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Prioritization and evaluation of the relations between effective factors in banks compatibility (DEMATEL approach)

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ABSTRACT

Background: Achieving compatibility indices is an important goal for the banks to guarantee customer satisfaction and achieve advantage. The present study aimed to identify the Interacting indices on compatibility in Iran bank system. **Objective:** The present study is descriptive-survey design. After the library study and extraction of effective factors on compatibility, common indices were extracted by Delphi method and they were classified into 5 dimensions and 25 indices. By DEMATEL method, the indices were prioritized and the Interacting indices were analyzed by MATLAB software. **Results:** According to the results, equity and assets in a bank are the most effective factors in compatibility among other factors and online branches and knowledge capital of human resources is the most impressed factor in compatibility in a bank. Based on the next effective factors, loans, the number of pin pads of the branches, the number of foreign branches, share of long-term deposit, profit ratio to assets, share of branches and short-term deposit are important factors of banks compatibility. The other factors impressed on banks compatibility are including share of foreign exchange guaranty, non-joint revenue and lawyers fee, human resources experience, share of joint revenues, share of foreign exchange draft, the number of ATMs, share of foreign exchange sale and purchase, net profit, share of other deposits, share of Letter Credits (LC), the number of employees, the number of issued cards, the number of swift branches and share of current deposit and all are more impressed than other factors in banks compatibility.

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INTRODUCTION

To interpret compatibility and effective factors, various models are raised and some models are presented by classification of effective factors on their compatibility. There are various forms of theories and models. The initial researches on resources strategic management considered various competitive advantages. The market power [26], considered unique resources [4], innovation and efficiency as resources for advantage creation. The present study reviewed different types of compatibility approaches and presented a model for compatibility in banking industry according to review of literature based on Structure-Conduct-Performance Paradigm and then by DEMATEL technique, these factors are ranked and cause and effect relations are determined.

Compatibility:

Various definitions of compatibility and related fields as Resource-based View, Market-based View, Innovation & creativity based View and economy and production are presented. It is not possible all the existing definitions in management decisions are used to achieve competitive advantage [4]. Now, compatibility is an important issue all over the world and it is considered as a tool to achieve good economic growth and sustainable development. In globalized economy, compatibility means achieving sustainable situation in international markets. In the era in which globalization is increased widely, compatibility is an important issue among the policy makers of various countries (country, industry and company) in all over the world [28]. Compatibility can be considered as a multidimensional concept. It is looked at from three different levels: national, industry, and organization level [24]. Compatibility is derived from the Latin word, "competitor" that means competition in commercial markets. It can be described as economic strength of an entity with respect to

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its competitors in the international market in which goods, services, people, skills, and ideas move across geographical borders [25]. Compatibility can be defined as the ability to design, produce or market products superior to those offered by rivals with low price or high quality with equal price [9]. Regarding the industries compatibility, it can be said that an industry can compete if the relevant organizations have high compatibility power [26].

Mc Gahan believed that 36% of enterprise profitability and industries depend upon the features and capabilities [21]. Compatibility is a set of assets and processes in which the assets are achieved or created and the processes turn these assets into economic results [20]. In other words, the assets can be achieved directly by nature (e.g. natural resources) and processes turn these assets into output (e.g. services and products) for presentation in market [8]. Finally, these outputs lead to achieving competitive advantage for organizations and industries [6]. Briefly, three applied approaches are investigated.

The approaches of compatibility:

Resource-based view:

One of the relevant approaches of compatibility is resource-based approach focusing on the role of internal factors of the organizations and industries on their competitive power [5]. This view considers organizational performance and its market situation dependent upon the organizational features and investigates the relationship between organizational attributes and performance results. Resource-based view indicates that the organizations are a set of resources with high importance in achieving competitive advantage and determine features of resources, advantage and its stability [19]. The main goal of this approach emphasizes on the competitive advantages of resources capabilities of a company. Resources include all financial, technological, human and organizational inputs. Also, the resources create a basis for competence. Indeed, qualifications of an organization or industry are created by one or a combination of its resources and create a basis for competitive advantage [16]. Organization resources include all the assets, capabilities, organizational processes, organization features, information, knowledge and etc. and they are under the control of organization enabling it to implement some strategies to improve efficiency and effectiveness [23]. According to Grant, resources are divide into six groups including financial, physical resources (factory capacity, access to raw materials and etc.), human resources (knowledge, experience and human resources skill), technological (the number and importance of scores), fame (trademark, industry credit) and organizational resources (values, management styles and etc.).

Market-based view:

Another approach is market-based view. This indicates that to achieve sustainable competitive advantage, the enterprises should be customer-based or market-based, innovative and entrepreneur and more inclined to learning. According to this view, market-orientation is an important resource to achieve competitive advantage and even sustainable competitive advantage [18]. This approach is the basis of determining competitive advantage and strategies design outside the organization by some approaches including industry structure, value chain and public strategies. Market-based resources with high variety are including customer relationship capabilities, reputational-based assets, human resources and successful innovation power in market [15]. The goal of this approach is identification of the customer needs and presentation of the goods and services to meet the demands as it is better than rival companies. The activities are from outside (market) to inside (achieving profit and customer satisfaction). The market starting point is the focus of activities on customer needs, the tool of meeting their demand, coherent marketing and profitability are the customer satisfaction principles. In this approach, the company produces goods and services required by customers and the customers' satisfaction is met and achieves profitability. Today, the strategy of most of the successful companies is based on customer-orientation and like organizational culture and strategic planning, customer-orientation is not inseparable from the company [27].

The creativity and innovation-based view:

The third view is based on creativity and innovation including the research and development, ability of using knowledge management and IT [21]. This view is resource-based. The resources are classified into tangible and intangible groups and in this classification, creativity and innovation capability is intangible resource. Creativity and innovation capability can be assigned to human resources or organizational assets. Human resources creativity to create distinctive products and services in apparent attraction and innovation in organizational assets can lead to the reduction of operational costs, reduction of production time and presentation of product and even product development and penetration in market [21]. Recently, various studies are conducted in which enterprise is considered as analysis unit and enterprise strategies and features are considered as the size, advertisement cost and research and development cost with structural variables of industry as important factors of enterprise performance. The initial studies investigated the relations between market share and enterprise performance. Briefly, the views of industrial organization economy play important role in development of strategic management models regarding achieving sustainable competitive advantage.

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Industrial organization vision and the researches presented clear views about whether the enterprises via investigation in industry structure and suitable strategies achieve competitive advantage but theoretical literature of industrial organization is faced with some limitations in creating a comprehensive theory of competitive advantage. The methodological conditions of this approach required that the theory is defined as a math model with equilibrium solution and this is an important limitation. Industrial organization economy studies the relations between structure, behavior and industry performance and it is expected these studies help the development of public policies but "Porter" at first used economic concepts of industrial organization to implement strategy. He introduced Structure-Conduct-Performance Paradigm as a systematic model to evaluate competition and implementation of profit maximization strategies to the managers. Porter and other authors believed that strategy changes the main purpose of industrial organization model in reduction of exclusion in market and introduce strategies to maximize exclusive power of enterprise. Most of the criticisms on industrial economy theory focus on its serious ignorance to the dynamics of competitive interactions. Now, innovation and change lead to considerable profitability but this imbalance is not discussed well in traditional models of industrial organization. Indeed, if business environment is considered as imbalanced and unreliable, the prescriptions of industrial organization economy should be investigated seriously. The economic researchers and experts introduced various methods for competitive condition and the type of structure in bank market in the world and they are divided into structural and non-structural methods. Structural methods including Structure-Conduct-Performance Paradigm (SCP) and Efficiency Hypothesis as informal methods are use rooted in Empirical Industrial Organization (EIO) Theory. The followers of SCP paradigm believe that more concentration on market leads to the interactive behavior between the great enterprises and entire market performance. The followers of efficiency hypothesis believed that high efficiency of some of the enterprises improves their performance and exclusive behaviors are manifested. In these methods, competition in market is evaluated indirectly via the study of organization elements. In structural methods, concentration ratio plays an important role in explaining competitive performance of banking. The importance of structural methods is as they can identify the relationship between market components. The recent literature showed that various researchers investigated on compatibility and effective factors. A summary of the studies is shown in Table 1.

Table 1: A summary of review of literature [1,2,7,10,11,12,13,14,32,34]

No	Study title	Researcher or researchers	Results and variables of the study
1	Ranking effective factors on compatibility of carpet industry in Iran	Faride Haghshenas Kashani and Saeedi (2011)	Inputs, market-based, creativity
2	Compatibility of commercial banks of Iran with emphasis on international sector performance	Hashemaghazade and Mina Mehrnoosh (2010)	Financial performance, Non-financial performance, Enterprise resources, Enterprise location in market, creativity and innovation in enterprise
3	Designing a model to investigate compatibility in enterprise level by structural equations modeling	Hossein Safari and Mehregan (2008)	
4	Designing competitive intelligent model based on organizational-structural intelligence	Asghar Moshabaki and Abuzar Zanguyinejad (2008)	Market intelligence, technology, social-strategic and structural, organizational, costs of industry features, competitive situation, competitive environment.
5	Creating competitive advantage in industry with approach of key factors of success	Saeed Mahmood Hosseini and Monir Panahi (2007)	
6	Compatibility in internet markets via stability of competitive advantage	Hashemaghazade, Esfidani and Nategh 205)	Information competence, communication, internal and external empowerment
7	The effect of reforms on performance and bank structure of China	Fou and Haferman (2009)	By data group estimation technique, the hypotheses of market power and efficient structure were tested and the estimation of structure-performance models presented more support of the hypotheses of market power.
8	The investigation of the relationship between marketing and compatibility in companies	Broning and Lakshin (2008)	Marketing, compatibility
9	External concentration in bank sectors of Latin America: Its effects on competition and risk	Yati and Miko (2007)	More concentration doesn't lead to bank competition in each region, the external influence into industry leads to weak competition.
10	Compatibility in manufacturing companies	Dimiter (2006)	Production strategy, production empowerment, inventory turnover, compatibility
11	The competitive complexities of banking in the country	Classens (2006)	Review of literature of competition and it indicated the experiences of capital markets showed that financial activities in the country are effective on local market stability.
12	Bank efficiency and competition in the countries with low income: Uganda case study	Haner and Pierce (2005)	Competition is increased by increasing efficiency and big and private banks have more efficiency compared to smaller banks.
13	Competition and efficiency in banking: Case study of Qana	Buchs & Mathisen	Non-competitive market structure in Qena banking system avoids financial broker

14	Evaluation of international compatibility	Bekli (2005)	Environmental factors, macro-economic variables, competitive empowerment
15	The effect of environmental strategy o the companies on compatibility	Wagner and Shaltge (2004)	Economic performance, environmental strategy
16	Competition in financial and growth sector: Intra-country approach	Classens and Lavan (2003)	The effect of competition on achieving external financing and economic growth in banking system of 29 countries
17	Competition, concentration and the relations: Empirical analysis of banking industry	Baker and Huff (2002)	By Panzar-Rosse compared the competition between European and American banks.
18	A test for competition between Germany banks	Hampel (2002)	By Panzar-Rosse formula, the competitive behavior was studied based on micro balance sheet data and profit and loss account.
19	Assessing competitive conditions in banking system Greek	Hondroyiannis, G., Lolos,S. and E. Papapetrou (1999)	Bank revenues are fulfilled in case of exclusive competition conditions

Study methodology:

DEMATEL method was used for data analysis. This method was used for the first time in Battelle Memorial (BM) implemented in GRC. DEMATEL method is mostly applied for very complex global issues and Experts Judgement. In scientific, political, economic and social aspects [30]. This method has various features as it is an efficient process in identification of hierarchy and the relations between the system factors [29]. This method is one of the decision making methods based on pairwise comparison and by experts judgments in extracting the factors of a system, systematic structuring and using graph theory principles, provided a hierarchy of existing factors in the system with interacting relations of the mentioned elements. The intensity of the mentioned relations (Interacting) was defined as quantitatively [33, 3]. These diagraphs indicate dependency relations between the elements of a system as the numbers on each diagraph indicate the intensity of the effect of each element on another one. This method can turn the relations among the elements to a perceived structured model of system. This approach was created with the belief that appropriate use of scientific research methods can improve complex structure of issues and participate in identification of practical solutions with hierarchy structure [31]. Other advantages of DEMATEL method to other decision making methods based on paired comparison is accepting relations feedback. The elements in the system can be dependent on each other, The importance and weight of each factor in the system is not only determined by upstream or downstream factors, it can be determined by all existing factors in a system, the whole model.

The study population:

To guide DEMATEL method, after collection of potential factors in banking industry competitiveness, the experts' judgment is used. According to Asgharpour (2003), statistical sample of most of the DEMATEL-based studies is 10 to 12 selected experts.

20 respondents are used in some studies. In this process, the important factor is the quality of expert judgment. 11 experts judgment was used for DEMATEL method. The study samples selection was based on some criteria as their experience in banking (at least above 10 years) and recognizing the applied factors. 30 questionnaires were distributed among the experts during November and December 2013, 11 questionnaires were collected. To increase reliability and validity of received responses, the study factors were determined and in case of the lack of knowledge, the respondent cannot respond. To increase reliability of received responses, the study factors were determined and in case of the lack of required knowledge, the respondent cannot respond.

Data collection and their processing:

In this study, the potential and effective factors in compatibility of the banks were collected based on review of literature, library studies, field study and experts judgment. Then, these factors were classified and after the support of two experienced bank experts, pairwise comparison-based questionnaire was used. This questionnaire is designed to identify the probable relations and the amount of these relations. Finally, the judgment of each of the experts was collected by the mentioned questionnaire and then their comments were used to investigate study questions. To determine validity (questionnaire validity), the factors were presented to some of the bank experts and their comments were collected and the corrections were made. The reliability of the questionnaire was evaluated by Cronbach's alpha method. For each of the questions or study variables, Cronbach's alpha coefficient was calculated. Based on suitable internal validity coefficient (0.91%), the reliability of the questionnaire was supported. The present study responded the following question as what are the effective factors on banks compatibility and how is the hierarchy of the effect of these factors in their compatibility?

Method:

DEMATEL technique stages:

First step: We define the constituent elements, the initial ranking factors

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Second step: We put the assumed elements on vertex of a diagraph and define the relations underlying the communication of station or vertex (for example, the influence of C1 element on C2 element or vice versa or not influence)

Third step: The group decision making law for collective agreement of some of expert judgment for the relationship between C1, C2.

Fourth step: The intensity of the final relations (collective agreement) is asked of the experts and we define on diagraph. The set of vertex of this diagraph is shown as:

N ={ (First factor) C1 ،(second factor) C2 ،(Third factor) C3 ، ... ، (nth factor) Cn}

The median of the scores by experts is determined by direct relationship of the effect of row factor (C1) on column factor (C2) for each of the supported relations in the previous step (accepted matrices).

Fifth step: Final scores of fourth step diagraph are shown as $\widehat{M}$ matrix.

Sixth step: Each entry of matrix $\widehat{M}$ is multiplied by the inverse of the highest row sum (a) of the matrix. This multiplication doesn't deviate the underlying trend of the existing responses. These responses are direct for the relations (between elements C1, C2) and the indirect effects of the elements are lower than direct effects.

Seventh step: The sum of the infinite sequence of direct and indirect effects of elements on each other (with all possible feedbacks) as a geometrical progression is calculated based on the existing rules of graphs.

This set is calculated by $(I - M)^{-1}$ (inverse). Indirect effects of existing elements converge to inverse matrix as indirect effects along the chains of the existing diagraph are descending continually.

Eighths step: Intensity is calculated of indirect relations of existing elements on each other. This intensity is achieved of the sum of geometrical progression with the similar reasoning:

$$S = M + M^2 + \ldots + M^t = \frac{M(I - M^t)}{I - M} = \frac{M}{I - M} = M(I - M)^{-1}$$

Ninth step: We determined the hierarchy or possible structure of elements and the order of influence of elements on other elements determined the possible structure of hierarchy of the elements in problem solving. Finally, it led into a group and scientific decision making and we can achieve priority of effective factors on compatibility.

DEMATEL technique includes all benefits of most of other techniques of group decision making, accepting "non-transferrable" relations is possible for it and the feedbacks are investigated exactly. This technique is time-consuming but it leads to more interaction of decision makers and experts.

Study findings:

As it was said, to identify effective factors in banks compatibility based on review of literature and Delphi method (the judgment of some bank experts), we achieved a final model and five main factors were identified in compatibility of Iranian banks and each of the factors indicate compatibility in Iranian banks and the conceptual model is shown in Table 2.

Table 2: final the factors indicate compatibility in Iranian banks

Dimensions	symbol	Index name	dimensions	symbol	Index name
Financial	C1	Assets	Human Resources	C13	the number of employees
	C2	Equity		C14	knowledge capital of human resources
	C3	Profit to assets ratio		C15	human resources experience
	C4	Net profit	Foreign Exchange activities	C16	share of Letter Credits (LC)
	C5	Loans		C17	share of foreign exchange guaranty
Market Share	C6	share of current and saving deposit		C18	share of foreign exchange sale and purchase
	C7	short-term deposit		C19	share of foreign exchange draft
	C8	share of long-term deposit		C20	the number of foreign branches
	C9	Share of other deposit	IT	C21	the number of swift branches
	C10	Share of branches		C22	The number of ATMs
	C11	share of joint revenues		C23	the number of pin pads of the branches
	C12	Non-joint income share & lawyer fee		C24	online branches
				C25	the number of issued cards

To investigate the intensity of the relationship between effective factors, scoring was done from zero to four. Zero indicated that there is no effect intensity and four had the most intense effect and the median of the scores of experts for each two factors was calculated and the direct association intensity basis was two factors and later feedbacks with the importance of their effects, DEMATEL technique is used and the results were

investigated by MATLAB software and the final relations were achieved [3]. Based on the results of the stage before relations intensity in this system, matrix $\widehat{M}$ is formed.

Table 3: the relative intensity of the factors $\widehat{M}$

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25		
C1	0	2	3	3	2	4	4	4	4	2	4	4	1	4	3	4	4	3	3	3	3	3	2	4	3		76
C2	3	0	4	4	2	4	3	3	4	2	4	4	1	4	3	4	4	3	3	2	2	3	2	4	3		75
C3	3	2	0	3	3	4	3	3	4	2	4	4	2	3	3	3	3	3	3	2	2	3	2	4	3		71
C4	2	2	3	0	2	4	3	3	4	2	4	4	1	3	3	3	3	3	3	2	2	2	2	3	2		65
C5	2	2	3	4	0	4	3	3	4	3	4	4	1	4	3	3	3	3	3	1	1	2	2	3	2		67
C6	2	2	3	3	2	0	2	2	3	2	4	4	2	3	3	2	2	2	2	0	1	1	1	1	1		50
C7	2	2	2	2	1	1	0	1	1	3	3	4	2	4	4	2	2	1	1	1	0	3	1	3	2		48
C8	2	2	3	3	4	1	1	0	1	3	3	2	2	3	3	2	2	2	1	1	1	2	1	2	3		50
C9	1	3	3	4	4	2	1	1	0	2	3	3	2	3	3	4	4	2	2	1	1	1	1	2	2		55
C10	3	3	2	2	3	3	3	3	3	0	2	2	1	0	2	2	2	1	1	2	1	3	2	2	4		52
C11	1	2	2	4	4	4	3	4	4	2	0	0	1	3	3	1	1	1	1	1	1	0	0	2	0		45
C12	1	1	2	3	2	2	1	1	4	2	0	0	1	2	2	4	4	4	4	2	2	4	3	3	4		58
C13	0	0	1	1	0	1	1	1	1	0	1	1	0	1	3	2	2	2	2	1	1	0	0	0	1		23
C14	1	1	3	4	4	3	3	3	2	1	3	3	1	0	3	1	1	1	1	1	0	2	1	3	2		48
C15	2	1	3	3	3	3	3	3	3	2	3	3	1	3	0	2	2	2	2	1	1	2	1	2	2		53
C16	1	1	2	2	1	3	3	1	4	2	1	3	1	3	2	0	2	2	2	2	3	0	0	2	0		43
C17	1	2	3	3	1	0	0	0	2	1	1	3	1	2	3	1	0	2	2	3	3	0	0	2	0		36
C18	1	1	3	3	0	1	1	0	2	2	1	3	1	3	3	1	2	0	3	3	3	0	0	2	0		39
C19	1	1	3	3	0	0	0	0	2	2	1	3	0	3	3	2	3	3	0	2	4	0	0	2	0		38
C20	1	1	2	2	1	1	1	1	2	3	2	2	1	3	3	2	3	3	3	0	2	0	0	2	0		41
C21	1	1	1	1	0	0	0	0	1	3	1	2	1	3	3	3	3	3	3	1	0	0	0	0	0		31
C22	2	1	3	3	0	1	1	0	0	3	1	3	1	3	2	0	0	0	0	0	0	0	1	4	4		33
C23	2	1	3	3	0	2	2	0	2	2	1	3	0	3	2	0	0	0	0	0	0	2	0	4	3		35
C24	1	1	3	3	1	2	2	3	2	3	2	2	0	3	3	0	0	0	0	0	0	3	1	0	3		38
C25	1	1	3	4	1	2	3	1	1	3	1	3	0	3	3	0	0	0	0	0	0	4	3	3	0		40

The multiple of matrix $\widehat{M}$ by the inverse of the highest row sum of the matrix presents the relative intensity of the direct relations and the relative intensity of the relations between effective factors is shown in Table 4. We multiply each input of matrix $\widehat{M}$ by the inverse of the highest row sum (α) of that matrix. This multiplication doesn't lead to deviation of the trend on existing responses as the responses are direct for the possible relations (between two elements C1, C2) and clearly the indirect effects of elements are lower than their direct effects. The highest row sum is 76 and its inverse is 0.0132. Thus, α=0.0132.

Table 4: the relative intensity of the direct relations $M = \alpha \cdot \widehat{M}$

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25
C1	0	0.03	0.04	0.04	0.03	0.05	0.05	0.05	0.05	0.03	0.05	0.05	0.01	0.05	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.03	0.05	0.04
C2	0.04	0	0.05	0.05	0.03	0.05	0.04	0.04	0.05	0.03	0.05	0.05	0.01	0.05	0.04	0.05	0.05	0.04	0.04	0.03	0.03	0.04	0.03	0.05	0.04
C3	0.04	0.03	0	0.04	0.04	0.05	0.04	0.04	0.05	0.03	0.05	0.05	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.04	0.03	0.05	0.04
C4	0.03	0.03	0.04	0	0.03	0.05	0.04	0.04	0.05	0.03	0.05	0.05	0.01	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.04	0.03
C5	0.03	0.03	0.04	0.05	0	0.05	0.04	0.04	0.05	0.04	0.05	0.05	0.01	0.05	0.04	0.04	0.04	0.04	0.04	0.01	0.01	0.03	0.03	0.04	0.03
C6	0.03	0.03	0.04	0.04	0.03	0	0.03	0.03	0.04	0.03	0.05	0.05	0.03	0.04	0.04	0.03	0.03	0.03	0.03	0	0.01	0.01	0.01	0.01	0.01
C7	0.03	0.03	0.03	0.03	0.01	0.01	0	0.01	0.01	0.04	0.04	0.05	0.03	0.05	0.05	0.03	0.03	0.01	0.01	0.01	0	0.04	0.01	0.04	0.03
C8	0.03	0.03	0.04	0.04	0.05	0.01	0.01	0	0.01	0.04	0.04	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.03	0.01	0.03	0.04
C9	0.01	0.04	0.04	0.05	0.05	0.03	0.01	0.01	0	0.03	0.04	0.04	0.03	0.04	0.04	0.05	0.05	0.03	0.03	0.01	0.01	0.01	0.01	0.03	0.03
C10	0.04	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0	0.03	0.03	0.01	0	0.03	0.03	0.03	0.01	0.01	0.03	0.01	0.04	0.03	0.03	0.05
C11	0.01	0.03	0.03	0.05	0.05	0.05	0.04	0.05	0.05	0.03	0	0	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0	0	0.03	0
C12	0.01	0.01	0.03	0.04	0.03	0.03	0.01	0.01	0.05	0.03	0	0	0.01	0.03	0.03	0.05	0.05	0.05	0.05	0.03	0.03	0.05	0.04	0.04	0.05
C13	0	0	0.01	0.01	0	0.01	0.01	0.01	0.01	0	0.01	0.01	0	0.01	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0	0	0	0.01
C14	0.01	0.01	0.04	0.05	0.05	0.04	0.04	0.04	0.03	0.01	0.04	0.04	0.01	0	0.04	0.01	0.01	0.01	0.01	0.01	0	0.03	0.01	0.04	0.03
C15	0.03	0.01	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.01	0.04	0	0.03	0.03	0.03	0.03	0.01	0.01	0.03	0.01	0.03	0.03
C16	0.01	0.01	0.03	0.03	0.01	0.04	0.04	0.01	0.05	0.03	0.01	0.04	0.01	0.04	0.03	0	0.03	0.03	0.03	0.03	0.04	0	0	0.03	0
C17	0.01	0.03	0.04	0.04	0.01	0	0	0	0.03	0.01	0.01	0.04	0.01	0.03	0.04	0.01	0	0.03	0.03	0.04	0.04	0	0	0.03	0
C18	0.01	0.01	0.04	0.04	0	0.01	0.01	0	0.03	0.03	0.01	0.04	0.01	0.04	0.04	0.01	0.03	0	0.04	0.04	0.04	0	0	0.03	0
C19	0.01	0.01	0.04	0.04	0	0	0	0	0.03	0.03	0.01	0.04	0	0.04	0.04	0.03	0.04	0.04	0	0.03	0.05	0	0	0.03	0
C20	0.01	0.01	0.03	0.03	0.01	0.01	0.01	0.01	0.03	0.04	0.03	0.03	0.01	0.04	0.04	0.03	0.04	0.04	0.04	0	0.03	0	0	0.03	0
C21	0.01	0.01	0.01	0.01	0	0	0	0	0.01	0.04	0.01	0.03	0.01	0.04	0.04	0.04	0.04	0.04	0.04	0.01	0	0	0	0	0
C22	0.03	0.01	0.04	0.04	0	0.01	0.01	0	0	0.04	0.01	0.04	0.01	0.04	0.03	0	0	0	0	0	0	0	0.01	0.05	0.05
C23	0.03	0.01	0.04	0.04	0	0.03	0.03	0	0.03	0.03	0.01	0.04	0	0.04	0.03	0	0	0	0	0	0	0.03	0	0.05	0.04
C24	0.01	0.01	0.04	0.04	0.01	0.03	0.03	0.04	0.03	0.04	0.03	0.03	0	0.04	0.04	0	0	0	0	0	0	0.04	0.01	0	0.04
C25	0.01	0.01	0.04	0.05	0.01	0.03	0.04	0.01	0.01	0.04	0.01	0.04	0	0.04	0.04	0	0	0	0	0	0	0.05	0.04	0.04	0

The sum of the infinite sequence of direct and indirect effects of elements on each other (with all possible feedbacks) is calculated as a geometrical progression based on the rules of graphs.

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$$S = M + M^2 + \ldots + M^t = \frac{M(I - M^t)}{I - M} = \frac{M}{I - M} = M(I - M)^{-1}$$
$$\lim_{t \to \infty} (M)^t = 0$$

The calculation of this set needs $(I - M)^{-1}$ (inverse). The indirect effects of the existing elements are convergent to the inverse matrix, as the indirect effects along the chains of the existing diagraph are descending as continually. Thus, in the calculation of the matrix in the above formula, the inverse $(I - M)^{-1}$ is used. (I is corresponding unit of M, the square matrix in which all the main diameter elements is equal to 1 and other elements is zero), the intensity of all direct and indirect relations is achieved in Table 5:

Table 5: possible intensity of all direct and indirect relations $(I - M)^{-1}$

0	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25
C1	1.057	0.083	0.134	0.146	0.095	0.132	0.123	0.116	0.144	0.105	0.134	0.155	0.053	0.154	0.141	0.124	0.13	0.108	0.107	0.088	0.09	0.101	0.067	0.14	0.106
C2	0.095	1.057	0.147	0.159	0.095	0.134	0.112	0.105	0.146	0.104	0.135	0.156	0.053	0.155	0.141	0.125	0.13	0.109	0.107	0.076	0.078	0.102	0.068	0.142	0.107
C3	0.091	0.079	1.091	0.14	0.103	0.128	0.107	0.101	0.139	0.1	0.13	0.149	0.063	0.136	0.134	0.108	0.113	0.104	0.103	0.072	0.074	0.098	0.065	0.135	0.103
C4	0.075	0.075	0.122	1.094	0.086	0.122	0.101	0.096	0.133	0.094	0.124	0.141	0.048	0.128	0.127	0.103	0.108	0.1	0.098	0.069	0.071	0.08	0.062	0.116	0.085
C5	0.078	0.078	0.126	0.149	1.064	0.126	0.105	0.099	0.137	0.109	0.128	0.146	0.049	0.144	0.13	0.105	0.11	0.102	0.101	0.058	0.06	0.084	0.064	0.12	0.088
C6	0.065	0.065	0.104	0.113	0.076	1.059	0.077	0.073	0.105	0.079	0.11	0.123	0.054	0.109	0.109	0.079	0.082	0.076	0.075	0.036	0.05	0.057	0.043	0.075	0.061
C7	0.063	0.062	0.088	0.096	0.059	0.068	1.049	0.058	0.075	0.088	0.092	0.118	0.051	0.117	0.116	0.073	0.076	0.058	0.057	0.045	0.032	0.082	0.042	0.098	0.073
C8	0.066	0.065	0.104	0.113	0.099	0.072	0.066	1.048	0.079	0.092	0.097	0.098	0.053	0.109	0.108	0.076	0.08	0.074	0.061	0.047	0.048	0.071	0.043	0.088	0.087
C9	0.056	0.081	0.111	0.132	0.103	0.09	0.069	0.064	1.074	0.083	0.102	0.118	0.055	0.116	0.115	0.107	0.112	0.08	0.079	0.052	0.054	0.06	0.045	0.093	0.076
C10	0.08	0.08	0.095	0.103	0.087	0.098	0.092	0.086	0.105	1.057	0.087	0.102	0.041	0.076	0.099	0.079	0.082	0.063	0.061	0.06	0.049	0.086	0.057	0.091	0.102
C11	0.051	0.064	0.088	0.12	0.099	0.106	0.087	0.097	0.112	0.076	1.059	0.069	0.04	0.105	0.105	0.063	0.066	0.059	0.058	0.044	0.045	0.041	0.027	0.082	0.045
C12	0.055	0.055	0.098	0.118	0.073	0.084	0.066	0.058	0.119	0.084	0.06	1.079	0.041	0.102	0.101	0.104	0.109	0.102	0.102	0.063	0.066	0.097	0.069	0.106	0.101
C13	0.016	0.017	0.041	0.045	0.02	0.036	0.034	0.031	0.041	0.023	0.037	0.044	1.012	0.044	0.069	0.048	0.05	0.048	0.047	0.029	0.03	0.017	0.011	0.026	0.031
C14	0.052	0.052	0.103	0.124	0.099	0.096	0.089	0.085	0.09	0.066	0.097	0.109	0.04	1.07	0.107	0.063	0.066	0.06	0.059	0.045	0.033	0.071	0.043	0.1	0.074
C15	0.067	0.055	0.108	0.117	0.09	0.099	0.092	0.087	0.107	0.083	0.101	0.115	0.042	0.113	1.074	0.08	0.084	0.077	0.076	0.049	0.05	0.073	0.044	0.092	0.076
C16	0.046	0.047	0.081	0.087	0.054	0.085	0.079	0.051	0.106	0.071	0.062	0.099	0.037	0.098	0.085	1.045	0.074	0.069	0.068	0.055	0.069	0.036	0.024	0.076	0.039
C17	0.041	0.053	0.085	0.091	0.047	0.041	0.036	0.033	0.074	0.052	0.055	0.09	0.032	0.077	0.089	0.052	1.042	0.064	0.064	0.065	0.067	0.031	0.021	0.069	0.033
C18	0.043	0.043	0.088	0.094	0.037	0.056	0.05	0.035	0.076	0.066	0.057	0.093	0.034	0.092	0.092	0.054	0.07	1.04	0.077	0.066	0.068	0.033	0.021	0.072	0.035
C19	0.042	0.042	0.087	0.092	0.036	0.042	0.037	0.034	0.075	0.065	0.055	0.092	0.02	0.09	0.09	0.065	0.082	0.077	1.039	0.054	0.081	0.031	0.021	0.071	0.034
C20	0.044	0.044	0.078	0.084	0.051	0.058	0.052	0.05	0.078	0.08	0.071	0.083	0.035	0.094	0.094	0.067	0.083	0.079	0.078	1.029	0.057	0.033	0.022	0.073	0.036
C21	0.036	0.036	0.052	0.056	0.028	0.033	0.03	0.027	0.053	0.069	0.046	0.068	0.029	0.079	0.08	0.07	0.073	0.069	0.069	0.037	1.025	0.024	0.016	0.036	0.026
C22	0.053	0.039	0.083	0.089	0.033	0.054	0.05	0.034	0.045	0.075	0.053	0.087	0.03	0.085	0.073	0.033	0.035	0.031	0.03	0.022	0.021	1.035	0.036	0.095	0.088
C23	0.055	0.042	0.087	0.093	0.036	0.069	0.065	0.036	0.073	0.065	0.056	0.091	0.02	0.089	0.076	0.036	0.038	0.033	0.033	0.023	0.023	0.063	1.024	0.098	0.077
C24	0.046	0.045	0.091	0.097	0.054	0.073	0.068	0.077	0.076	0.081	0.073	0.083	0.022	0.093	0.093	0.039	0.041	0.036	0.035	0.025	0.025	0.077	0.039	1.051	0.08
C25	0.047	0.045	0.093	0.111	0.053	0.074	0.082	0.052	0.066	0.083	0.062	0.098	0.022	0.096	0.094	0.04	0.042	0.037	0.036	0.026	0.025	0.092	0.065	0.092	1.045

Table 6 indicates the influence of all the factors on each other in long-term. In this matrix, the intensity is achieved of all the direct and indirect relations.

Table 6: existing relative intensity of direct and indirect relations $M(I - M)^{-1}$

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	R
C1	0.057	0.083	0.134	0.146	0.095	0.132	0.123	0.116	0.144	0.105	0.134	0.155	0.053	0.154	0.141	0.124	0.13	0.108	0.107	0.088	0.09	0.101	0.067	0.14	0.106	2.833
C2	0.095	0.057	0.147	0.159	0.095	0.134	0.112	0.105	0.146	0.104	0.135	0.156	0.053	0.155	0.141	0.125	0.13	0.109	0.107	0.076	0.078	0.102	0.068	0.142	0.107	2.839
C3	0.091	0.079	0.091	0.14	0.103	0.128	0.107	0.101	0.139	0.1	0.13	0.149	0.063	0.136	0.134	0.108	0.113	0.104	0.103	0.072	0.074	0.098	0.065	0.135	0.103	2.667
C4	0.075	0.075	0.122	0.094	0.086	0.122	0.101	0.096	0.133	0.094	0.124	0.141	0.048	0.128	0.127	0.103	0.108	0.1	0.098	0.069	0.071	0.08	0.062	0.116	0.085	2.456
C5	0.078	0.078	0.126	0.149	0.064	0.126	0.105	0.099	0.137	0.109	0.128	0.146	0.049	0.144	0.13	0.105	0.11	0.102	0.101	0.058	0.06	0.084	0.064	0.12	0.088	2.56
C6	0.065	0.065	0.104	0.113	0.076	0.059	0.077	0.073	0.105	0.079	0.11	0.123	0.054	0.109	0.109	0.079	0.082	0.076	0.075	0.036	0.05	0.057	0.043	0.075	0.061	1.953
C7	0.063	0.062	0.088	0.096	0.059	0.068	0.049	0.058	0.075	0.088	0.092	0.118	0.051	0.117	0.116	0.073	0.076	0.058	0.057	0.045	0.032	0.082	0.042	0.098	0.073	1.837
C8	0.066	0.065	0.104	0.113	0.099	0.072	0.066	0.048	0.079	0.092	0.097	0.098	0.053	0.109	0.108	0.076	0.08	0.074	0.061	0.047	0.048	0.071	0.043	0.088	0.087	1.942
C9	0.056	0.081	0.111	0.132	0.103	0.09	0.069	0.064	0.074	0.083	0.102	0.118	0.055	0.116	0.115	0.107	0.112	0.08	0.079	0.052	0.054	0.06	0.045	0.093	0.076	2.127
C10	0.08	0.08	0.095	0.103	0.087	0.098	0.092	0.086	0.105	0.057	0.087	0.102	0.041	0.076	0.099	0.079	0.082	0.063	0.061	0.06	0.049	0.086	0.057	0.091	0.102	2.016
C11	0.051	0.064	0.088	0.12	0.099	0.106	0.087	0.097	0.112	0.076	0.059	0.069	0.04	0.105	0.105	0.063	0.066	0.059	0.058	0.044	0.045	0.041	0.027	0.082	0.045	1.808
C12	0.055	0.055	0.098	0.118	0.073	0.084	0.066	0.058	0.119	0.084	0.06	0.079	0.041	0.102	0.101	0.104	0.109	0.102	0.102	0.063	0.066	0.097	0.069	0.106	0.101	2.114
C13	0.016	0.017	0.041	0.045	0.02	0.036	0.034	0.031	0.041	0.023	0.037	0.044	0.012	0.044	0.069	0.048	0.05	0.048	0.047	0.029	0.03	0.017	0.011	0.026	0.031	0.848
C14	0.052	0.052	0.103	0.124	0.099	0.096	0.089	0.085	0.09	0.066	0.097	0.109	0.04	0.07	0.107	0.063	0.066	0.06	0.059	0.045	0.033	0.071	0.043	0.1	0.074	1.891
C15	0.067	0.055	0.108	0.117	0.09	0.099	0.092	0.087	0.107	0.083	0.101	0.115	0.042	0.113	0.074	0.08	0.084	0.077	0.076	0.049	0.05	0.073	0.044	0.092	0.076	2.051
C16	0.046	0.047	0.081	0.087	0.054	0.085	0.079	0.051	0.106	0.071	0.062	0.099	0.037	0.098	0.085	0.045	0.074	0.069	0.068	0.055	0.069	0.036	0.024	0.076	0.039	1.643
C17	0.041	0.053	0.085	0.091	0.047	0.041	0.036	0.033	0.074	0.052	0.055	0.09	0.032	0.077	0.089	0.052	0.042	0.064	0.064	0.065	0.067	0.031	0.021	0.069	0.033	1.404
C18	0.043	0.043	0.088	0.094	0.037	0.056	0.05	0.035	0.076	0.066	0.057	0.093	0.034	0.092	0.092	0.054	0.07	0.04	0.077	0.066	0.068	0.033	0.021	0.072	0.035	1.491
C19	0.042	0.042	0.087	0.092	0.036	0.042	0.037	0.034	0.075	0.065	0.055	0.092	0.02	0.09	0.09	0.065	0.082	0.077	0.039	0.054	0.081	0.031	0.021	0.071	0.034	1.453
C20	0.044	0.044	0.078	0.084	0.051	0.058	0.052	0.05	0.078	0.08	0.071	0.083	0.035	0.094	0.094	0.067	0.083	0.079	0.078	0.029	0.057	0.033	0.022	0.073	0.036	1.554
C21	0.036	0.036	0.052	0.056	0.028	0.033	0.03	0.027	0.053	0.069	0.046	0.068	0.029	0.079	0.08	0.07	0.073	0.069	0.069	0.037	0.025	0.024	0.016	0.036	0.026	1.164
C22	0.053	0.039	0.083	0.089	0.033	0.054	0.05	0.034	0.045	0.075	0.053	0.087	0.03	0.085	0.073	0.033	0.035	0.031	0.03	0.022	0.021	0.035	0.036	0.095	0.088	1.31
C23	0.055	0.042	0.087	0.093	0.036	0.069	0.065	0.036	0.073	0.065	0.056	0.091	0.02	0.089	0.076	0.036	0.038	0.033	0.033	0.023	0.023	0.063	0.024	0.098	0.077	1.4
C24	0.046	0.045	0.091	0.097	0.054	0.073	0.068	0.077	0.076	0.081	0.073	0.083	0.022	0.093	0.093	0.039	0.041	0.036	0.035	0.025	0.025	0.077	0.039	0.051	0.08	1.519
C25	0.047	0.045	0.093	0.111	0.053	0.074	0.082	0.052	0.066	0.083	0.062	0.098	0.022	0.096	0.094	0.04	0.042	0.037	0.036	0.026	0.025	0.092	0.065	0.092	0.045	1.578
J	1.419	1.403	2.383	2.663	1.678	2.033	1.82	1.635	2.328	1.95	2.082	2.606	0.977	2.569	2.542	1.838	1.976	1.754	1.72	1.234	1.289	1.577	1.038	2.238	1.704	

The possible intensity is calculated of indirect relations (existing elements). This intensity is achieved by a similar reasoning of the sum of geometrical progression:

$$\underset{t \to \infty}{S} = M^2 + M^3 + M^4 + \ldots + M^t = M^2 \, (I - M)^{-1}$$

The intensity of indirect relations of matrix is shown in Table 7 as:

Table 7: The intensity of indirect relations of matrix

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25
C1	0.06	0.06	0.09	0.11	0.07	0.08	0.07	0.06	0.09	0.08	0.08	0.1	0.04	0.1	0.1	0.07	0.08	0.07	0.07	0.05	0.05	0.06	0.04	0.09	0.07
C2	0.06	0.06	0.09	0.11	0.07	0.08	0.07	0.07	0.09	0.08	0.08	0.1	0.04	0.1	0.1	0.07	0.08	0.07	0.07	0.05	0.05	0.06	0.04	0.09	0.07
C3	0.05	0.05	0.09	0.1	0.06	0.08	0.07	0.06	0.09	0.07	0.08	0.1	0.04	0.1	0.09	0.07	0.07	0.06	0.06	0.05	0.05	0.06	0.04	0.08	0.06
C4	0.05	0.05	0.08	0.09	0.06	0.07	0.06	0.06	0.08	0.07	0.07	0.09	0.03	0.09	0.09	0.06	0.07	0.06	0.06	0.04	0.04	0.05	0.04	0.08	0.06
C5	0.05	0.05	0.09	0.1	0.06	0.07	0.07	0.06	0.08	0.07	0.07	0.09	0.04	0.09	0.09	0.07	0.07	0.06	0.06	0.05	0.05	0.06	0.04	0.08	0.06
C6	0.04	0.04	0.06	0.07	0.05	0.06	0.05	0.05	0.07	0.05	0.06	0.07	0.03	0.07	0.07	0.05	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.06	0.05
C7	0.04	0.04	0.06	0.07	0.05	0.06	0.05	0.05	0.06	0.05	0.05	0.07	0.02	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.04	0.03	0.06	0.05
C8	0.04	0.04	0.06	0.07	0.05	0.06	0.05	0.05	0.07	0.05	0.06	0.07	0.03	0.07	0.07	0.05	0.05	0.05	0.05	0.03	0.03	0.04	0.03	0.06	0.05
C9	0.04	0.04	0.07	0.08	0.05	0.06	0.06	0.05	0.07	0.06	0.06	0.08	0.03	0.08	0.08	0.05	0.06	0.05	0.05	0.04	0.04	0.05	0.03	0.07	0.05
C10	0.04	0.04	0.07	0.08	0.05	0.06	0.05	0.05	0.07	0.06	0.06	0.08	0.03	0.08	0.07	0.05	0.06	0.05	0.05	0.03	0.04	0.05	0.03	0.07	0.05
C11	0.04	0.04	0.06	0.07	0.05	0.05	0.05	0.04	0.06	0.05	0.06	0.07	0.03	0.07	0.06	0.05	0.05	0.05	0.04	0.03	0.03	0.04	0.03	0.06	0.04
C12	0.04	0.04	0.07	0.08	0.05	0.06	0.05	0.05	0.07	0.06	0.06	0.08	0.03	0.08	0.07	0.05	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.07	0.05
C13	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.03	0.01	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.03	0.02
C14	0.04	0.04	0.06	0.07	0.05	0.06	0.05	0.05	0.06	0.05	0.06	0.07	0.03	0.07	0.07	0.05	0.05	0.05	0.05	0.03	0.03	0.04	0.03	0.06	0.05
C15	0.04	0.04	0.07	0.08	0.05	0.06	0.05	0.05	0.07	0.06	0.06	0.08	0.03	0.07	0.07	0.05	0.06	0.05	0.05	0.04	0.04	0.05	0.03	0.07	0.05
C16	0.03	0.03	0.05	0.06	0.04	0.05	0.04	0.04	0.05	0.04	0.05	0.06	0.02	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.04	0.02	0.05	0.04
C17	0.03	0.03	0.05	0.05	0.03	0.04	0.04	0.03	0.05	0.04	0.04	0.05	0.02	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.04	0.03
C18	0.03	0.03	0.05	0.05	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.05	0.02	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.05	0.03
C19	0.03	0.03	0.05	0.05	0.04	0.04	0.04	0.03	0.05	0.04	0.04	0.05	0.02	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.04	0.03
C20	0.03	0.03	0.05	0.06	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.06	0.02	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.05	0.04
C21	0.02	0.02	0.04	0.04	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.04	0.02	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.04	0.03
C22	0.03	0.03	0.04	0.05	0.03	0.04	0.04	0.03	0.04	0.04	0.04	0.05	0.02	0.05	0.05	0.03	0.03	0.03	0.03	0.02	0.02	0.04	0.02	0.04	0.03
C23	0.03	0.03	0.05	0.05	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.05	0.02	0.05	0.05	0.04	0.04	0.03	0.03	0.02	0.02	0.04	0.02	0.05	0.04
C24	0.03	0.03	0.05	0.06	0.04	0.05	0.04	0.04	0.05	0.04	0.05	0.06	0.02	0.05	0.05	0.04	0.04	0.04	0.04	0.02	0.02	0.04	0.03	0.05	0.04
C25	0.03	0.03	0.05	0.06	0.04	0.05	0.04	0.04	0.05	0.04	0.05	0.06	0.02	0.06	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.04	0.03	0.05	0.04

Finally, the effects of each of the factors or being influence of other factors are investigated. By the investigation of these relations, the structure of effectiveness and impressibility hierarchy is achieved helping us in improving the identification of priority of the compatibility factors in the banks. Based on Table 6, as the direct and indirect effects, Table 8 is calculated as interacting factors. The highest row sum T indicates the factors affecting other factors. The highest column sum J shows the factors being influenced. Thus, R column order shows the hierarchy of effective factors and column J factors indicate hierarchy of influencing elements.

The real site of each factor in final hierarchy is defined by R+J columns, sum of effects and R-J difference of mutual effects in the chart as R+J indicates the sum of the intensity of an important factor in terms of effectiveness and impressibility along the length axle and R-J indicates location of a factor along the width axle and this location in case of being positive R-J is effective and if it is negative, it is an impressed factor. In other words, C1, C2 (equity and assets) are the most effective factors and C14, C24 (the number of on-line branches and knowledge capital of human resources) is the most impressed factor.

Table 8: The order of the effect of factors on each other

No	Variables order	R effective variables	Variables order	J impressed variables	Variables order	R+J	Variables order	R-j
1	Equity	2.8386	Net profit	2.6634	Net profit	5.1193	Equity	1.4352
2	Assets	2.8327	Non- joint income share and lawyer fee	2.6058	Profit to assets ratio	5.0508	Assets	1.4134
3	Profit to assets ratio	2.6673	Knowledge capital	2.5688	Non- joint income share and lawyer fee	4.7199	Loans	0.8819
4	Loans	2.5601	Human resources experience	2.5417	Human resources experience	4.5925	Number of pin pads	0.362
5	Net profit	2.4559	Profit to assets ratio	2.3835	Knowledge capital	4.4596	Branches in the abroad	0.3198
6	Share of other deposit	2.1267	Share of other deposit	2.3279	Share of other deposit	4.4546	Long-term deposit share	0.3072
7	Non- joint income share and lawyer fee	2.1141	Online branches	2.2382	Assets	4.252	Profit to assets ratio	0.2839
8	Human resources experience	2.0508	joint income shares	2.0819	Equity	4.2421	Share of branches	0.0661
9	Share of branches	2.0157	Current and saving deposit share	2.0333	Loans	4.2383	Short-term deposit share	0.0178
10	Current and saving deposit share	1.9531	Share of exchange guarantee	1.9757	Current and saving deposit share	3.9864	Current and saving deposit share	-0.08
11	Long-term deposit share	1.9421	Share of branches	1.9495	Share of branches	3.9652	Swift branches	-0.125
12	Knowledge capital	1.8909	LC share	1.8383	Joint income shares	3.8898	Number of issued cards	-0.126
13	Share of short-term	1.8374	Short-term deposit	1.8196	Online branches	3.7567	Share of	-0.129

	deposit		share				employees	
14	Joint income shares	1.8079	Exchange draft	1.7539	Short-term deposit share	3.6569	LC share	-0.196
15	LC share	1.6425	Exchange draft	1.7205	Long-term deposit share	3.577	Share of other deposits	-0.201
16	Number of issued cards	1.5783	Number of issued cards	1.704	LC share	3.4809	Net profit	-0.207
17	Branches in the abroad	1.5539	Loans	1.6782	Share of exchange guarantee	3.3797	Exchange trading	-0.263
18	Online branches	1.5186	Long-term deposit share	1.6349	Number of issued cards	3.2823	Number of ATMs	-0.267
19	Exchange trading	1.4908	Number of ATMs	1.5773	Exchange trading	3.2448	Exchange draft	-0.268
20	Exchange draft	1.453	Assets	1.4193	Exchange draft	3.1734	Joint income shares	-0.274
21	Share of exchange guarantee	1.404	Equity	1.4034	Number of ATMs	2.8877	Human resources experience	-0.491
22	Number of pin pads	1.4004	Swift branches	1.289	Branches in the abroad	2.7881	Non- joint income share and lawyer fee	-0.492
23	Number of ATMs	1.3104	Branches in the abroad	1.2341	Swift branches	2.4532	Share of exchange guarantee	-0.572
24	Swift branches	1.1643	Number of pin pads	1.0384	Number of pin pads	2.4388	Knowledge capital	-0.678
25	Share of employees	0.8478	Share of employees	0.9765	Share of employees	1.8243	Online branches	-0.72

Conclusion and Recommendation:

The present study is done with the aim of identification of effective factors in banks compatibility. A list of effective potential factors was provided with the related studies and review of the experts' judgment, Then the important factors of compatibility were extracted by DEMATEL method. This method by considering the interacting relations, define the interacting relation factors on banks compatibility efficiently. To respond to this question that how is the priority of effective factors on banks compatibility? It can be said that the most effective factor is equity and assets of a bank. In other words, equity and assets in a bank are the most important factors and the number of on-line branches and knowledge capital of human resources in a bank is the most impressed factor in compatibility. Based on the next factors, the loan, the number of branch pin pads, the number of foreign branches, share of long-term deposits, profit to assets share, share of branches and short-term deposits were the effective factors in banks compatibility.

Based on the effects of these factors as impressed factors in this model, other issues as share of foreign exchange guarantee, non- joint income and lawyers fee, human resources experience, share of joint incomes, foreign exchange draft, number of ATMs, foreign exchange trading, net profit, share of other deposits, LC share, the number of employees share, the number of employees, the number of swift branches and current despot share are impressed by other factors and in theory and practice, the examples are considered. It can be said that based on the results, according to the bank experts, the size of a bank (assets and equity and loan in balance sheet) is an index for more market share and relative superiority on rivals and using the first movement and leadership in market with the major effecting on compatibility. According to the experts, the major factor in compatibility mostly focusing on CRM (Customer Relationship Management), the number of branch pin pads, the number of local and international branches is the factors leading to the advantage of relationship with customers in Iran bank system and these factors absorb short-term and long-term deposits and all are casual factors in compatibility. The factors as the effected of compatibility are the on-line branches as a benefit for creating rapid and accessible services for the customers and human resources with adequate knowledge and experience and development of IT services including ATMs and the number of issued cards and presenting the international foreign exchange services are other effective factors on compatibility.

Finally, the results of the study can be adaptable with the customers culture in Iran bank system but this study had some limitations as the applied experts had some views based on their organization (state or private banks) and expressed their views without considering their gender, age and activity and the results of the study are interpreted by considering the limitation of questionnaires.

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