Investigating the Effective Factors on Electronic Trade by Viral Marketing (Case Study: Clients of Websites in Iran)

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Abstract
While the process of viral marketing is often perceived as a random phenomenon with marketers having little or no control over the process, getting your customers to spread your brand messages throughout a widespread network of buyers makes good business and marketing sense. This paper uses case study examples to explore a number of strategies underpinning this apparently chaotic phenomenon. Further, several suggestions are offered for marketers seeking to use viral marketing to position brands or change a brand’s image, encourage new product trials and increase product uptake rates. In this article, we want to investigate the effect of External factors such as: capturing the imagination, Targeting credible sources, Leveraging combinations of technology and Easy to use product and also internal factors such as: inclusion (the need to be part of a group, the need to be different) and affection on viral marketing. So, our population statistical is client of websites in Iran and the amount of sample according to Cochran formula is 140 person. For testing the data, we use from SPSS 19 with correlation and regression, according to finding all of the hypothesis are accepted.

Introduction
The information technology has developed some new ideas and platforms for communications. As a powerful media, Internet has revolutionized the business on a world scale. One of the most important issues is that online communities interact free of geographical limitations (Reich, 2010). It has raised some challenges in understanding this new environment and consumers’ action within it (Ulmamen, 2011). Today, "Internet users, spend a lot of time on the Internet to interact with others in order to communicate, collaborate, or cooperate through various channels and applications such as e-mail, online games, or instant messaging" (Fetscherin & Lattemann, 2008). According to the "small world" concept, "any pair of entities in a seemingly vast, random network can actually connect in a predictable way through relatively short paths of mutual acquaintance." Furthermore, each person is estimated to be directly connected to 300 acquaintances, thus using a simple exponential model, 90 000 people are only two steps away from any given person and surprisingly, 27 million people are three steps away and etc. (Gray, Seigneur, Y. Chen & Jensen, 2003) Considering the small world concept, the demand for information, the good intention to share the experience or ideas about the products and services, the capability of the customer-to-customer (C2C) communications as the electronic peer-to-peer referrals on Internet and the potential for getting recommendations from mutual acquaintances have raised a considerable potential for Viral Marketing (VM) (Ridings, Gefen & Arinze, 2002; Bruyn and Lilien, 2008) which is the effective mixture of the traditional idea called Word of Mouth (WOM) and the modern tools provided within the virtual environment (Chaffey, Ellis-Chadwick, Mayer, & Johnston, 2006). This is why Kurucz (2008) believes that VM is going to be the most important issue of promotion and Chaffey et al. (2006) emphasize that it is increasingly being used for commercial purposes. Sormunen (2009) argues that www.ccsenet.org/ijms International Journal of Marketing Studies coming into the 2000s, viral marketing became a new media phenomenon, attracting increasing interest in the marketing literature. VM can be deployed based on different instruments and forms. Each form of VM offers different perspectives for researchers to investigate. On the other hand, to design a viral marketing campaign, it is advisable to know both target consumers and their associates very well (Sormunen, 2009; Yang, Liu & Zhou, 2012).

2. Viral Marketing
2.1 Viral Marketing History
In 1997, Steve Jurvetson used the term “viral marketing” as “network-enhanced word of mouth” and as an effective way in reaching a large number of people rapidly in the same way as a natural virus or a computer virus, describing the marketing strategy of the free email service of Hotmail which is believed to be one of the most successful samples of viral marketing (Woerndl, 2008; Palka, Pousttchi & Wiedemann, 2009; Sormunen, 2009; Xavier & Summer, 2009; Eckler & Rodgers, 2010). In recent years, many famous and great companies such as Nike, McDonalds (Testa, 2007), Microsoft, Philips, Sony, Ford, BMW (Lans, Bruggen, Eliashberg & Wierenga, 2009), Procter and Gamble, Toyota, and Burger King (Xavier & Summer, 2009), have used viral contents, however, it is found that Fortune 500 companies were far less likely to engage in viral campaigns than non-
Fortune 500 companies (Porter & Golan, 2006). Kulp (2007) discusses the shortage of empirical studies on VM. In addition, limited research has been done on different aspects of viral marketing such as consumer acceptance, so it’s still in its infancy and it calls for more academic researches (Kurucz, 2008; Xavier & Summer, 2009; Sormunen, 2009). Furthermore, Wiedemann, Palka and Pousshtchi (2008) and Palka et al. (2009) argue that although there is some evidence on the usefulness of viral marketing from marketers’ perspective, little is known about the motivations, attitudes, and behaviors of consumers engaged in this marketing instrument. Their focus was on Mobile VM.

2.2 Viral Marketing Definition

Being a relatively new concept, there are several different interpretations of VM (Kurucz, 2008). Kiss and Bichler (2008) define viral marketing as “marketing techniques that use social networks to produce increases in brand awareness through self-replicating viral diffusion of messages, analogous to the spread of pathological and computer viruses”. From the point of view of Kim and Lowrey (2010), viral marketing refers to “a marketing strategy or a marketing phenomenon that facilitates and encourages people to pass along a marketing message to other people”.

VM can be considered to be the equivalent of "Online word-of-mouth" which refers to "all informal communications related to the usage or characteristics of particular goods and service or their sellers directed at consumers through Internet-based technology" (Litvin, Goldsmith & Pan, 2008). Sometimes it’s referred to as "electronic word-of-mouth (e-WOM)" or more interesting "word-of-mouse" (Litvin et al., 2008; Ulmanen, 2011). Xavier and Summer (2009) refer to VM as an electronic extension of word-of-mouth. Though the focus of this term is mainly on online interactions, Kurucz (2008) suggests that other traditional marketing techniques basing on the word-of-mouth effect should not been excluded because of its offline context. Some researchers have emphasized the nature of informal environment of VM (Porter & Golan, 2006; Litvin et al., 2008; Woerndl, 2008). Eckler and Rodgers (2010) discuss the advantages of VM as the reduced cost of promotion, increased credibility, increased visibility, decreased interruption, and improved format flexibility. They discuss disadvantages as the reduced control of the marketer, increased reliance on consumers’ motivation, and increased risk of negative reactions.

In summary, Viral marketing is a very specific type of communication that concerns word-of-mouth behavior about a brand - "it’s the aggregate of all person-to-person communication about a particular product, service, or company at any point in time" (Rosen, 2001, p. 7) - that leads to explosive self generating demand (Dye, 2000). However, much of the research on buzz has identified word-of-mouth referrals and viral marketing as the stuff of marketing legend, confused it with other marketing tools such as public relations, sponsorship and testimonial activities (e.g., product placement in films, or the paid adoption of the product by high profile stars) or linked with standard adoption and diffusion models. Viral marketing is defined as an individual forwarding an electronic mail message they receive to other people on their e-mail lists or tying an advertisement into or at the end of an electronic message. Unlike other forms of marketing, the viral message contains a form of advocacy or word-of-mouth referral endorsement from one client forwarding messages to prospective clients. The trick for marketers is to encourage existing, happy clients to pass on a message they considered enjoyable or compelling enough, either by designing the communication to fit these criteria or through accident, such that a user will voluntarily pass the message on to other users (Clow & Baack, 2001). For example, the promoters of The Blair Witch Project did an excellent job of utilizing Internet word-of-mouth referrals or viral marketing. While the movie lacked a sizeable promotional or marketing budget interest was generated in its storyline through on-line marketing under the premise that the movie depicted a true story. To support the truthfulness claim, the movie’s creators provided a website with evidence from the case including the sheriff’s reports, photographs and details of the Blair Witch. Other supporting documentation included a comic book and, in the 12 month lead up to the movie’s launch, chat sites were also incorporated.

3. the effective factors on viral marketing

-external factors:

1. Capturing the imagination

Fun is a vital part of any viral marketing campaign. The amount of noise in the market can make evaluation of the product difficult for the consumer. The film that is often quoted as pioneering the use of viral marketing to a level that was sophisticated and complex enough to capture the imagination of the consumers was Steven Spielberg’s A.I. (which are the initials for Artificial Intelligence). The promotion for the film commenced in mid-March 2001, three and a half months prior to the launch on June 29. The promotion worked on the premise that science fiction fans are curious and inquisitive, looking for new bits of information on what a future world might be like. What bait could be laid that would not seem deliberate, but would require more than a cursory glance to understand? It needed to be a piece of bait that once found would have the curious following a trail that led them to engage in one of the strongest forms of marketing communication: positive word-of-mouth (Toleman,
so, the fun and entertainment aspects of product and services in websites can cause that clients offer them to other person.

2. Visible, easy to use products
Dye (2000) identified a number of aspects of products most susceptible to the 'buzz' type phenomenon, including unique products (e.g., collapsible scooters), highly visible products (e.g., Gucci baguette bags and Palm Pilots) and products that are naturally susceptible to word-of-mouth discussion (e.g., Viagra). Central to the success of these campaigns is one or more of the following their timing of entry (early), their visibility, or the simplicity of the idea. For example, Hotmail attached a clickable URL to every outbound message sent by a Hotmail user. The result was that every Hotmail customer became the vehicle through which other customers found out about the Hotmail offer. Not only did potential customers become aware of Hotmail but also the receipt of a Hotmail email provided a simple and immediate opportunity to access the service. Through this form of marketing, Hotmail took the service from zero to 12 million customers globally in 18 months – a staggering launch.

3. Targeting credible sources
The influence, and in some cases the power, of reference groups or opinion leaders in the individual’s decision making process may be significant. Having the consumer by pass further external information searches means that any potential competitors are knocked out of the decision making process. For example, by seeding information in a diverse range of media the A.I. viral campaign led some participants to seek the help of others in order to find the clues. Such acts extended the viral campaign beyond the simple form of electronic word-of-mouth to a more complex objective of building a reference group for the film. It might even be suggested that within the sub-culture of science fiction fans there was another sub-culture which traded information relating to A.I. and may be considered experts on it. Thus, from a marketing perspective, this phenomenon highlights an extended target market. The first group of clients or customers actively telling others about the product or service are the primary word-of-mouth providers, possibly the opinion leaders. However, they did more than just tell others about A.I. they encouraged them to participate in the game, to be involved, and thereby tied these potential movie-goers more firmly to the movie than any traditional advertising program may have managed.

4. Leveraging combinations of technology
Incorporating traditional media with the new forms available to today’s marketers also appears to be a winning strategy. One example of an SMS campaign was Heineken who used an SMS promotion linked with the British pub tradition of playing quiz games. Heineken combined both an online and offline promotion through point-of-sale signs in pubs inviting customers to call from their mobile phones, type in the wordplay and receive a series of multiple-choice questions to answer by return SMS. Instant prizes of food and beverages were awarded for correct answers. From a promotional perspective it was successful as customers told others in the pub what they were doing, prompting these people to call in. And for the pub, the reaction is immediate. Pepsi is another example of combining technology. In 2001 Pepsi was a key sponsor of the inaugural Soul Beach Music Festival in Miami, Florida. Traditionally sponsorship has relied on the placement of the sponsor’s logo on posters, tickets, T-shirts and signage at the venue. Although sponsorship may place the brand in the awareness set its affect provides little opportunity to move the consumer further down the decision making process.

Pepsi, in conjunction with Ember Media developed a campaign in which patrons at the festival had their photographs taken and then were given a Digital Card. The card contained a range of multimedia including a screensaver, video, audio and self-contained email software. The Digital Card was both a reminder of the photograph taken and a vehicle which led participants to the Pepsi site to collect their photographs. Pepsi was able to link its brand directly with an exciting event and the personal experiences of thousands of participants who then emailed their photograph (and Pepsi brand) to friends and families around the corner or around the world.

-internal factors:
5. Inclusion
According to FIRO theory, the interpersonal need for inclusion refers to the need to be recognized as participants in human interaction and some terms that connote the relation include “belong”, “join”, and “togetherness” (chen, 2003). However, an essential aspect of the concept of inclusion is the desire to be identifiable or different from other people (chen, 2003). This leads us to postulate two primary motives underlying the interpersonal need of inclusion the need to belong and the need to be unique.

5.1. The need to be part of a group
According to the belongingness hypothesis, human beings possess “a need to form and maintain at least a minimum quantity of interpersonal relationships” (Baumeister and Leary, 1995:499).
Phelps et al. (2004) examined consumers’ motivations to pass along email and found that the most common motivation mentioned by respondents was the desire to connect and share with others. Flanagin and Metzger (2001) studied individuals’ motivations for using a number of different media and report that similar to interpersonal (face-to-face) communication, electronic mail was used heavily to fulfill social bonding and relationship maintenance needs. As more people rely on the Internet as a means of communication we surmise that young adults will need to share their media experiences particularly if they anticipate future discussions. Therefore we predict:

5.2. The need to be different
Self-image motivates WOM communication. For example, a recent study by Chung and Darke (2006) found that individuals were more likely to engage in WOM for products closely aligned to one’s self-image that is, products that tell others about who you are. This is not the only study to suggest that impression management goals are important drivers of WOM communication. Sundaram, Mitra and Webster (1998) explored consumers’ motivations to engage in WOM and reported that self-enhancement was an important motivator for engaging in positive WOM approximately 20 percent of their respondents had initiated WOM as a means of enhancing status. Cheung (2008) research revealed that individuals can construct or assert their sense of self by using WOM to gain attention and connote status. Chen (2003) suggest that the motivation to see oneself as distinctive is a pervasive human motivation. Individuation is defined as the willingness to stand out or be different from others and studies show that people who are high in public individuation are more willing to voice their opinions and stand out in a community (Maslach et al., 1985). Chan and Misra (1990:54) introduced the concept of individuation to the opinion leadership literature and proposed that the “act of disseminating information through word-of-mouth communication makes opinion leaders stand out among their group, makes them “different” than the other members.” The key point here is that the act of forwarding online content to others in the same network allows the e-maven to differentiate him or herself.

6. Affection - the need to be altruistic
Affection is defined as the need to maintain a satisfactory relationship, leading individuals to engage in behaviors related to intimacy, warmth and emotional involvement (Cheung, 2008). Since people driven by the need for affection desire relationships that are close and personal, we posit that this need is closely related to the concept of altruism or concern for others (Price et al., 1995). We often consider altruistic acts as selfless, or in other words, actions that are based on love and affection. We propose that in the context of forwarding online content, altruistic motivations may be the most relevant indicator of the need for affection. For example, Dichter (1966) proposed that some people share information with others as a means of expressing love or friendship. More recently, Price and her colleagues found that concern for the welfare of others (altruism) was one of the key antecedents of marketplace helping behavior. Evidence from the WOM literature provides support for the premise that consumers are often driven by altruistic motives both in online (Phelps et al., 2004) and offline environments (Sundaram et al., 1998). These findings were substantiated recently by both practitioner (Keller Fay, 2007) and academic research (Chen, 2003) examining consumer motivations to publish their experiences on online forums.

4. The conceptual model of research
This model derived from above literature, so we divided the effective factors on viral marketing in two groups, the external factors that related to feature of websites and internal factors that related to client of websites. We present the model of this research in figure 1.
5. Research methodology
This study is descriptive-survey research that in the following stages to describe the effective factors that associated with viral marketing in websites. And for gathering data, we use five-item questionnaire with Likert scale. The reliability of the questionnaire is 0.886 in Cronbach alpha.

| Table 1: the reliability of the variables |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| affection       | Inclusion(need to be different) | Inclusion(need to be part of a group) | Capturing the imagination | Easy to use product | Leveraging combination of technology | Targeting credible source | Viral marketing | Variables       |
| 0.70            | 0.89            | 0.86            | 0.82            | 0.88            | 0.743           | 0.75            | 0.78            | Cronbach alpha  |

5.1. Research design and sample selection
The statistical population of this study is clients of websites and factories in various classes of multiple areas of Tehran. Sample size is 140 clients.
Sample formula: \[ n = \frac{(z^2 \cdot a^2 \cdot s^2)}{4^2} = \frac{(1.96^2 \cdot 0.131)/0.06^2}{140} \]
6. hypotheses

Table 2: The measure component of our variables

<table>
<thead>
<tr>
<th>Hypothesis number</th>
<th>Research construct</th>
<th>Measure component</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Capturing the imagination</td>
<td>Fun, entertainment</td>
<td>0.78</td>
</tr>
<tr>
<td>H2</td>
<td>Targeting credible source</td>
<td>Power of reference groups or opinion leaders in the individual’s decision making, clients trust</td>
<td>0.55</td>
</tr>
<tr>
<td>H3</td>
<td>Leveraging combinations of technology</td>
<td>Sms promotion link, new and up to date technology</td>
<td>0.83</td>
</tr>
<tr>
<td>H4</td>
<td>Easy to use product</td>
<td>Unique products (e.g., collapsible scooters), highly visible products (e.g., Gucci baguette bags and Palm Pilots) and products that are naturally susceptible to word-of-mouth discussion (e.g., Viagra).</td>
<td>0.75</td>
</tr>
<tr>
<td>H5</td>
<td>Inclusion (the need to be in a group)</td>
<td>A need to form and maintain at least a minimum quantity of interpersonal relationships</td>
<td>0.93</td>
</tr>
<tr>
<td>H6</td>
<td>Inclusion (the need to be different)</td>
<td>Self-image motivates WOM communication.</td>
<td>0.86</td>
</tr>
<tr>
<td>H7</td>
<td>Affection</td>
<td>The need to maintain a satisfactory relationship, leading individuals to engage in behaviors related to intimacy, warmth and emotional involvement</td>
<td>0.88</td>
</tr>
</tbody>
</table>

7. data analyses

Table 3: The result of our hypothesis

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Independent variables</th>
<th>Dependent variable</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>Sig</th>
<th>result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Capturing the imagination</td>
<td>Viral marketing</td>
<td>0.631</td>
<td>0.398</td>
<td>81.394</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>Credible source</td>
<td>Viral marketing</td>
<td>0.744</td>
<td>0.553</td>
<td>152.092</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3</td>
<td>Leveraging combinations of technology</td>
<td>Viral marketing</td>
<td>0.436</td>
<td>0.190</td>
<td>28.804</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>Easy to use product</td>
<td>Viral marketing</td>
<td>0.529</td>
<td>0.280</td>
<td>47.800</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5</td>
<td>Inclusion (the need to be in a group)</td>
<td>Viral marketing</td>
<td>0.178</td>
<td>0.032</td>
<td>4.046</td>
<td>0.046</td>
<td>Rejected</td>
</tr>
<tr>
<td>H6</td>
<td>Inclusion (the need to be different)</td>
<td>Viral marketing</td>
<td>0.432</td>
<td>0.186</td>
<td>41.700</td>
<td>0.000</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7</td>
<td>Affection</td>
<td>Viral marketing</td>
<td>0.231</td>
<td>0.053</td>
<td>53.800</td>
<td>0.000</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

As mentioned before, based on a comprehensive survey of the literature, seven hypotheses were developed in this study. According to the statistical analysis of hypotheses examined the correlation between the variables in all of the hypotheses were confirmed. With the difference that the dependent variable intensity and the effect of independent variables on them. And as you can see the most important variable is credible resource that have effect on viral marketing. The effect of three variables such as inclusion (the need to be in a group and the need to be different) and affection on viral marketing rejected.

8. Result

The examples of viral marketing highlighted in this paper showed four common themes for success. That is, successful viral marketing campaigns had an underlying critical dependency on the consumer perceiving value within the viral transmission and deeming this value worthy of passing on to others. What is important is that the consumers never feel they are being used in passing branding and advertising messages to others. It’s a tough line to work, but on the bright side - let’s face it, people talk. The challenge for marketers is harnessing this natural will to talk through that almost tailor-made tool, the Internet. It makes talking easier for customers and
its low-cost, minimal response time and potential market impact make it attractive for businesses willing to put in the effort of thoughtful viral marketing design and campaign implementation. Managing and encouraging customers’ word-of-keyboard (WOK) activities had interesting results for the cases discussed. Can your organization do likewise? The examples of viral marketing highlighted in this paper showed four common themes for success. That is, successful viral marketing campaigns had an underlying critical dependency on the consumer perceiving value within the viral transmission and deeming this value worthy of passing on to others. What is important is that the consumers never feel they are being used in passing branding and advertising messages to others. It’s a tough line to work, but on the bright side - let's face it, people talk. The challenge for marketers is harnessing this natural will to talk through that almost tailor-made tool, the Internet. It makes talking easier for customers and its low-cost, minimal response time and potential market impact make it attractive for businesses willing to put in the effort of thoughtful viral marketing design and campaign implementation. Managing and encouraging customers’ word-of-keyboard (WOK) activities had interesting results for the cases discussed. Can your organization do likewise? Apparently. Web site success in the context of EC is related to four major factors: quality of information and service, system use, playfulness, and system design quality. Organizations who launch Web sites should be more aware of these factors. Based on the results, several recommendations can be advanced. First, business organizations and Web developers should actively seek ways to improve information and service quality provided through Web sites. Business organizations and Web designers should establish a service-oriented concept for both pre-sale and after sale stages to provide high quality service and high quality information. For example, a Web site may provide a recommendation for a particular plug-in to allow a better presentation of its products/services, and the site might also help customers download/upgrade their plug-in. Here, both service and information quality may be enhanced. A service-oriented concept aims at serving customers better through all phases of marketing activities.

Second, business organizations and Web site designers should focus on the way in which customers use a Web site. The results indicate the importance, in general, of successful Web site design to system use. Customers rather than business organizations should control the on-line transaction process.

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management. 


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