Exploring the Concept of Mobile Viral Marketing through Case Study Research

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Abstract: Mobile viral marketing has a tremendous potential for communication and distribution purposes. Although seen as an important issue from the viewpoint of practitioners there has been little research on the phenomenon so far. This paper represents a first step in filling this void. We examine 34 case studies in order to identify relevant characteristics of mobile viral marketing. The outcome of the paper is a description model of mobile viral marketing as well as a derivation of four mobile viral marketing standard types. The proposed scheme allows unambiguously characterizing any given mobile viral marketing strategy and providing recommendations for designing new mobile viral strategies.

1 Introduction

Word-of-Mouth (WOM) refers to oral, person-to-person communication between a receiver and a communicator which the receiver perceives as a non-commercial message, regarding a brand, product or service. [Ar67] The rapid growth of cell phone ownership has opened up new arenas for WOM communication: mobile viral marketing (MVM). In a recent study [WM06] almost 70% of the 44 experts stated that this mobile form of interpersonal communication is an important feature of a mobile marketing campaign. Further, the experts confirmed that recipients getting a mobile marketing message from familiar communicators participate more frequently in a campaign as initial contacts. The reason is the personal message gaining more credibility than that coming directly from the self-interest advertiser (see also [Kü02]). Taking advantage of the inherent nature of cell phones as communication vehicles MVM enables consumers to share mobile information and content within their social network. Therefore, MVM facilitates spreading commercial information and content within the desired target group. Another advantage of MVM is that advertisers can significantly expand the campaign reach at low company expense. [JE04] According a survey of Skopos [Ip05], 30% of the 2.500 respondents said a friend’s recom-
mendation would convince them to download a mobile application. These results illustrate the tremendous potential of MVM for communication and distribution purposes.

Analyzing mobile marketing from a theoretical viewpoint [PW06] defined six mobile marketing objectives. One of them is motivating mobile viral marketing. Although MVM is seen as an important issue from the viewpoint of practitioners [WM06], only limited research on the phenomenon has been published to date [Ok05]. This paper represents a first step in filling this void and presents the results of a case study research concerning MVM. Its overall goal is to provide a better understanding of MVM for practice and research. The outcome of the paper is a description model [He93] of MVM as well as a derivation of four MVM standard types. In order to implement effective MVM practitioners need to understand what characterizes MVM. Only then they can target individuals with messages and applications developed to enhance viral strategy on the mobile channel. As the description model is depicted as morphological box [Zw66], practitioners can use it as creative technique for developing new MVM strategies. For scholars our goal is to provide an useful starting point and impetus for further research.

The paper is organized as follows: In section 2 we provide a literature review and define MVM. Section 3 offers the details of the method used in this paper. In section 4 we present and discuss our results: In section 4.1, we present the description model by identifying and classifying characteristics of MVM. Based on this, in section 4.2, we derive four MVM standard types. In section 5 we outline the main findings, draw conclusions and comment on implications for future research.

2 Background

2.1 Literature review

We start with the review of literature from WOM, electronic viral marketing (EVM) and MVM research. WOM has received extensive attention from both academics and practitioners for decades. [DL04] Since the early fifties researchers have shown that WOM could not only influence consumers’ choices and purchase decisions [Ar67], but could also shape consumers’ expectations [ZB96], pre-usage attitudes [HKK91] and even post-usage perceptions of a product or service [Bo95]. [KL55] reported that the influence of WOM is greater than that of classic advertising media.

Due to the development of information and communication technologies like the
stationary Internet consumers’ communication environment has been changed and enriched. As a result WOM has gained new significance [De03] and WOM on the stationary Internet was termed “viral marketing”. In 1997 the venture capitalist Steve Jurvetson originally used the term as “network-enhanced word of mouth” [Ju97] describing the then high innovative marketing strategy of the free email service Hotmail. Synonymously, such terms as propagation, aggregation or organic marketing [He00] are used. Many authors [He00] [He04] stated that EVM is no innovative idea. Even though the same principle is used, EVM is significantly different from WOM in several ways, such as expanded scale and scope of influence, the ability of synchronous and asynchronous communication as well as the flexibility to arrange a variety of influence strategies [SR03]. Successful EVM is characterized by [We02, p. 4] as “strategies that allow an easier, accelerated, and cost reduced transmission of messages by creating environments for a self-replicating, exponentially increasing diffusion, spiritualization, and impact of the message”.

There are several attempts to categorize EVM. [DL04] distinguished between intentional and unintentional message dissemination and used a motivational classification. Another distinction is between service-based and incentive-based [Ba00]. While in the first case the quality of the offer determines the viral effect, the latter means that consumers receive a monetary incentive for passing on an advertiser’s message. [Kr01] discerned between private (e.g., sending an email) and public recommendation (e.g., articulating on Internet consumer-opinion platforms). However, the presented categorizations [DL04] [Ba00] [Kr01] neglect an appropriate foundation. A popular categorization is between high (active) and low (passive) integration strategies varying in the degree of requiring the consumer’s activity in passing on the “virus” (e.g., [He00]). [SR03] added a second factor, the level of network externalities. As we will see in section 4.2 their categorization will be also suitable for MVM strategies.

Although scholars have provided a sizeable body of research on mobile marketing [LSK06], research on MVM is rare to date [Ok05]. [BS02] found out in a trial (n=500) that 17% forwarded one or more mobile messages. Mobile ads that were forwarded were those that were seen as especially entertaining or informative. In the survey of [Kü02] (n=9,462) 19% to 42% (depending on the analyzed campaign) forwarded a mobile greeting card once and 22% to 41% repeatedly. [MNK03] and [JE04] described examples of MVM strategies.

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1 To distinguish between the channels used for viral marketing we use the adjectives “electronic” and “mobile” respectively.
2.2 Definition of mobile viral marketing

Conceptual agreement is necessary to promote a shared understanding of MVM and encourage clarity of communication and convergence in thinking. Hence, we develop a definition of MVM through analyzing the numerous definitions provided by academic EVM literature. The review of the literature revealed that numerous competing and overlapping definitions have been proposed by scholars to describe the phenomenon which we term EVM (table 1).

<table>
<thead>
<tr>
<th>Definition</th>
<th>C2C</th>
<th>WOM</th>
<th>Communication concept</th>
<th>Distribution concept</th>
<th>Network externalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Another possibility for a company to actively manage Internet WOM is of course viral marketing” which is defined as “a communication and distribution concept that relies on consumers to transmit digital products via electronic mail to other potential consumers in their social sphere and to animate these contacts to also transmit the products.” [He00, p. 159]</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>“type of marketing that infects its consumers with an advertising message, which passes from one consumer to the next like a rampant flu’ virus.” [Mon01, p.93]</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“true viral marketing differs from word-of-mouth in that the value of the virus to the original consumer is directly related to the number of other users it attracts” [Mod01, p. 30].</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>“the tactic of creating a process where interested people can market to each other—is therefore emerging as an important means to spread-the-word and stimulate the trial, adoption, and use of products and services.” [SR03, p. 300]</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>“any positive or negative statement made by potential, actual, or former consumers about a product or company, which is made available to a multitude of people and institutions via the Internet’ [He04, p. 39].</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Comparison of definitions of the phenomenon electronic viral marketing.

While all these definitions hold the view that EVM is a consumer-to-consumer (C2C) process and related to WOM, they are inconsistent in all other aspects. The definition of [He04] is alike the definition of WOM [Ar67], whereas [Mon01] links the phenomenon with advertising and understands it as a communication concept. [He00] and [SR03] expand the scope on distribution and communication. However, the definition of [He00] limits EVM to those products available digitally – also services are neglected. Modzelewski’s proposition [Mod01] that viral marketing differs from traditional WOM due to the positive network externalities is interesting, as it integrates EVM with network effect theories (see also [SR03]). Although EVM uses stationary Internet technologies and in contrast MVM uses mobile communication techniques, we can derive central attributes of our MVM definition from above-named EVM definitions: First, MVM is based on WOM and therefore refers to any positive or negative interpersonal communication between a receiver and a communicator which the receiver perceives as a non-commercial message, regarding products, services or ideas. Second, MVM is a communication or distribution concept. Third, the term
“viral” indicates the exponential diffusion of information about products and also the products themselves like an epidemic [He00]. Since an epidemic may be local and can be global [DCC05] we also use the term, even if scale of MVM may be minor than that of EVM. However, some authors avoid this term due to its negative connotation (e.g., [DL04]). Summarizing the discussion above, we define mobile viral marketing as a marketing communication or distribution concept that relies on consumers to transmit mobile viral content (products, services or ideas) using mobile communication techniques to other potential consumers in their social sphere and to animate these contacts to also transmit the mobile viral content.

3 Method

This exploratory qualitative [My97] research used the case study approach [Ei89] [Yi02]. This approach is especially appropriate for obtaining complex details and novel understandings about a specific phenomenon under investigation and can be used to accomplish various aims like to provide description, test or generate theory [Ei89]. The interest here was in the first aim. In order to provide a description model of MVM we identified and classified relevant characteristics of MVM within a morphological box [Zw66]. The morphological box is based on a three step process of negation and construction [Mü76]: In the first step the phenomenon has to be decomposed. This decomposition leads to a number of attributes that make up all possible ways of comprehension. In the second step all possible or relevant realizations are determined. Using the method in creative problem solving, the third step is the reconstruction. The user projects himself into a tangible situation and selects one of its realizations for each attribute. The morphological box was developed based on literature review. During the data collection the morphological box was refined. Data were coded individually by two trained coders. Afterwards, 34 accurately described case studies² were analyzed according to the process described in [Ei89] in order to derive MVM standard types. We used the morphological box as research instrument. The 34 case studies were found through a Web content analysis [Jo99] using the key words “mobile word-of-mouth”, “mobile viral marketing” and

² ADIDAS (+10); aubergemediale (event newsletter); Beiersdorf (Nivea Visage Shine Control); Coca Cola (Fanta Flaschenpost); Colgate-Palmolive (GARD); Columbia Tristar Film (Mona Lisa’s Lächeln); Constantin-Film (Resident Evil, T-Virus); Contopronto AS (LUUPAY); CSU (Edmund Stoiber Kampagne); Ferrero (tictac); Friendzone; FUNKsunglasses; INTER SNACK (funny frisch); ipsh! P2P; itsmy.com; L’Oréal (Studio Line); McDonald's (Findet Nemo); McDonald's (Los Wochos); Molkerei Alois Müller (Alles wird Becher); Mobile Commerce Working Group Augsburg (MCTA06); Mozes Mobi; NCS mobile payment bank (Crandy); O2 myWAP; paybox; Peperonity.com; Porsche (Cayman); Qiro; SONY (PS2); Supafly; T-Mobile (WM-Rasen); Unilever Cosmetics International (CK one); Upoc; VW (Eos); Zlango. Detailed descriptions of the case studies are available from the author upon request.
“viral mobile marketing”. They were chosen to fill the theoretical categories of the proposed morphological box and support emerging standard types. Unfortunately, it was not possible to get detailed descriptions of the case studies as data were gathered mostly from press releases. Afterwards, we compared the emerging standard types with literature [Ei89].

4 Results and discussion

4.1 Relevant characteristics of mobile viral marketing

In order to distinguish different types of MVM – and thus unambiguously identify any given MVM strategy – the characterization of significant differences in MVM is crucial. Since within MVM a variety of different participants (such as the advertiser, the connection point, the initial contact, the communicator and the recipient) are involved, their roles have to be analyzed. As starting points the advertiser can promote and place the mobile viral content in the content section of high-traffic connection points on the stationary or mobile Internet (e.g., portals of mobile network operators) or send it to initial contacts being the first group of recipients. If a recipient forwards the mobile marketing message, he will act the role of the communicator. The motivation of the communicator can be intrinsic or extrinsic [De75]. Intrinsic motivation is based on the inherent need of individuals to feel competently and to control their environment in order to enhance or stabilize their self-esteem. Extrinsic motivation rests upon tangible (e.g., free mobile content) or intangible rewards (e.g., public praise on a mobile community). Furthermore, we distinguish the role of the communicator in persuasion in active or passive [SR03]. Consumers will only accept mobile marketing, if they obtain an added value (e.g., [Ba05]). Consequently, in MVM there must be an added value for recipient, such as services, information, entertainment, raffles or monetary incentives. For a more detailed description of these instances, see [PW06]. The content type in MVM can be a mobile application, a video, a voice message, an image or a text. The examination of case studies reveals that the content generation is either (completely) done by the advertiser, e.g., with mobile voice greeting cards, or (completely or partly) done by the user, e.g., with mobile communities or Multimedia Messaging Service (MMS)-based greeting cards. As well as WOM [SO89] and EVM [He04], the mobile counterpart can have a positive or negative impact on recipients. WOM with a negative impact is documented to spread quicker than WOM with positive impact [SO89] making it a fearful phenomenon to practitioners who cannot grant 100% consumer satisfaction, and a two-edged sword as informal discussions among consumers can make or break a product [SBA99]. [SR03] highlighted that network externalities play an important role in EVM. Network externalities
are defined as a change in the benefit that an agent derives from a good when the number of other agents consuming the same kind of good changes (e.g., [Ec96]). We differentiate the level of network externalities between high and low. Costs of the communicator or the receipt are prejudicial to viral effects [He00] and are influenced among others by the used mobile network type [TP04]. As in mobile marketing [PW06] two models can be distinguished in MVM: push and pull. Within the push recommendation type the communicator sends unsolicited referrals or content to the recipient, whereas within the pull recommendation type the recipient actively requests the referral or content. Another important technical issue is the underlying enabling technology for sending, replying and forwarding content.

Based on the above discussion, the main characteristics and instances of MVM can be summarized within a morphological box [Zw66] (table 2) that constitutes the description model of MVM. According to [He93], description models are necessary to explain and design information systems which are the main tasks of Business Informatics. In this paper, we use the description model to compare different MVM strategies in order to derive standard types.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant</td>
<td>Advertiser, Connection point, Initial contact, Communicator, Recipient</td>
</tr>
<tr>
<td>Motivation of communicator</td>
<td>Intrinsic, Extrinsic</td>
</tr>
<tr>
<td>Role of communicator in persuasion</td>
<td>Active, Passive</td>
</tr>
<tr>
<td>Added value for recipient</td>
<td>Information, Entertainment, Contest, Monetary incentive</td>
</tr>
<tr>
<td>Content type</td>
<td>Mobile application, Video, Voice, Image, Text</td>
</tr>
<tr>
<td>Content generation</td>
<td>Company-generated content, User-generated content</td>
</tr>
<tr>
<td>Impact</td>
<td>Positive, Negative</td>
</tr>
<tr>
<td>Level of network externalities</td>
<td>High, Low</td>
</tr>
<tr>
<td>Cost of communicator or recipient</td>
<td>Premium rate, Transmission costs, None</td>
</tr>
<tr>
<td>Recommendation type</td>
<td>Push, Pull</td>
</tr>
<tr>
<td>Mobile network type</td>
<td>Cellular phone network, WLAN/ WiMAX, Radio Frequency Identification, Bluetooth, Infrared, Near Field Communication</td>
</tr>
</tbody>
</table>

Table 2. Morphological box of mobile viral marketing.

4.2 Derivation of standard types

The examination of 34 case studies did not show that these appear evenly distributed with all their instances within the introduced morphological box. However, we discovered two generic groups of case studies: mobile applications and mobile marketing campaigns including viral components. Further, conducting
cross-case search revealed that the case studies in the two generic groups differed in the role of communicator in persuasion and the level of network. Thus, the results show that typical patterns exist. They are not valid over all characteristics but valid over two characteristics. Together, these two characteristics highlight four quadrants which we term mobile viral marketing standard types. While comparing the results with literature [Ei89], we recognized similarities of the emergent types to [SR03] who provided similar quadrants related to EVM. Thus we used the same terms. Table 3 provides the standard types as well as their number of occurrence in the study.

<table>
<thead>
<tr>
<th>Level of network externalities</th>
<th>Motivated Evangelism</th>
<th>Signaling Use, Group Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>n=9</td>
<td>n=3</td>
</tr>
<tr>
<td>Low</td>
<td>n=10</td>
<td>n=12</td>
</tr>
</tbody>
</table>

Table 3. Mobile viral marketing standard types.

Motivated Evangelism. This standard type is characterized by an active role of the communicator in influencing recipients and significant network externalities accruing to both communicators and recipients. Mobile communities like Zlango – an icon-based mobile messaging application – and Mobiloco – a location-based friend finder – are examples of this standard type. [FTF03] considered that mobile communities are the next logical evolutional step of the existing virtual communities on the stationary Internet and lead to a more spontaneous communication in a community. Several successes on Web-based so-called 2.0 platforms may exemplify the success of mobile communities. The viral effect in these examples occurs as the communicator as well as the recipient need to use the product for either of them to benefit. The benefits motivate early adopters to actively persuade recipients to also try the product or service so that they can both use it. And as the base of adopters grows, benefits to the entire user base are enhanced. In the examples, the application can be used to send the messages to a wider audience or to find more friends. It is conceivable that each new recipient turns into an evangelist for the product or service in his or her social network and the consumer base for the product or service grows exponentially, which is each marketer’s dream [SR03].

Signaling Use, Group Membership. Communicator’s role is passive in this quadrant but there are significant externalities accruing to both the recipient and the communicator. Examples include the use of specific kinds of mobile network products and services, e.g., mobile payment procedures used in the C2C scenario.
[KPT03]. When a user (i.e., the communicator) sends money to an unregistered user, the later will be able to receive the money, only if he signs up for the service. The communicator's “recommendation”, even if passive, has the effect of signaling the membership in a group with desirable attributes. [SR03] There are positive externalities associated with usage as all users benefit from the broader user base of the mobile payment procedure enabled by wider adoption. Since mobile devices will have more computing power in future the same process will happen with mobile file compression utilities or proprietary document format (like Winzip, PDF or Real Media known in the personal computer world).

**Targeted Recommendation.** This standard type combines the instances active role of communicator and low network externalities. The latter arises out of the fact that there is no change of benefit for all users when the communicator forwards the content to other recipients. A send-to-a-friend-option (i.e., a function of mobile marketing Java applications downloaded on the communicator’s cell phone) is a typical example. The function typically enables an existing user to send a SMS (including a WAP-push link to download the same application) directly with the application to a recipient. A less sophisticated solution is adding requests like “send this to a friend” to mobile ads. Also raffles require the active participation of other people fall into this type. Typically, the communicator can roughly predict the recipient’s interest and preferences based on private information. Hence, Targeted Recommendation shows great promise to spread special product information within the target group.

**Awareness Creation and Benefits Signaling.** In this standard type the role of communicator is passive and the network externalities are – similar to Targeted Recommendation – low. Typical examples are mobile short films, mobile voice greeting cards [JE04], MMS-based greeting cards, or applications shown in [MNK03]. Mobile short films (micro movies) are downloaded from special portals on the stationary Internet or from the mobile Internet. Typically, Bluetooth is used to transmit the content since data transmission cost are high and MMS are limited in most countries to a certain data volume. While MMS-based greeting cards can be easily forwarded, mobile voice greeting cards adopt Interactive Voice Response (IVR) and are usually combined with SMS to inform the recipient about the campaign and give the opportunity to send also such a message. The ability to change or create content with the cell phone makes it possible to personalize (marketing) messages [MNK03]. This fulfills the desire to communicate with peers in a funny personal way and provides added value for both communicators and recipients. In all examples, recipients are made aware of the service and are persuaded to use it and also forward the mobile viral content. The role of the communicator is mainly to create awareness and signal benefits to others within their social network [SR03].
5 Conclusion and future research

Starting point for our consideration were the facts that mobile techniques can realize new opportunities for WOM and MVM is tremendously attractive for practitioners. In this paper we explored the phenomenon MVM and its characteristics. Based on the morphological box (table 2) we derived four mobile viral marketing standard types on the basis of case study research. The research showed that the EVM standard types provided by [SR03] can be extended to the mobile environment. Academics as well as practitioners can benefit from the results: The theoretical contribution of this paper is a definition of MVM that adequately captures the true nature of the phenomenon, a systematic description model of MVM that allows for characterizing any given MVM strategies, and a derivation of four mobile viral marketing standard types that will be used in our future research. In view of practitioners, we provided a tool for designing new MVM strategies as the morphological box can be used as creative technique.

On issues of future research, the paper offers some interesting research avenues: First, further research on the standard type Motivated Evangelism, especially its instance mobile community, is needed. Interesting research topics are the content of consumers’ articulation and the motivation behind the decision to engage in such communication. Another question is how advertisers can use mobile communities to promote and distribute products and services. Second, as the standard type Signaling Use, Group Membership deals with network products and services, it may be interesting to know which characteristics are crucial for a rapid adoption and what motivates early adopters to actively persuade recipients to also try such products or services. Third, considering the standard types Targeted Recommendation and Awareness Creation and Benefits Signaling, it may be very enriching to analyze motives, reactions, and behaviors in a typical MVM episode. Our future research will begin to tackle these challenges.

For both advertisers and consumers MVM is a powerful instrument to benefit from the innate helpfulness of individuals in social networks. Indeed, the success of MVM hinges on the strong need of communicators to be perceived as persons communicating with peers in a funny way, well informed helper, or expert of a particular topic in their social network and not perceived as a paid agent of the advertiser. MVM strategies that make too overt attempts to designate communicators to promote products and services are likely to upset the balance and reduce the effectiveness of the approach. Companies would do well to reflect on this very carefully in planning MVM. With large technological and cultural changes looming on the horizon, we think that for the advertising industry MVM will be an increasingly important force in the near future. Big brands like McDonald's or L'Oréal are just forerunners of this evolution in practice. Thus, we believe that MVM will turn from infancy to adulthood in the near future.
Literature


