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Modeling the value creation process using viral marketing in order to bank branding (Case study: TejaratBank)

GholamReza Amiri^a, Mehdi Zakipour^{b*}, Abdolreza Miri^c, Mohsen KhoonSiavash^d

^a Ph.D. Student of Business Administration, Department of Management, Qazvin Branch, Islamic Azad University, Qazvin, Iran.

^b Department of Management, Qazvin Branch, Islamic Azad University, Qazvin, Iran (Corresponding Author).

^c Department of Management, Qazvin Branch, Islamic Azad University, Qazvin, Iran.

^d Department of Mathematics and Statistics, Qazvin Branch, Islamic Azad University, Qazvin, Iran.

Abstract

The current research deals with the modeling of value creation process by using viral marketing in line with branding in the banking industry (case study: Tejarat Bank). This research has a mixed approach based on thematic analysis method and is based on the research objective of exploratory type and the method of collecting information from library and field type. The statistical population for conducting semi-structured interviews included professors, policy makers and marketing managers. Sampling was done by snowball method and data analysis was done using MAXQDA software, in total 69 basic themes and 5 organizing themes were extracted. At the technology level, there are six categories of using appropriate tools, channels and technologies, the type of social network and being popular, advertising campaigns, ease of message transmission, message sharing mechanisms, and at the level of message content, there are five categories of message content: creating a positive attitude in the audience, comprehensibility, Innovation in the message, specialization of the message, non-repetition of the message and the level of quality of advertisements are six categories of information up-to-datedness, comprehensiveness and inclusion of advertisements, customization and privatization of the message, usefulness of information, value of the message, accuracy of information and level of credibility, which include the categories Reputation of the source is expressing product features in the message, expressing product utility, persuasiveness of the message, word-of-mouth advertising, biased advertising, repetition and continuity of the message. In the quantitative part that was done using Smart PLS software, the results showed that the identified components explain 64% of the variance of the dependent variable. Among the identified components, the correct targeting component had the highest path coefficient with a path coefficient of 0.557.

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Keywords: value creation; Viral Marketing; branding; banking industry;

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* Corresponding Author:

E-mail Address: M.Zakipour@qiau.ac.ir

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1. Introduction

Iran's banking industry in the last decade with changes and developments in the field of deregulation, the start of activities of credit institutions and private banks, service delivery technologies and focusing on growth goals on the part of banks that are mostly state-owned, is gradually moving towards becoming more competitive. It seems that the approach of banks is changing from a bank-oriented and branch-oriented approach to a customer-oriented approach. In the last few years, most of the country's banks have opened marketing and market research units, which is a clear proof of the industry's move towards becoming more competitive. Without a doubt, in the near future, we will witness its intensification. Today, due to the rapid and unpredictable changes in the banking field, the need to use new marketing strategies to expand the market and introduce new banking services is unavoidable. Day and night, consumers are exposed to hundreds of advertising messages that are spread through promotional activities and various media and networks. At such a level of advertising competition, brands can hardly attract the attention of consumers and convince them to buy. On the other hand, advertising in mass media brings huge financial costs for companies, and most companies do not have the financial ability to continuously appear in these media's advertisements. Consumers' cynicism and apathy towards advertisements have also added to the above problems. For this reason, marketers are looking for new ways to attract attention and reach customers. In recent years, viral advertising as one of the efficient and effective methods that can cause awareness, interest, testing and acceptance of the product (Danai et al., 2017). Viral advertising is one of the new marketing strategies that use existing social networks to increase awareness of the brand or other company goals such as increasing sales through viral processes, such as the way viruses spread in computers and humans. Marketers believe that if advertising messages are recommended by a friend or a member of the recipient's social network, they are likely to be welcomed and the recipient will have a favorable opinion of the message. People tend to talk about their various experiences with each other and by exchanging positive or negative recommendations about a particular product or service, they reduce the risk of their purchase to the lowest possible level and choose the best and most appropriate option (chan et al., 2010).

Since loyal customers have a tremendous impact on the purchase decision of a new customer, it is necessary to increase the effectiveness of potential customers in today's competition by identifying the effective tactics of this type of marketing. In fact, viral marketing exploits existing social networks by encouraging consumers to share product information with their friends. Because engaged consumers in each purchase make more transactions, buy more and become more interested in that brand. In this regard, marketers are constantly trying to improve the interaction between consumers and brands in order to gain a competitive advantage. Because effective consumer interaction strategies go beyond monetary transactions and develop long-term relationships with consumers. Therefore, by relying on the implementation of these strategies, sustainable competitive advantages are provided for institutions. Because in today's competitive world, companies that do not have different competitive advantages are doomed. In addition, recent studies have shown that the role of technology to increase interaction with consumers is very important (Viglia.,2017). According to Forbes, 90% of US consumers get information effectively through video and visual marketing(Li et al.,2017). The use of social networking sites such as Facebook, Twitter, and Instagram in viral marketing can be integrated with other marketing strategies of companies in one system and promote their desired products and services and spread information about what they sell. This application of technology in marketing Virality has a significant impact on value creation in companies where competitive advantage is highly valued. This strategy potentially increases the marketing power of companies and can respond to market demand. Because social interactions as an important factor in marketing affect product acceptance and consumer buying behavior(Goel et al., 2015). This technology is also effective in the presence of customer interaction in service organizations such as banks. According to previous customer studies, companies can increase the probability of using a service for new customers by more than 60% and encourage them to visit more. According to one estimate, between 20% and 50% of all purchase decisions are prompted by personal recommendations (knoll.,2015).

Based on this, in order to achieve competitive advantages in organizations, having an organization with a strategy in sync with customer-oriented and to create added value in the organization should be one of the important goals facing the managers. The correct implementation of strategies and application of this type of marketing process will lead the managers towards the final goal, i.e. success in the financial aspect and increase in income and profit in the shadow of customer satisfaction as the philosophy of the institution.

Emphasizing these issues and that banks as service organizations in the competitive electronic era are competing for branding and value creation and for quick impact they must look for an efficient method in marketing and in this way the service organization must take advantage of Communication between customers conveys its message to other customers, this research seeks to fill this research gap that these organizations are very weak in the level of awareness and organizational preparation necessary to adopt new approaches to interact with customers(kejrestin et al., 2015).

Bank Tejarat seeks to be in the competitive environment in branding through critical participation and cooperation of customers with service providers with viral marketing, considering that it is the era of information technology and many people have access to social networks that can advertise and offer the bank. trade to other friends, but it has not been as expected and viral advertisements are less common in Tejarat Bank, so the present research examines viral marketing using this tool for branding, which is a type of fast marketing and responds to today's marketing needs. organizations, will pay. In this regard, the main question of the current research is how banks can use viral marketing as a branding tool in the value creation process.

2. Theoretical Foundations

2-1. Viral Marketing

Internet is a suitable place for business and business is not possible except with marketing; The Internet also has its own marketing methods and its advantages compared to traditional marketing methods in eliminating time and space distances, providing information completely 24 hours a day and on all days of the week, direct and two-way communication with the user, receiving opinions from The customer or the immediate response to him. One of the most effective direct marketing methods on the Internet is viral marketing. In fact, this method spreads itself like a virus, and the spreader is the customer himself (Kafashan Kakhki et al., 2018). Viral marketing as an influencing factor on customer behavior is a tool that encourages people to comment on the products or services of companies on the Internet(Rezvani et al., 2016). Viral marketing is a technique that avoids harassment and encourages users of certain goods and services, including banks, to tell their friends. This can be a transparent offer or positive word of mouth(Saeb Nia et al., 2021). Viral marketing is a strategy based on the Internet and takes advantage of the nature of the path of spreading information on the Internet(Scott.,2008). Like a virus, this type of marketing reproduces itself and customers spread it. As an interesting idea, viral marketing can encourage customers to communicate with each other in order to offer the product or brand under review(Adelsarbanlar et al.,2016). The most common way to do such marketing is the World Wide Web, which is becoming more important every day as the number of Internet users increases. Starting an effective viral marketing requires finding a compelling reason or motivation for people to encourage them to send the desired message or promotion to friends and relatives. Therefore, in viral marketing, the key to success is ultimately in the hands of the marketers, as they must motivate people to send the message to others by providing ideas and creative encouragement. As an incentive, an interesting idea can encourage customers to connect with each other to recommend the desired product or brand(Mirzaee,2012).

A number of viral marketing features can be seen as very important factors that have laid the groundwork for success. First of all, it is simply clear that viral marketing is closely related to traditional word-of-mouth referrals. In any case, it is important that the distribution of information is done mainly through e-mail and the Internet, not face-to-face. Because of the incredible speed and number of people viral marketing can theoretically reach, word-of-mouth marketing is sometimes referred to as asteroids.

Viral marketing means creating messages that contain concepts that captivate people after contact and that are so compelling that people exchange them" (Graham, 2006) or Incentives provided to recipients to exchange the message "Internet version" versus traditional examples and methods of influence in viral marketing is an innovative promotional method. Often times, free products are used to attract potential customers, tips, trials. , creating loyalty and word-of-mouth offers" (Mahajan and Wind) or the potential for exponential growth (the growth rate of what is said by viral marketing is very high and rapidly changing).

However, there are several definitions that can cover most of these main features. Richard Perry and Andrew Whittaker propose a definition. They define viral marketing as: "The voluntary dissemination of an electronic message from one customer to one or more others and the creation of an exponential and perpetual growth in its delivery"(Vatir., 2014).

2-2. Creating value

The concept of shared value creation was first proposed by Michael Porter in 2011 in the Harvard Business Journal. According to Porter, creating shared value is the connection between competitive advantage and corporate social responsibilities. But today, value creation should no longer be considered as occurring during the production process, but as what customers control in their consumption sphere (Strandvik et al., 2012). Customers are not passive targets of marketing actions, but rather are considered as active effective resources that ultimately determine and create value in value creation processes. Customers can recognize their roles from consumer to supporter and creative (Tapscott and Williams, 2006). Despite the common understanding about the active role of the customer and the abstract and processual nature of customer value, theoretical discussions require more controversial features; Because the focus has shifted from value creation to shared value creation. Proponents of value from the point of view of stakeholders consider organizations responsible for creating value for all its stakeholders, including the organization's personnel, organization's customers, and society, and consider participation in determining the future directions of the organization in which they have interests to be their right. In the research conducted in the field of value creation for stakeholders, there is a direct and strong relationship between profitability and growth of the organization, customer loyalty, customer satisfaction, value of goods and services provided to customers, quality and efficiency of services, as well as capabilities, capabilities, satisfaction. And there is the loyalty of the organization's personnel, but the value from the customer's point of view, which this article deals with, although it reflects the marketers' point of view, it is considered the enamel and the source of two other types of value (Chen, 2016).

Creating shared value is a new paradigm that has been raised in the discussion of strategy, and its topic is how we can grow the company's business by solving society's problems (Pyotr and Jolanta, 2017). Perceived and derived value from joint cooperation increases customer commitment and psychological attachment, increasing the customer's willingness to make additional voluntary efforts in the partnership. Creating joint value is a management strategy in which companies find business opportunities in social problems. While social responsibility efforts are focused on pushing back or minimizing business damage to society in order to bring customers along with them to create shared value. Increasing the competitive value will be to solve the problems of new customers and markets, reduce the cost and create value. Many companies today are building and renovating their business models to create a desirable shared value to make them compete. and increase their success (Sezmgin et al., 2017).

2-3. Background research

Aghajan Tabar et al. (2018), in an article entitled "Providing a framework for designing viral marketing campaigns through social networks for business to consumer services in Iran" presented a framework for designing viral marketing campaigns through social networks for services. Business to consumer in Iran have paid attention to better understand and design different components of viral marketing campaign. For this purpose, first by examining the existing researches in this field using the metacombination method, 148 codes were extracted, which were classified into 23 themes and 13 categories, and in the form of a framework for designing viral marketing campaigns through social networks for business services. provided by the consumer. Then, in order to revise and revise the framework extracted from metacomposition suitable for the business environment of Iran, a semi-structured interview was conducted with industrial experts with experience in designing and implementing a viral marketing campaign for business to consumer services in Iran and the results of the interview It was investigated by content analysis method and using these results, the final research framework for designing viral marketing campaigns through social networks for business-to-consumer services in Iran has been presented. Three steps of strategy determination, planning and support as well as ten steps of strategy determination, planning, determination of viral mechanisms, determination of narrative elements, determination of message characteristics, selection of media type, media selection criteria, selection of appropriate initial seed, appropriate seeding method and support in The frameworks of the past researches did not exist and were proposed for the first time in the framework of this research. Kafashan Kakhki et al. (2018), in an article entitled "Determining the factors affecting the reposting of the message of non-profit organizations in social media: a research on viral marketing of information content" to identify and extract the main factors affecting the reposting of the message in social media and the effect of each One is specified. They state that emotions, social dimension, practical value of the message and altruism play a role as important and influencing variables on reposting the message in social media. Therefore, non-profit organizations, if they want to have their voice among the mass of information messages that are published every moment on social

media; To be heard, they should evoke multiple emotional reactions in people to ensure that their message will be seen over and over again in various information media. They should also communicate with their audience by highlighting the social dimension of the message. Nonprofits need to appear aware of the community and concerned about solving its problems to motivate people to share their message to start an online conversation with their friends. They should know that people tend to appear intelligent and knowledgeable in the eyes of others; As a result, by enriching the practical content of the message, they can force their audience to republish it, and by expressing the worries and concerns that people in the society are currently suffering from, they can arouse the sense of altruism and force them to react. Castellano et al. (2018) investigated the effect of viral marketing on electronic reputation, the research method is a descriptive survey, a questionnaire was used to collect data, the results of data analysis showed that similarity, content quality, trust, strong relationship, credibility, attractiveness and interpersonal influence have an effect on electronic reputation. Babar et al. (2016) investigated the antecedents of online viral marketing, attitudes and behavioral tendencies for electronic products in Pakistan, 251 internet users were used to collect data, and the speaker's trust. The speaker's expertise, speaker's experience on viral marketing and viral marketing on attitudes and behavioral tendencies were investigated, data analysis was done with the help of structural equations and the results showed that the speaker's expertise, experience and trust have an effect on word-of-mouth advertising and viral marketing on Purchase intentions also have a significant effect. Basri et al. (2016) investigated viral marketing on consumer purchase decisions, in this study on the relationship between the characteristics of word-of-mouth advertising and restaurant purchase decisions. This research examined the quality of service, quality of food, physical environment and price on purchasing decisions. The questionnaire was distributed among 300 customers and multiple regression was used to analyze the data. The results showed that the quality of the physical environment Word of mouth advertising is the most effective.

3. Research Methods

The present research is practical in terms of its purpose. From the point of view of the research method, this research was conducted based on the mixed method. In the framework of mixed research methodology, the modeling process in this research has been done in three steps, including library research, model determination research, and quantitative modeling research. The first and second steps are qualitative in nature and the third step mainly has a quantitative analysis approach. In the first stage, based on the results of a library study regarding the theoretical foundations and background of the research, the initial conceptual framework of the effective factors was extracted. In the second step, the mental model of the experts was extracted and the results were extracted based on the foundation's data method, and in the third step, the obtained model was tested in the pls software environment. The statistical population of the research is senior managers and experts in the field of marketing (with more than 10 years of experience), 12 people (Table No. 1) were selected as the sample of the research using the purposeful sampling method and the snowball technique. In order to conduct the interviews, a recipe was prepared. At the beginning of the interview, the purpose of the research was mentioned in general and it was emphasized that the interviews will be used only for research purposes and the identity of the individuals will not be determined in any way in the research reports and published articles. In the interview, the interviewees were allowed to comment on the details related to the main topic as much as their knowledge and experiences. The interviews continued until the theoretical data saturation stage. The data collection period is from July to November 2019. To increase the accuracy and correctness of data analysis, all recorded interviews and then each interview individually were typed word for word. The researcher carefully read every interview and notes in the first 24 hours and wrote down the concepts that came to his mind. In the current research, for the purpose of qualitative data analysis, MaxQuda software was used and for quantitative data analysis, Smart pls software was used.

4. Discussion and findings

The largest number of interviewees had doctorate education, 12 people, which make up 50% of the interviewees. Also, the largest number of interviewees had work experience of more than 21 years, 19 people, which included 79% of the interviewees. The largest number of interviewees had doctorate education, 6 people, which make up 50% of the interviewees. Also, the largest number of interviewees had a work experience of more than 21 years, 10 people,

which included 79% of the interviewees. According to the research questions, the following questions were considered as the main questions in the interview, and due to its semi-structured nature, other questions could be asked according to the answers and in order to clarify the meaning of the answers provided. At the end of each interview session, the interviewees were asked to add anything else to the plan.

4-1. Data analysis

After conducting the ladder interviews, the data collected from the interviews were processed in detail following the method and guidelines based on the work of Reynolds and Guttman (1988). The first step is to prepare a table of content codes. After extracting the codes, they were assigned numbers. Content codes are shown in Table 1.

Table 1. Identified codes.

	Codes	Abundance		Codes	Abundance
1	Using the right tools, channels and technologies	3	17	Useful information	4
2	Type of social network and being popular	5	18	The value of the message	5
3	Advertising campaigns	4	19	The accuracy of the information	4
4	Ease of message transfer	4	20	Reputation of the source	5
5	Accessibility of message sharing mechanisms	6	21	State the features of the product/service accurately in the message	6
6	The possibility of sharing and sharing messages in old media	3	22	Expressing the applicability of the product/service in the message	4
7	attractiveness	7	23	Sending messages by multiple separate sources	6
8	Ability	4	24	The extent and persuasiveness of the message	4
9	Creating a positive attitude in the audience	6	25	Reliability of information	3
10	to be understood	4	26	Experience the source of word-of-mouth advertising	5
11	Innovation in the message	3	27	Biased advertising	4
12	Specialization of the message	6	28	Repetition and continuation of the message	3
13	Non-repetitiveness of the message	4	29	The extent of message transmission	5
14	Up-to-date information	6	30	The level of access to the audience	6
15	comprehensive and including advertisements	4	31	Identifying influential people in social networks and conveying messages through them	4
16	Customize and personalize the message	7	32	Accurate selection of the target community	4

After analyzing the content of the interviews, 32 elements including 6 technology, 6 message content, 2 entertainment, correct targeting and 4 message influence characteristics, 9 message credibility and 6 advertisement quality.

Table 2. categories.

Axial floors	Subclasses	themes
Technology	Using the right tools, channels and technologies	Type of social networks (Instagram, Telegram, (.WhatsApp, etc
	Type of social network and being popular	
	Advertising campaigns Ease of message transfer Accessibility of message sharing mechanisms	
entertainment	The possibility of sharing and sharing messages in old media attractiveness	Video clips, promotional bonus games, music
Message content	Ability Creating a positive attitude in the audience to be understood	New information, specialization of the message
	Innovation in the message Specialization of the message Non-repetitiveness of the message	
	Up-to-date information comprehensive and including advertisements	
Advertising quality	Customize and personalize the message Useful information The value of the message The accuracy of the information Reputation of the source State the features of the product/service accurately in the message	The information is up-to-date .and comprehensive Based on the segmentation of the market, the messages should be appropriate to the segments
Message validity	Expressing the applicability of the product/service in the message	In the messages, the features of the services should be presented .accurately and functionally Messages are repeated continuously
	Sending messages by multiple separate sources	
	The extent and persuasiveness of the message Reliability of information Experience the source of word-of-mouth advertising Biased advertising	
Correct targeting and penetration characteristics of the message	Repetition and continuation of the message The extent of message transmission	It should benefit from influential people and opinion leaders, people who are not only high supporters and supporters, but the characteristics of the service should match the characteristics of the people
	The level of access to the audience	
	Identifying influential people in social networks and conveying messages through them Accurate selection of the target community	

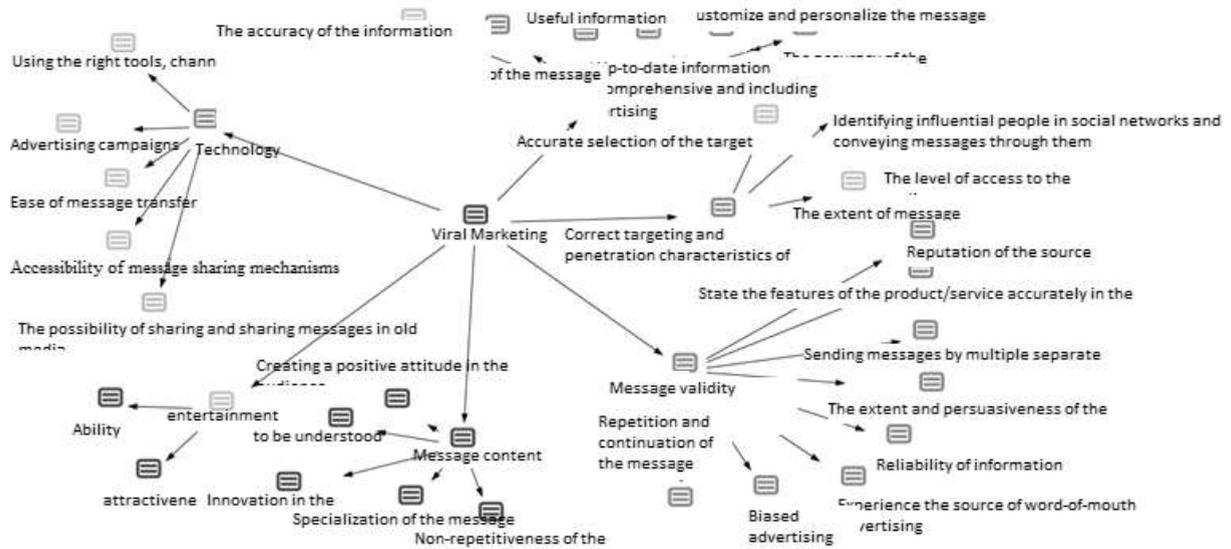


Figure 1. Research model.

The text of the interviews was carefully transcribed and used for analysis along with the notes taken from only one interview in which audio recording was not allowed. To analyze the text of the interviews, the "theme analysis" method, which is widely used in qualitative research, was used. In this method, the text of the interview was first implemented from the audio recording of the interview session and using the notes taken during the interview sessions were completed. Then, by carefully reading these texts, at first, for each of the prepared interviews, all independent ideas were identified in the form of concepts (such as "message content") and sub-themes (such as "message innovation") and then to each which code was assigned. Table 2 contains examples of the concepts identified in the implemented text of an interview sample, which is categorized into sub-themes. This was done for each of the interviews and if there were sections with similar themes in the text of the previous interviews, the same previously assigned codes were used as their indicators. Then, based on all the sub-themes identified in the entire research, a more general classification was made, which led to the identification of the main themes ("message content", "entertainment", "message validity", "technology", "choice of target community minutes", "advertising quality").

Message Content: Some interviewees consider message content to be a key role in viral marketing and message dissemination, another interviewee stated that Internet users do not transmit any message, the message must convey to the recipient a feeling that stimulates the person to convey the message to others. Four of the interviewees emphasized the validity and reliability of message sources and stated that the message source does this voluntarily and without receiving money or material incentives.

Entertainment: Four of the interviewees emphasized the necessity of indicators such as video clip formats, attractive games designed with flash, promotional games, e-books, marketable software, images or text messages.

Technology: Determining a media that is related to banking services and is popular and, in addition, a social network that is available. Five of the interviewees mentioned the use of social networks that are related to banking services, and one of the experts stated that "a social network that is popular and approved by the government." One of the other experts available Boden suggested social networks, so that messages can be easily shared.

Advertising quality: Some of the interviewees have mentioned the up-to-dateness of the information, according to experts' opinions, up-to-date information is important. Among other important factors in the development of value creation, they have mentioned: the usefulness of information and the accuracy of information, in other words, information that is useful for users and customers and that they can benefit from it, and that the information is correct and can be understood and believed by users.

4-2. Model test

To test the accuracy of the research theoretical model and calculate the influence coefficients, the method of structural equation modeling with partial least squares (PLS) approach was used by Smart-PLS3 software.

The PLS technique simultaneously evaluates the validity and reliability of the measurement model of theoretical constructs and is also used to evaluate the structural model with multi-indicator constructs with direct and indirect effects (Hijazi and Ramsheh, 2013). . Therefore, in this research, the PLS method was used to evaluate the path model and test the hypotheses. In the PLS model, the relationship between the observed variables and the corresponding constructs is evaluated in the measurement model and the relationships between the constructs in the structural model.

In the following, the findings of the implementation of this model are presented. The first step of implementing this model is to check the fit of the model. The fitting of the model is done in two parts: 1 (fitting of measurement models, 2) fitting of the overall model.

4-3. The fit of the measurement model

The measurement model is related to a part of the overall model that includes a variable along with questions related to it. To check the fit of the measurement models, three criteria of reliability, convergent validity and divergent validity are used.

4-4. Reliability and convergent validity

The reliability of the index is measured by three criteria: 1) factor loading coefficients, 2) Cronbach's alpha and composite reliability (CR).

4-5. Factor load coefficients

Factor loadings are calculated by calculating the correlation value of the indicators of a structure with that structure. If this value is equal to or greater than 0.4, it confirms that the variance between the structure and its indicators is greater than the variance of the measurement error of that structure. The reliability of that measurement model is acceptable; Therefore, the criterion value for the appropriateness of factor loading coefficients is 0.4; If after running the model, the factor load of some questions is less than 0.4, that question will be removed so that the examination of other criteria will not be affected by it. According to Table No. 3, all the factor loadings of the questions are more than 0.4, so it is not necessary to remove any of them and it can be concluded that the model has good reliability.

4-6. Factor load coefficients

Factor loadings are calculated by calculating the correlation value of the indicators of a structure with that structure. If this value is equal to or greater than 0.4, it confirms that the variance between the structure and its indicators is greater than the variance of the measurement error of that structure. The reliability of that measurement model is acceptable; Therefore, the criterion value for the appropriateness of factor loading coefficients is 0.4; If after running the model, the factor load of some questions is less than 0.4, that question will be removed so that the examination of other criteria will not be affected by it. According to Table No. 3, all the factor loadings of the questions are more than 0.4, so it is not necessary to remove any of them and it can be concluded that the model has good reliability.

4-7. Cronbach's alpha, convergent validity and composite reliability

Composite reliability indicates the degree of correlation of the questions of one dimension with each other for the adequate fit of the measurement models (Fornier Velarker, 1991). When one or more traits are measured through two or more methods, the correlation between these measurements provides two important indicators of validity. If the correlation between the scores of tests that measure a single trait is high, the questionnaire has convergent validity. This correlation is necessary to ensure that the test measures what it is supposed to measure. For convergent validity, average variance extraction (AVE) and composite reliability (CR) are calculated. The following relationships must be established:

$$CR > 0.7$$

$$AVE > 0.5$$

In order to calculate the convergent validity, the AVE criterion and the combined reliability coefficient of the CR criterion were used. If AVE is at least 0.5, it means that the variables have good convergent validity. It means that a hidden variable is able to explain more than half of the variance of its indicators on average. Considering that in this research the Average Variance Extracted Index (AVE) for all research variables is above 0.5, therefore the convergent validity of the model variables is confirmed. The combined reliability coefficient (CR) and Cronbach's alpha coefficient measure the reliability of the measurement tool. As Table (4) shows, considering that the combined reliability coefficient (CR) and Cronbach's alpha coefficient for all research variables are more than 0.7, therefore the reliability of the questions of the variables in the questionnaire are acceptable.

Table 3. Results of convergent validity, composite reliability and Cronbach's alpha.

Research variables	Average extracted variance (AVE>0.5)	Combined reliability (coefficient CR>0.7)	Cronbach's alpha (coefficient Alpha>0.7)
Technology	0.591	0.870	0.823
entertainment	0.551	0.835	0.734
Message content	0.673	0.890	0.850
Message validity	0.532	0.850	0.782
Correct targeting and penetration characteristics of the message	0.586	0.873	0.813
Advertising quality	0.643	0.765	0.659
Creating value	0.564	0.677	0.843

4-8. Divergent validity

To check the divergent validity, the comparison of the correlation of a construct with its indicators against the correlation of that construct with other constructs was used using the Fornell and Locker method. Divergent validity is acceptable when the AVE for each construct is greater than the shared variance between that construct and other constructs (i.e., the square of the correlation coefficients between constructs) in the model. As it is clear in table number (4), the root value of AVE of the variables in the current research is higher than the correlation value between them. Therefore, it can be stated that in the current research, the constructs (latent variables) in the model have more interaction with their indicators than with other constructs. In other words, the divergent validity of the model is adequate.

Table 4. Divergent validity results.

	Technology	entertainment	Message content	Message validity	Correct targeting	Advertising quality	Creating value
Technology	0.769						
entertainment	0.635	0.742					
Message content	0.633	0.621	0.798				
Message validity	0.314	0.642	0.522	0.729			
Correct targeting and penetration characteristics of the message	0.448	0.534	0.682	0.654	0.765		
Advertising quality	0.543	0.287	0.543	0.321	0.554	0.801	
Creating value	0.564	0.342	0.554	0.439	0.632	0.765	0.750

4-9. Structural model fit

According to the data algorithm in PLS, after fitting the measurement models, it is time to fit the structural model. Unlike the measurement model, the structural model has nothing to do with the questions (obvious variables) and only the hidden variables and the relationships between them are examined.

R² criterion and redundancy index (CV red) or predictive correlation test or Q²:

R² is a criterion that is used to connect the measurement part and the structural part of structural equation modeling and it shows the effect that an exogenous variable has on an endogenous variable. The higher the value of R² related to the endogenous constructs of the model, the better the fit of the model. Chin (1998: 303) has introduced three values of 0.19, 0.33 and 0.67 as weak, medium and strong values for fitting the model (Chin, 1998: 303). According to table 5, the value of R² according to the three criterion values, it is possible to confirm the appropriateness of the fit of the structural model. The second structural model fit index is the Q² index. This criterion, which was introduced by Geiser (1975: 324), determines the predictive power of the model in endogenous constructs. According to them, models that have an acceptable structural fit should be able to predict the endogenous variables of the model. It means that if in a model, the relationships between the structures are correctly defined, the structures have a sufficient influence on each other and thus the hypotheses are correctly confirmed (Geisser, 1975:324). Henseler et al. (2009: 4) have determined three values of 0.15, 0.2 and 0.35 as low, medium and strong predictive power (Henseler, 2009: 4). The values related to the Q² index of the variables are displayed in table number (5). Considering the reflected value, they have a strong predictive power and it can be said that the results show a strong fit of the structural model of the research.

Table 5. Determination coefficient values and Q2 values.

Research variables	Q2 values	R2 values
Creating value	0.588	0.640

4-10. Overall model fit

To check the fit of the overall model that controls both the measurement and structural model parts, only one criterion called GOF is used. This criterion is calculated through the following relationship.

4-11. Overall model fit

To check the fit of the overall model, only one criterion called GOF is used. This criterion is calculated through the following relationship.

$$GOF = \sqrt{(\text{Communalities} \times R)} \quad \text{(Relation 1)}$$

$$GOF = \sqrt{(0/423 \times 0/640 = 0/520)}$$

Communalities is the average value of the shared values of each structure and R2 is the average value of the endogenous values of the model. Three values of 0.10, 0.25 and 0.36 are weak, medium and strong values for GOF (Henseler et al. 2009: 5). According to the calculated value, it is equal to 0.520 and indicates the strong fit of the overall research model.

After checking the fit of measurement model, structural model and general model, it is time to check the model. The model implemented in the pls software environment to investigate the research question is presented as described in the following figures.

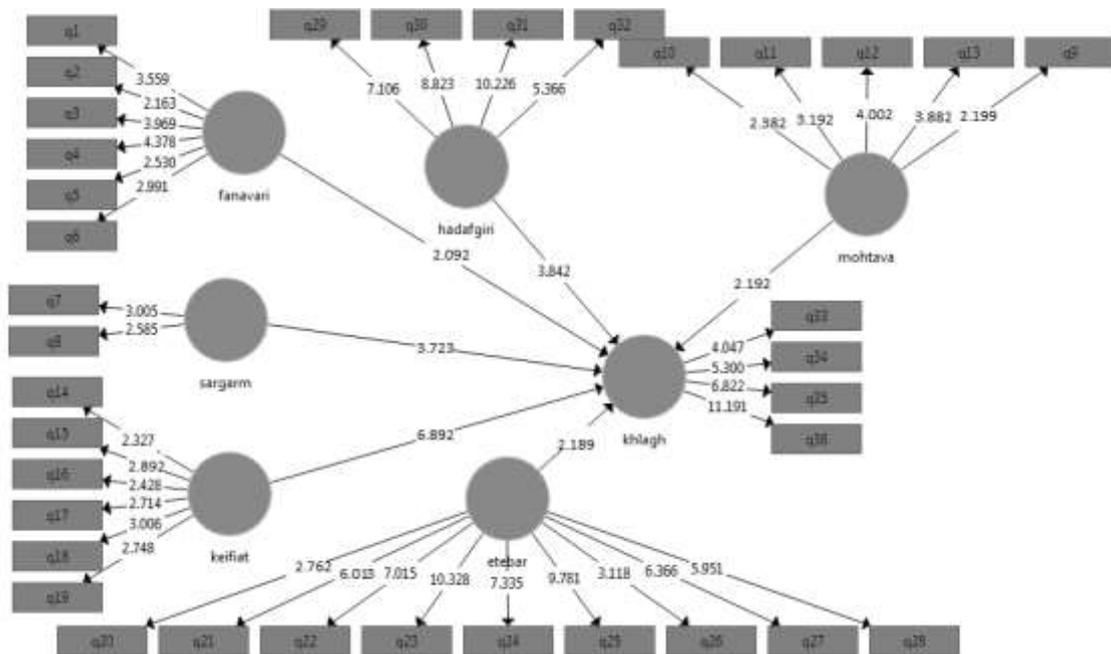


Figure 2. The structural model of research in meaningful mode.

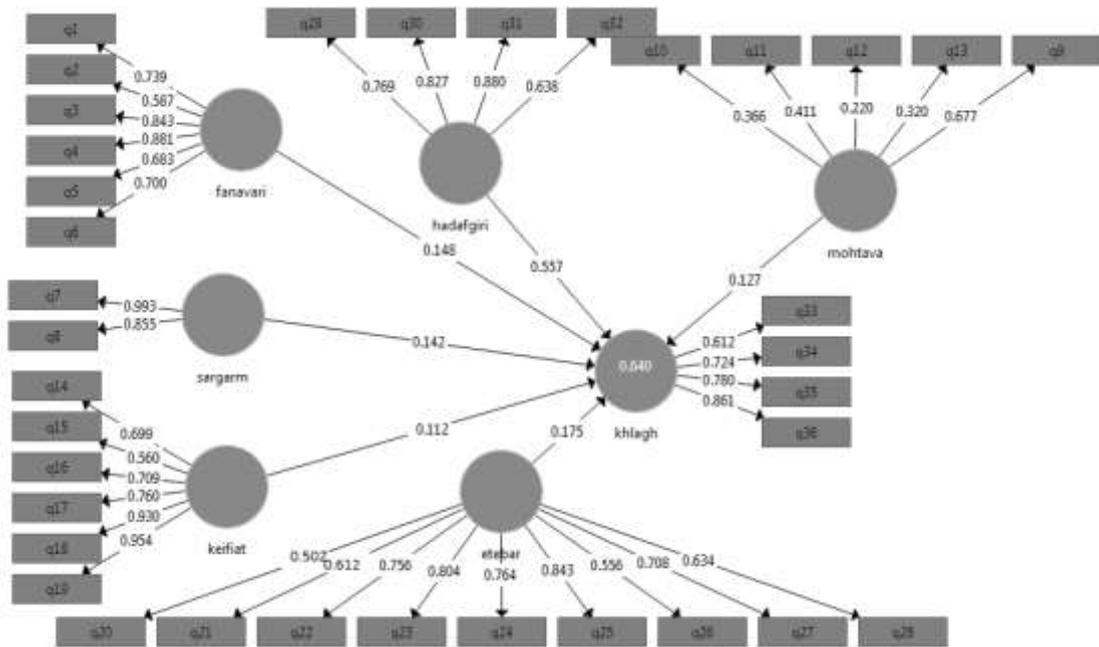


Figure 3. Structural model in standard coefficient mode.

Considering the results shown in Figure (2), the value of the t statistic obtained for the effect of the technology factor on value creation is equal to 3.02, for the effect of entertainment on value creation is equal to 3.72, for the message content on value creation is equal to 19. 2, for the effect of advertising quality on value creation, it is equal to 6.89, for the effect of message credibility on value creation, it is equal to 2.18, and for the effect of correct targeting on value creation, it is equal to 3.84, so that these values are more It is from 1.96, hence the impact of identified variables on value creation is confirmed. Also, according to the value of the obtained path coefficient, the impact of the identified variables on value creation is positive. Among the desired variables, the correct targeting variable has the greatest effect.

5. Conclusion

The increasing popularity of online social media in recent decades has attracted the attention of many researchers to study the structures, advantages and effects of using this media. Social media provides opportunities for the progress of the organization, which if not paid attention to, will lead to a decrease in competitiveness. One of the uses of social media is to use this platform for marketing and advertising in various businesses. In recent years, the growth of social media and the increase in its use by customers has turned it into one of the most popular online marketing fields. In fact, social media have changed the way people communicate with each other. Past studies show that about 40 percent of people are looking for information about their products before making any decision to buy, and most of these decisions are made on social networking sites. This trend is due to the increasing attention of people to social networks. In this research, an attempt was made to extract the effective components in order to create value using viral marketing. The results of the qualitative part showed that the components of technology, entertainment, message content, advertisement quality, message validity, correct targeting of The constituent components of the model were extracted from the qualitative, in the quantitative part, the effect of these components on the value creation variable was tested. The results indicated the significant impact of the identified components on the value creation in such a way that these variables accounted for 64% of The variance of the value creation variable has been explained. Among the investigated variables, the correct targeting variable had the greatest impact. According to the obtained results, it is suggested that regarding the key factor of technology, it is suggested that

advertisements be sent to the audience through all available tools and accessibility, as well as the general information of the services should be presented in a stimulating manner. Also, brokers have built a mechanism so that through the website, people can communicate with other audiences and brokerage experts on a special page and express their questions and receive the necessary information, as well as learn about the experiences and opinions of other audiences and make their decisions. use them. Regarding the entertainment factor of the message, it is suggested that, if possible, according to the advertising platform such as email or virtual pages, advertisements should be designed in such a way that the general information of the message is conveyed at the first glance, and in the next step with Use of audio file and other information to be transferred. It is also suggested to include a part in the message that has an entertainment aspect. Regarding the key factor of the message content, it is suggested that the text of the message should include positive sentences. Also, the content of the message should be simple and comprehensible to the general public who do not have complete knowledge and familiarity with space and economic texts. The content of the message should be brief and have the ability to attract the customer's attention, because interesting and favorable advertising will be more effective on the customer's attitude.

Regarding the key factor of credibility and trustworthiness of the message, it is suggested that for advertisements that take place through short messages and through mobile phones, there should be an interaction between the capital market brokerages and the official companies providing communication services (Hamrah Aol, Irancell, etc.) And the messages should be sent through them and with their name, because many of the messages that are sent through the short message system and in bulk, the identity of the sender of the message is not clearly displayed to the recipient of the message. The key to correct targeting and the characteristics of message penetration is suggested by brokers to identify different people who are active in economic fields (such as bank managers at the headquarters and line level, or branch affairs, etc.) and place them in the first line of the audience and the message Send your advertisement to them because these people have expertise in the economic field and have a high reputation among those around them.

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GholamReza Amiri, Ph.D. Student of Business Administration, Department of Management, Qazvin Branch, Islamic Azad University, Qazvin, Iran. He has two bachelor's degrees in the fields of banking management and law; also, he received his master's degree in business management from the University of Tehran. His research interest is in the field of viral marketing in the field of digital banking and he has taught in this field in various universities.



Mehdi Zakipour, Department of Management, Islamic Azad University, Qazvin branch, Iran. He has a doctorate in business administration. Also, he has published more than 50 valid scientific research articles in the field of organization and marketing. He has 4 volumes of books on creative psychology in business and research methods, which have been published by various academic publications.



Abdolreza Miri, Department of Management, Islamic Azad University, Qazvin branch, Iran. He has a doctorate in business administration from Allameh Tabatabai University of Tehran and a master's degree from Tehran University. He has published more than 50 articles in the field of strategic management and marketing management. Also, his interest is in the field of consumer behavior and marketing feedback in the field of consumer psychology.



Mohsen KhoonSiavash, Department of Mathematics and Statistics, Islamic Azad University, Qazvin Branch, Iran. His interest is in interdisciplinary topics between mathematics and humanities, especially in the field of management and marketing, and he has published more than 20 valid scientific research articles in this field. Also, he has addressed the field of brand and multi-criteria decision making in his researches.