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Research Article

FORMULATING AND SELECTING OPTIMUM MARKETING STRATEGY FOR PRIVILEGED DEPOSITS OF MASKAN BANK BY COMBINED DEMATEL AND ANP APPROACH

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ABSTRACT
Selecting an accurate marketing strategy is one of the most vital actions in each business. The importance of this action is doubled by considering certain specifications of today competitive world. This research tries to select the optimum marketing strategy for privileged deposits of Maskan bank by purpose of selecting the optimum marketing strategy and using combined multi-criterion decision making strategy of two ANP and DEMATEL technics. For this purpose, first, specific banking strategies were identified by interview with elites and SWOT technic. Next, this strategy was compared by experts according to extracted criterions from literatures. The collected data from 10 experts was analyzed by DEMATEL to extract causal relationships, then optimum strategy was obtained by ANP technique. According to obtained results, human resources managerial capabilities criterions have the most effects in selecting the optimum strategy. In this regard, the brand reputation criterion has the last rank. On the other hand, the optimum marketing strategy in the first priority is attributed to diversification strategy and in the second priority to competitive strategy. The applicable suggestions are advanced regarding to results.

Keywords: *Optimum Strategy, DEMATEL Technique, ANP Techniques, Maskan Bank*

INTRODUCTION
Organizations are in an era in which customers' needs and demands are varied and competitors are always designing actions to conquer the market. By more precise look toward banks competitive market, infrastructural changes will be seen in customers' behavioral patterns. In such market, non-existence of path map will be so costly for competitiveness and advance of new products. One of strategic field is having strategy in product or service level. A marketing strategy should be supported after providing a new service. Therefore, having a proper strategy in bank is one way of reaching success in marketing new products. Actually, the main issue of this research is selecting a strategy in marketing field that lack of using proper strategy in implementing marketing designs leads to lose high performance and make heavy losses.

Marketing activities to succeed in business is so important. The expenses in this field are justifiable only when it has efficient effectiveness. Therefore, organization should try its best in selecting its marketing strategies and behave rationally. Selecting an optimum strategy is a process which can make this effectiveness. Above all, effective marketing starts with proper strategy. Hence, the very important issue is how to evaluate and select the proper marketing strategy, but strategy mainly encompasses mental and qualitative judgments. For this purpose, selecting a marketing strategies is a strategic issue (Bierli *et al.*, 1996) that is limited to organization resources needs, realistic support, time requirements, compliance with outcomes, or business purposes. After selecting a strategy, multi-criterion decision making needs solutions for proper solving from one point of view. Many traditional multi-criterion decision making methods are based on additivity conception with independency assumption but each criterion is not always independent individually (Shie *et al.*, 2003). Therefore, we should search for a proper method to evaluate criterions and finally select the optimum choice. This should be a method that can investigate the correlation among choices and criterions.

In the rest, literature is reviewed. According to purpose of research, marketing strategies of privileged deposits were formulated by SWOT method which first investigates how to access to these strategies, then identify proper criterions to select the optimum strategy based on literature review. Next, DEMATEL method is described, which is a type of decision making on paired comparison, and hierarchical structure of the factors in system will be obtained utilizing graph theory. Next, ANP method will be stated that uses paired comparisons matrix to rate and rank choice.

Research Literature

Selecting a strategy mainly encompasses mental and qualitative judgments. Therefore, selecting marketing strategies is a strategic issue (Bierli *et al.,* 1996) that is limited to organization resources needs, realistic support, time requirements, compliance with outcomes, or business purpose. So, selecting a strategy is a multi-criterion decision making issue. In this regard, various criterions are proposed.

The proposed criterions by Hulli means customer linking capabilities (CLC), managerial capabilities (MC), market innovation capabilities (MIC), human resources assets (HRA), and brand reputation assets (RA) (Haajipour, Momeni, Ghasemi, 2012).

Aaker knows brand specific value including 5 assets levels relating to brand. These 5 levels include: loyalty to brand, awareness of brand, perceived quality, brand association, and other registered signs, and communications with channels (Aaker and Joachimsthaler, 2000).

Bergman *et al.,* (2004) defined innovation capabilities as a full collection of organization specifications which support and facilitate innovation strategy. Organizations with innovation capabilities are able of making pattern and management of organization and resources various key capabilities that appraise innovative activities successfully (Zafarian *et al.,* 2012).

Competences refer to skills, abilities, or personal characteristics that are directly effective on his/her job performance. Findings of SungYoung (2008) show that achieving competences by human resources have vital and important role in changing human resources to strategic partners.

As it is properly clear, competence is multi-dimensional conception including human specification (such as talent, features, abilities, values, skill, preferences, and beliefs) and in some cases includes responsibilities. Danaeifar *et al.,* (2009) defined managerial competences as needed knowledge, skills, and behaviors for effective job performance in managerial task. During past years, many definitions have been proposed about customer relationship management (CRM). Initial definitions of this conception were focused on its role in information technology and collecting data about customer to recognize his/her needs (Shie and Yip, 2007). After several years, this definition was moved toward customer loyalty and satisfaction. CRM means a process to obtain balance between company investment and customer satisfaction to get profit (Karami *et al.,* 2010).

Wu, Li and Lin (2010) in a research under the title of "decision making marketing optimum strategy with ANP and TOPSIS" tried to provide a model to select optimum marketing strategy by combined approaches. They stated that a framework to select a marketing strategy is necessary and this research advances this efficient method for this purpose. The proposed method in this research is easily perceived and is usable by marketing strategy formulators so they can select the most proper strategy.

Wang and Tizeng (2012) in a research under the title of "brand marketing to make brand value in a multiple decision making model with combination of three ANP, VICOR, and DEMATEL technics" tried to explicit internal relationships of brand marketing and perceive issues and gaps. Then, evaluated situation to reduce these gaps and get to a proper level of ranking marketing strategies.

Tadic *et al.,* (2014) in a research under the title of "a combined approach of multiple decision making model based on DEMATEl and ANP" tried to select logistic conception to provide urbanized logistics conceptions to be proper for most participators and stockholders and have proper alternative power, too.

Evigan, Kachmark and Kahraman (2015) in a research under the title of "an integrated fuzzy DEMATEL and ANP model to evaluate and select outsourcing providers in telecommunication companies to provide

a combined framework based on combined approaches by which evaluate providers and select the best one.

Cheng, Lito and T-Rock (2015) in a research under the title of "service provider organizations of Taiwan based on TOPSIS an ANP approach using Fuzzy Delphi techniques" identifies necessary criterions, weighs their weights using ANP, and finally ranks the mentioned places by TOPSIS. In this regard, a proper method to select places based on obtained criterions was proposed according to experts' ideas.

MATERIALS AND METHODS

Methodology

The present research is case study, according to purpose. It is applied and according to execution, it is descriptive. According to data collection, it uses questionnaire, interview, and librarian and documents study, and expert meetings. The present study was done in Tehran City Maskan bank in which 20 experts were selected as statistical population that 10 of them were considered as statistical sample according to their working conditions and accessibility by judgmental sampling. In this research, marketing strategies of privileged deposits of Maskan bank were obtained using SWOT technics and ideas of 10 experts. Proper criterions were extracted to select optimum strategies by literature review. In the next step, DEMATEL method was used to determine internal relationships of criterions and AHP to give weight and select the optimum marketing strategy using ideas of 10 experts.

SWOT technique, the strategic analytical method (TOWA), organization internal and external environments, control, evaluation of performances, efficiency, and effectiveness of processes were investigated. Actually, strategic management investigates how to interact with organization internal and external environments by formulating proper strategies.

This method focuses on organization external environment to discover opportunities and threats and internal environment to find strength and weaknesses. Strategic analysis includes actions and programs which results in maximizing opportunities and strengths, and minimizing weaknesses and threats. This method is one of the most important instruments to adapt organization weaknesses and strengths or progressing opportunities and threats. This model provides a systematic analysis to identify factors in selecting proper strategy (Musaei, 2011).

Various combinations of 4 matrix factors help to determine 4 types of strategies for organization long-term progress.

***SO (Offensive) Strategies*:** Organization can use these strategies and maximum usage of its brand strengths to invest on new environmental opportunities.

WO (Conservative) Strategies: Organization can dominate on its weaknesses by maximum usage of new environmental opportunities.

ST (Competitive) Strategies: Organization can remove or minimize environmental threats by these strategies and using the maximum strengths.

***WT (Defensive) Strategies**:* Organization can minimize its weaknesses from one hand and try to prevent environmental threats on the other hand by these strategies (David, 1998).

***DEMATEL Technique*:** DEMATEL technique is abbreviation form of "Decision Making Trial and Evaluation" DEMATEL technique was proposed by Fonetla and Gabus in 1971 (Wung, 2007).

DEMATEL technique is a type of decision making method based on paired comparison that uses experts' judgments to extract factors of a systematic structure and system using graph theory provides a hierarchical structure from existed factors in system with interactive relationships so that it can determine effectiveness of the mentioned relationships as numerical score. DEMATEL method has been used to identify and investigate interactive relationships among criterions and map network relationships. Since oriented graphs can show relationships of a system elements better, DEMATEL techniques is based on

diagrams which can divide involved factors into 2 groups of cause and effect and make their relationships as a perceivable structural model (Funtla and Gabus 1976).

5 steps were identified to do DEMATEL techniques:

1- Making Direct Relationship Matrix (M): The simple average of ideas is used when it is used by several people points of view and makes M.

2- Normalizing Direct Relationship Matrix K*M=N

In this formula, K is calculated as following: first all rows and columns are calculated. The reverse of the biggest row and column numbers makes column K.

$$k = \frac{1}{\max \sum_{j=1}^{n} a_{ij}}$$

3- Calculating full-relationship matrix

$$T = N \times (I - N)^{-1}$$

4- Making causal diagram:

- Adding elements of each row (D) for each factor shows its effectiveness on other system factors (Effectiveness of variables).

- Adding elements of each column (R) for each factor shows its effectiveness on other system factors (Effectiveness of variables).

-Therefore, the horizontal vector (D+R) is amount of factor interactions in the mentioned system. In other words, as much D+R factor is, that factor interaction with system other factors is more.

- Vertical (D-R) vector shows effectiveness power of each factor. Generally, if D-R is positive, variable is causal, if not, variable is caused.

- Finally, a Cartesian coordinate system in drawn. In this system, longitudinal axis is R+D and latitudinal axis is D-R. Position of each factor is determined by coordinate of (R, D-R+D) in system. Therefore, a graphic diagram is obtained.

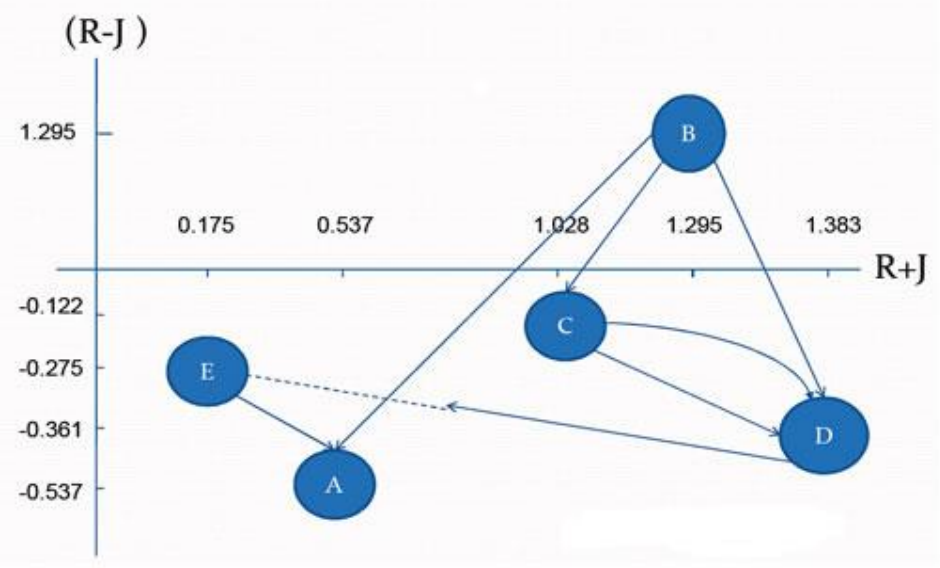


Figure 1: Causal Ad Caused Diagram in DEMATEL

Calculating Relationships Threshold

In order to determine Network Relationship Map (NRM), threshold value should be calculated. By this method, minor relationships can be neglected and draw network notable relationships. Only relationships with higher value of threshold in matrix T can be shown in NRM. To calculate threshold value, it is enough to calculate average amounts of T matrix. After determining threshold intensity, all values of matrix T that are smaller than threshold are considered zero. It means that relationship isn't considered causal (Wue, 2008).

ANP Technique:

This is a developmental method of AHP and its general form. ANP manages internal dependency of a criterion and dependency among all criterions. AHP models decision making structure use indirect hierarchical relationships among criterions but ANP make possible to investigate more sophisticated internal relationships. ANP method can be defined as: first, it shapes criterions in total system, to make a super matrix. This is done by two comparisons by asking this question: "how much this criterion influences in comparison to other criterions according to references and interest" the relative importance degree can be determined using 9-1 scope and considering importance (Saati, 1980).

General form of matrix can be defined as following:

$$W = \begin{array}{c} \\ C_1 \\ \\ \\ C_2 \\ \\ \\ C_n \\ \\ \end{array} \begin{array}{c} \begin{array}{cccc} C_1 & C_2 & \cdots & C_n \\ e_{11}\cdots e_{1m_1} & e_{21}\cdots e_{2m_2} & & e_{n1}\cdots e_{nm_n} \end{array} \\ \begin{bmatrix} W_{11} & W_{12} & \cdots & W_{1n} \\ W_{21} & W_{22} & \cdots & W_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ W_{n1} & W_{n2} & \cdots & W_{n2} \end{bmatrix} \end{array}$$

Figure 2: General Matrix of Network Analysis

In which, Cn shows the nth group, enm shows the m_{th} element in n_{th} group and W_{ij} is main specific vector of elements effects in comparison to the j_{th} to the i_{th} of group. In addition, if a j_{th} group doesn't influence on i_{th} group, then [W_{ij}= 0].Then harmonies super matrix is obtained by effect of super matrix coefficient regarding to DEMATEL method. Harmonic super matrix is made by changing total columns to a unit column. This step is more like Markov chain conception which we become sure that collection of properties is 1 for all states. Although, we know that effect of each criterion can be different according to DEMATEL method results.

If effect degree of this criterions is considered similar, average method can be used to obtain harmonic super matrix. The evaluated weights results will be higher and lower than the real situations. Therefore, DEMATEL method is used to cope with limitations. We assume that effect super matrix is determined based on DEMATEL method results, since effectiveness level of these criterions are different in general relationships matrix, all general effect matrix criterions should be normalized. The final normalized elements include $t_{ij}^{c} = \frac{t_{ij}^{o}}{\sum_{i=1}^{n} t_{ij}^{o}}$ and final effect matrix is defined as following:

$$T_z = \begin{bmatrix} t^z_{11} & \cdots & t^z_{1j} & \cdots & t^z_{1n} \\ \vdots & & \vdots & & \vdots \\ t^z_{i1} & \cdots & t^z_{ij} & \cdots & t^z_{in} \\ \vdots & & \vdots & & \vdots \\ t^z_{n1} & \cdots & t^z_{nj} & \cdots & t^z_{nn} \end{bmatrix}$$

Figure 3: Final Matrix of Network Analysis

In the next step, super matrix was used for convergence and getting to a long-term constant weight collection. To get to this purpose, each column of matrix should be in probability vector form. Exponentiation super matrix leads to convergence and its power should be (2k-1)
Finally, according to obtained weights for choices, choice with the highest weight is selected as optimum choice (Saati, 1996).

Data Analysis

In present research in order to formulate marketing strategies of privileged deposits in Maskan bank by SWOT method in the first phase, research by aiming on identification quadruple strategic factors first study programs documentaries and other designations and circulars so some existed conditions and actions were investigated by bank. Then, in order to find extra-organizational threats and opportunities, and also bank strengths and weaknesses in development related services to privileged deposits, open-answer questionnaire was formulated and given to senior managers. So they were asked to identify possibly all opportunities, threats, strengths, and weaknesses to the extreme precision and precise contemplation according to their authority and responsibility era and state them. In this regard, 23 extra-organizational strategic factors (including 9 extra-organizational opportunities and 14 threats) and 21 intra-organizational strategic factors (including 12 strengths and 9 weaknesses) were investigated.
In this regard, relative importance and effectiveness (weight), type of efficiency (score) of each factors was evaluated by closed-question questionnaire (in five-point Likert spectrum). Therefore, bank senior managers were asked to evaluate opportunities, threats, strengths, and weaknesses according to the mentioned two parameters by extreme contemplation and precision.
In these table, "wright" of each factor includes its evaluated relative importance in comparison to other factors. In other words, it says: "how much is relative importance and effectiveness of each factor?"
But each factor "score" includes its arrival and type for organization that is individually evaluated for each factor. The purpose of extra-organizational factors is to answer "how is its type and quality as opportunity/ threat or strength/weakness according to organization ability and reaction?"
In addition, another column was added to the mentioned matrix to test factors performance in which factors performances is obtained by multiplying weight and marked score so test factors arrival accuracy for organization is also tested.

Table 1: Summary of (Evaluation Matrix) Analysis for Extra-Organizational Factors; EFAS/EFE Matrix

External Factors	Factors Code	Abbreviation of Extra-Organizational Factors	Weight	Relative Weight	Score	Weighted Score	Factors Rank
Opportunities	O 1	People Movement Toward Design for Inflation	0.54	0.034	2.7	0.0918	8
	O 2	Punctuality and Time Management	0.68	0.043	3.4	0.1462	5
	O 3	Making Assignment to other Possible	0.78	0.050	3.9	0.195	2
	O 4	Making Assignment to Other Possible by OTC	0.86	0.055	4.3	0.2365	1
	O 5	Dynamism and Market Prosperity and Building Industry	0.7	0.045	3.5	0.1575	3
	O 6	A Strategy to Remove Bank Potential Deficits	0.64	0.041	3.2	0.1312	6
	O 7	Promoting People Demands	0.74	0.047	3,7	0.1739	3
	O 8	Development International Interactions	0.48	0.031	2.4	0.0744	9
	O 9	Mediating Facilities Payment Policies	0.62	0.040	3.1	0.124	7
Threats	T 1	Alternative and Competitor Markets	0.62	0.040	3.1	0.124	6
	T 2	Negative Growth Rate of Population and Demand Reduction	0.52	0.033	2.6	0.0858	7
	T 3	Government Interruption in Housing Construction	0.62	0.040	3.1	0.124	6
	T 4	Market Depression and Housing Industry	0.7	0.045	3.5	0.0157	8
	T 5	Mediating Rate of Repayment Interest	0.72	0.046	3.6	0.1656	3
	T 6	Interring Unpermitted Banks and Institutes	0.58	0.037	2.9	0.1073	7
	T 7	Bank Resources Reduction	0.62	0.040	3.1	0.124	6
	T 8	Varieties of Instructions	0.64	0.041	3.2	0.1312	5
	T 9	Non-Supporting of Central Bank	0.64	0.041	3.2	0.1312	5
	T 10	Non-Transparency of Instructions	0.66	0.042	3.3	0.1386	4
	T 11	Permanent Changes of Instructions	0.7	0.045	3.5	0.0157	8
	T 12	Inter of Brokers to this Sector and Making Fluctuations	0.7	0.045	3.5	0.0157	8
	T 13	Negligence to Customers' Real Needs	0.8	0.051	4.0	0.204	2
	T 14	High Interest of Other Deposits	0.92	0.059	4.6	0.2714	1
	TOTAL		2.9847				

Table 2: Summary of (Evaluation Matrix) Analysis for Intra-Organizational Factors; Ifas/Ife Matrix

Internal factors	Factors Codes	Abbreviation Form of Intra-Organizational Factors	Weight	Relative Weight	Score	Weighted Score	Factors Rank
Strengths	S 1	Variety is proposed as one strength	0.68	0.048	3.4	0.1632	4
	S 2	Right to vote in this design	0.6	0.042	3.0	0.126	7
	S 3	Having both profit and bonds	0.78	0.055	3.9	0.2145	1
	S 4	Control commitments	0.74	0.052	3.7	0.1924	2
	S 5	Ability of transferring, buying and selling bonds and assignment to others	0.74	0.052	3.7	0.1924	2
	S 6	Internal proper return rate and more profitability	0.7	0.049	3.5	0.1715	3
	S 7	Right to withdraw	0.74	0.052	3.7	0.1924	2
	S 8	Check commitments and control them	0.66	0.046	3.3	0.1518	5
	S 9	Making balance between resources and cash flow consumptions	0.68	0.048	3.4	0.1632	4
	S 10	Quick access to facilities by real customers	0.64	0.045	3.2	0.144	6
	S 11	Design specialization	0.64	0.045	3.2	0.144	6
	S 12	Design exclusivity	0.64	0.045	3.2	0.144	6
Weaknesses	W 1	Reducing bonds attribution to accounts	0.58	0.041	2.9	0.1189	6
	W 2	Bonds durability	0.7	0.049	3.5	0.1715	3
	W 3	The up limit and attribution coefficient	0.54	0.038	2.7	0.1026	7
	W 4	Involvement with governmental regulations and laws	0.58	0.041	2.9	0.1189	6
	W 5	Non-controlling of other effective factors on housing depression	0.62	0.044	3.1	1364	4
	W 6	Reduction of bonds interest in recent years	0.72	0.051	3.6	0.1836	2
	W 7	Non-using skillful counsellors and brokers	0.6	0.042	3.0	0.126	5
	W 8	Negligence to education and accurate consultation of potential customers	0.7	0.049	3.5	0.1715	3
	W 9	Non-holding specialized workshops and seminars	0.8	0.056	4.0	0.224	1
	TOTAL		3.3528				

Table 3: TOWS matrix to combine strategic factors and formulate specific strategies

Intra-organizational factors / **Extra-organizational factors**		-Having both benefit and bonds -Control commitments -Ability of transferring, buying, selling bonds and assignments to others -Possibility of withdraw -Proper internal return rate and more profitability -making balance between resources and cash flow consumptions - variety is proposed as strength of this design - checking commitments and controlling them - quick access to facilities by real customers	-Non-holding specialized workshops and seminars - reducing bonds interest in recent years - negligence to education and precise consultation with potential customers - non-controlling other effective factors on housing depression - non-using skillful experts and counselors - involvement with governmental regulations and laws -Reduction attribution of bonds to accounts - having up limit and attribution coefficient
Opportunities	- making assignment possible by OTC - making possible to assign to others - market dynamism and prosperity and building industry - growth of people demands	-attracting foreigner mass-producers and development of international interactions regarding to proper return of privileged deposits against not giving profits by some foreign banks - make possibility to open specific account for mass-producers with possibilities of withdraw and pay construction facilities with	- using skillful experts and counsellors to develop international interactions - reducing daily buying and selling upper limit to reduce bonds and its price increase - reducing attribution percentage to increase bonds prices in reduction time of facilities demand vice versa

	- punctuality an time management - strategy to remove bank probable deficits - mediating facilities repayment policies -people movement toward design for inflation - development of international interactions	low percentage against obtained bonds of this account to mass-producers - reducing payable facilities for per share of bonds to increase bonds demands - reduction bonds attribution percentage in growth time of facilities demand - mediating between resources and consumption by mediating payment policies	
Threats	- high profit of other deposits - negligence to customers' real needs -mediating payment benefit rates - non-transparency of instructions - not supporting of central bank -varieties of instructions - bank resources reduction - government interruption in housing construction -alternatives and competitor markets - growth negative rate of population and demand reduction - interring of banks and unpermitted institutes - market depression and housing industry	- put selling limitations to prevent from brokers entrance to this sector - increase bonds price by practical policies to increase return of design and fight with high interest of other financial institutes products - opening short-term 3, 6, and 9 month accounts with higher benefit and ability to deposit and withdraw - using deign varieties to cope with competitor and alternative markets - sing design varieties to respond to potential and actual customers' needs	- using counsellors to understand the real customers' needs - attracting the central bank support to neutralize effects of some uncontrollable factors - removing sole internal limitations such as upper limit and coefficient to cope with competitors and brokers

Combining Strategic Factors and Formulating Certain Strategies for Organization Conditions

After identification and evaluation internal and extra-organizational factors and their key factors were discrete from non-key factors, its turn of suggesting and selecting strategies. This matter happens using SWOT matrix that can be called "combined matrix from strategic factors". In this table, we formulate strategies of strength-opportunity, strength-threat, weakness-opportunity, and weakness-threat by combing 4 strategic factors that scheme of this matrix and formulated strategies are shown by experts help in Table: 3.

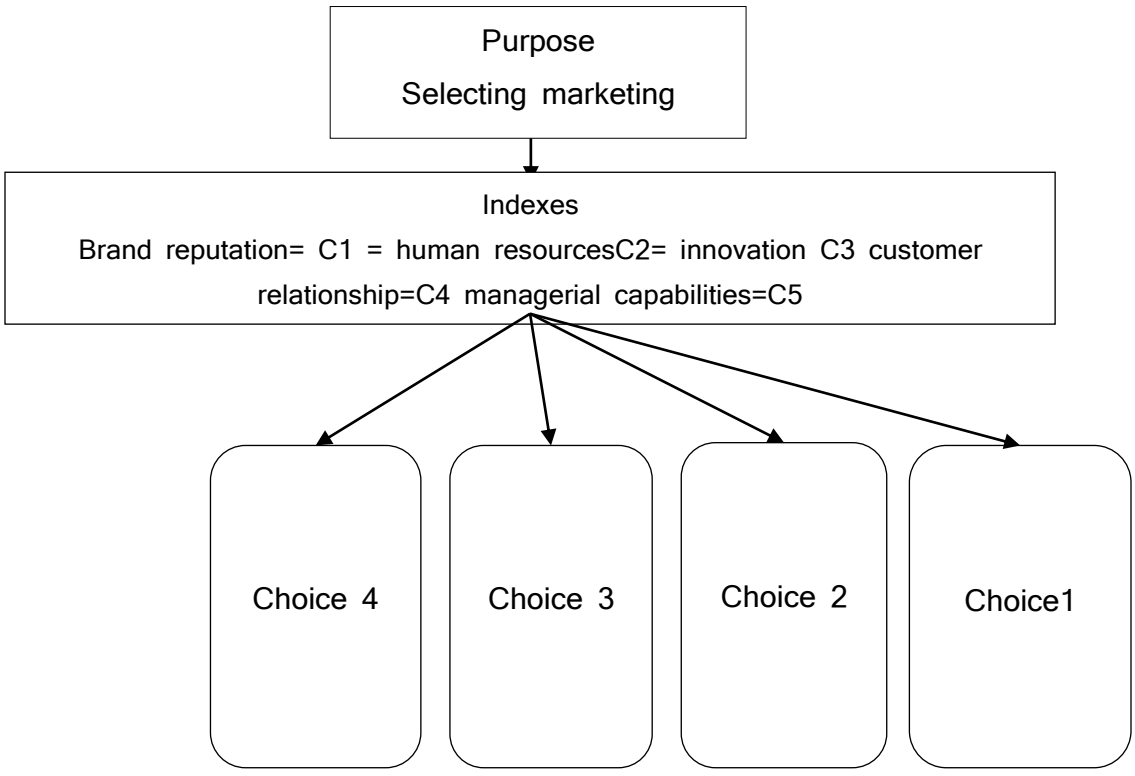
Classification of Extracted Strategies

After identification and formulation specific market strategies for privileged deposits of Maskan bank, they are classified as following for being in great numbers.

Table 4: Types of Marketing Strategies

All Marketing Strategies	Description
Offensive	Implemented Strategies by Bank by Leaning on Environmental Opportunities and Internal Strengths
Diversification	Implemented Strategies by Bank by Leaning on Environmental Threats and Internal Strengths
Conservative	Implemented Strategies by Bank by Leaning on Environmental Opportunities and Internal Weaknesses
Defensive	Implemented Strategies by Bank by Leaning On Environmental Threats and Internal Weaknesses

Making Decision Making Model



Investigating Causal and Caused Relationships Using DEMATEL

In this research, five criterions have been used to investigate strategies which names are shown in table (5).

Table 5: Criterions and Abbreviation Signs Names

No.	Abbreviation Signs	Title
1	C_1	Brand Reputation
2	C_2	Human Resources Abilities
3	C_3	Innovation
4	C_4	Managerial Abilities
5	C_5	Relationship with Customers

In addition, 5 values have been used to compare criterions which are shown in table (6):

Table 6: Used Values in Comparison and their Equivalent Names

Name	Value
Without Effect	0
Low Effect	1
Medium Effect	2
High Medium	3
Very High Effect	4

Ideas of 10 experts have been used to investigate criterions. In this matrix, x_{ij} is each expert idea and $x_{ii} = (i = 1,2,3, \dots, n) = 0$ (the main diameter is zero)

The arithmetic average is used based on formula (1) to consider ideas of all experts.

$z = \frac{x^1+x^2+x^3+\dots\ +x^p}{p}$ Formula (1)

In this formula, p is number of experts, x^1, x^2, and x^p are paired comparison matrix of expert 1, 2, and p. table (7) shows paired comparisons.

Table 7: Average ofAl Experts Ideas

Average of Experts Ideas	C1	C2	C3	C4	C5
C1	0	1.75	1.5	2.125	2.75
C2	3.25	0	3.625	3.25	3.75
C3	3.25	1.75	0	2.125	2.125
C4	3.125	3.125	3.625	0	2.875
C5	3.25	2.375	2.125	2.375	0

To normalize the obtained matrix, formula (2) and (3) are used.

$H_{ij} = \frac{z_{ij}}{r}$ Formula (2)

In which, r is obtained by the following formula:

$r = max_{1\le i\le n}\left(\sum_{j=1}^{n} z_{ij}\right)$ Formula (3)

Table (8) shows normalization

Table 8: Normalized Matrix

Normalized matrix	C1	C2	C3	C4	C5
C_1	0.198198	0.153153	0.108108	0.126126	0
C_2	0.27027	0.234234	0.261261	0	0.234234
C_3	0.153153	0.153153	0	0.126126	0.234234
C_4	0.207207	0	0.261261	0.225225	0.225225
C_5	0	0.171171	0.153153	0.171171	0.234234

After calculating the mentioned matrix, total fuzzy matrix relationships are obtained by formula (4).

$T = \lim_{k\to+\infty}\left(H^1 + H^2 + \cdots + H^k\right) = H \quad \times (I - H \quad)^{-1}$ Formula (4)

In this formula, matrix l is unit matrix. Table (9) shows matrix t.

Table 9: Total Relationships Matrix

Total Relationships Matrix	C1	C2	C3	C4	C5
C_1	0.613039	0.524736	0.517144	0.476853	0.494606
C_2	0.913922	0.803831	0.863976	0.568136	0.964799
C_3	0.620371	0.559445	0.452748	0.507553	0.730483
C_4	0.824288	0.572908	0.821595	0.713358	0.906873
C_5	0.536138	0.615421	0.632147	0.579955	0.78234

Thee next step is obtaining total columns and rows of matrix T. Total rows and columns are obtained according to formula (5) and (6).

$(D \quad)_{n\times 1} = [\sum_{j=1}^{n} T_{ij}]_{n\times 1}$ Formula (5)

$(R \quad)_{1\times n} = [\sum_{i=1}^{n} T_{ij}]_{1\times n}$ Formula (6)

In which, R and D are n*1 and 1*n, respectively.

The next step indicates importance of indexes ($D_i + R_i$) and relationships among criterions ($D_i - R_i$). If $D_i - R_i > 0$, related criterion in effective and if $D_i - R_i < 0$, related criterion is impressible. Table (10) shows $D_i + R_i$ and $D_i - R_i$.

Table 10: Importance and Effectiveness of Criterions

Criterion	$D_i + R_i$	$D_i - R_i$
C_1	6.505478	-1.25272
C_2	6.960519	1.26881
C_3	6.158209	-0.41701
C_4	6.915361	0.762682
C_5	6.653757	-0.36176

Figure (4) shows importance, effectiveness, impressiveness among criterions. Horizontal vector of diagram $D_i + R_i$ shows importance of criterions and vertical vector $D_i - R_i$shows effectiveness and impressiveness of criterions.

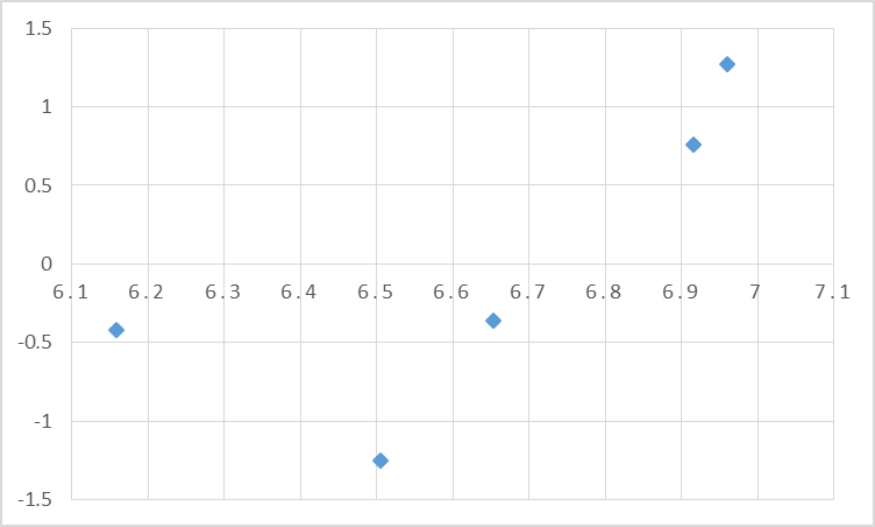


Figure 4: Relationships and Importance of Criterions

As it is indicated, as much as index goes toward D-R vector up, it has more effectiveness and as much as it goes toward D-R vector down, it has more impressiveness. Therefore, according to figure (4), human resources capabilities and managerial capability have high effectiveness and relationship with customer, brand reputation, and innovation are the most impressible indexes. In addition, as much as it goes toward right side of R+D vector, investigated collection is more effective. As it is seen, human resource capabilities and managerial capability are the most effective indexes among all indexes and innovation index is the least effective index among all indexes.

Constructing Network Analysis Process *Structure*

Network analysis process model structure in this research is constructed as following. First, purpose level was identified which is the purpose of evaluation. In order to construct the second level of multi-criterion decision making mode by DEMATEL method, first strategy evaluation criterions were extracted using research literature. These criterions are observable in table (5). The third level is made by choices or the same strategies. After determining model levels of network analysis process model, model graphical structure is observable as following:

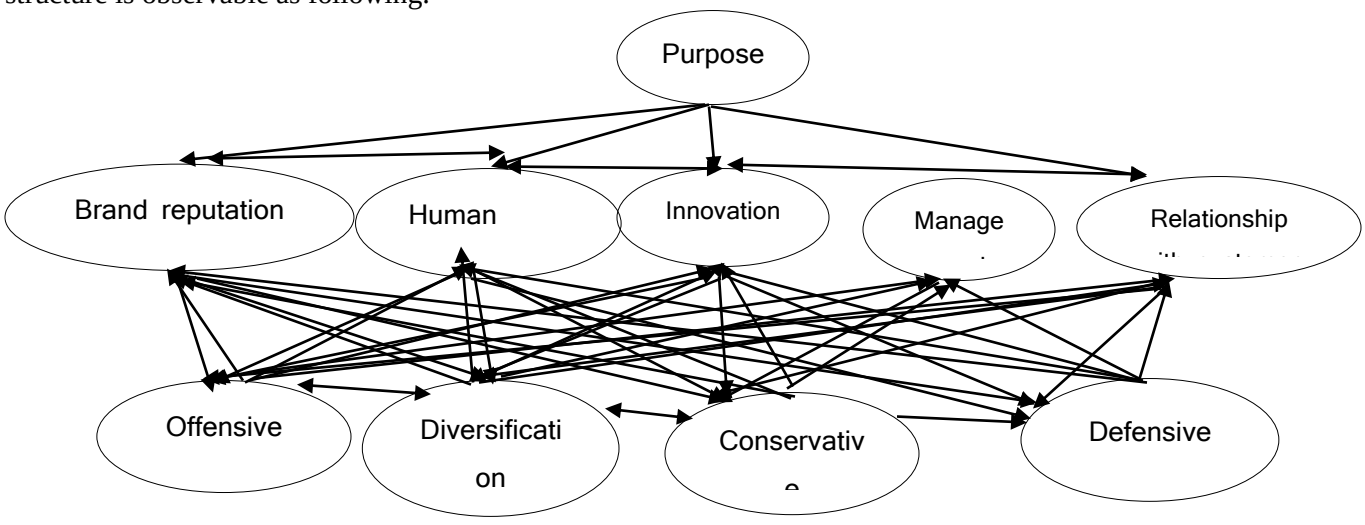


Figure 5: Criterions and Choices Relationships Based on Purpose of Network Analysis Process

As it is seen in diagram (2), criterions of the second level not only compared by each other based on purpose, but also based on choice. Choices are compared based on criterions.

Calculating Super Matrix

As it was indicated by network analysis process (diagram 2), initial super matrix was constructed as following based on comparison criterions and evaluating strategies.

Table 11: Super Matrix of Comparing Criterions to Choices

Super Matrix of Comparison Criterions to Choices		Strategies			
		Offensive	Diversification	Conservative	Defensive
Criterions	Brand Reputation	0.176	0.228	0.134	0.068
	Human Resources Abilities	0.367	0.128	0.260	0.035
	Innovation	0.058	0.034	0.503	0.134
	Managerial Abilities	0.367	0.548	0.068	0.503
	Relationship with Customer	0.031	0.062	0.035	0.260

As it is seen, comparison of criterions according choices doesn't have clustering so weighted and non-weighted super matrix become identical. Moreover, criterions were compared to each other according to purpose in the rest.

Table 12: Super Matrix of Criterions According to Purpose Comparison

Criterion	Comparison According to Purpose
C1	0.176
C2	0.367
C3	0.058
C4	0.367
C5	0.031

After investigating weighted super matrixes to compare to criterions according to choices, compared super matrixes of choices to criterions were made.

Table 13

Super Matrix of Comparison Choices to Criterions		Criterions				
		Brand Reputation	Human Resources Capabilities	Innovation	Managerial Capability	Relationship with Customer
Strategies	Offensive	0.165	0.558	0.057	0.208	0.165
	Diversification	0.394	0.268	0.122	0.643	0.165
	Conservative	0.048	0.133	0.263	0.048	0.625
	Offensive	0.394	0.042	0.558	0.101	0.045

As it was considered, criterions comparison to choices doesn't have clustering, so weighted and non-weighted super matrix were identical. Moreover, criterions were also compared to each other according to purpose.

Table 14: Super Matrix of Comparing Strategies According to Purpose

Criterions	Comparing According to Purpose
Offensive	0.263
Diversification	0.558
Conservative	0.057
Defensive	0.122

Finally, table (15) shows final weights of choices and criterions altogether.

Table 15: Final Weights of Choices and Criterions

	Brand Reputation	Human Resources Capabilities	Innovation	Managerial Capability	Relationship with Customer	Offensive Strategy	Diversification Strategy	Conservative Strategy	Defensive Strategy	Purpose
Brand Reputation	0	0	0	0	0	0.171	0.171	0.171	0.171	0.171
Human Resources Capabilities	0	0	0	0	0	0.187	0.187	0.187	0.187	0.187
Innovation	0	0	0	0	0	0.126	0.126	0.126	0.126	0.126
Managerial Capability	0	0	0	0	0	0.427	0.427	0.427	0.427	0.427
Relationship with Customer	0	0	0	0	0	0.089	0.089	0.089	0.089	0.089
Offensive Strategy	0.243	0.243	0.243	0.243	0.243	0	0	0	0	0.243
Diversification Strategy	0.422	0.422	0.422	0.422	0.422	0	0	0	0	0.422
Conservative Strategy	0.142	0.142	0.142	0.142	0.142	0	0	0	0	0.142
Defensive Strategy	0.192	0.193	0.192	0.193	0.192	0	0	0	0	0.193

Conclusion

As it was mentioned, the purpose of this research is proposing a model to select marketing optimum strategy. After investigating all-aspect research theoretical bases, five effective variables on marketing strategies were identified. In addition, strategy was extracted using interviews and SWOT 19 which was classified by experts' ideas in 4 groups. These four strategies, which are answer of research question: "what are privileged deposits marketing strategies in Maskan bank?" include:

Offensive, defensive, conservative, and diversification strategies

Along with implementing the suggested methods and answer to the research second questions as "what are privileged deposits marketing optimum strategy of Maskan bank?", elites and experts were asked to share their ideas to do paired comparisons who were authorities in theoretical discussions of marketing strategy. DEMATEL technique was used to determine internal relationship among indexes. In this step, experts were asked to share ideas, so factors of managerial capability, human resources capabilities are casual factors and innovation, relationship with customer, and brand name were determined as caused factors.

In the next step, obtained results from ANP and DEMATEL were combined and after constituting initial and final matrix, human resources capabilities, and managerial capability have the most weight in determining strategies. In addition, optimum strategy in this research was diversification and then competitive strategy.

The summary of obtained results is as following:

Table 16: Obtained Results by ANP_DEMATEL Method

Index	Weight	Rank	Strategy	Weight	Rank
Managerial Capability	0.427	1	Diversification	0.422	1
Human Resources Capabilities	0.187	2	Offensive	0.243	2
Brand Reputation	0.171	3	Defensive	0.193	3
Innovation	0.126	4	Conservative	0.142	4
Relationship with Customer	0.089	5			

Researches with the exact agreed issue of this research are very rare, but a foreigner research has the same method; however, different issues were performed by Lee et al. (2010) that in this research, brand value was extracted as important criterion and distinctive strategy as optimum strategy which results are not agreed with results of this research. Of course, this issue can be explained since the mentioned method was with fuzzy approach in tourism industry, the difference of results beside considering cultural contents is determinable.

In addition, in a domestic research performed by Samadi and Fakher (2009) by AHP technic, marketing strategy of a productive company was investigated and selected. Obtained results from this research suggest penetration strategies in market and homogeneous diversity. By negligence of the used method and its simplicity and effect on results, this research can be considered in agreement with our research.

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