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Explaining financial marketing drivers of National Bank of Iran based on customer characteristics with ISM approach

Mahdi Dadras, Sina Nematizadeh*, Azam Rahiminik

Department of Business Management, Central Tehran Branch, Islamic Azad University, Tehran, Iran

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Abstract

The current research aims to explain the financial marketing drivers of the National Bank of Iran based on the characteristics of customers. According to the method of data collection, the current research is of a descriptive type and has been carried out in the form of a survey. The statistical sample of the research is initially 15 experts of Bank Melli and university professors in the field of marketing and financial management, and in the quantitative part, 391 people are experts, employees and customers of Bank Melli branches in Tehran. The sampling method was clustered in the first stage and then was simply random. This research has initially identified the drivers of financial marketing through a research background. In the following, using the questionnaire of paired comparisons and the interpretive structural modelling technique (ISM), the factors identified in the previous section were structured by experts to present the model. Then, in order to fit the formed model, the questionnaire tool and structural equation modelling technique and Lisrel software were used. The findings of the research indicate the placement of 7 identified effective factors in three general levels. Also, the findings of the research have identified the factor of competitive dynamics and the difference in customer characteristics as the initial and primary factor in the development and implementation of the financial marketing of National Bank, according to the characteristics of customers. Other results of the research include the outputs of customer value perception, profitability, economic problems, alternative investment markets, marketing research and customer relationship management, service innovation and product portfolio. Also, all hypotheses and relationships examined in the research model were confirmed. The results of the research indicate the development of financial marketing through research and development, and managing relationships with more customers.

Keywords: financial marketing, customer characteristics, banking industry, interpretive structural modeling,

structural equation modeling 2020 MSC: 91G15, 62P30

1 Introduction

In modern marketing, the organization looks from the outside to the inside, that is, it is the needs and demands of the customers that determine the design, production, sales and other service plans, not the views and opinions of the managers of the organization. With increasing dynamism and competition in the banking industry, the success of

Email addresses: mahdidadras@gmail.com (Mahdi Dadras), sin.nematizadeh@iauctb.ac.ir (Sina Nematizadeh), aza.rahiminik@iauctb.ac.ir (Azam Rahiminik)

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^{*}Corresponding author

banks depends on their success in creating a competitive advantage. Success in understanding the financial market is also related to the degree of managers' understanding of the marketing process [3]. Despite the fact that the word marketing was coined and developed in commercial management, but according to the author, this word can be conceptually explained in other areas such as financial management and developed in a practical way [13]. One of the reasons for the poor performance of many bank branches is their poor marketing. Marketing is the implementation of activities in the business environment that direct the flow of goods and services from the producer to the consumer. However, the intended concept in this research is financial marketing. In the financial marketing process, despite the two-way relationship between the market and the economic enterprise, the emphasis is on looking at the market from within the enterprise. In other words, the company's financial need is first identified and estimated in the appropriate ways that are common in financial management, then financing is done by referring to the appropriate financial market through appropriate financial instruments [22].

Banking and banking services are one of the most important areas that were quickly affected by the use of new technologies, communication and the Internet, and with the rapid expansion of network and communication technology; Several marketing methods emerged in e-commerce affairs [21]. In today's competitive environment, markets have become highly competitive and companies must look for a way to attract more customers and gain more market share than their competitors. Marketing managers of companies should look for efficient and effective tools that they can use to influence potential and actual consumers with more speed and less cost [29]. Studies in the field of marketing show that the principles of customer orientation and the tendency to satisfy customer needs have been placed on the agenda of organizations after the 90s. The managers of the organization believe that customer orientation, which is one of the most important principles of marketing models, should be a part of the organization's culture. Therefore, the opinions, behavior, values and norms of customers should always be considered by the organization [12].

The reality of banking services shows that, unfortunately, due to the lack of familiarity with bank marketing, the employees only use traditional marketing methods in a scattered manner and unrelated to the main purpose of the bank. This is while paying attention to the bank's marketing in fact makes the marketing procedures and programs go astray and creates a suitable platform for other marketing activities [13]. Considering the tight competition between banks in attracting resources and providing services to people, the need to promote a culture of information and effective advertising on a wide level and transparently in a way that can be understood by members of the society, is more important in the success of banks and financial institutions. It is effective. The banking industry is one of the main pillars of any economy and customers play a key role in it. Therefore, special focus on the needs and demands of customers and scientific planning to attract and make them loyal to the organization are among the most important issues of banks [23]. In the meantime, customer behaviour analysis is necessary for organizations active in the banking field that deal with many customers with different characteristics. Many third world banks have faced many problems due to weak customer orientation and customer service [1]. In order to increase its share in the competitive market and optimal use of banking resources in providing services according to the needs of customers, the banking system should segment its customers. Therefore, it is necessary to identify and analyze the behavior of bank customers. Optimum and effective customer segmentation based on suitable and relevant characteristics can help the business penetrate more in the market [13].

Paying attention to the characteristics and grouping of customers, identifying their behaviors, separating them from each other based on common behaviors and adopting a suitable strategy against them has become one of the challenges of the banking industry. Customer grouping is a method that groups customers according to their common behaviors in such a way that customers who are most similar to each other are placed in the same group [5]. The common objectives of customer segmentation include developing new products and services, creating different marketing relationships for different customer groups, developing strategies to serve and retain different customers, focusing on the company's efforts in segmenting with the highest profit potential and developing any strategy that the company aims to achieve. It considers increasing profits and retaining its customers [33]. One of the main challenges of customer grouping is to understand the purpose and provide grouping based on it. For this purpose, for general and non-targeted customer segmentation, all customers in the same segment receive the same offers, services and policies [10]. However, from an analyst's point of view, it is possible that while two customers are placed in the same segment due to a certain characteristic, at another time they are placed in different segments according to another characteristic [18].

Therefore, the need for goal-based customer grouping, that is, customer segmentation based on a specific feature or a combination of some features, is one of the main challenges of common customer segmentation, which is addressed in this research. In other words, instead of offering the same products and services and applying the same policies of different categories to the members of a group, for each feature, we need a specific and subjective segmentation. In Iran, banks play a very important role in the money circulation of the country.

Unfortunately, the biggest challenge in Iran's banking system is the corporate functioning of our country's banks,

which has caused banks to pay less attention to their banking duties and fulfil their responsibilities towards customers. In recent years, banks have not been a good intermediary between customers, investors and economic activists, and in particular, the private sector has managed to receive banking facilities by spending time and going through many problems. National Bank of Iran, as one of the most experienced banks in the country, has faced challenges in this field and seeks to solve this problem. A look at the past research on the topic of this research indicates that very limited research has been done in the field of financial marketing and also not with an emphasis on the characteristics of customers and no research has been done in National Bank. Therefore, considering the importance of this issue and the limitations of research in this field and existing research gaps, this research seeks to explain the drivers of financial marketing of the National Bank of Iran based on the characteristics of customers and measure the existing relationships between the dimensions of this model in order to determine the most important influencing factors in this field. At the end of the research, based on the findings, suggestions are presented for the development of financial marketing in the National Bank of Iran. The results and suggestions of this research can serve as a guide to inform the National Bank of Iran in order to develop financial marketing and improve performance in achieving more market share.

2 Literature review

Since the financial system in any country plays a fundamental role in achieving sustainable development, the stronger this market is the more capital flows into the society towards basic economic activities. This, in turn, causes a decrease in the inflation rate, the problems of financing companies, the possibility of more employment, and the rate of growth of the gross domestic product which ultimately leads to the economic growth of that country [25]. The more customers are attracted to banks, the more profitability is created and the same amount of capital flows to the stock exchange. The entry of new companies needs marketing. Marketing is one of the sciences that is used in all societies. The main goal of traditional marketing is to identify the target market [29]. With the progress of societies, this science has entered newer areas such as service marketing and financial marketing. Considering the increasing need of companies in today's competitive environment to attract capital, relying on the resources obtained from the financial markets as an engine for their growth, as well as the need of the stock exchange company for profitability, it seems necessary to have an all-round solution to establish a relationship between the two sides. The financial market, i.e. investors and investable companies, should be designed [4].

The ever-increasing expansion of economic activities due to the challenge of the environment has caused, first of all, in specialized and professional processes, the relationships between sciences and tools in different fields are explained in the framework of theoretical foundations. Secondly, from the obtained results, it provided the means for the quantitative and qualitative development of knowledge and related tools. Thirdly, from their combination, he applied and implemented the obtained results. The duties of financial managers of companies are considered more important and effective in a competitive environment [25]. Effective and efficient financial management in providing financial resources and success in this direction depends on their knowledge of the market and financial instruments. Success in understanding the financial market is also related to the level of managers' understanding of the marketing process. Even though the word marketing was coined and developed in commercial management, but according to the author, this word can be conceptually explained in other fields such as financial management and developed in a practical way [22]. All bank managers have realized that no bank is capable of providing all banking services, and other customers will not look for the best bank with this system (providing all special banking services), and therefore, by segmenting customers, better performance can be achieved. In general, marketing managers in banks should identify new services for competition and branding in the minds of customers [23].

The limited financial and technical resources do not allow the bank to operate in a wide range and provide different types of products and services for different groups of customers without paying attention to this important issue of marketing. Market segmentation helps the bank to make better decisions about who are bank customers and who are not bank customers [10]. The experience of using banking services for consumers has undergone extensive changes in the last few years. Global statistics show that customers' desire for digital banking has increased significantly. Currently, more than half of the world's population uses banking applications more than before the pandemic [1]. The growth of cardless technologies, mobile payments and digital wallets has rapidly changed the way consumers spend and interact with money. Traditional and offline marketing channels such as environmental advertising, mail and TV advertising and advertising in the media are still one of the main ways for banks to reach new customers [7]. Maybe traditional channels can still be effective now, but compared to digital approaches that can be instant, automated, personalized and targeted, they have less impact. Marketing in the bank is one of the tools to develop the bank's income. According to proven rules, 10% of customers make up 90% of income in banks. Marketing in the

bank begins with the identification of the unanswered needs and demands of the customers, and after selecting the necessary services, the marketing process of the banks is completed [10].

Marketing is one of the tools that can increase the growth of bank revenues. The marketing strategy emphasizes on creating and maintaining long-term relationships with customers and deals with the issue of developing this relationship in the area of customers. Since the provision of banking services makes marketing difficult for banks due to the uniformity of services and the high level of competition, banks inevitably seek to find new marketing methods to gain market share and maintain survival [6]. Due to the increase in competition in the banking industry in recent years and the emergence of private banks, the need to use new marketing methods in providing new services is felt more than ever. In modern banking, as a symbol of money markets and the intermediary of capital markets, marketing; Increasing the bank's income is defined by making the relationship between customers and the bank profitable over time, and in this profitability, meeting needs, improving long-term and stable relationships, and ultimately customer satisfaction are very important [7]. Financial services marketing requires a commitment in the management department to adopt a customer-oriented approach as the work philosophy of the institution [17].

Garmsiri et al. [13] studied the design and testing of the marketing model of banking services based on the systematic foundation data method in Saderat Bank of Iran. From the results of the research in the field of Saderat Bank's banking services, 22 components were obtained: improving the bank's structure in the matter of banking services, greater and established presence in the market, realizing internal marketing, marketing strategies, service delivery method, management structure, human resource management, market orientation, Creating value for the customer and... as well as causal, contextual, intervening, strategic and consequential factors were also determined. Mozafari et al. [23] conducted a research with the aim of "designing a financial services marketing model in the stock exchange organization's brokerages". The results of the qualitative analysis by Max Kyoda software showed that the components of the financial services marketing model in the brokerages of the Stock Exchange Organization are 1-customer attraction, retention and maintenance, 2- market share, 3- performance of brokers and intermediaries, 4-service marketing mix, 5 - Establishing a comprehensive service system, 6- Investment, 7- Diversity of companies, 8- Environmental factors (financial services and marketing environment).

Mogaji et al. [22] conducted a study with the aim of investigating how Nigerian banks market financial services to financially vulnerable customers. For this purpose, a multiple case research strategy was used to analyze three commercial banks and two microfinance banks. This study shows that Nigerian banks develop different product development portfolios, adopt innovative traditional marketing strategies and use comprehensive technologies to reach and extend services to the underbanked and vulnerable customers in the society. The same results suggest that banks should focus on consumer participation through the active development of technologies and use creative marketing methods. In addition, financial service transaction support and financial literacy education can help banks market their services to vulnerable customers in mutually beneficial ways.

Sharma and Shrivastava [27] conducted a research titled Marketing Strategy for Financial Services in Indian Financial Services Institutions. A total of 24 factors were determined through the available literature on the subject (factors affecting the marketing strategy of financial services provided). Exploratory factor analysis was used and it was found that there are five influencing factors in formulating a different marketing strategy. This marketing strategy is named as PRISM (short for developed strategies). Sánchez-Camacho et al. [26] conducted research with the aim of providing an overview and integrated view of the current state of knowledge in the field of banking marketing. This study uses the combined process of bibliographic analysis and scientific mapping by using the co-occurrence analysis of key words and displaying relationships with their clustering and longitudinal ordering. Based on this, the entire conceptual structure of banking marketing is organized in 12 main thematic areas. These include a set of core topics in each course that change from stage to stage. Early courses show less depth in pursuing lines of work in the field of banking marketing. Recent trends show that interest is focused on user acceptance of online and mobile banking, along with traditional concepts of satisfaction, loyalty and trust.

In his research, Zephaniah et al. [32] showed how customers' perception of banks' marketing communication tools affects customer loyalty. The results show that bank marketing communication elements including advertising, sales promotion, public relations and personal selling are significant predictors of customer loyalty, but direct marketing is not. This study has implications for updating marketing communications and setting customer loyalty policy in commercial banks in Nigeria and other emerging economies with similar business and economic history. The contributions of the study were discussed. Examining the background of the research indicates that in addition to the differences in methodology between this research and similar research in this field, which are considered as part of the innovations of this research, there are also differences in terms of the model and its components. Also, the research that deals with the issue of financial marketing in the banking industry of Iran is also very limited and distinguishes this research. Investigating customer characteristics and formulating financial marketing based on this component is

also an innovation of this research.

3 Research methodology

The present research is of a descriptive type and it is a survey in terms of data collection. In this research, first, the components related to financial marketing were identified using the background study of the research, and then they were reviewed and corrected using the opinions of 5 experts in this field. The experts of this department were university professors who had a history of specialized work and research activities in this field during the last few years. In the first step, in order to establish a relationship between the swimming factors in the research, a pairwise comparison questionnaire was designed. In order to answer the questions of the questionnaire, a pairwise comparison between the dimensions of the research was used, using the opinion of 15 experts. This statistical population included National Bank managers who had a high level of familiarity with these fields and were selected using a targeted snowball sampling method. The number of experts in answering the questions of the questionnaire of paired comparisons of the interpretive structural modeling technique is between 8 and 15 experts. Accordingly, in this part of the research, in order to answer the questionnaire, 15 experts familiar with the subject of the research, who have done research work in this field and have at least 5 years of relevant work experience, were asked to answer the questions of the questionnaire.

In this research, the interpretive structural modeling method was used to determine the research model. Interpretive structural modeling is an interactive learning process introduced by Warfield in 1974 [30]. There is no consensus among researchers regarding the sample size required to perform structural equations. Some researchers argue that the method of modeling structural equations is somewhat similar to some aspects of multivariate regression. Using the principles of sample size in multivariate regression analysis. for sample size in structural equation modeling.

$$5q \le n \le 15q \tag{3.1}$$

where q is the number of observed variables (question items) and n is the sample size. This modeling can show complex issues graphically and reduce its complexity. The group decision-making rule should be used to get a collective agreement on the relationship between each pair of elements such as A and B. Interpretive Structural Modeling (ISM) logic performs based on nonparametric methods and modes in frequencies. The achievement matrix is obtained by converting its interactive structural matrix to a double value matrix of zero and one. Once the initial achievement matrix is obtained, its internal consistency must be established. One possible strategy for the calculation of different paths of i to j is to obtain the T Achievement matrix. The T achievement matrix is adapted using the following Boolean laws [31]:

$$0+0=0$$

 $0+1=1; \ 1+0=1$
 $1+1=1$ (3.2)

So to calculate the achievement matrix (T) we have:

$$T = (I+D)^{n-1}; \quad t_{ij} = \begin{cases} 1, & \text{If there is a path from variable 1 to variable 2;} \\ 0, & \text{otherwise.} \end{cases}$$
 (3.3)

To determine the relationships and level of the criteria, the set of outputs and inputs of each criterion must be extracted from the received matrix. The different stages of the ISM technique are as follows [16]:

- A) Formation of structural self-interaction matrix: the relationship between financial marketing drivers based on customer characteristics is obtained using this matrix. To obtain this matrix, the following relations are used:
 - V: i leads to j; A: j leads to i; X: to show the mutual influence between i and j.
 - O: to show no effect between i and j.
- B) Creating the primary achievement matrix: This matrix is formed based on the self-interactive matrix and using the following relationships:
 - 1. If the house (i, j) has the symbol V in the self-interaction matrix, the corresponding house in the access matrix has the number 1 and its relative house, i.e. the house (j, i) has the number zero.

- 2. If the house (i, j) has got the symbol A in the self-interaction matrix, the corresponding house in the access matrix has the number zero and its relative house, i.e. the house (j, i) has the number 1.
- 3. If the house (i, j) has the symbol X in the self-interaction matrix, the corresponding house in the access matrix has the number 1 and its relative house, i.e. the house (j, i) also has the number 1.
- 4. If the house (i, j) in the self-interaction matrix has the symbol O, the corresponding house in the access matrix has zero value and its relative house, i.e. house (j, i) also has zero value.
- C) Formation of the final achievement matrix: taking into account the interactive relationship between the elements, it is necessary to adjust the initial achievement matrix. For this purpose, the initial matrix must be raised to the power of 1 + k, so that a stable state is established $(M^k = M^{k+1})$. In this way, some zero elements will become 1, which is shown as (1^*) .
- D) Determining the level of indicators: after determining the attainable set (output) and the preceding set of input for each element and determining the common set, the leveling of the variables is done. The reachable set for each element is the set in which the numbers in the rows of the final reach matrix appear as one, and the preceding set is the set in which the columns appear as one. By obtaining the share of these two sets, a common set will be obtained. Elements whose common set is the same as the reachable set are assigned the first level of priority. By removing these elements and repeating this step for other elements, the level of all elements is determined.
- E) Drawing the interpretive structural model: Based on the determined levels and the final achievement matrix, the research model is drawn. This model shows the leveling of different factors and how the factors affect each other.

In order to form the self-interaction matrix, the felt method is used based on the highest frequency in each region.

In the continuation of the analysis process in the current research, in order to measure the fit of the conceptual model formed based on the interpretive structural modeling technique, the structural equation modeling technique was used. In order to use structural equation modeling technique, Lisrel software was used. In order to fit the formed structural model, a questionnaire consisting of 48 items was designed according to the obtained components and the background of the research and was provided to the statistical community of experts, employees and customers of National Bank branches in Tehran. The sampling method for this research was clustered in the first stage and then simple random. Due to the unknown number of people in the statistical population, the sample number of 385 people was obtained by using Cochran's formula. The research questionnaire was distributed among the members of the statistical community after checking and verifying the validity and reliability. In total, out of 400 distributed questionnaires that were received from the respondents, 391 answered questionnaires were used for analysis.

The items of the questionnaire were obtained by studying the background of the research based on the determined components, and then the face validity of this questionnaire was adjusted and confirmed by academic and industry experts. In order to check the validity in this research, the convergent validity tool that shows the average variance shared between each construct with its indicators has been used. In simpler terms, convergent validity shows the degree of correlation of a construct with its indicators, the higher the correlation, the better the fit. The acceptable limit for this criterion is 0.5. In order to measure reliability, Cronbach's alpha and composite reliability tools have been used. Cronbach's alpha coefficient is calculated as follows:

$$r_{\alpha} = \left(\frac{k}{k-1}\right) \left(1 - \frac{\sum \sigma_j^2}{\sigma^2}\right) \tag{3.4}$$

in this regard, r_{α} is the reliability coefficient of the whole test, k is the number of questions (test sections), σ_j^2 is the variance of the scores of question (section) j, σ^2 is the variance of the total scores of the questions (exam). Cronbach's alpha indicates the degree of correlation of a structure and its related indicators, and the acceptable limit for this measure is 0.7. Also, the combined reliability criterion calculates the reliability of the structures not in an absolute way, but according to the correlation of their structures with each other. If the composite reliability value for each structure is higher than 0.7, it indicates the appropriate fit of the reliability of the model [2]. in short, we have:

$$CR > 0.7$$

 $CR > AVE$
 $AVE > 0.5$ (3.5)

4 Data analysis and research findings

When the structural self-interaction matrix is transformed into a matrix of zeros and ones called the initial reachability matrix. This matrix only has the numbers zero and one. The rule of placing the numbers zero and one instead of the four primary numbers (2, 1, -1, and 0) is as follows:

In the access matrix, cell (i, j) will be equal to 1, and cell (i, j) will be equal to 0 if the intersection of criteria (i, j) in SSIM is equal to V.

In the access matrix, both cell (i, j) and cell (i, j) will be equal to 1, and cell (i, j) will be equal to 0 if the intersection of criteria (i, j) in SSIM is equal to A.

In the access matrix, both cell (i, j) and cell (i, j) will be equal to 0, and cell (i, j) will be equal to 0 if the intersection of criteria (i, j) in SSIM is equal to X.

In the access matrix, cell (i, j) and cell (i, j) will be equal to 0 and 1, respectively, if the intersection of criteria (i, j) in SSIM is equal to O.

$$D = \begin{bmatrix} \cdot & c_1 & c_2 & \cdots & c_n \\ c_1 & 0 & d_{12} & \cdots & d_{1n} \\ c_2 & d_{21} & 0 & \cdots & d_{2n} \\ \cdots & \cdots & \cdots & 0 & \cdots \\ c_n & d_{m1} & d_{m2} & \cdots & 0 \end{bmatrix}$$

$$(4.1)$$

In matrix D as the initial reachability matrix, each sign of d_{ij} is replaced by the numbers zero, and one and C_j indicate the development of strategic thinking of human resource managers.

To develop the final reachability matrix, the initial reachability matrix was checked for transitivity. For this purpose, the initial matrix must be an exponent K + 1; so that a steady state is established $(M^K = M^{K+1})$. Therefore, some zero elements will also become 1, which is shown as (*1). The final reachability matrix should be obtained using the following equations (I is the identity matrix) after creating the relations matrix or the initial reachability matrix:

$$M = D + I$$

 $M^* = M^K = M^{K+1}$ (4.2)

Lets that in large and complex systems, each component can be derived from itself. Therefore, all the principal diameter elements of the system's final matrix are always 1. For this purpose, we add the identity matrix with the initial reachability matrix to get the final reachability matrix. The properties of the final reachability matrix are as follows:

$$M^2 = M \tag{4.3}$$

In this regard, we expand the obtained final matrix to the exponent until the above condition occurs, and the obtained matrix will be the final reachability matrix. Of course, the operation of the matrix exponential must be according to the Boolean Algebra. According to this rule, we have:

$$1 \times 1 = 1$$
 and $1 + 1 = 1$ (4.4)

Each element of the system (criteria) has two different sets of Antecedent (A) and Succedent or Reachability (R), which play a fundamental role in the final matrix structure and system design. The antecedent set of each criterion includes the criteria that end with that criterion or that affect that criterion. For example, if criteria 2, 3, and 4 affect criterion 1, then these criteria form the pr antecedent set of criterion 1. In contrast, the succedent set represents the criteria that are influenced by a criterion or system component. For example, if criterion 1 affects criteria 2, 3, 4, and 5, then criteria 2, 3, 4, and 5 are the antecedent set of criterion 1. The antecedent set is also called the Reachability set.

The Prioritizing of criteria was done after determining the reachability set and the antecedent set for each of the criteria and determining the common set. The common set is obtained by obtaining the joint of two reachability and antecedent sets. Criteria whose common set is the same as their reachability set have the first level of priority. The levels of other criteria are also determined by deleting these criteria and repeating this process for other criteria. Then the ISM diagram is mapped based on the determined levels and the final matrix. Each level is determined by repeating the following rule (C is the criteria set):

$$R(c_i) \cap A(c_i) = R(c_i), \quad \forall c_i \in C$$
 (4.5)

The method of obtaining the accessibility matrix is by using Euler's theory, in which the adjacency matrix is added to the identity matrix. Then this matrix is raised to the power n if the matrix cells do not change. The following formula shows how to determine accessibility using the adjacency matrix:

$$A + I$$

$$M(A+I)^n \tag{4.6}$$

where A is the initial accessibility matrix, identity matrix, and final accessibility matrix. The power operation is performed according to Boolean rules (Equation (3.4)).

$$1 \times 1 = 1; \quad 1 + 1 = 1 \tag{4.7}$$

Therefore, to ensure, secondary relations must be checked. This means that if A leads to B and B leads to C, then A must lead to C. According to the obtained factors and drivers of financial marketing as well as experts' opinions, a pairwise comparison of the relationship between these factors is shown in Table 1.

Table 1: Structural self-interaction matrix of National Bank's financial marketing drivers based on customers' characteristics

Factor	Competitive dynamics and differences in customer characteristics	Customer value perception	Profitability	Economic problems	Alternative investment markets	Marketing research and customer relationship management	Service innovation and product portfolio
Competitive dynamics and differences in customer characteristics		A	V	V	V	V	X
Customer value perception		11	V	0	V	V	V
			v	$\frac{0}{V}$	$\frac{v}{V}$	<u>v</u>	X
Profitability				V			
Financial problems					V	O	A
Alternative investment markets						A	A
Marketing research and customer relationship management							X
Service innovation and product portfolio							

Using Table 1, the initial achievement matrix was formed and then the final achievement table was obtained based on it. In order to determine the level of dimensions in accordance with what was stated in the research method, it is necessary to identify the sets of achievement, precedent and common, which were specified in Table 2. To check the normality of the research variables, the Kolmogorov-Smirnov test was used, the results of which are presented in the table below.

Table 2: Checking the status of normality

Variable	(sig)	Test
Competitive dynamics and differences in customer characteristics	0.193	0.491
Customer value perception	0.204	0.178
Profitability	0.263	0.327
Financial problems	0.330	0.354
Alternative investment markets	0.377	0.274
Marketing research and customer relationship management	0.181	0.280
Service innovation and product portfolio	0.208	0.473

Wherever the significance value of the test is greater than the considered significance level (0.05), the null hypothesis (normality of distribution of variables) is accepted. Based on the results of this test, all research variables have a normal distribution; Therefore, in the following, Lisrel software and tests with normal assumption have been used to confirm or reject the hypotheses.

The model obtained in the research was placed in the Lisrel software for statistical fitting to be tested using the information obtained from 200 experts. Table 3 shows the validity and reliability values obtained for each dimension of the model.

Table 3: Reliability and validity values

Dimensions	Cronbach's alpha	Convergent validity	Composite reliability
Competitive dynamics and differences	0.738	0.532	0.801
in customer characteristics			
Customer value perception	0.790	0.598	0.724
Profitability	0.872	0.601	0.738
Financial problems	0.853	0.543	0.795
Alternative investment markets	0.757	0.576	0.817
Marketing research and customer rela-	0.784	0.672	0.760
tionship management			
Service innovation and product portfo-	0.802	0.656	0.729
lio			
Acceptable limit	0.7	0.5	0.7

According to the findings of Table 3, the number obtained for the validity and reliability of the research is more than acceptable and therefore it has been approved. Lisrel software provides a series of indicators to measure the goodness of fit of the developed model. These indicators are as follows for the conceptual model of the research.

Table 4: Value of goodness of fit indices of the model

Model fit indices					
Chi-square index (χ^2)		P-Value	0.00048		
Degree of freedom (df)	18	Square mean index of model errors (RMSEA)	0.060		
Chi-square ratio to degree of freedom	2.43	Estimation of community RMSEA range at	0.048 to 0.099		
(df/χ^2)		confidence level of 90%			
Goodness-of-Fit Index (GFI)	0.958	Normed Fit Index (NFI)	0.987		
Adjusted GFI Index (AGFI)	0.978				

Chi-square index (χ^2): This index is equal to 44.81:

$$\chi^2 = \sum \left(\frac{(F0 - Fe)^2}{Fe} \right) \tag{4.8}$$

The smaller the amount, the smaller the difference between the variance-covariance matrix of the adopted sample and the variance-covariance matrix of the adopted model and shows the badness of the model.

- Degree of freedom (df): This index shows the degree of freedom of the model and should not be smaller than zero. This index is equal to 18.
- The chi-square ratio on the degree of freedom (df/χ^2) : this index is equal to 2.43. There is no standard limit for the appropriateness of this index; But many thinkers are of the opinion that this index should be less than 3.
- P-value index: this index is equal to 0.00048. Some thinkers in the field of statistics believe that its amount should be less than 0.05; While some emphasize that this amount is higher.
- The mean square error index (RMSEA) of the model is equal to 0.060. Some scholars are of the opinion that this index should be less than 0.05, while others believe that it should be less than 0.08. They know it is appropriate.
- Estimation of community RMSEA range at 90% confidence level: this index was obtained between 0.048 and 0.099. The estimated range for the model is expressed at the 90% confidence level.

- Goodness-of-Fit index (GFI): This index was obtained equal to 0.958 and is a measure to measure the goodness of the model, and a value higher than 0.9 indicates the appropriateness of the extracted model.
- Adjusted GFI index (AGFI): This index is equal to 0.978. If the value of this index is higher than 9, it indicates the appropriateness of the extraction model according to the data.
- Normed Fit Index (NFI): This index is equal to 0.987. If the value of this index is higher than 0.9, it indicates the appropriateness of the extraction model.

As shown, the goodness-of-fit indices of the modified model indicate that the model is appropriate and consistent with the obtained data.

Table 5: Hypotheses test

direction of	Hypothesis	Effect	meaningful	Result	direction of
relationship					relationship
Direct	The relationship between competitive dynamics and the	0.51	3.32	confirmation	Direct
	difference in customer characteristics with value percep-				
	tion by customers				
Direct	The relationship between competitive dynamics and the	0.46	49.3	confirmation	Direct
	difference in customer characteristics with bank prof-				
	itability				
Direct	The relationship between competitive dynamics and the	0.41	59.7	confirmation	Direct
	difference in customer characteristics with banking eco-				
	nomic issues				
Direct	The relationship between competitive dynamics and the	0.67	5.90	confirmation	Direct
	difference in customer characteristics with the prosperity				
	of alternative investment markets				
Direct	The relationship between customer value perception and	0.36	3.39	confirmation	Direct
	the necessity of marketing research and customer rela-				
	tionship management				
Direct	The relationship between customers' value perception and	0.44	53.4	confirmation	Direct
	the necessity of service and product portfolio innovation				

In the structural equation method, the hypothesis examined in the structural equation model is a causal structure between a set of unobservable structures. These constructs are measured through a set of observer variables. Table 5 and figures 1 and 2 show the significant numbers and the standardized estimate of the structural equation model for the conceptual model of the research to examine the relationship between the independent variables and the dependent variable.

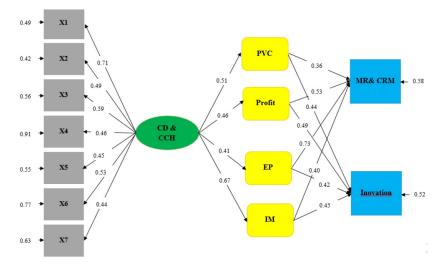


Figure 1: Examining the path coefficients of the main research variables (standard numbers)

Based on the results obtained from the significant numbers and standard estimation in the research model, considering that the significant coefficients obtained for all relationships and hypotheses are outside the range (+1.96 to 1.96), so all the hypotheses of this research have been confirmed and all the investigated relationships have been meaningful and direct, and therefore, all the stimuli identified in this research affect each other based on the determined relationships. Also, the effect of stimuli on each other is presented in Table 5.

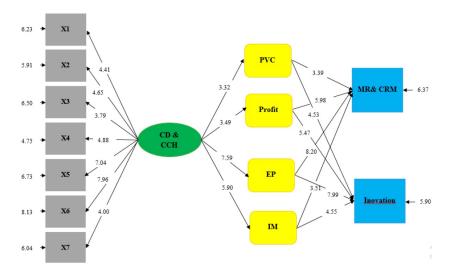


Figure 2: Investigating the causal relationship of the main research variables (significant numbers)

5 Conclusions and suggestions

The increasing need of people for banking services for various reasons, on the one hand, as well as the need to meet people's expectations, maintain existing customers and attract new customers, on the other hand, has made the marketing task of banks important. In this regard, paying attention to the characteristics of customers has been proposed as an important solution to respond to the demands of different segments of customers. National Bank of Iran, as one of Iran's most experienced banks, has faced these challenges and seeks to develop its marketing field. Considering that the past researches in the field of financial marketing in the banking industry are very limited and there are many gaps in this field. Therefore, the main goal of the current research was to explain the drivers of financial marketing based on the characteristics of National Bank of Iran customers. At first, through the background of the research, the desired components were identified and examined based on the opinions of experts, and finally, by applying the opinions of 15 experts, the research model was presented. In the continuation of the research, the obtained model and the existing relationships were measured quantitatively through structural equation modeling and Lisrel software using data collection through a questionnaire.

Also, the results of examining the existing relationships between the components of the model through quantitative statistical tests indicate that according to the significant coefficients obtained, all research hypotheses have been directly and meaningfully confirmed. That is, the competitive dynamics and the difference in customer characteristics have a significant relationship with the perception of value by customers, bank profitability, banking economic problems, and the prosperity of alternative investment markets, and these components also have a significant relationship with the necessity of conducting marketing research and customer relationship management, and the necessity of service and product portfolio innovation. Have had. The model and components of this research can be compared with the findings of past research. However, there are differences between these studies in terms of methodology and dimensions of the model. Also, the research that deals with the issue of financial marketing in Iran's banking industry based on the characteristics of customers is also very limited and this research is distinguished. Of course, due to the limitations of past research in this field and with a similar method, the general components of most of the presented models are not compatible with the components of this model, but conceptually, relationships and comparisons can be made between them. Therefore, the results of this research are somehow and indirectly consistent with a number of researches conducted in the past, some of which are mentioned below: Mansourian and Valikhani [20] in a research on the interpretation of financial services marketing and the effectiveness of new electronic banking services. They paid in today's market. The results of the research show that the service component does not affect the effectiveness of new banking services in attracting and retaining customers, but the components of price, promotion, employees, location

of processes and physical assets have an effect on the effectiveness of new banking services in attracting and retaining customers. Mozafari et al. [23] conducted a research with the aim of "designing a financial services marketing model in the stock exchange organization's brokerages". The results of the qualitative analysis by Max Kyuda software showed that the components of the financial services marketing model in the brokerages of the Stock Exchange Organization are 1- attracting, retaining and maintaining customers, 2- market share, 3- performance of brokers and intermediaries, 4- service marketing mix, 5- The establishment of a comprehensive service system is 6-investment, 7-diversity of companies, 8-environmental factors (financial services and marketing environment). In his research, Zephaniah [32] showed how customers' perception of banks' marketing communication tools affects customer levalty. The results show that bank marketing communication elements including advertising, sales promotion, public relations and personal selling are significant predictors of customer loyalty, but direct marketing is not. This study has implications for updating marketing communications and setting customer loyalty policy in commercial banks in Nigeria and other emerging economies with similar business and economic history. The contributions of the study were discussed. Mogaji et al. [22] conducted a study with the aim of investigating how Nigerian banks market financial services to financially vulnerable customers. The results suggest that banks should focus on consumer participation through active development of technologies and use creative marketing methods. In addition, financial service transaction support and financial literacy education can help banks market their services to vulnerable customers in mutually beneficial ways. Also, these results are in agreement with the findings of [8, 9, 11, 14, 15, 19, 24, 28] agrees.

Examining the findings and analyzing the results of the research indicates the importance of the components determined in the model for the marketing of the National Bank. The results of the research hypotheses indicate that the officials in the field of banking marketing should improve the conditions by determining accurate and correct plans and prospects for development and paying attention to the positive effects that this action can create in the prosperity of the industry and the National Bank. To reduce the conditions of limitations for the improvement and application of science and ideas in this field and to reduce problematic issues and to provide a platform to use the abilities and knowledge in this field and in the industry with various support and support of expert people and attractive ideas of elites, banking should be optimally used and programs to make financial marketing more strategic in the National Bank of Iran and improve communication with customers and management decisions and actions and establish appropriate interactions with the people, because today the acceptance of the organization by the people is one of the most important success factors. It is a bank, and the marketing field should be used optimally in this regard, especially paying attention to the differences between different groups of customers, and by bringing people closer to the bank and creating more awareness for people, to explain the success plans and strategies of the National Bank of Iran. should be paid so that in this way, the growth and development of the country's banking industry will also be achieved. Based on the test of the hypotheses and relationships and the findings obtained from this study, in the context of its implementation in the executive field, practical suggestions are presented for the marketing field of National Bank:

- Determine the target position of the bank that is intended to be created in the target market in the minds of customers and make it a basis for establishing the type of marketing communication.
- It is necessary to prepare a model to evaluate the human power of the marketing unit in the bank so that instead of creating a type of marketing based on the sale and promotion of existing services, the organization focuses on the current and future needs and demands of customers.
- The bank should personalize its marketing by developing customer relationship management and building trust based on different customer segments so that the difference between different customer groups is also considered.
- It is suggested that National Bank establish a sincere and trust-based relationship with customers by creating transparency of information and evaluating the performance of banking services and explaining the processes for customers.
- Due to the importance of virtual space for the transfer of knowledge and information in today's world, banks should manage marketing, activities and dissemination of information in these spaces by paying more attention to social networks.
- It is suggested that the National Bank of Iran, by providing a portfolio of diverse banking products and services and continuously updating it, will gain more customer satisfaction with a greater variety of banking services and the quality and advantage of banking services compared to competitors.
- It is suggested that the National Bank of Iran, by improving its marketing research and innovation department, always identify customer groups and their demands.

- It is suggested that the bank apply precision and transparency in the pricing of services so that customers do not feel cheated.
- By adopting strategic plans in the organization, the position, name and brand of the organization should be upgraded in order to create a favorable position in the market, and marketing activities should be directed to realize the marketing visions of the organization, and in this regard, attention should be paid to the life cycle of the bank.

In line with this research, suggestions for future research are presented, including: researchers should investigate this issue in other industries and compare the results, examine the dimensions of the model and the relationships between them using survey research, for Increasing the generalizability of the model, using the results of the current research for analytical-comparative studies. The most important limitation of the current research is the difficulty of coordination and communication with the relevant officials and experts to collect research data.

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