

INVESTIGATING FOR BEST FITTED PERFORMANCE MEASUREMENT METHOD FOCUSING ON ANALYTICAL APPROACHES IN MEGA COMPANIES

Amirnojan NADERI¹, Eghbal SHAKERI^{2*}, Amir GOLROO²

¹ PhD candidate, construction management, Amirkabir University of Technology, Tehran, 15875-4413, Iran.

² Assistant professor of civil engineering at Amirkabir University of Technology, Tehran, 15875-4413, Iran.

***Corresponding Author:**

Email: eshakeri@aut.ac.ir

ABSTRACT

This article is a study to gathering the appropriate performance evaluation methods for mega companies. After a closer look at the appropriate methods for evaluating performance, we divide them into subcategories based on the features and functions that we have. Therefore, more performance evaluation methods are produced in detailed. Then, by focusing on appropriate analytical methods and using optimal solutions, we analyze and compare these methods. In the goal of the article, the key to helping decision making in Mega companies is considering meta-assessment methods with these companies. So, with the help of these methods and analyzes that have been made, the eloquences of performance evaluation methods are introduced for mega category companies. The results can be used to evaluate the effective performance of each mega company by considering the specific circumstances of the company. So the results could be used to make decision support for managers. The direction of this research after studying the literature and reviewing the research gap in the field of performance evaluation models, includes presentation of research achievements, which is a guide and a model for mega companies to use.

Keywords: *Mega Companies, Performance Measurement, Decision Making*

INTRODUCTION

The results of various researches show that the main weaknesses in mega companies management are issues related to management, control and planning. Therefore, the importance of using up-to-date methods in the management and evaluation of organizations is emphasized. In corporate companies, the goal of investing is to increase the investor's wealth through profitability, and profitability increases the value of the set. According to the studies, little knowledge of how to manage affairs, the lack of necessary rules and proper capital structure are among the most important parts to be considered in managing mega companies. In the system knowledge domain, the complex subject refers to a subject in which the number of factors and relationships between them is very large and sometimes unknown. There is a similar situation in mega companies issues. The control and evaluation of organization and management based on the correct information in management is complex. Extensive development of tools for measuring and evaluating performance, the task of managers to choose which tools to use in their organization is very difficult. In this process, he may be so enthusiastic about the criteria that have forgotten the main purpose that used that criterion for that purpose. Tiwana claims that the application of multiple metrics to measure knowledge assets can be reversed, and only those criteria that are easy to control and provide a proper answer to the correct questions should be selected.

Research gap

Regarding the subject of the research, the purpose of the study is to study the characteristics of mega companies and the provision of management solutions to enhance the organization's performance through systematic evaluations. In this study, by studying and using performance evaluation methods and considering the way of choosing optimum, a step is taken to more accurately assess companies and improve continuously. After presenting the general concepts of research and reviewing the literature of the subject, this section of the research first studies the research history. Then, the research methodology is described. In this research, the focus is on the steps to be taken to achieve the proposed model. These steps are the steps that step-by-step a company can take in the right direction and will achieve the desired goal by strengthening the organizational infrastructure. The evaluation methods introduced in the third part of the study and analyzed in the fourth section, are responsible for continuous improvement in the holding.

The choice of management methods is a delicate subject that needs thinking. There are various management methods and assessment tools that each of these methods has its advantages and disadvantages. The important thing is to select the most appropriate method for achieving the desired goals. Various research on organizational management and performance measurement and performance enhancements has been done. by studying them and studying the characteristics of mega companies, it can be done to better manage them in this research.

In the following, we will review the evaluation methods and analyze their efficiency areas in order to find the shortcomings. In traditional performance evaluation methods, more attention is paid to financial evaluation and past events. The traditional view, judgment and recall of performance and verifiable control are targeted and has a grammatical style. This view focuses solely on the function of the past period and has been shaped by the requirements of the past. New perspectives, education, growth and development of evaluated capacities, improvement and improvement of individuals and organization and its operation, providing consulting services and public participation of stakeholders, motivating and accountable for improving quality and optimizing activities and operations. Based on the identification of weaknesses, strengths, and organizational excellence. The scope covered by measuring performance can be the macro level of a company, one unit, a process, or a staff member. The level of performance appraisal if it only includes individuals so that today it is common in human resources management departments, evaluation of employee competence is done with different criteria in organizations. Organizations, individuals, or organizational units, although seemingly doing their job, are only part of the whole system, and the conditions of other components of it must also be considered. Attention to the comprehensive criteria and the organization's strategies and aspirations are the components of a comprehensive performance management system. Such an approach to performance appraisal will be a real, fair, reliable and dynamic assessment. Financially reliant valuation criteria have shortcomings, including short-term and non-strategic ones, based on historical information, one-dimensional evaluations, pure reliance on accounting information, and neglect of important variables such as quality, innovation, and customer satisfaction.

Among the introduced models, the Balanced Scorecard and Organizational Excellence models are more popular. These tools make it possible to continuously improve the organization in



different ways. Traditional methods, as mentioned, emphasize the assessment of financial areas and the control of time and cost. Self-assessing methods such as the organizational excellence model emphasize the field of management and the result-based production process and improve the quality of the processes. On the other hand, integrated approaches, such as the Balanced Scorecard method, emphasize all aspects of evaluation in the areas of management, production, finance, man power and generally focus on promoting strategy. Introduced evaluation methods are pursuing their own path to improvement in organizations. Comparing two methods of balanced scorecard and organizational excellence model, in terms of model complexity and flexibility, these methods can be similar to each other. On the other hand, the reliability of the model and its confirmation in the research are different, and their approach to the various stakeholders is different. Also, the method of organizational excellence model has been approved by the European organization and has been fixed in accordance with its own standard, but for the balanced scorecard method, corrective comments are presented. In order to study these deep models and to focus on the literature of the subject matter, the allocation of suitable tools for performance evaluation and the possibility of combining these tools to provide a compilation model in this research is due. In the following, a summary of some of the researches carried out in the field of this research is intended to accurately explain the research gap.

RESEARCH METHODOLOGY

Scientific research is a systematic attempt to answer the questions posed by the motivation to start a research. The choice of appropriate research method and the use of statistical methods to assess the validity of the hypotheses raised will ensure the accuracy and accuracy of scientific research. For collecting study materials, related articles, printed books, theses and sites, and corporate information and mega companies have been used. The questionnaires, validation of methods such as Likert, hierarchical structures and Delphi technique have been used. The scores were evaluated and the results were analyzed using statistical methods and analytical methods using SPSS software. In the algorithms section, mathematical methods and matrix analysis are used. In the following, the research method is presented in this paper

- Study of library documents, analysis of literature on the topic of research.
- Interview with the directors of specialized mother companies.
- Development of institutional performance measurement in used methods in mega companies through a variety of interviewing methods.
- Software analysis on collected data and knowledge base.
- Using questionnaire information and statistical analyzes.
- Validation of research by analytical methods and methods comparison.

Statement of Problem

Performance appraisal is one of the best ways to obtain information for decision making in mega companies. Each organization needs to evaluate the system in order to be aware of the desirability and quality of its activities, especially in complex and dynamic environments. On the other hand, the lack of a system of evaluation and control in a system means that there is no connection with the environment inside and outside the organization, the consequences of



are aging and ultimately, the death of the organization. Various definitions of performance evaluation in general and evaluation of organizational performance have been presented. Performance appraisal is a methodological review that helps organizations achieve their goals. In fact, performance appraisal improves the accountability and integrity of the organization's goals. Performance appraisal is an instrument for controlling the organization, which is the process of gaining confidence in the implementation of strategies that achieve quantitative and qualitative goals. In general, the system for evaluating the performance is measuring, comparing the amount and manner of achieving the desired status with certain criteria and attitudes in a given domain, with certain indicators and over a specified period, with the aim of continuous review (Kaplan & Norton, 1996). Indicators such as the ratio of project profits to the investment in the project or the annualized profit to the company's nominal value. The use of performance evaluation techniques leads to performance-based management. Performance-based management focuses on achieving results, not on the number of activities. In the framework of performance-based management, all actions, decisions and results can be easily explained, justified, and reported. In management housings, management issues such as resource allocation, integrated organizational management, strategy and goals are of great importance. The quality and effectiveness of its management and performance are critical determinants of the realization of the organization's plans and objectives.

1. Balanced Scorecard Assessment Method

This methodology is a management tool for implementing a strategy, a structured and semi-standard report that allows managers to easily monitor and monitor the results of these activities. The main feature of the balanced scorecard is to provide an appropriate context for understanding the rules and causal relationships governing the business world as well as extracting operational programs for implementing the organization's strategy. In order to assess the holdings, financial perspectives, customer, internal processes, and learning and growth are more accurate in terms of the duties of these companies than other perspectives.

2. Standard Systematic Performance Assessment

Performance-based management is a systematic approach to improving performance through the continuous process of creating strategic performance with goals, measuring performance, collecting, analyzing, reviewing and reporting performance data and using that information to achieve improved performance (Marr and Schiuma, 2003; Neely et al., 2000). Because of the systematic nature of defined processes and frameworks, this approach is a standard for evaluating holdings as a set of companies and can reduce the complexity of evaluating and managing these collections. Despite the many models and frameworks in this regard, some conceptual models, researchers have had the most impact on the formation of this particular field.

Deficiencies and deficiencies in traditional systems The evaluation of revolutionary performance in performance management has led researchers and users to move towards creating systems that address the goals and the current environment and thus create multiple processes for the use of different organizations.

3. Model of Results and Determinants

This framework is based on the assumption that there are two types of performance



indicators in each organization. Indicators that relate to the results and those that focus on the determinants of the results. The reason for this separation between the indicators is to demonstrate the fact that the results are a function of the past performance of the business and are made according to specific determinants. Indicators of results include financial performance and competition, and determinants include quality, flexibility, resource utilization and innovation. The use of this method for assessing mega-companies, combined with other methods, can be combined with the novelty of the evaluation model, effective in comprehensive evaluation.

4. Performance Pyramid Model

One of the needs of each performance evaluation system is a transparent relationship between performance indicators in different organizational hierarchy levels, so that each unit works to achieve the same goals. One of the models that includes how to create this relationship is the performance pyramid model. The goal of the pyramid is to establish a link between the strategy of the organization and its operation, (McNair et al, 2017). Business operating systems are the bridge between high-level indicators and everyday operational indicator (customer satisfaction, flexibility and productivity). Finally, four key performance indicators (quality, delivery, work cycle and waste) are used in daily units and work centers (Tangen, 2004). The goal of the pyramid is to attempt to integrate the goals of the organization with operational performance indicators. Due to the leveling in this system, if the different levels of holding need to be evaluated, this method is appropriate.

5. Model of stakeholder analysis

The model for stakeholder analysis is presented by Dr Lee. In this model, the stakeholders are grouped into two groups: key and non-key stakeholders. Key stakeholders have direct control of the organization and their demands are crystallized in the goals of the organization (such as shareholders). Non-key stakeholders use external mechanisms such as market and culture to protect their interests and not affect the targeting (Like customers). Therefore, the performance appraisal system begins with strategies and serves as a bridge between the behavior of managers and the expectations of the stakeholders (Lee & Lee, 2017).

6. Knowledge-based assessment standard

KM is an integrated approach to identifying, extracting, retrieving, evaluating, sharing, and creating all of the organization's knowledge resources to help them achieve organizational goals. The goal of KM is to connect the experts and experienced individuals with those who need specific knowledge. Creating such communication is facilitated through knowledge management processes and tools. Success in knowledge management requires creating a new environment for knowledge and experience to be easily shared (Wibow & Waluy, 2015). Five types of knowledge management assessment criteria, all of which must be partly included in an assessment. These criteria are: technical, process, knowledge, personnel, work

7. The Excellence Assessment Model of the Organization

Another model of well-known measurement frameworks that is widely used is the European Foundation for the Excellence Model of the organization. This framework consists of two distinct factors, which are generally divided into enablers and results.



Empowers are: leadership, employees, policies and strategies, resources and stakeholders and processes. Also, the results are: the results of the individuals, the results of the customers, the results of the community and the key results of the performance. (Neely & Adams; 2002). One of the weaknesses of this model is the problem of operating it, because the terms and concepts used in this model are so general that different types can be interpreted, and each organization will be able to with these headings, the index Make a different evaluation

8. Model of Quality Management System (ISO)

Today ISO quality management system is not simply introduced as a system for evaluating comprehensive performance. This system determines how to manage the processes affecting quality, and determines the requirements that all these requirements and requirements have to be met in order to qualify for certification. One of the requirements that has been highlighted in ISO is to measure the efficiency and effectiveness of the processes. According to this standard, systematically, all processes identified in the organization should be measured and their effectiveness and efficiency measured, and finally, the analysis of these indicators will lead to improvement of processes. The principles of quality management are introduced and the benefits of using them as well as the actions that managers generally use in applying quality management principles to improve their organization's performance.

Principle 1 Quality Management: Customer Orientation

Principle 2 Quality Management: Leadership

Principle 3 Quality management: Employee participation

Principle 4 Quality management: Process approach

Principle 5 Quality Management: A Systemic Approach to Management

Principle 6 Quality management: continuous improvement

Principle 7 Quality management: A realistic approach to decision making

Principle 8 Quality management: Bilateral relationship with suppliers

9. Circular and Staple Framework Modeling

This model is one of the integrated and integrated frameworks for auditing and upgrading performance evaluation systems. Often the other frameworks of this model are the organization's strategy and its success factors. In the next step, the strategic requirements of the organization are matched by six competitive priorities that are quality, cost, flexibility, time, timely delivery and future growth. Then select the appropriate indexes using a checklist that contains 105 indicators with complete definitions. Afterwards, the existing performance evaluation system will be audited to identify the current usage indicators of the organization. In the next step, how the actual use of the indicators is dealt with, and each indicator is described with eight components: title, goal, pattern, equation, frequency, source of information, responsibility and improvement. The final step, as feedback, is to review periodic reviews of the organization's performance evaluation system. In contrast to many other frameworks, this model is beyond simple guidance and can be used by performance evaluation users in practice. The main advantage of this model is that it can be used both as a tool for designing a performance evaluation system and for upgrading



existing systems. Also, in this model, a unique definition of how performance indicators are understood. But the main limitation of this model occurs in the second step that the evaluation network consists of only six competitive priorities.

10. The model of the objective management system (MBO)

The purpose of this method is that the organization works with all its being and its ability to achieve its goals. Objectives must be clearly defined, communicated and announced before any action is taken. The goals determine the direction of the organization by guiding the employees' quest to a given point. If the objectives of the organization are transparent and understandable, they can set specific standards for evaluating the organization's performance. To this end, the goals must be quantified. more is a result-oriented management system, not trend-oriented management. Defining and distributing goals (crushing goals) in the organization is based on dialogue and communication across different levels of the organization and does not follow any particular format. Emphasis is on short-term goals and less emphasis on long-term and strategic goals

11. Ideal Planning Evaluation Model

Ideal planning is a technique that offers a different approach to solving a variety of planning issues that have separate and conflicting goals. This approach aims to minimize the inappropriate deviation of each of the goals from the level of their ideals. The diversion variables signify values that indicate which of the multiple ideals are more or less than their own levels. The output of this technique will determine which of the goals has been met, which has not been achieved and how much it has not been met.

12. Fisher's Evaluation Model

In this model, performance evaluation indicators are divided into three categories: qualitative, semi-qualitative and quantitative indicators. Indicators are qualitative, argumentative, and based on judgments and individual perceptions. In semi-quantitative indicators, mental indices have replaced their quantitative indices. Quantitative indicators can also express activities in the organization as numbers and numbers.

13. Management Valuation Model Based on Values

In value-based management, all plans, decisions, and operations in the organization are guided by values. It should be noted that these organizations are not effective in managing value-based management, but it is the work of the staff who creates this effect. Approaches are divided into three main categories of cost approach, market approach, and income approach. Methods provide a specific methodology for valuing intangible assets according to their own assumptions. Models are the specific link between the variables that determine the value of a brand.

Comparison of performance evaluation models

Each of these methods has the advantages and disadvantages according to the given materials, and proper use of them to evaluate the performance of the organization is important. For this reason, the focus of study is on the proper use of the capacity of the methods of assessing the performance. By referring to the subject literature, an example of the impact of some of the



methods introduced on the parameters of the organization has been studied. By summarizing the materials presented in the previous sections, it is concluded that the various methods, along with the advantages and disadvantages, each have a managerial effectiveness for each holding with their own characteristics. Important point When the subject of an evaluation is a mega company, use the correct incorporation of these methods to maximize continuous conservation improvement by taking into account the defined features and constraints. For each company with its own characteristics, the optimum combination of these tools should be used in a way that provides an appropriate assessment of its performance and hence improved hedging. Further, a further research gap is discussed and the main approach of the research, which provides a compilation of performance evaluation, is clear.

Table 1: Evaluation models subcategories

Row	Evaluation Model	Model subcategories	Explanation
1	Assessment Card Balanced Score	Financial	Subtypes seen in the model
		Customers	
		Internal processes	
		Grow and learn	
2	Standard Systematic evaluation	Strategic goals	Studies summarized by
		Communication goals	
		Motivational goals	
3	Results and determination model Cleaners	Indicators of results (Delay indicators in)	General OVERVIEW seen in models
		determination Results (Basic And leading)	
4	Pyramid Performance Model	Vision	4 levels seen in the model
		Objectives of the acquisition units And work (Financial and market)	
		Operating Systems To earn And work (Productivity, Convergence Of satisfaction Customer)	
		Department And (quality, delivery, Work cycle and waste)	
5	Model stakeholder analysis	Key stakeholders (Shareholders)	Category found in the model
		Non-key stake holders	
6	Standard Assessment	Detailed steps and roadmap	6 steps in detail
7	Evaluation Model Excellence Organizational	mighty Mechanism (Political and processes)	Only in general And there is concept in the model
		Results (resulting from performance and customer)	
8	Quality Management System Model	8 principles should be mentioned	Effectiveness Process must Measured And analyzed
9	Framework model Circular And spillage	Indicators should be defined for each organization	6 steps , 105 indicators available in model
10	Model of	Evaluating goals rather than individuals.	short- term

	management system based on purpose	Success analysis	communication between levels without special mold
11	Ideal Evaluation Model Program Customizable	Focuses on goals.	Makes adverse deviation from the ideal of each objective identified least
12	Evaluation Model Fisher	Qualitative (Reasoning And mentally)	3sopes are defined
		Half Little (worth A little Judgments)	
		A little (Figures organizations)	
13	Management Valuation Model Based on Values	No defined subcategories	Notice on staff

An overview of analytical methods, mathematics in modeling

The modeling process is faced with a real-world problem. Then this problem becomes a mathematical problem and, by solving this problem, the answer to the real world is taken. Gonnaghi's analytical methods are presented for modeling and problem solving. Some of them in the field of applied research are referred to below, and by introducing and reviewing them, the context and methodology of the meta-information analysis is investigated.

Certified systems are focused on knowledge, contrary to the information systems that operate on the data. Also, in a conclusion process, they are able to use different types of numeric, symbolic, and comparative data. Another feature of these systems is the use of innovative methods instead of algorithmic methods. This capability enables a wide range of applications to be deployed in the range of expert systems. The process of concluding in expert systems is based on inductive and deductive methods. On the other hand, these systems can explain the reasons for a particular conclusion or direction and direction of movement toward the goal. Given the ability of these systems in the absence of complete information or various degrees of assurance in answering the questions posed, expert systems are a good symbol for working in conditions of uncertainty or multifaceted environments.

1. Neural Network

An artificial neural network is one of the new computational methods used to solve complex real-world problems. The artificial neural network is composed of three main parts

- The relationship between neurons (architecture)
- Activation function
- The method of determining the communication weights (training, learning or algorithm)

The training is done by a series of vector vectors that shows the corresponding output vector, and the weights are adjusted using a learning algorithm. In general, the neural network is trained in two ways: the first method is to use the classical algorithms and the second method is to use hyperactive algorithms such as genetic algorithm, ant

2. Exploratory algorithms

There are many neural networks that are not structured enough to obtain derivatives used in gradient-based methods, and methods such as error propagation are not



applicable. This is where there should be plentiful algorithms to be used. The use of scalar algorithms in the neural network has the advantage of escaping local minimum points as well as the lack of dependence on a given network structure. An optimization algorithm begins the process of optimization by generating one or a set of random solutions. Then, using nature-inspired concepts, they improve initial random solutions until they reach a stop condition. Some of the most famous superficial algorithms are particle swarm, colonial competition, ant colony algorithm, genetic algorithm. Although modern science and technology have solved optimal problems, there are still real-world issues that are difficult to resolve. Among these issues, we can mention the problem of optimizing the multilayer perceptron neural network training.

3. Fuzzy approach based on fuzzy set

In recent years, fuzzy logic has attracted many researchers. From fuzzy logic, the analysis of complex systems that can be modeled using mathematics and classical modeling techniques is impossible or at least very difficult to model more easily and more flexibly. Most of today's knowledge is uncertain and not sufficiently precise. In dealing with such a situation, the fuzzy approach based on the fuzzy set seems to be the most appropriate way. Over the recent years, many studies have been done on the application of fuzzy logic. In particular, the three methods presented in this regard are introduced.

4. Matrix Analytical Methods

Today's advancement in computer technology has led to an increase in data volumes and the creation of large databases. As a result, various methods for discovering knowledge of them have been introduced or are being introduced. In this regard, one of the relatively new scientific branches of data mining is of great interest. Although using these methods can reduce the dimension of large data, they do not get an accurate interpretation of the unprotected data. Recently, a new method called Matrix Negative Distribution is proposed for linear representation of non-native data, which, in addition to reducing the dimension, does not have the limitations of classical methods. In this way, the large matrix corresponding to the nonnegative data decomposes into two small non-negative matrices.

5. Interview Methods and Analytical Hierarchy

- Bogart's spectrum

The aim of the Bogart's range is to measure the social distance of the groups. The use of this spectrum is when two different groups live together in two different cultures and languages, or when people of different nationalities with a geographical distance are in the course of mutual relations; for example, in measuring the attitude to Occupation, social class, and religious groups of this spectrum. This spectrum is measured at an orderly scale (total inclination, moderate tendency, to some extent, reluctance) to measure the inclination of a group to other groups.

- Likert spectrum

The purpose of this spectrum is to measure a tendency towards an issue based on the values of society, and the use of this spectrum is also used to examine tendencies toward the political, social and economic issues that are measured at the sequential



level. Items in this range from at least 15 to 30 entries and more. In the formulation of clauses, one should try to avoid the indifferent, irrelevant and ambiguous ones. The number of points that are opposite and agree tends to be approximately equal, and the range to be answered is usually composed of 5 parts (totally agree, agree, to some extent, oppose, completely disagree) based on the purpose and method of investigation. The words can be changed.

- Torstein spectrum

In this method, first select the items and after the referees are asked to divide the items into 11 spectra. The value of a spectrum from the collection of judges for each item is obtained. The aim of this spectrum is to measure the tendency towards an issue based on the values of society by the judges. This spectrum is less than the paired comparison of workload and is more accurate than Bogart's. In order to check the validity of the items, the quantitative and qualitative method should remove the ambiguous ones so that it draws its cumulative chart and makes 50% of the middle and 25% of the first quartile and 75% of the quartile, and its numbers Identified.

- Guttman scale or hierarchical scale

In this way, respondents who respond to a single point of view will get more scores from respondents who disagree in the same way, and this is possible if the items are arranged in the same way as the Bogart's spectrum.

- Multi-criteria decision making methods for AHP and ANP

Cost is synonymous with error. The greater the power and control of the management, the higher the cost of the wrong decision. Solving multi-criteria decision making problems is complex and not easily possible. A pair comparison analysis or dual comparison helps to measure the importance of a number of options to each other. This makes choosing the most important problem easier to resolve or choosing a solution more effectively. It also helps you set your priorities, while there are contradictory requests in your resources. This tool is especially useful if you do not have objective data for use in decision making. This tool is also ideal for when you want to compare different mental options. For example, when you need to decide on the relative importance of a degree, skill, experience, and team ability when hiring people for a job.

- Delphi

One of the methods used to gain group knowledge is the Delphi technique. This methodology is a process that has a predictive structure and helps to make decisions through surveys, information gathering and, finally, group consensus. While most surveys try to answer the question "what is it", Delphi questioned what Can be, answers. Today, Delphi technique is highly sought after in futuristic research. The main objective of Delphi is to predict the future but in decision making and increasing its effectiveness, judgment, problem solving, need assessment, targeting, helping to plan, prioritizing, predicting future, creativity, organizing group communication, The collection of information, the training of the respondent group, policy setting, resource specialization, and consensus or group agreement are also used.

- Topsis

This model was proposed by Huang and Yun in 1981 and is one of the best multi-index



decision making models. One of the multi-criteria decision-making methods is AHP. This technique can be used to rank and compare different options and choose the best option and determine the intervals between options and group them. One of the advantages of this method is that the criteria or indicators used for comparison can have different units of measurement and have a negative and positive nature. In other words, the combined negative and positive indicators can be used in this technique.

Interview and questionnaire

According to the table below, we perform an investigation on analytical methods and performance measurement tools best fitted for mega companies with the experts introduced.

A very important question in the factor analysis is to determine the minimum sample size (Klein, 1990). Determining the minimum sample size needed to collect data on structural equation modeling is very important. Although there is no general agreement on the sample size needed for factor analysis and structural models, many researchers require a minimum sample size of 200. Kellin also believes that exploration factor analysis is required for each variable of 10 or 20 samples, but at least the sample size is 200. If structural modeling is used, about 20 samples are needed for each factor (hidden variable). Recommended Sample Size For confirmation factor analysis, about 200 samples are recommended for ten factors (Klein, 2010).

Table 2: Experts asked in questionnaires

Row	Organizational position	education	work experience
1	Managing Director	PhD in Civil Engineering	30
2	Site Manager	Master of Civil Engineering	15
3	Runtime Manager	Undergraduate Diploma in Civil Engineering	20
4	Managing Director	Bachelor of civil engineering	25
5	Director of Specialized Mother Company	Technical Bachelor	30
6	technical office	Ph.D. student	2
7	Project Control	Master's Degree In Industries	12
8	financial manager	MBA degree	14
9	Project Control	Ph.D. student	4
10	technical office	Ph.D. student	3
11	University professor	Assistant Professor	20
12	University professor	Associate Professor	28
13	University professor	Assistant Professor	24
14	Managing Director	Bachelor of Architecture	22
15	the manager IT	Bachelor of Computer Science	8

DISCUSSION

According to the questionnaires done, best method for decision making on using the appropriate performance measurement method is multi criteria decision making.

Table 3: Best fitted analytical method

Analytical method \ Features	Compliance with research	Software Infrastructure	Precision in data generation	Transparency Analysis path	Compliance with targets	Estimate of user	Points Total
Neural network	50	60	60	50	50	50	53.3
Exploratory Methods	60	60	70	50	60	60	60
Fuzzy set approach	80	50	80	70	70	70	70
Multi-criteria Decision making	80	80	80	70	70	70	75
Matrix analysis	80	60	90	80	60	70	73.3

Performance evaluation discussions can be viewed from different angles. There are two main and traditional basic views on this issue. Regarding the limitations of the traditional methods of performance evaluation, which mainly focused on financial measures, not only did they not adequately reflect the reasons for the success or failure, but also the logical and causal connection between the factors of success and achievements. The result was that they were unable to support the management plans, especially the strategic plans of the organization. This view focuses solely on the function of the past period and has been shaped by the requirements of the past. New perspective, education, growth and development of evaluated capacities, improvement and improvement of individuals and organization and its operation, providing consulting services and public participation of stakeholders, motivating and accountable for improving quality and optimizing activities and operations. It is based on recognizing the weaknesses and strengths of the organization. The origin of this view is contemporary requirements and develops systemic performance evaluation using modern techniques and methods.

According to knowledge gathered, with best possible form of analyze method, we perform the questionnaires. Data gathered are shown in table below.

PRESENTING FINDINGS

Table 4: Best Fitted Performance Measurement

Row	Evaluation Model	Final rank
1	Assessment Card Balanced Score	2
2	Standard Systematic evaluation	1
3	Results and determination model Cleaners	9
4	Pyramid Performance Model	7
5	Model stakeholder analysis	6
6	Standard knowledge Assessment	8
7	Evaluation Model Excellence Organizational	4
8	Quality Management System Model	3



9	Framework model Circular And spillage	10
10	Model of management system based on purpose	5
11	Ideal Evaluation Model Program Customizable	12
12	Evaluation Model Fisher	11
13	Management Valuation Model Based on Values	13

Data availability statement

The datasets generated analyzed during the current study are available on reasonable request.

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