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Original Research

The Factors Determining the Transparency of Financial Information: Presentation of a Mental Model by Cognitive Mapping Technique

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ABSTRACT

The purpose of this study is to examine the factors affecting the transparency of financial information by the experts and their understanding of the factors influencing financial transparency. The research methodology is based on qualitative approach and has been done with cognitive mapping technique. The basis of this qualitative analysis is experience, knowledge and expertise of 15 experts and professors of the universities of Mashhad which is conducted with a semi-structured interview. Using structural analysis method, at first 44 factors were identified. In the screening stage, experts had the most consensus among the five factors. And in the last step, the experts compared these five factors in the binary matrix of interaction and from 0 to 3 were valued. Then the MIC_MAC software extracted the cognitive map and its graph and the results were analyzed. The result of this study showed that the company's characteristics, including size of company, ownership, board of directors, financial ratios, profitability, and audit quality of the company have the most impact on information transparency.

1 Introduction

In the turbulent environment today, many investors pay attention to the importance of "transparency of financial information" in their strategies. Previous research, for example, [12, 20, 44, 8, 40] showed that one of the most important factors that makes the company attractive from the point of view of investors; It is transparency [69]. Many research has been carried out on the scope of the clarification of its general concept. In addition, many attempts have been made to describe different levels of disclosure of financial information according to different characteristics of companies such as their size, commercial status and type of industry. In addition, many theories have been used to explain clarification in its general sense, in particular the theory of representation, the theory of signaling and the cost-dispatches [50]. In relation to corporate social and environmental issues, transparency includes making relevant and specific social and environmental information available through a range of reports, media and other

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channels [25]. Considering that it is very difficult to analyze the raw data, the themes and the categories that underlie the process of construction of qualitative theories in the sciences of organizations, the method of cognitive mapping as one of the methods of understanding phenomena, as others give them meaning and to extract structure and content from the process People's minds are designed with a minimum of possible researcher intervention and bias. This technique is part of the interpretive paradigm and its basic concepts are adapted from George Kelly's personal structure theory. A cognitive map is a representation of the cause and effect relationships between the decision elements for a phenomenon or a problem and also describes the implicit knowledge of experts in the field studied [6]. In the contemporary world, the relationships between phenomena are complicated and the analysis of these relationships is not easy. Globalization (including cultural, political and economic globalization) and the strong growth of human environments are other factors which have increased the complexity and difficulty of analyzing contemporary systems. This complexity is greatly increased by the attitude towards uncertainty and constant change. The lack of accurate and reliable quantitative data and the inability to analyze many dimensions of the system with quantitative data is another problem that affects the analysis of relationships between systems. In such a case, it seems useful and necessary to use methods that have the power to analyze multiple dimensions of the system with qualitative data [56]. Several studies have discovered a positive and statistically significant association between political rivalry and financial transparency, as politicians seeking votes strive to accommodate the requirements of as many people as possible [16]. The objective of this research is to analyze the factors affecting the transparency of financial information from the point of view of experts and specialists. Therefore, it is necessary to conduct a qualitative analysis that leads to the identification of strategic and effective factors on the clarification of financial information. In addition, with the effective factors identified by the structural analysis, we will perform an analysis based on the cognitive mapping technique in order to be able to show the relationship of each factor to each other without taking into account the concept of clarification. Since strategic factors are both influential and influenced factors, it is important to identify them because changing strategic factors causes other factors to change and this will affect the quantity and quality of disclosure and transparency. Previous research, e.g. [12, 20, 44, 8, 40] has shown that one of the factors the most important ones that cause the attractiveness The company becomes from the point of view of investors; It is transparency [69]. In the contemporary world, the relationships between phenomena are complicated and the analysis of these relationships is not easy. Globalization (including cultural, political, economic globalization) and the rapid growth of human environments are other factors that have increased the complexity and difficulty of analysis. contemporary systems. This complexity is greatly increased by the attitude towards uncertainty and constant change. The lack of accurate and reliable quantitative data and the inability to analyze many dimensions of the system with quantitative data is another problem that affects the analysis of relationships between systems. In such a case, it seems useful and necessary to use methods that have the power to analyze multiple dimensions of the system with qualitative data [56]. The users of corporate financial information, who are the beneficiaries, need reliable, transparent and useful information. Disclosure of transparent information by management shows the correct response of management to the needs of respondents [1]. The key role that the capital market has in the macroeconomics of the country, the need to examine a qualitative analysis that leads to the identification of the determining factors of the clarification of financial information, was considered necessary for them to receive More attention. It can be said that the first motivating factor in conducting this research is the lack of academic research in the use of a specific technique to analyze the experiences and knowledge of experts; In other words, the need to present a model that experts design and determine the relationships between variables without the intervention of the researcher is a need that was addressed in this research; In other words, with the determining factors identified by the qualitative analysis, we will carry out an analysis based on the technique of cognitive mapping in order to show the relative importance of each idea (determining factors in the clarification) whatever the concept clarification. The cognitive mapping technique was chosen because despite the importance of the cognitive mapping method in the structuring of qualitative data, the different dimensions of this method are poorly known in our country and it has been less used in the field of research, particularly organizational. Achieving this objective, firstly in a first part, we show the determining factors through a synthesis of the research carried out in the past. In a second part, to better understand the importance of determinants from the point of view of experts and teachers, we present a method based on a qualitative approach, and the main results and interpretations will be presented in the third part and before the conclusion.

2 Literature Review

2.1 Transparency of Financial Information

Although transparency is mentioned as a desirable feature of financial reporting; But a comprehensive definition that is accepted by the public; It is not provided. [11]. defined financial reporting transparency as: "broad access to relevant and reliable information about the performance, financial condition, investment opportunities, governance, value and risk of listed companies". Transparency of financial information, on the one hand, assures small shareholders that they will always receive reliable information on the value of the company, and that large shareholders and managers do not seek to violate their rights, and d On the other hand, it encourages managers to try to increase the value of the company instead of pursuing personal interests, which encourages the short term [53]. One of the researchers defines transparency as follows: “Abolish concealment and secrecy” and concealment and secrecy are “attempts to conceal certain behaviors and activities so that certain groups or individuals can benefit from this cover” [30]. According to [29], the legal environment factors affecting the accounting reform include rules or standards on the transparency of the public sector’s financial statements, the internal control system, the need for the use of information from different users, financial statements and objective of those statements in the public sector, rules and standards on the financial management of the public sector, other professional organizations, and the accounting standards issuing body. [19] defines transparency as the disclosure by companies of information relevant to their evaluation, and [37] defines transparency in accounting as: the clear presentation of a fact or a situation in the balance sheet or a other financial statement, or Notes accompanying them or in the audit report. Lack of transparency in financial information and reporting can cause pessimism and immorality and ultimately lead to poor business valuation and uncertainty. Such uncertainty entails information risk for market participants; And providing capital under these conditions will require a higher rate of return and, therefore, a higher cost of capital, which can lead to a lower share price and illiquidity [60].

2.2 Potential Advantages and Implications of Disclosure and Transparency

The transparency of financial information affects the quality of investment decisions. Disclosure of corporate financial information is necessary because if companies do not plan and implement their strategies properly and revise them in line with environmental changes, it can lead to bankruptcy [51]. The potential advantages of increased disclosure and transparency may include: a lower cost of capital [9, 14], reduced agency costs [41], a Improvement of the equity course [23, 39], increasing the value of the company [13]. In addition, a sufficient disclosure of information by the economic personality helps investors and creditors to seek investment opportunities and thus capital is sent to the most effective companies [48]. The quality of the information is effective on the current and future financial performance of the company and has a positive and significant relationship with it [30]. In addition, this reduces the cost of issuing actions and attraction of debt, the transparent and complete disclosure of information by the company increases the confidence of shareholders, reduces the information asymmetry [2] and reduces the number of evaluation errors. Increases the stock [2] and finally reduces the expected return on shareholders [2].

2.3 Effective Factors on Information Transparency

From the time of the first research in 1999 until today, the emphasis has mainly been placed on the size of companies or the commercial status of companies. However, examining other factors such as profitability, legal and competitive issues, audit, environment, liquidity, influence, trade in the foreign market and laws have also been carried out by some Researchers [50]. Researchers have always struggled to identify the important and effective factors on the quality of disclosure and to calculate the transparency of the information. However, empirical studies have used several factors to assess and quantify the disclosure and transparency of information [42, 62], these factors include:

Company size [5, 43, 62, 50], profitability [50, 15, 57, 17], Financial ratios [47], Revaluation of assets [36], Financial Levier [15], [57], liquidity [15], sales [38], company life [59], type of industry [59, 50], active yield [32], fixed [36], exploitation cycle [52], competitive power [52], Complexity of the activity environment [52], Managerial Conservatism [67], Profit Management [31], shareholder [18], size of the board of directors [68], the quality of the audit firm [32, 64], the composition of the Board of Directors [21, 28, 34, 52], the existence of the internal audit service [23], The volume of stock market transactions [23], stock prices [23], social structures [45], tax coefficients [63], forecasts of analysts [56], Disclosure rating systems [7, 32], the business situation [50], the number of shareholders [33], equity yield [33, 49], Government's political support [46], and effective theories on transparency Understand: the theory of signaling [50], the agency theory [50], the cost-dispatches analysis [50], and the theory of stakeholders [61].

2.4 Cognitive Mapping

Cognitive mapping is a graphical representation of the mental model of a person or different people. It is made up of ideas and connections between those ideas; that many connections between ideas are causal [58]. Cognitive mapping is a process in which a network of components and relationships of a complex phenomenon is represented in the form of a map or diagram and shows how a system works in the form of a model [54]. The basic concepts of cognitive mapping are adapted from personal structure theory. This theory was first proposed in 1985 by George Kelly in the field of psychology (personality), which provided a basis for showing people's multiple perspectives. According to him, people personally formulate their assumptions and views about the world in which they live, and these personal constructs are used for interpretation and prediction in a personal environment [35]. A cognitive map has two main elements called concepts and causal relationships. Concepts are symbols of model variables, the variables which are the cause of a change, the cause variables and those which are affected by this change are called effect variables. The nodes or concepts generally express the characteristics, characteristics, quality of variables and states of a system, and each of the concepts represents one of the key factors of the modeled system. Indeed, using cognitive mapping, information from a complex system is simplified and reduced to a knowledge map, and this mapping is displayed as a single view [55]. A wide range of theoretical frameworks, methodologies and analytical methods are dedicated to cognitive mapping. In the field of knowledge in organization and management, the terms “mind mapping”, “cognitive mapping”, “fuzzy cognitive mapping”, “causal mapping” and “conceptual mapping” have been used. The distinctions between these terms are not obvious enough to reflect the different terminologies used in knowledge structures. Although all refer to some form of knowledge structure, most of them are interchangeable. Cognitive mapping can be a tool that shows all relationships in concept models [6].

2.5 Research Fund

[65], in a research entitled "Inspection of opportunities to increase the financial transparency of rail transportation" addressed financial transparency in rail transportation and its role in economic infrastructures. Railway transport is an organic component of the country's economic system, and the efficiency of its work is directly reflected in each business entity. Despite the crisis, which was especially aggravated in the transport industry in 2020-2022, the statistical indicators for 2021 showed an increase in freight traffic by 3.2%, and the volume of passenger traffic in the same year increased by more than 32% compared to 2020. The digitalization of the railway industry allows increasing the amount of data that requires appropriate processing and systematization and analysis in order to maximize the performance of the transport system and meet the needs of its users. As part of the implementation of a long-term policy for the development of the country's transport sector and the widespread introduction of digital technologies in transport, including its railway segment, there is a growing need to develop and apply new approaches and methodologies aimed at improving the quality level of information received about the work of industry enterprises, which increases its value and reliability. The lack of such information impairs the effectiveness of interaction between enterprises providing transport services and consumers of these services, undermines trust between them, which ultimately does not contribute to economic growth [24], in a research entitled "Financial transparency and anomalous portfolio investment flows: A gravity analysis" Investigates money laundering and financial crimes from temporal gravity equations as a viable empirical strategy to estimate illicit (dirty) money flows. The results of this research show: i) the difference between the estimates from theoretically-underpinned gravity models of investments and real data can be used to assess anomalous flows that transit through official channels; ii) non-compliance with international transparency standards affects the probability of observing anomalous flows in global financial data; iii) a global map of illicit/anomalous flows can be derived from official statistics; iv) flipping the narrative on “risky countries” to “risky bilateral links” allows to better investigate push and pull factors of anomalous flows; v) the state of offshore secrecy is not a stronger determinant of anomalous flow than onshore secrecy [50], in a research titled Determinants of Financial Information Disclosure: Visualization (Mental) Test with Cognitive Mapping Technique, studied the effective drivers of financial information disclosure by Tunisian companies. The research method is based on a qualitative approach and it is made with the technique of cognitive mapping. The basis of this qualitative analysis is based on the census carried out with several groups in Tunisian companies. The results of this research show that the characteristics of the company have a great impact on the transparency of financial information. In particular, the size of the organization plays an important role in determining the level of transparency [40], in their research, concluded that the extraction of causal relationships based on one-dimensional transparency indicators has large errors; But looking at these indicators as a group will be a more appropriate measure of the company's commitment to transparent financial reporting and the overall quality of the company's information environment [31], in an article titled "International Financial Reporting Standards and the Quality of Financial Statement Information" explores the potential for earnings management in IFRS by examining corporate accounting measures reported in UK GAAP and IFRS. In addition, the study examines the relevance of the value of financial statement information based on IFRS. The study shows that the implementation of IFRS generally improves accounting quality. The results show that the implementation of IFRS reduces the scope of earnings management, is linked to faster recognition of losses and leads to greater value relevance measures. This case shows that less information asymmetry and earnings manipulation lead to the disclosure of more qualitative and informative information, and therefore, it will help investors to make informed and unbiased judgments [10], in research titled Factors Affecting Transparency in Nonprofit Organizations: An Exploratory Study, investigate factors affecting information transparency in nonprofit organizations. According to this study, nonprofit organizations are more transparent and show that if the nonprofit

organization has more debt, a higher equity ratio, a higher cost-benefit ratio, or is a larger in the higher education sector, it is more likely to provide its statements verified [66], studied the relationship between timeliness of disclosure and transparency of financial information published on the Chinese stock exchange. Examining 2894 observations during the fiscal period 2004-2006, they found that after controlling for normal factors such as audit opinion, the timeliness of annual financial reports has a positive relationship with the transparency of the information. Companies that release financial information over time, especially future financial information, experience high levels of information transparency and poor earnings management [3], in Saudi Arabia conducted a study on the relationship between firm characteristics and information disclosure. For this purpose, he chose as a sample a sample of 40 companies listed on the stock exchange. The results of the hypothesis tests showed that, with the exception of company size, other variables have no relationship with the amount of information disclosed [4], in a research entitled "Typology of models and comparative study of methods of recording mental images and cognitive maps of the environment", the common terms related to the concepts of mental and cognitive maps have been fully investigated and identified [69], in a research titled “Explaining the Financial Reporting Transparency Model”, an attempt was made to derive a multi-dimensional criterion based on extensive literature study and based on various aspects, and following [11] inconsistent financial reports on transparency criteria that have been used separately by different researchers; It should also be used as a single indicator of the transparency of financial information. This research shows that the current state of transparency is very unfavorable from the point of view of experts and different aspects of the proposed model must be considered in order to meet the information needs of stakeholders. The objective of this multidimensional model is to broaden our understanding of the financial information system and its focus is on the accessibility of each company's specific information by external stakeholders; It should be noted that in this research, a specific theory was not used to develop the model; but competing theories that deal with transparency at the firm level; are considered together [57], in a research entitled "Review of the Information Disclosure Literature in Iran", reviewing the literature in the field of measuring the level of information disclosure, they show that in Iran , the level of information disclosure is mainly related to mandatory disclosure in Iranian accounting standards and literature review. The domain of information disclosure factors shows that the company's strategic characteristics and policies are effective in terms of information disclosure and its quality. Large industrial enterprises with favorable characteristics in terms of profitability, liquidity and financial leverage and dispersion of ownership, against the demand of stakeholders, disclosure of more information is considered [22], in a study titled the relationship between accounting information transparency and cash balance, during 1383-1389 in Tehran Stock Exchange, their findings showed that there is a negative relationship and significant between the transparency of information and the amount of cash. . In other words, companies with more transparent information hold less cash [27], studied the relationship between intellectual capital disclosure and the type of ownership and size of companies admitted to the Tehran Stock Exchange. In order to determine the amount of information disclosed on intellectual capital, the content analysis method was used and also to examine the relationship between the amount of information disclosed and the type of ownership and the size of the company. , Spearman's correlation test was used. The results of the hypothesis test show that in 1978, foreign capital and in 1988, human capital had the largest amount of disclosure, and there is a significant relationship between the amount of disclosure of information on intellectual capital and the type of shareholding and the size of the company [15], studied the effect of company characteristics on the level of company disclosure. In this research, the effect of features such as; Company size, asset notoriety degree, financial leverage, liquidity, profitability and profitability growth were studied at the disclosure level of 128 companies admitted to the Tehran Stock Exchange during the period 2012-2018. The research results show that the degree of awareness of assets, financial leverage and profitability have an effect on the level of disclosure, but that the size and growth of profitability have no significant effect on the level. full disclosure. The results show that most firm characteristics have an effect on voluntary disclosure, but not on involuntary disclosure.

3 Research Method

3.1 Research Questions

In this research, we are faced with three questions, because we are not looking to prove the influence of the factors on the concept of clarification of financial information, but we are looking for the type of relationships between the factors affecting transparency.

1- What are the effective factors for clarifying financial information?

2- What is the effect and effectiveness of the above factors on each other?

3- What is the priority and importance of the factors affecting transparency?

4 Statistical Population and Sampling Method

The statistical population of this research consists of experts, experts and professors in the field of accounting and finance from universities and higher educational institutions in Mashhad.

4.1 Sampling

Theoretical (analytical) sampling is usually done as part of qualitative research. In this research, the sampling is purposive and the experts are chosen voluntarily and not randomly, the sample includes 15 experts and professors from universities and higher education institutions in Mashhad.

Row	First Name and Last Name	Organizational affiliation	Field of Study
1	Abdul Reza Asadi	Assistant Professor of Financial Management, Department of Management, Neishabur Branch, Islamic Azad University of Neishabur	Business Management
2	Mahmoud Lari Dasht Beyaz	Associate Professor, Department of Accounting, Faculty of Administrative and Economic Sciences, Ferdowsi University of Mashhad	Accounting
3	Mohsen Moradi	PhD in Business Administration - Allameh Tabatabai University (RA), member of the faculty of Imam Reza International University (AS).	Business Management
4	Mohammad Tawakoli Mohammadi	Assistant Professor, Department of Accounting and Finance, Tehran Petroleum Faculty, Petroleum University of Technology	Accounting
5	Mahdi Faizi	Assistant Professor, Department of Economics, Ferdowsi University of Mashhad	Economy
6	Mohammad Karimi	Department of Management, Islamic Azad University, Neyshabur branch and active in the capital market	Economy
7	Seyed Morteza Ghayor Baghbani	Capital market activist and assistant professor in the Department of Management, Faculty of Management and Accounting, Imam Reza International University (AS), Mashhad	Organizational Behavior Management
8	Abdul Majeed Dehghan	Assistant professor and member of the academic staff of the Department of Business Administration, Yadgar Imam Khomeini (RA) Shahrari Unit, Islamic Azad University, Tehran, and Chairman of the Board of Directors of Bursiran Brokerage Company	Financial Management
9	Ali Mohammad Ghanbari	Assistant professor of accounting, faculty member of accounting department, Tehran	Accounting
10	Mohammad Hossein Hosseinzadeh Bahraini	Assistant Professor, Department of Economics, Faculty of Administrative and Economic Sciences, Ferdowsi University of Mashhad	Economy
11	Hamidreza Bezazade Torbati	Assistant Professor of Accounting, Islamic Azad University, Neyshabur branch	Accounting
12	Mohammadreza Shurvarzi	Associate Professor, Accounting Department, Neyshabur Branch, Azad Islami	Accounting
13	Abbas Alimoradi Sharifabadi	Assistant Professor, Department of Accounting, Sanat Naft University, Tehran	Accounting
14	Mahdi Moradi	Professor, Department of Accounting, Faculty of Administrative and Economic Sciences, Ferdowsi University of Mashhad	Accounting
15	Alireza Mehrazin	Assistant Professor, Department of Accounting, Islamic Azad University, Neyshabur branch	Accounting

4.2 Information Gathering Tool

The method of data collection in this research is a combination of library studies and interview methods. In the first step, 44 factors were collected by the library method. Then, by conducting a semi-structured interview with the experts, they were asked, based on their knowledge and professional experience, to express the factors they consider effective for the transparency of financial information.

4.3 Data Analysis

We will analyze the collected information using the three-step structural analysis method. The first step is to identify the criteria, the second step is to screen the criteria, and the third step is to determine the type and relationships between the variables [56]. The structural analysis method is a tool for linking ideas and thoughts, which describes and identifies the system through the matrix of the relationship of all system variables. The capacity of this model to identify the relationships between the variables and finally to identify the key variables is effective in the evolution of the system [56]. In this research, after the interview and identification of data, the results of all interviews and factors collected by the library method were reviewed and duplicate data were removed. In the next step, all the collected factors, which are a total of 44 factors, are given to the 15 experts to evaluate the essential factors using content validity. It is used to assess content validity from the perspective of experts regarding the degree of coordination between the content of the measurement tool and the purpose of the research [26]. Indeed, at this stage the factors are sifted through so that the most important remain within the consensus of the experts; Thus, for each factor, three options "necessary", "useful but not necessary" and "not necessary" were considered and the experts were asked to choose one of these items for each factor. Then, according to relation (1), the content validity of the factors is calculated.
Content validity is calculated according to equation (1):

$$CVR=\frac{n_E-\frac{N}{2}}{\frac{N}{2}} \tag{1}$$

where in:
CVR: factor content validity
n_E: The number of experts who answered the "necessary" option.
N: total number of specialists
Now, according to Table 1 and considering that the number of experts in this research is 15 people, the factors whose CVR is 0.49 or more are selected.

Table 1: CVR Decision Table

Minimum valid value	The number of people making up the panel of experts
0/99	5
0/99	6
0/99	7
0/85	8
0/78	9
0/62	10
0/49	15
0/42	20
0/37	25
0/33	30
0/29	40

According to Table 1, out of 44 factors, 10 obtained reliability factors greater than 0/49, which are shown in Table 2. Other factors were excluded due to validity less than 0/49.

Table 2: Factor Content Validity Results

Row	variables	"mandatory" number	Number "useful but not necessary"	"Useless" number	CVR
1	C1: Characteristics of the company	15	0	0	1
2	C2: Type of industry	14	1	0	0/86
3	C3: Representation theory	12	3	0	0/6
4	C4: Theory of signs	13	2	0	0/73
5	C5: Obligation of clarification of financial service providers	12	3	0	0/6

In the last step, the matrix of the mutual effects of these 5 factors is created so that the influence of each factor on the other factors can be compared with each other two by two and valued from 0 to 3. Then we use the index central mode to obtain the direct effects matrix (MID). Table (3) shows the direct effects matrix of 15 experts, the value of each house in the matrix is obtained with the mode index

Table 3: Matrix of Direct Effects

	C_1	C_2	C_3	C_4	C_5	The total influence of the factor
C_1	0	1	3	3	3	10
C_2	3	0	1	3	2	9
C_3	0	0	0	2	1	3
C_4	3	0	2	0	1	6
C_5	2	0	0	2	0	4
The agent's total influence	8	1	6	10	7	32

The direct effects matrix describes the direct effects relationship between the variables that make up the system. This matrix (disregarding the row and column of total factor influence and effectiveness) is entered into the Mac-Mac software as the input to be analyzed. From this matrix, the cognitive map and its associated graph will be extracted. In this research, only the matrix of direct effects was analyzed, and the analysis of the matrix of indirect effects and possible effects was omitted due to the large amount of content.

5 Study Variables

C1: Company characteristics: Many studies have successfully tested the effect of company characteristics on disclosure. The characteristics of the company include many things. In the research, the experts in their interviews mentioned company size, type of ownership, composition of the board of directors, financial ratios, profitability and audit quality of the company.

C2: Type of industry: This means the type of industry in which the company operates. During the research conducted, the type of industry also affects the level of transparency of intellectual capital [50].

C3: Agency theory: It is an agreement between two parties to the contract by which one of the parties (the agent) undertakes to act on behalf of the other party (the client). Like the relationship between shareholders and business leaders, it is an agency relationship. In agency theory, the main assumption is that people try to maximize their expected future profits, we must also remember that managers and shareholders often have conflicts of interest; Therefore, there is concern that the agent may act in a way that maximizes its own wealth (and not the shareholders' wealth). This conflict arises when the personal interests of the manager come into conflict with the interests of the shareholders [61].

C4: Signal Theory: A signal or signal is a message that the manager gives to the market at a high level, and if the manager was at a low level, such an action would be unreasonable. One of the main conditions of "marking" is that it costs less to a higher manager than to a lower manager. It is the characteristic that creates the credibility of the sign or sign [61]. It can be said that companies are trying to show their superiority with more communication.

C5: Obligation of clarification on the part of financial providers: this factor was mentioned by some experts during the interview and was confirmed by others. The requirement for transparency from financial providers means that sometimes companies do not want to clarify, but from financial providers such as banks or financial institutions, they have to clarify information for their financing.

6 Search Results

In this research, the first question has been answered. We now answer two more questions. Figure 1 and Figure 2 show the influence and effectiveness of the factors on each other, without taking into account the concept of transparency. Figure 1 has four areas. The first area contains dichotomous variables. These variables act very effectively and very efficiently at the same time. The nature of these variables is fraught with instability, as every action and change on them leads to a reaction and change on other variables. In this research, firm characteristics, which include firm size, shareholding, board of directors, financial ratios, profitability and audit quality of the firm, are located in this area.

The second area includes influencing variables. These variables are more influential and less influential; Therefore, the system is more dependent on these variables. The influencing variables are the most critical components, because system changes depend on them, and the degree of control over these variables is very important. In this search, the type of industry is located in the neighborhood.

The third domain includes influencing or high influence; They are therefore very sensitive to the evolution of influential and two-sided variables. In this research, representation theory, sign theory and the obligation of clarification of financial providers have been placed in the field.

The fourth domain includes independent or excluded variables. These variables are unaffected by and do not affect other system variables. Independent variables have very little relation to the system, as they do not stop a primary variable or cause a variable to evolve and progress in the system. In this research, none of the studied factors are included in the section.

Figure 2 is the cognitive mapping, directional charts that show the cause and effect relationships of the system in question. A causal map is a directional diagram that shows a person's beliefs in relation to their environment. The components of this diagram are a set of points and arrows between these points. A dot represents a concept and the arrows express the causal relationship between concepts, in which how one conceptual variable affects another. The conceptual variable at the start of the arrow is called the cause variable and the variable at the end of the arrow is called the effect variable. Recalling that causal relationships exist in three forms (+, - and 0) [50].

To know the importance and the priority of the factors, the centrality of the factors must be calculated. Centrality is obtained by the sum of the values linked to the influence and effectiveness of each factor; Therefore, the sum of influence and influence of factors shows the importance of factors on transparency. The results of the priorities in the cognitive mapping and its comparison with the initial rankings based on the expert opinion are presented in Table 4 and Table 5. The results of this research showed that the characteristics of the company are important and worthy of attention due to their influence and strong influence on other factors in the category of Effective and Strategic Factors on Financial Reporting Transparency.

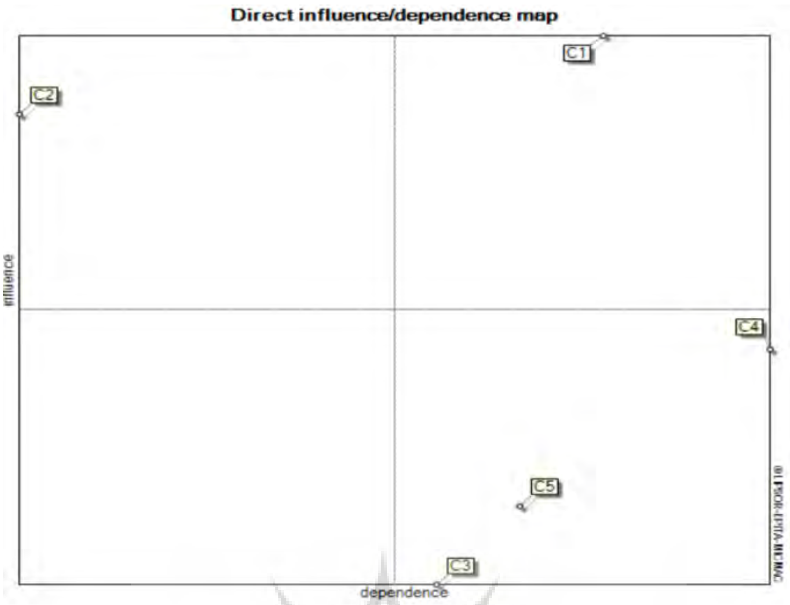

Fig. 1: Influence/Direct Influence Map

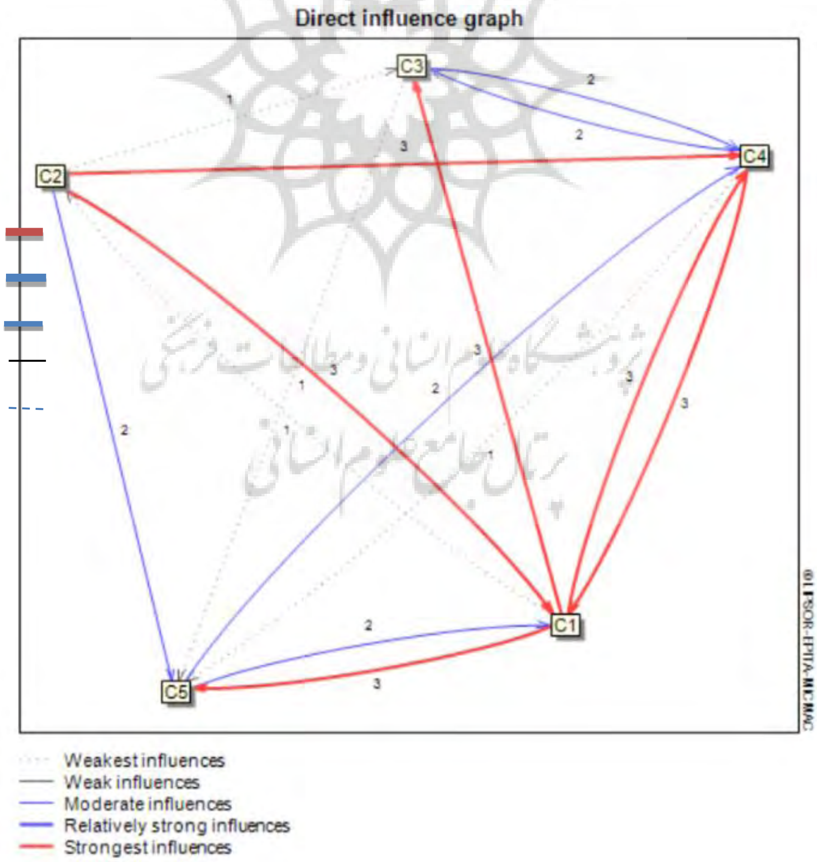

Fig. 2: Outcome Graph

Table 4: Notation of Influence and Direct Influence

Influence Rating	The degree of influence	Impact score	The degree of influence	Variables in the MDI matrix
2	8	1	10	Company characteristics
5	1	2	9	Type of industry
4	6	5	3	Representation theory
1	10	3	6	Sign theory
3	7	4	4	Obligation of clarification of funders

Table 5: Ranking of the Importance of Factors Affecting the Transparency of Financial Information

Rating of primary importance	Importance Rating CM	centrality	variables
1	1	18	Company characteristics
2	4	10	Type of industry
4	5	9	Representation theory
3	2	16	Sign theory
4	3	11	Obligation of clarification of funders

7 Conclusion

In today's turbulent environment, many investors are paying attention to the importance of "transparency of financial information" in their strategies. Lack of information or uncertainty about them has become a major problem in financial markets today. In the contemporary world, the relationships between phenomena are complicated and the analysis of these relationships is not easy. Globalization (including cultural, political and economic globalization) and the strong growth of human environments are other factors which have increased the complexity and difficulty of analyzing contemporary systems. The objective of this research is to analyze the factors affecting the transparency of financial information from the point of view of experts and specialists. Therefore, by means of the effective factors identified by the qualitative analysis method, an analysis based on the cognitive mapping technique was carried out, and we were able to show the relationship of each of the factors to each other, without taking into account the concept of clarification. Next, we extracted the key variables. The results of this research showed that from the point of view of experts and specialists, the characteristics of the company, which include the size of the company, the ownership structure, the board of directors, the financial ratios, the profitability and the quality of the company's audit, have the greatest impact on the transparency of information. Although companies have many characteristics, the experts in this research have focused on these 6 factors. In fact, the experts in this research believe that the concept of company characteristics is the most important mental factor that evokes in their minds this concept that company characteristics influence the transparency of financial information. In particular, the size of the organization, which all experts mentioned in their interviews, plays an important role in transparency. In addition, the characteristics of the company play the role of key and strategic factors.

Strategic variables are variables that can be manipulated and controlled and that influence the dynamics and change of the system; Therefore, the surface variables of a coordinate network are strategic variables, as they can be controlled by the management system and have an acceptable influence on the system [56]; Therefore, from Table 5, we find that in terms of factor necessity, firm characteristics rank first, industry type ranks second, and brand theory ranks third, and the other two factors, the agency theory and the requirement of transparency of financial service providers, in third place. But in CM's ranking, firm characteristics were first, sign theory second, funder transparency requirement third, industry type fourth, and agency theory fifth. . Indeed, in CM, the total influence and effectiveness of the factors are taken into account and not only the influence of the factors. From the results of this research, it can be seen that the characteristics of the company are an important factor in the level of disclosure and transparency of information and its quality. Therefore, due to the strategic nature of these factors and the influence they have on other factors, changing each of them will affect the quantity and quality of transparency. Therefore, it will help managers to pay more attention to these factors in the future and to write scenarios and strategies of the company, because it was previously indicated what benefits and consequences lead to the quantity and quality of disclosure and transparency.

In addition, this research implemented the sharing of experience and knowledge of experts and the identification of effective and superior factors in transparency. Its implementation necessarily involves a model that makes it more understandable. In fact, it is an act of deliberate design and construction to combine experience and knowledge, which makes a phenomenon conceptually understood and known. This research helps our understanding in different ways; Because it paid attention to the transparency of financial information with a qualitative and totally subjective approach. Moreover, the results of this research can be implemented and generalized because the results of previous research that have been conducted on the characteristics of firms have already been conducted in developed countries. While in developing countries like Iran, less attention is paid to it, although much research has pointed out many of these factors in different ways. The results of this research are consistent with the results of Nassreddine's research on the importance of firm characteristics. Moreover, the results of this research are consistent with the research of [57]. This search does not reject the results of previous searches. With the exception of research by [15], whose results showed, firm size and growth in profitability do not have a significant effect on the level of total disclosure. Of course, in this research, it was claimed that most firm characteristics have an effect on voluntary disclosure, but not on involuntary disclosure. It is suggested that other researchers conduct this research by dividing factors affecting voluntary and involuntary disclosure. Also, in this research, the quantity of relations is in the form of definite numbers that others can get the quantity of these relations in the range of fuzzy numbers by fuzzy mapping.

Practical Suggestions:

≠ Use the results of this research and the suggestions provided by the researcher to increase the transparency of financial information in the capital market.

≠ Use the results of this research and the suggestions presented by the researcher to increase the importance of the method of structural analysis and cognitive mapping in organizational studies.

≠ Using the results of this research will help senior managers better understand the factors affecting information transparency from an innovative perspective.

≠ Using the results of this research shows the type of relationships between factors that influence transparency, so that it can be taken into account in decisions, if a variable changes, what effect will it have on d other factors and ultimately the system as a whole.

Future offers: For the future, other researchers, if they wish, can do the same with fuzzy logic and from Dimetal, hierarchical, fuzzy AHP, NHP, TOPSIS, V-cor, etc. methods, so that the quantity and degree of influence and effectiveness of the factors can be determined. They can also do this with professors and experts in their region and city and compare the results to discover the factors that other experts consider important for transparency. It is also possible to increase the statistical population to a larger number.

Search Limits: Much research has been done in the field of financial reporting clarification, but it can be said that this research is new in terms of technique and method, for this reason one of the limitations of the research is the lack of resources. Structural analysis and cognitive mapping have been less used in management and it can be said that this method is unknown and pristine in management and the researcher had to spend a lot of time to get familiar with this method. In addition to this, the Mik_Mak software is one of the few software that claims to be the first to be used in management for data analysis; Therefore, working with him had its own problems for the researcher. The next limitation is the statistical sample because the statistical sample of this technique is made up of experts and specialists, in addition to the fact that it is difficult to find them, unfortunately some of them do not have the time to cooperate due to busy work. In addition, the validity of the variables is another limitation. If the validity of the variables is not confirmed, the number of statistical samples must be increased.

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