The Role of Viral Marketing on Brand Development in Food Technology, Tehran (Case study: Zar Macaron)

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Abstract
Considering the increasing tendency of businesses to use new marketing methods and existing capacities in social communication networks, it is necessary to study in this area. This study needs to provide locally practical solutions for companies to achieve their goals. The methodology of this study was descriptive, correlational and cross-sectional. The studied group included all citizens (in Tehran) aged over 15 years. As samples, 384 consumers of Zar Macaron products were selected by Cochran formula. Z-Fisher test, coefficients of correlation and regression modelling were used to analyse data, to analyse significance and to analyse the path by SPSS software, respectively. The results showed that the experience of using Zar Macaron products influences the involvement in viral marketing. The consumption of different types of macaroni did not significantly influence the involvement in the viral marketing. Age of consumers did not significantly influence the involvement in viral marketing. The involvement in viral marketing influenced the image of customers. The involvement in viral marketing influenced on encouraged purchase of brand products. Image of customers influenced on encouraged purchase of brand products. Image of customers influenced encouraged purchase of products by others. Encouraged purchase of brand products influenced the encouraged purchase of brand products by others.

Keywords: viral marketing, word of mouth marketing (oral), Brand, Brand Development

Introduction
So far, many researches have been conducted on viral marketing and brand separately; however, there is no research focusing on both and their mutual effects. Considering the increasing tendency of businesses to use new marketing methods and existing capacities in social communication networks, a research is required to study the role of viral marketing on brand development of industries, particularly food industry, in order to provide locally practical strategies for companies to achieve their goals. Accordingly, the purpose of this study is to evaluate the role of viral marketing on brand development and positive image on tendency to purchase brand products. Thus, the objectives of this study are:

Objectives
1. To obtain a suitable model to use viral marketing for brand development in the food industry;
2. To evaluate different types of viral marketing employed by the Zar Macaron;
3. To measures image of citizens to Zar Macaron;
4. To evaluate attention of different groups of citizens (children, youth and adults) to viral marketing advertisements;
5. To evaluate the subjective effects of viral marketing advertisements on citizens;
6. To identify potential weaknesses of viral marketing from the perspective of audience;
7. To present recommendations for development of viral marketing to develop brand in the food industry.

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Questions
1. What methods and programs have been used so far for marketing and brand development in Zar Macaron?
2. What percentage of consumer food is formed by Zar Macaron products?
3. What is the image of citizens towards the Zar Macaron products?
4. How citizens are familiar with brand and products of Zar Macaron?
5. To what extent, advertising through viral marketing influences attracting people.
6. What are the possible weaknesses of viral marketing from the perspective of audience?
7. What are the solutions to increase application of viral marketing on brand development in the food industry?

Literature Review
Marketing as a dynamic science is adapting to changes from information revolution based on emergence of internet and social networks. A new concept of marketing called as viral marketing is the effect of this revolution (Graham Novembe, 1999).

Virus is a protein coverage containing genetic material. The attacking virus uses its protein coverage to attach a normal cell. Once a sturdy reliable attachment occurs, the virus inserts its genetic material into the cell and permanently changes DNA of host cell. Outside the world of Internet, viral marketing refers to techniques such as network marketing; however, it is called viral marketing on the Internet (Graham Novembe, 1999).

The term virus advertisement was first developed by Steve Jurvetson in 1997. He used the term to describe his hot mail advertisements. In 1997, a one-line advertisement, saying that ‘get your free private email from hot mail’, was delivered in every single mail exchanged among users. It was the beginning of viral advertisement. Thereafter, many advertising works were presented using this technique which was sometimes successful. Nevertheless, they all used Internet (Kaikati & Kaikati, 2004).

The term viral marketing was first developed by American newspaper Netscape published by DFJ in 1997. The main purpose of viral marketing is distribution of messages across people as many as possible, without having to spend money for advertising. In fact, this type of virus replicates itself and customer does not need to replicate it. The most common way to do this kind of marketing is the web world network (www) which becomes increasingly important as the number of internet users increases. Online buyers of goods and services are constantly developing their network and rely on other buyers to learn or recommend new products and services. Thus, companies gradually felt the need for websites. The companies will decide on design of their sites statically to contain only information on products and services or dynamically to contain more information in order to attract consumers. Therefore, application of internet means utilization of viral marketing techniques (Cruz & Fill, 2008).

The role of human resources in viral marketing
One of the most important elements of viral marketing is human resources and the other is experience and modern techniques. A positive factor is the large number of young people. Youth in the IT industry, particularly viral marketing, is entirely in favour of a country. Only if there is proper management, human resources can be directed toward achieving the desired objectives (Wilson, 2000).

Methods of viral marketing
1. Word of web: writing in a web based on a form which turns the information to email and sends them for recipients.
2. Word of Email: This type is very common; sending emails such as jokes, quotes and agreed images.

3. Word of mouth

4. Word of IM (instant message): Perhaps the fastest way in marketing (messages which are quickly transferred between users on the Internet)

5. Public debates: many online forums have communities which deal with many topics; these public topics can be positive or negative, depending on the culture of that community.

6. Social bookmarking: keeping address of a website in the favourite list of a computer: people put links in Web sites; then, websites collect these links for those who are interested in any of these links.


8. Communication protocol: for example, in amateur radios, new methods exchanged QSL cards at the end of each conversation; communication protocol expects any person to transfer the QSL information to the others.


10. Blog Publicity: When leaders with good ideas in the industry discuss about certain things, they normally will spread to other Blogs (Pritchard, 2011).

**Barriers to viral marketing**

1. Size: If the virus content includes video clips, it may be too large for the recipient; but today this problem is solved as the mailbox have more capacity to receive large files.

2. Intermediate structure: a viral marketing campaign will not be successful if the message is in a format which cannot be used by most people.

3. E-mail attachment: Many people receive messages when they are at work and corporate antivirus software and firewalls may prevent receiving or viewing these attachments by people.

4. Overwhelming reference mechanism: to be successful, a viral marketing campaign should be easy to use.

5. Sabotage: particularly for the hidden marketing style, exploring the nature of a public marketing campaign may be a reason for similar social relations to inform people with commercial intent and promote a formal or informal sanction for a certain company or good (Bran Van Eck, 2012).

**Viral marketing problems**

Brand control: the company has no control over the brand. The company does not know who is going to communicate in the future. As a result, many messages may be terminated by persons other than the intended audience. In some cases, people may add or modify the message; this leads to different perceptions of people from brand, which is not in favour of the company.

No growth charts: Viral marketing can lead to unpredictable growth paths. The fact that whether this growth was expected or the company wanted the growth could not be understood completely. Such developmental pathways may lead to sudden and unexpected changes in the strategic direction of the company, which can be a mystery unresolved.

Lack of evaluation and assessment: the company will not always track the person who receives the mailing and what he does. In some cases, figuring out who has selected the services is impossible through viral marketing techniques.

Threat of personal relationships: If this kind of marketing acts poorly, it can cause a vast deterioration to the department. Receiving a commercial email from a friend unintentionally can weaken the relationship with the person who has sent it; this may cause the loss of a friend and the anger of marketing for the person who sent the spam message (Bran Van Eck, 2012).
In conclusion, supermarket or self-service method of selling is increasingly expanding. In this method, the purchaser selects the desired item from various brands. Here, the vendor's role in offering product is very low and almost eliminated. Passing through thousands of colourful goods, the buyer virtually feels the false sense of need influenced by messages and attractions. The competition, today, more resembles a battlefield rather than the supply and demand chain, and brand is essential for the modern competitive game. There are two ways for organizations: branding or dying in hell of commodities. Companies must create strong brands, or compete on price which is like competition in hell of commodities. Brandings is a choice among thousands of options, but the only option (Eric Joakim's Thaler, 2008).

Study background
The author found no similar study regarding the relationship or the effect of viral marketing and brand in Iran. Below, a number of studies and similar research in this area is given.

UclaOrtho and Keven Malkewitz (2006) studied the package design as a source of brand identity. The results suggested those components of packaging design in beverages with the highest effect on elements of brand identity.

Kazemi (2010) studied the perceptions and reactions of internet users in Tabriz. He claims that as the internet becomes increasingly popular among consumers, the marketers find it essential to use internet opportunities for competition in a new form of digital activity. He also found that consumers were less willing to traditional forms of advertisement such as TV or newspapers. This made marketers to find alternative strategies including viral marketing.

Zolfaghari (2008) studied the customer as virus carrier in viral marketing. He noted the exponential increase in messaging by viral marketing. According to Zolfaghari, internet is a good place for this type of marketing and the most important factor of success in viral marketing is to identify and meet customer needs.

Sanayei (2007) studied the innovation in marketing and ecommerce in the internet era. Noting the changes made in environmental conditions of the market, they emphasized that marketing shifted from an organizational task to meet customer satisfaction to a means to achieve a superior competitive goal. They believed that it was not realized without a new marketing insight. They also noted the effect of internet on commerce as a new distribution channel.

Manian and Golmohamadi (2003) studied the factors influencing the effectiveness of Web as a marketing tool. As a result, the study considers the effectiveness of web depending on the following conditions: marketing department personnel should receive formal training courses such as workshops to become familiar with various aspects of the web. Sales and Marketing Manager should put efforts to increase the positive aspect of Web as a helpful medium for marketing. Those forces of the marketing department should be used that have computer skills to be able to use the internet capabilities for their tasks in marketing.

Ajdari (2006) assessed the effect of electronic commerce on the internationalization of small and medium business enterprises of Iran. The results show that small and medium Iranian enterprises use web pages only as brochures and they often do not take advantage of electronic commerce. In addition, information technology only avoids barriers such as representative in foreign markets and subsidiaries in international markets; in other cases, it has no positive effect on small and medium enterprises of Iran.

Conceptual model and hypotheses
Figure 1 shows the conceptual model. According to the model, the hypotheses are:

1. It seems that there is a significant relationship between the experience of using brand products and customer involvement in viral marketing.
2. It seems that there is a significant relationship between consumption of brand products and customer involvement in viral marketing.

3. It seems that there is a significant relationship between consumer age and customer involvement in viral marketing.

4. It seems that there is a significant relationship between customer involvement in viral marketing and brand development.

5. It seems that there is a significant relationship between customer involvement in viral marketing and positive image among citizens.

6. It seems that there is a significant relationship between customer image and brand development.

7. It seems that there is a significant relationship between customer image and encouragement of others to use brand products.

8. It seems that there is a significant relationship between encouraged purchase of brand products and encouragement of others to use brand products.

Figure 1: Conceptual model; the role of viral marketing in brand development of food industry in Tehran

Methodology

Methods

The methodology of this sectional study was descriptive correlation and the required data was collected in a limited certain period.

The studied group

The studied group included all citizens (in Tehran) aged over 15 years. Due to the fact that it was not possible to make a list of Tehranian citizens, the sampling framework was defined as all citizens buying from the Shahrvand Store.

Sampling method

Due to the limitations in access to the entire target population, time-space sampling technique was used as follows. Instead of random sampling, the period from April 04 to May 21 was classified into 6 months and consecutively each week was considered for sampling. Specifying the...
time and place of sampling, buyers of Zar Macaron products were selected as samples. To determine the minimum sample size, the following relation was used:

\[ n = \frac{\left( z_{1-\alpha} \right)^2 \rho (1 - \rho)}{d^2} \]

The minimum required sample size was approximately 384 people. It is noteworthy that the sample size was considered 384; however, it increased to 400 because of possible failure in participation in the study. By collecting 400 questionnaires, 369 questionnaires were correct and acceptable, and 31 questionnaires were discarded due to missing information or lack of cooperation of the participants. Most questionnaires were completed by interview and some of them were self-response.

**Results**

To test the relationship between experience of using brand products and customer involvement in viral marketing, the Z-Fisher test was used. As Table 1 shows, coefficient of correlation between viral marketing and experience of using brand products was significant and smaller than the test level (error type I \( \alpha=0.05 \)). Therefore, there is a significant positive relationship between experience of using brand product and involvement in viral marketing (0.383) in 95% (99% in this test) confidence.

**Table 1: results of Z-Fisher test for the relationship between experience of using brand products and viral marketing**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>.383(**)</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
<tr>
<td>Samples</td>
<td>145</td>
</tr>
</tbody>
</table>

To test the relationship between consumption of brand products and customer involvement in viral marketing, the Z-Fisher test was used. Pearson correlation was used to examine the significance. As Table 2 shows, coefficient of correlation between consumption of brand products and customer involvement in viral marketing was significant and smaller than the test level (error type I \( \alpha=0.05 \)). Therefore, there is a significant positive relationship between consumption of brand product and involvement in viral marketing (0.255) in 95% (99% in this test) confidence.

**Table 2: results of Z-Fisher test for the relationship between consumption of brand products and viral marketing**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>.25(**)</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
<tr>
<td>Samples</td>
<td>285</td>
</tr>
</tbody>
</table>

To test the relationship between consumer age and customer involvement in viral marketing, the Z-Fisher test was used. Pearson correlation was used to examine the significance. As Table 3 shows, coefficient of correlation between consumer age and customer involvement in viral marketing was larger than the test level (error type I \( \alpha=0.05 \)). Therefore, there is no significant positive relationship between consumer age and involvement in viral marketing in 95% confidence.
To test the relationship between customer involvement in viral marketing and brand development, the Z-Fisher test was used. As Table 4 shows, coefficient of correlation between customer involvement in viral marketing and brand development was significant (0.00) and smaller than the test level (error type I $\alpha=0.05$). Therefore, there is a significant positive relationship between involvement in viral marketing and brand development (0.462) in 95% (99% in this test) confidence.

Table 5: results of Z-Fisher test for the relationship between customer involvement in viral marketing and customer image

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>.472(**)</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
<tr>
<td>Samples</td>
<td>294</td>
</tr>
</tbody>
</table>

To test the relationship between customer image and brand development, the Z-Fisher test was used. As Table 6 shows, coefficient of correlation between customer image and encouraged purchase of brand products (brand development) was significant and smaller than the test level (error type I $\alpha=0.05$). Therefore, there is a significant positive relationship between customer image and brand development (0.635) in 95% (99% in this test) confidence.

Table 6: results of Z-Fisher test for the relationship between customer image and brand development

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>.635(**)</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
<tr>
<td>Samples</td>
<td>360</td>
</tr>
</tbody>
</table>

To test the relationship between customer image and encouragement of others to use brand products, the Z-Fisher test was used. As Table 7 shows, coefficient of correlation between customer image and encouragement of others to use brand products was significant and smaller than the test level (error type I $\alpha=0.05$). Therefore, there is a significant positive relationship between customer image and encouragement of others to use brand products (0.692) in 95% (99% in this test) confidence.

Table 7: results of Z-Fisher test for the relationship between customer image and encouragement of others to use brand products

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>.692(**)</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
<tr>
<td>Samples</td>
<td>360</td>
</tr>
</tbody>
</table>

To test the relationship between customer involvement in viral marketing and positive customer image, the Z-Fisher test was used. As Table 5 shows, coefficient of correlation between customer involvement in viral marketing and customer image was significant and smaller than the test level (error type I $\alpha=0.05$). Therefore, there is a significant positive relationship between involvement in viral marketing and customer image in 95% (99% in this test) confidence.
level (error type I $\alpha=0.05$). Therefore, there is a significant positive relationship between customer image and brand development (0.510) in 95% (99% in this test) confidence.

**Table 7: results of Z-Fisher test for the relationship between customer image and encouragement of others**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>.510(**)</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
<tr>
<td>Samples</td>
<td>357</td>
</tr>
</tbody>
</table>

To test the relationship between encouraged purchase of brand products and encouragement of others to use brand products, the Z-Fisher test was used. As Table 8 shows, coefficient of correlation between encouraged purchase of brand products and encouragement of others to use brand products was significant and smaller than the test level (error type I $\alpha=0.05$). Therefore, there is a significant positive relationship between encouraged purchase of brand products and encouragement of others to use brand products (0.693) in 95% (99% in this test) confidence.

**Table 8: results of Z-Fisher test for the relationship between encouraged purchase of brand products and encouragement of others to use brand products**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>.550(**)</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
<tr>
<td>Samples</td>
<td>360</td>
</tr>
</tbody>
</table>

The validity of the conceptual model

In this section, the validity of the model and the effect of variables on each other are investigated using linear regression analysis.

**Table 9: coefficients of regression in path analysis**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$ value</th>
<th>t-test</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect of experience of using brand products on customer involvement in viral marketing</td>
<td>.404</td>
<td>5.180</td>
<td>.000</td>
</tr>
<tr>
<td>Effect of consumption of brand products on customer involvement in viral marketing</td>
<td>.143</td>
<td>1.839</td>
<td>.068</td>
</tr>
<tr>
<td>Effect of customer age on customer involvement in viral marketing</td>
<td>.127</td>
<td>1.630</td>
<td>.105</td>
</tr>
<tr>
<td>Effect of customer involvement in viral marketing on customer image</td>
<td>.472</td>
<td>9.146</td>
<td>.000</td>
</tr>
<tr>
<td>Effect of customer involvement in viral marketing on encouraged purchase of brand products</td>
<td>.207</td>
<td>4.173</td>
<td>.000</td>
</tr>
<tr>
<td>Effect of customer image on encouraged purchase of brand products</td>
<td>.544</td>
<td>10.965</td>
<td>.000</td>
</tr>
<tr>
<td>Effect of customer image on encouraging others</td>
<td>.271</td>
<td>4.810</td>
<td>.000</td>
</tr>
<tr>
<td>Effect of encouraged purchase of brand products on encouraging others</td>
<td>.363</td>
<td>6.429</td>
<td>.000</td>
</tr>
</tbody>
</table>

According to above results, all coefficients of regression were significant through the path analysis, except for the effect of consumption of macaroni and customer age on involvement in viral marketing; hence, the conceptual model can be modified as follows:
Discussion and conclusions

The purpose of present study was to evaluate the role of viral marketing on brand development in food industries of Tehran Province. In this study, the respondents (52.8% women and 47.2% men) aged over 15 years. The highest distribution of educational degree was 26.2% B.A. Different people ranged from youth to elderly were asked; the highest distribution was 36.3% for age 31-40 years. Findings showed that the highest amount of consumption ranged from 3-4 times in a month (26.6%). Among consumers, 51.5% did not remember the day they began to consume Zar Macaron products; probably, this people have been using the products for more than 5 years. Zar and Tak are the most favourite brands. The results showed that advantages of Zar Macaron compared to other brands included quality, better taste, good comfortable cooking, reasonable price, variety of designs and shapes, availability, odour, design and packaging, natural substances and bran, semolina flour and bran, cost effectiveness, easy digest. The effective member on the choice of macaroni brand was mother and 41.5% of the members agreed on the choice of Zar Macaron brand.

The findings showed that 72.7% of citizens remembered Zar Macaron advertising and 41.7% often watched children shown and 39.2% watched cooking shows. Distribution of the effect of TV programs on encouraged purchase of products showed that 31.4% of consumers almost experienced the effect on encouraged purchase. In response to the item ‘to what extent feel good about Zar Macaron bran?’ the results showed that 52.6% of the respondents felt very good; the results also indicated that 54.5% had a high loyalty to Zar Macaron and were willing to recommend it to others.

In addition to two main hypotheses proposed in this study, validity of the conceptual model was also evaluated; the results of the study showed that:

The first hypothesis that ‘there is a significant relationship between experience of using brand products and customer involvement in viral marketing’ was supported. The test results showed a significant positive relationship (0.383) between viral marketing and the experience of using Zar Macaron products.

The second hypothesis that ‘there is a significant relationship between consumption of brand products and customer involvement in viral marketing’ was supported. The test results showed a
significant positive relationship (0.255) between consumption of Zar Macaron products and customer involvement in viral marketing.

The third hypothesis that ‘there is a significant relationship between customer age and customer involvement in viral marketing’ was not supported. The test results showed no significant relationship (0.816) between customer age and customer involvement in viral marketing.

The fourth hypothesis that ‘there is a significant relationship between customer involvement in viral marketing and brand development’ was supported. The test results showed a significant positive relationship (0.462) between viral marketing and the brand development in Zar Macaron.

The fifth hypothesis that ‘there is a significant relationship between customer involvement in viral marketing and positive customer image’ was supported. The test results showed a significant positive relationship (0.472) between viral marketing and the customer image.

The sixth hypothesis that ‘there is a significant relationship between customer image and brand development’ was supported. The test results showed a significant positive relationship (0.635) between customer image and brand development.

The seventh hypothesis that ‘there is a significant relationship between customer image and encouragement of others to use brand products’ was supported. The test results showed a significant positive relationship (0.510) between customer image and encouragement of others.

The eighth hypothesis that ‘there is a significant relationship between encouraged purchase of brand products and encouragement of others to use the brand products’ was supported. The test results showed a significant positive relationship (0.693) between encouraged purchase of brand products and encouragement of others.

By testing validity of the model, the results showed that:
1. Experience of using Zar Macaron products influenced the involvement in the viral marketing (0.404).
2. Consumption of different types of macaroni had no significant effect on the level of involvement in viral marketing.
3. Consumer age had no significant effect on the level of involvement in viral marketing.
4. The involvement in viral marketing influenced the customer image (0.472).
5. The involvement in viral marketing influenced on encouraged purchase of brand products (0.207).
6. Customer image influenced the encouraged purchase of brand products (0.544).
7. Customer image influenced encouraging others to buy products (0.271).
8. Encouraged purchase of brand products influenced encouraging people to use brand products (0.363).

**Recommendations for other researchers**

This study which was first in the food industries found interesting findings based on which the followings are recommended for future works:
1. A comparative study of guerrilla marketing in Zar Macaron;
2. Comparison of different types of viral marketing in Zar Macaron;
3. A study on effectiveness of different types of viral marketing on customer image of Zar Macaron;
4. A study on effectiveness of different types of viral marketing on customer loyalty in Zar Macaron

**Recommendations for Zar Macaron Company and owners of food industries**

Considering the factors identified as effective on successful viral marketing, the followings are recommended for success in this type of marketing:

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1. Considering the findings and the fourth hypothesis, involvement of customers on viral marketing and its significant relationship with Zar Macaron brand development as well as the significance of attention to brand and efforts for brand popularity based on viral marketing are the factors which can influence the success or failure of the organization. Therefore, a brand manager is obviously required in the organizational chart.

2. Considering the findings and in order to increase the application of viral marketing for brand development in food industries and the potential weaknesses of managers in understanding the significance and advantages of viral marketing, managers are required to find a proper understanding of advantages of new scientific methods, to take risks for investment and to set organizational goals using new methods accepting a percentage of risk existing in virtually social networks.

3. Considering the findings and in order to increase the application of viral marketing for brand development in food industries, to train human resources consistently by new marketing methods, as well as the fact that any new technique requires its own specific tools and knowledge, new marketing methods requires specialized knowledge. Accordingly, the Zar Industrial Group founded the University of Applied Science and Technology in 2010-2011; however, it is required to improve and teach new methods of marketing.

4. Considering the findings on effectiveness of viral marketing on attracting people and customer images, this type of marketing requires to identify customer needs and encourage them to purchase the brand products by proper segmentation in the market and diverse productions based on interests of customers. Currently, Zar Macaron is only focused on children and women. However, Zar Macaron is required to identify other groups such as athletics and elderly.

5. Considering the findings and the significant relationship between encouraged purchase of brand products and encouraging others to use brand products, as well as the understanding of changes made in marketing methods and technological facilities, as noted earlier, viral marketing is an integration of oral marketing and modern technologies such as internet. Therefore, it is required to operate consistently in the internet. In addition, it is essential to provide new communication facilities and relevant professional trainings.

**Limitations**

Due to the special nature of this study and its dependence on viral marketing programs run by Zar Macaron Co., the researcher was faced with problems such as the following.

1. Prolongation of the interval between the survey and the latest television programs;
2. Lack of standardized questionnaires in this area;
3. Lack of access to direct television broadcast audience (children's cooking program) to measure effectiveness;
4. Current limitations in data gathering and surveys such as the short time of respondents to complete questionnaires, lack of suitable premises for questioning in the stores, lack of cooperation of some citizens in completing questionnaires or partially completed questionnaires;
5. Lack of access to some scientific resources identified in the field of viral marketing.

**References**


Openly accessible at [http://www.european-science.com](http://www.european-science.com)
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