network-oriented market view (a), a broader perspective of personal influence beyond traditional WOM (b), and exclude mass marketing, but focus on non-traditional, network-oriented marketing communications (c).

**Figure 2** Model of network-oriented Communications



(a) In this model of network-oriented communications it is also assumed that the level of sales will impact the strength of WOM (1). However, the target market and buyers are viewed as dynamic social networks. There are three different populations within these networks: consumers, prospective consumers and other (prospective) influentials, thus incorporating the diversity of social interaction within society and focusing on the relationships among actors and on the patterns and implications of these relationships.

(b) The traditional view of WOM is too narrow to capture the breadth of influences and is thus replaced by the concept of social interaction (Godes *et al.*, 2005). In terms of the content, social interaction only has to have some degree of relevance to the firm, brand, product or service; therefore ranging from hands-on product experiences to messages about an upcoming product launch event, a reference to the trendy design of the firm's webpage or a rumour about the party excess of the founder of the firm – the valence of the information can

be positive or negative. In coherence with the network perspective, social interaction is understood as the flow of information between nodes of the network along their ties. This view, therefore, excludes traditional mass marketing campaigns. Furthermore, social interaction may be direct or indirect, including all verbal, non-verbal or other mediated forms of interaction, such as blogs, discussion boards, social networking sites, email, as well as phone and instant or text messaging. Social interaction between nodes in the network then might also further drives sales within the set of social networks (2), which in return further stimulates social interaction (1). Under ideal conditions this leads to positive feedback loops.

(c) Adding path 3 enriches the model considerably. This link presumes that the firm can affect social interaction between consumers and prospective consumers, apart from mass communications. The objective of the network-oriented communication (3) is not to address members of social networks by undifferentiated tools, but rather to enable, initiate and stimulate social interaction with and between targeted members of the networks. The main disadvantage of firm-induced social interaction compared to mass marketing is its poor reach. Therefore, assuming the firm spreads product-related information to an initial, well chosen small population, the subordinate objectives to reach a large number of people are as follows: First, the number of informed individuals who forward the message to un-informed individuals has to be maximized – this is called the reproduction rate  $R$ . Second, the number of generations that are involved in this forwarding process also have to be maximized. The potential and practicability of this approach is documented by recent empirical research on electronic campaigns. For example, a charity campaign that was initially sent out to 7,064 individuals was forwarded along 17 generations with an average reproduction rate of 0.77, finally reaching 30,608 persons (Watts and Peretti, 2007; Watts *et al.*, 2007a). It is important to note, however, that the number of people reached in this forwarding process, are much more targeted compared to mass marketing due to the inherent social filter of social interaction.

To systematically plan campaigns to stimulate social interaction, the anticipated reproduction rate as well as the number of generations should be defined as goal and control variables. In combination with the initial number of informed individuals, this results in the expected final number of reached persons. It has to be pointed out, however, that the relationship between the content and channel of stimulated social interaction has to correspond to appropriate communication objectives. The record-breaking, explosive ‘viral video’ does not immediately lead to explosive sales; be it carefully integrated in a systematic marketing planning process, though, this might lead to cost effective awareness building (Kiss and Bichler, 2008). The choice of existing non-traditional communication tools is enormous. They might be called guerrilla-, buzz-, viral- or social-media-marketing. The important aspect is that they are still viewed as ‘stand-alone’ marketing solutions. In contrast, the proposed framework enables marketers to regard these tools as means to stimulate specific forms of social interaction that have to be integrated into the marketing mix. Hence, strategies to stimulate social interaction across different channels have to be outlined in order to concentrate on reaching the defined objectives and combine the variety of tools into an effective bundle.

On the basis of Godes *et al.* (2005) four generic strategies to manage social interaction are proposed. The degree of the firm’s participation in the market interaction is the main differentiator. Therefore, strategies are systematised from most passive to most active and do not exclude each other but rather build on each other: (A) Observer: The company gathers online and offline data about ongoing topics, dominating communication channels as well as the communication network and potential lead customers (Liu, 2006) – a prerequisite for any market driven firm. Online interaction can often be observed quite cheaply and in real time.

However, this is only one facet of the variety of social interaction and has to be supported by further research about offline conversations. Many companies do not only have data about individual customer behaviour, but also about the frequency of interactions and the resulting topological characteristics of the customer network. Yet, typically this data is not viewed from a network perspective, ignoring the position of a person in the customer network and thus not fully exploiting the potential insights. (B) Moderator: The firm fosters social interaction by enabling consumers to share information through their preferred communication channel. A popular approach is the creation of firm related online communities. However, a firm following this strategy is not actively engaged, but rather provides the framework for customer-to-customer interaction. For instance, Apple promotes and supports user groups, but the company does not own, manage or direct them. (C) Mediator: The firm actively tries to manage social interaction and makes specific decisions about context and content of social interaction – a typical example would be a ‘viral video’ that is placed on video sharing sites. The firm actively disseminates marketing information that is supposed to be passed on between consumers. The information has to be interesting, engaging and valuable to the recipient, in order to motivate further interaction. Most importantly however, there has to be an evident link between the message and the firm or product. Guerilla- and buzz-marketing campaigns are other possible approaches to follow this strategy, if applied in a systematic way. (D) Participant: The firm actively takes part in social interaction with its consumers. While Godes *et al.* (2005) refer in this case to undercover or stealth campaigns, we subsume in this category actual interactive dialogue with consumers, who are invited to participate in the co-creation process of value. This may range from the design of a website to the design of a new product or to have pre-market access to new innovations and to give feedback – ‘consumer empowerment’ or ‘market-seeding’ are the agency terms for this. This process enables co-creative interactions so that individuals can have meaningful and compelling engagement experiences that then lead to highly emotional social interactions among participants and non-participants. Nike proves already how to exploit this source of value by engaging with informed, connected, and networked customers around the globe (Ramaswamy, 2008). Most recent research reveals common value-creation processes within different brand communities (Schau, Muniz, and Arnould, 2009).

The challenge for a firm is to create engaging, appealing and useful messages that add value to consumers’ social interactions within their social network and provide personalized consumer experiences. Individuals will not share their experience with products or services unless the conversation produces some type of gratification (Blackwell *et al.*, 2001). In contrast to the ‘silver bullet’ approach, the systematic combination of relevant tools has the potential to initiate multi-stage referral sequences between consumers.

A firm will never be able to fully control the exact frequency or content of social interaction. A systematic approach, however, has the potential to create the best possible preconditions to enable social interaction between consumers on behalf of the firm and hereby gradually driving sales. Academic research should take the lead and support marketing practitioners with the relevant methods to fully exploit the potential of a network perspective in marketing. If data about the customer network is available, centrality measures provide a structural measure that can be used to select influencers to participate in campaigns. A critical question is which of these measures is best to select an initial set of customers for a specific marketing campaign, in order to achieve a maximum dissemination of messages. Secondly, qualitative methods should be applied to learn more about these individuals – their personality traits, as well as preferences and motivations to engage in firm related interaction. These insights will be of great significance for the management of the interaction to and between consumers.

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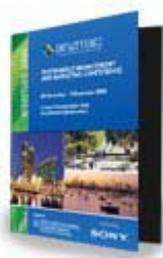
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