PROVIDING A MODEL FOR IMPLEMENTATION OF GOOD GOVERNANCE IN THE HEALTH IN MINISTRY OF HEALTH (CASE STUDY AT TEHRAN UNIVERSITY OF MEDICAL SCIENCES)

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Abstract

Purpose of the study: The current paper seeks to evaluate the feasibility of good governance in the Ministry of Health (Case study at Tehran University of Medical Sciences). In this regard, good governance and providing its requirements including participation, rule of law, transparency, accountability, consensus, fairness, efficiency, and effectiveness.

Methodology: The population of this study were managers at Tehran University of Medical Sciences. According to the characteristics of the population in which the number of employees and experts is unlimited and uncertain, 300 questionnaires were distributed and 267 questionnaires were collected.

Main Findings: The result of the Friedman test for ranking the components of good governance showed that the highest average among good governance factors was related to the resource factor. Structure factors were placed in the second rank and process factors had the last rank among good governance factors.

Applications of this study: The results of this study can be applied in the government's decision and as a result, effective management of policy-making, assistance in the implementation of general policies of the administrative system of the country, achieving the positive consequences of the effective implementation of the country's policymaking management system, helping the growth and development of the organization, managers, and employees of the organization.

Novelty/Originality of this study: According to the studies and archival studies in the field of good governance, the model of good governance in the Ministry of Health and Medical Education in Iran has not been worked on before. This can lead to the expansion of knowledge and the production of science.

Keywords: Good Governance, Rule of Law, Fairness and Efficiency, Delphi Method, Health Ministry.

INTRODUCTION

Nowadays, humans are in an era that affairs state especially governance should be carefully taken into account. The rapid and increasing development of communication and its application capabilities in different areas of organizations have made today's individuals or employees more aware of good governance than past employees. The new form of government has created a new generation of employees and changed the structure of organizations (Wilkins & Gobby, 2019). Also, policymakers should seek a new approach to take advantage of the opportunities that good governance offers them, abandoning their traditional practices and functions and playing a more important and serious role. The pervasive tradition of policymaking processes and systems around the world has resulted in a new approach to policymaking management that they call good governance. Organizations have taken advantage of these facilities to achieve goals such as improving efficiency, developing administrative processes, improving customer service, meliorating the strategic role of human resources, and, of course, at the higher level of ministries and governments. New policy management faces challenges such as value creation, the necessity of intellectual transformation, coordination, effective implementation, and appropriate technology features (Jameel et al., 2019).

Nowadays faces challenges arising from the changes in science and industry and the emergence of new organizational and social needs. In today's changing world, governments alone will not be able to meet new needs. This requires new models that can utilize all the capacities of society in the public, private, and civil sectors to maximize the production and delivery of public services (Rafian et al., 2011). Governance is an issue that focuses on how governments and other social organizations interact with each other, how they communicate with citizens, and how they make decisions in a complex world, a process decides communities and organizations that determine who is involved in this process and how they perform their task (Nobari and Rahimi, 2010).

RATIONALE OF THE STUDY AND OBJECTIVE OF THE STUDY

Therefore, the researcher considering the necessity to implement and study good governance theory and needed research in this field, on the one hand, the expansion of the Ministry of Health and the direct impact of increasing the efficiency and effectiveness of this ministry on the satisfaction of the people, and on the other hand, facilities and study resources hold to investigate the dimensions and components of good governance in the Ministry of Health with respect to the theoretical foundations of good governance and organizational structure of the Ministry. Once identified, these dimensions and components will be presented in a research and theoretical model to strengthen both the theoretical
foundations and to assist officials in assessing the current status of governance in the Ministry of Health and identifying deficiencies and removing them to approach the desirable point. Therefore, this study seeks to evaluate the feasibility of good governance in the Ministry of Health /University of Medical Sciences. Due to the fact that the nature of the present study is exploratory research, therefore, this study is done without a hypothesis and instead of testing the hypothesis, the author tends to find answers to research questions.

**PROBLEM STATEMENT**

Good governance was considered as a problem in this study that has not been studied in the Ministry of Health of Iran so far. The Ministry of Health, as an institution directly related to health, can have a direct impact on the physical and mental condition of the people, and ultimately help considerably in how people view the government and the state. Therefore, this study tends to evaluate the feasibility of good health governance in the Ministry of Health as a case study in Tehran University of Medical Sciences.

Therefore, this paper is presented in 9 sections. In the first part the introduction and in the second section, the literature review is provided. The problem statement and conceptual model of the research are described in sections three and four. The results of the Delphi method, descriptive statistics, and confirmatory factor analysis of research variables are presented in sections 5 to 7, respectively. In the eighth section, testing the hypotheses using linear structured relationships, and finally, the last section concludes the investigation.

**LITERATURE REVIEW**

Goebel (2020) examined the impact of good governance on organizational trust and empowerment in public organizations, concluding that there is a strong relationship between servant leadership, organizational trust, and empowerment. Research findings also indicate that there is a significant difference between employees and managers perceptions of servant leadership. The results indicate a positive performance and a strong relationship between the two identified factors. In a study by Franco and Antunes (2020), the effect of good governance, CEO's additional remuneration, and shareholder rewards on firm performance during periods of the economic downturn was concluded that there is a relationship between strong good governance and better corporate performance. They defined the criteria of effectiveness and efficiency for good governance. Analysis of their questionnaires indicates a strong positive relationship between good governance and firm performance. Inekwe et al. (2020) examined the impact of good governance on performance management and internal and external satisfaction in study programs and concluded that leadership has a significant impact on all variables (performance management, good governance, and internal and external satisfaction). The important point in their research is that the researcher is referring to good governance as organizational good governance. Goebel (2020) investigated the impact of good governance on the implementation of the right to development and emphasizes on the social dimension that there is a direct relationship between good governance and human development and poverty alleviation, the creation of strong civil society, the participation of citizens and the enjoyment of human rights. The results of their study indicate the desirability and effectiveness of the proposed model.

Jamshidi and Safari (2016). Designed a good governance model based on the Letter by Malik Ashtar and comparing it with the Principles of good governance in the World Bank. They presented good governance is a new theory that seeks to create institutions that assist the government to fulfill their duties of providing the people with a better situation and more prosperity. The main purpose of their research is to design a good governance model from the Malik Al Ashtar's Treaty using the Grounded method and to compare the good governance components of the World Bank with the results. The research method of their study is a descriptive-analytical one and the Grounded method has been used to derive the principles of good governance from the Malik Al Ashtar's Treaty. Nofianti, and Suseno (2014) entitled "Factors Affecting Good Government Governance and its Implications for Performance Accountability" examines several key issues considered to influence the competence of local and professional government from governmental internal controlling system to implement good government governance and its impact on local government accountability performance. Their explanatory study uses the questionnaire as the primary data and a report of the assessment on the response performance of the local infrastructure unit of Riau province in Malaysia as secondary data. Bird and Karolvi (2017) studied the relationship between governance and tax avoidance using discrete regression, whose results confirm the inverse relationship between good governance and tax avoidance. According to recent studies and library studies in the field of good governance, there has been no work on presenting a good governance model in the Ministry of Health and medical education in Iran and their study can lead to knowledge development and science production. Qazi Tabatabai et al. (2012) state in an article entitled "Evaluating the Theoretical Model of Good Governance in Explaining the Status of Human Development": Since the emergence of development thought, several theoretical models have been proposed in explaining the status of development and consequently policy and development plans have been adopted and implemented in different countries. One of the theoretical models that has been the focus of much attention in the past two decades, given the paradigm shift in development patterns and the emphasis on human and social development over the past two decades, has been good governance. The study by Pradhan (2011) in a study entitled "Good Governance and Human Development in the Indian States": have examined the impact of good governance on human development in India over the last two decades using panel data methods. The results of this investigation indicate that good governance and human development of earlier periods determine the current human development in India. Jasebi and Nafari, (2009),
in a study on designing a good governance model based on systems theory state: One of the main concerns of developing countries is to be on the path of the development approach. Lack of economic growth, poverty and lack of accountability, corruption, and the rule of law are among the challenges that these countries face. On the other hand, development studies and statistics from international organizations reveal that good governance is one of the most important factors for growth and development, as good governance has been called the foundation of development. The present paper reviews the governance literature and summarizes the definitions of governance with a fresh look at this issue. Thus, by reviewing the literature, it can be concluded that good governance has not been addressed in the health system.

Governance is a set of individual, institutional, public and private actions to plan and manage the affairs of the community, and is a continuous process of understanding between different and conflicting interests that move through collaborative and consistent actions, including formal institutions and informal arrangements, and social capital. Good governance as an opportunity for economic security, improving the business environment, and attracting domestic and foreign investment through six indicators of corruption control, rule of law, quality of laws and regulations, government effectiveness, political stability and freedom of expression and accountability by international institutions, and it is reviewed and announced the status of each country and each state based on its rank and status among the countries of the world annually (Dampson and Edwards, 2019). After many ups and downs in the idea of development, the theory of good governance means how to administer the country, the way of decision-making, and how the interaction between the state and the people as the basis of development, has been put forward (Jasebi and Nafari, 2009).

According to World Bank statistical reports, the good governance index in developed countries such as Denmark – Norway, Sweden, and Germany is 96, 97, and 91, respectively. This index among developing countries such as South Korea, Malaysia, Thailand, Turkey, Brazil and India, Russia, Iran, Armenia, Pakistan, Iraq, and Nigeria is 71.3, 62, 53, 50.76, 50.12, 45.32, 39.64, 37.6, 38, 28, 3.8 and 15.38, respectively (Please, 2020). By comparison, there is a difference of about 30 points between the good governance index in developed countries and the highest in developing countries. Iran also differs from most similar developing countries such as Korea, Malaysia, and Turkey by 33.7, 26.6, and 14.10 points, respectively. The Ministry of Health, as an institution that is directly concerned with health, can have a direct impact on the physical and mental wellbeing of the people, and ultimately contributes to the public’s view of government. The type of management used in the Ministry of Health has so far shown that there have always been some shortcomings in the Ministry of Health, both in the executive and in the education sector.

CONCEPTUAL MODEL OF RESEARCH

Since the nature of the present study is exploratory research, so this study is done without a hypothesis and instead of testing the hypothesis, the author tends to find answers to research questions (modelling for good governance in the Ministry of Health of Iran). The following is a list of the variables affecting good governance in the Ministry of Health, extracted from previous research (See table 1):
It also seems that studying good governance while clarifying the status in the community under investigation provides new insights into ministry officials and strategies for enhancing the consistency of the organization's staff and community engagement with the goals of good governance to deliver. The theoretical foundations of the research variables of the following model were assumed and tested as the final model. According to the research in the theoretical and empirical literature of the research, the concept of the good governance model was designed by integrating three main dimensions of structures, processes, resources together with health system interactions that include variables of health governance outcomes and health impacts. Each of the following variables has been identified and is appropriate for each dimension as follows (See Figure 1):

| Source: Author computation |
|-----------------------------|

| 11 Service transformation |
|---------------------------|
| 12 Freedom of action |
| 13 Information management |
| 14 Development service delivery |
| 15 Fairness |
| 16 Gender and equity |
| 17 Stability |
| 18 Being ecological |
| 19 Institutional and social |
| 20 Economical and live hood |
| 21 Social Accountability |
| 22 Evidenced-Based |
| 23 Health status |
| 24 Upgrade value |
| 25 Effectiveness of rules and tasks |
| 26 Consequentialism |
| 27 Financial performance |
| 28 Human capacity |
| 29 Financial capacity |
| 30 Natural capacity |
| 31 Project management |
| 32 Plan management |
| 33 Portfolio management |
| 34 Participation |
| 35 Rule of law |
| 36 Structure |
| 37 Process |
| 38 Sources |
Based on the above-mentioned variables and presenting a model for the realization of good governance in the Ministry of Health at Tehran University of Medical Sciences, the following pattern is presented as figure 2:
METHODOLOGY

Research variables and indicators

Variable is called a feature or character that is common between community members and can have various values (Wang and Chen, 2020). There are two types of variables based on the method:

- **Endogenous variable**: In the modeling of structural equations, dependent or intermediate variables are called endogenous variables (Sajons, 2020). In the present study, organizational efficiency and effectiveness, accountability, patient and client voices, responsibility, system and performance capacity, leadership, transparency of organizational issues, standards (evidence-based), how to deliver services, productive community interaction, status health, development of health services, relative freedom in the development of services market are endogenous variables.

- **Exogenous variables**: In the modelling of structural equations, it is assumed direct variables are measured without errors, they are called exogenous variables (Sajons, 2020). At the present investigation, age, gender, education levels are exogenous variables. The concepts used in the conceptual model are summarized in terms of the following terms and conditions (indicators used in Table 2). The thing belongs to practical definitions refer to indicators (Wang and Chen, 2020). The variables and research indicators are shown in table 2.

**Table 2: Indicators used in the research**

| Dimensions       | Indictor                                                                 | Component (variable)                                      |
|------------------|--------------------------------------------------------------------------|-----------------------------------------------------------|
| **Structure**    | - Identify the roles and responsibilities                               | Evidence-based (based on documents or standards)          |
|                  | - Development and application of health service delivery standards       |                                                            |
|                  | - Separating the roles of the chief and executive                       | System Capacity and Performance                            |
|                  | - Regular review of performances                                         |                                                            |
|                  | - Providing an effective system for protecting employees                |                                                            |
|                  | - Attempting to be transparent and clear in decisions                   | Transparency of Organization Issues                       |
|                  | - Describe the decisions and goals of the organization clearly          |                                                            |
| **Structure**    | - Non-intervention of the manager except in critical times              | Leadership                                                |
|                  | - Opinions from different perspectives                                  |                                                            |
|                  | - The importance of finding a serious understanding of the purpose      |                                                            |
|                  | - Obtain results, in accordance with performance goals                  |                                                            |
|                  | - Withdraw for your own interests for the benefit of the group          |                                                            |
| **Processes**    | - Satisfaction with service delivery in accordance with the Patient Rights | How to provide and deliver services                       |
|                  | - Availability of staff of Tehran University of Medical Sciences at the necessary times |                                                            |
|                  | - Responsibility for evaluating your performance                        | Responsibility                                            |
|                  | - Responsibility of the organization to the stakeholders                |                                                            |
| **Processes**    | - Patient and client satisfaction with problem-solving after visiting staff | Patient and client voice                                  |
|                  | - Flexibility in patient demands                                        |                                                            |
|                  | - Applying the views of people and users of health services              | Constructive interaction with the community               |
|                  | - Ignoring personal interests                                            |                                                            |
|                  | - Feedback on how the organization provides services                     |                                                            |
|                  | - Performing financial audit properly                                   | Accountability                                            |
|                  | - Ordering in financial bids                                            |                                                            |
|                  | - The existence of an efficient budgeting system                          |                                                            |
**Statistical Sample**

The case was performed at the Ministry of Health and Medical Education and on a case base at Tehran University of Medical Sciences. The reason for this choice was a more accessible approach to research centres. The population of this study consists of managers in Tehran University of Medical Sciences. According to the characteristics of the statistical population in which the number of employees and experts is unlimited and uncertain, the Cochran formula was used in the unlimited volume at the error level of 0.06, of which 267 were obtained and 300 questionnaires were distributed and 267 questionnaires were used and correctly received by the researcher, and a final analysis was performed. The Cochran formula is shown below:

\[
n = \frac{z^2 \times p \times q}{d^2} = \frac{1.96^2 \times 0.5 \times 0.5}{0.06^2} = 267
\]

Where N is population volume, n is sample volume, d is an error value, a factor of safety is 95%, Z=1.96, and p=q=0.5.

**Analyzing expert opinions and extracting questionnaires (Qualitative Studies)**

Kendall's coefficient of concordance was used to determine the consensus among the members. Kendall's coefficient of concordance is a measure of the degree of coherence and agreement between several rank categories related to the N objects or individuals. Using this scale, one can find the rank correlation between the K sets of rank. Such a measure is particularly useful in studies of the validity of judgments. It is worth noting that the statistical significance of the W coefficient is not sufficient to halt the Delphi process. For panels with more than 10 members, even very small values of W are considered significant. The Delphi method was conducted in total in three rounds (Table 3), in which the findings from each round are presented separately.

**Table 3: Date of distribution and collection of questionnaires**

| Round | Average number of follow-ups per member | Collecting of questionnaire | Distribution of questionnaire |
|-------|----------------------------------------|----------------------------|------------------------------|
|       |                                        | Number | Collecting Date | Number | Distribution Date |
| 1     | Times 9                                | 20     | 1,10,2019       | 21     | 12,22,2018       |
| 2     | Times 7                                | 20     | 2,4,2019        | 20     | 1,15,2019       |
| 3     | Times 4                                | 20     | 3,6,2019        | 20     | 2,9,2019        |

**THE RESULTS OF THE DELPHI METHOD**

The following techniques were used for data analysis of the experts' questionnaire by Delphi method and SPSS statistical software:

1. **Weighted Averages**: At first, the average of the answers to the questionnaires of the members of the experts in each Delphi round regarding each of the dimensions and indices obtained, and then announced to them for comment at a later stage and listed in the tables 4, 5 and 6.
2. **Kendall's Test:** Kendall's coefficient of concordance can be used to determine the unity of opinion. The scale Kendall's coefficient of concordance is a measure of the degree of coherence and agreement between several rank categories related to \( n \) phenomena. The following tables show the results of the three Delphi rounds for the Kendall coefficient test.

**Table 4:** Examination of Kendall coefficient in the first Delphi round

| Kendall's Coefficient of Concordance |  |
|--------------------------------------|--|
| N                                   | 20 |
| Kendall’s W                         | 0.641 |
| Chi-Square                          | 257.939 |
| df                                  | 21 |
| Asymp. Sig.                         | 0.000 |

**Source:** Author computation

**Table 5:** Evaluation of Kendall coefficient in Delphi second round

| Kendall's Coefficient of Concordance |  |
|--------------------------------------|--|
| N                                   | 20 |
| Kendall’s W                         | 0.745 |
| Chi-Square                          | 312.708 |
| df                                  | 21 |
| Asymp. Sig.                         | 0.000 |

**Source:** Author computation

**Table 6:** Evaluation of Kendall coefficient in Delphi third round

| Kendall's Coefficient of Concordance |  |
|--------------------------------------|--|
| N                                   | 20 |
| Kendall’s W                         | 0.790 |
| Chi-Square                          | 331.692 |
| df                                  | 21 |
| Asymp. Sig.                         | 0.000 |

**Source:** Author computation

The three rounds view of the Delphi method indicates that due to the following reasons, a consensus has occurred between panel members and rounds can be completed: The standard deviation of the members' responses about the importance of factors decreased from 1.37 in the first round and 1.28 in the second round to 1.1 in the third round. Kendall's coefficient of concordance for member responses on the ordering of key factors affecting good governance in the Ministry of Health in the third round is 0.816. Since the numbers of panel members were more than 10, this value of Kendall's coefficient is “full-significant” ([Zhang and Wang, 2020](#)). The Kendall coefficient is 0.644 in the first round and 0.797 in the second round and 0.816 in the third round. This consensus has increased from the first to the third round and confirms the strong consensus among the experts.

**DESCRIPTIVE STATISTICS**

After examining the effective factors of good governance in the Tehran University of medical science from the experts' point of view, we examine the population and statistical sample and test the opinions of the experts. First, the demographic characteristics of the respondents are examined as table 7:

**Table 7:** Demographic characteristics of respondents

| Characteristic | Component | Percentage | Frequency |
|----------------|-----------|------------|-----------|
| Gender         | Male      | %58        | 156       |
|                | Female    | %42        | 111       |
| Age            | Under 25 years | %1 | 3        |
|                | 26 - 35 years  | %19 | 52       |
|                | 36 - 45 years  | %61 | 162      |
|                | 46 - 55 years  | %12 | 31        |
|                | Older than 56 years | %7 | 19    |
| Level of education | Undergraduate | %40 | 107  |
|--------------------|---------------|-----|------|
|                    | Graduate      | %31 | 81   |
|                    | P.h.D         | %29 | 79   |
| Age rate           | Under 5 years | %1  | 3    |
|                    | 6 - 10 years  | %25 | 67   |
|                    | 11 - 15 years | %60 | 160  |
|                    | 16 - 20 years | %8  | 22   |
|                    | More than 20 years | %6 | 15   |

**Source:** Author computation

- Figure 3 shows the respondents' gender status as follows:

![Gender distribution in statistical sample](image1)

**Figure 3:** Frequency diagram of respondents' gender status

**Source:** Author computation

Figure 4 shows respondents' age status as follows:

![Age distribution in statistical sample](image2)

**Figure 4:** Frequency diagram of respondents' age status

**Source:** Author computation
Figure 5 shows the respondents' education level as follows:

![Figure 5: Frequency diagram of respondents' education level](image)

**Source:** Author computation

Figure 6 shows respondents' service life as follows:

![Figure 6: Frequency diagram of respondents' service life](image)

**Source:** Author computation

**CONFIRMATORY FACTOR ANALYSIS OF RESEARCH VARIABLES**

In the inferential analysis, before testing the hypotheses, it should be tested the structure validity using confirmatory factor analysis (Eugster et al., 2008). The test of fitness in confirmatory and path analysis, RMSEA indicator, or root average square error variance estimation is less than 8%, $\frac{\chi^2}{df}$ is less than 3% and (GFH, CFL, IFI, NNFI) is above 90%. The significance coefficients (T-Value) of each variable are also greater than 2 and less than -2, the model is well-fitted or in a reasonable approximation to population. Since the software output is unchanged in this section, table 8 is presented before viewing the software output to identify the abbreviation of the exogenous, endogenous, and observable variables.
Table 8: Guide to identifying the abbreviation of model variables

| Abbreviation | Indicators                           |
|--------------|--------------------------------------|
| Taamol       | Engaging with the community          |
| Tosee        | Development of service delivery      |
| Vaziyat      | Health status                        |
| Shafaf       | Transparency                         |
| Zarfiyat     | Capacity Building                    |
| Pasokhgo     | Responsiveness                       |
| Seda         | Patients' voices                     |
| rahbari      | Leadership                           |
| hesabdeh     | Accountability                       |
| Shavahed     | Evidence-based (standards-based)     |
| TAH          | Service Delivery                     |
| azady        | Freedom of action                    |
| Karayeei     | Efficiency and effectiveness         |
| Emkanat      | Facilities Management                |
| Etelaat      | Information management               |
| Manabeh      | Sources                              |
| Farayand     | Processes                            |
| Sakhtar      | Structures                           |

Source: Author computation

Evidence-based measurement model (standards-based)

The diagrams below exhibit the standardized and significant evidence-based model. As figure 7 shows, the membership of all the factors examined in this variable are confirmed.

Figure 7: Evidence-based model (Chi-Square=27.21, df=20, P-value=0.12951, RMSEA=0.037)

Source: Author computation

Measurement Model of Capacity

The diagrams below indicate the model of capacity building in standard and significant terms. As figure 8 illustrates, the membership of all the factors investigated in this variable are confirmed.
Measurement Model of Leadership

Figure 9 reveals the dimensional leadership model in standard and significant modes. As figure 9 displays, the membership of all the factors investigated in this variable are confirmed.

Measurement Model of Transparency

Figure 10 shows the dimensional model of transparency in standard and significant modes. As figure 10 demonstrates, the membership of all the factors investigated in this variable are confirmed.
After determining the measurement model in order to evaluate the conceptual model of research as well as to ascertain whether there is a causal relationship between the research variables and checking the fit of the observed data with the conceptual model of research, the research hypotheses are tested using structural equation modeling. The results of the hypotheses testing are reflected in figure 11.

According to Table 9, where the model fit indices are presented, the values of all fit indices indicate acceptable and good fit of the model and data and have acceptable fit. For this purpose, LISREL 8.5 software was used to evaluate the designed model. Accordingly, the $x^2$ of the degree of freedom, the Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Root Mean Square Residual (RMR), Normalized Fit Index (NFI), Non-Normalized Fit Index (NNFI), Incremental Fit Index (IFI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) are used.
Table 9: Values of model fit indices and fit result

| Fit indicator                      | Optimal value | Pattern value |
|-----------------------------------|---------------|---------------|
| $\chi^2/df$                       | < 3.00        | 2.13          |
| GFI (Goodness of Fit Index)       | > 0.90        | 0.97          |
| AGFI (Adjusted Goodness of Fit Index) | > 0.90        | 0.92          |
| RMR (Root Mean square Residual)   | < 0.05        | 0.038         |
| NFI (Normalized Fit Index)        | > 0.90        | 0.92          |
| NNFI (Non-Normalized Fit Index)   | > 0.90        | 0.95          |
| IFI (Incremental Fit Index)       | > 0.90        | 0.97          |
| CFI (Comparative Fit Index)       | > 0.90        | 0.94          |
| RMSEA (Root Mean Square Error of Approximation) | < 0.08 | 0.063 |

Source: Author computation

The ratio of the $\chi^2$ to the degree of freedom is highly dependent on the sample size and the large sample increases the amount of $\chi^2$ to what can be attributed to the model being incorrect, ideally, it is better the value of the $\chi^2$ to the degree of freedom be less than 3, so the results from this section can be considered valid and statistically significant. Because the value of the $\chi^2$ ratio to the degree of freedom reported for this model is 2.13. Given the above data collection, the Final research model is as figure 12.

![Final research model](image_url)

Source: Author computation
DISCUSSION

The results of the Kolmogorov-Smirnov test demonstrate that all the variables of the study have a normal distribution. The significance level of the Kolmogorov-Smirnov test for all variables was higher than 0.05 ($p < 0.05$), indicating that the variables are normal. Only two components, including organizational transparency, system capacity, and performance, have a significance level of less than 0.05, since the value obtained for these two variables is close to the standard value of 0.05 and is not significantly different from that. Also, due to the Skewness and Kurtosis values of these two components is acceptable, the normal distribution of these two components is confirmed with a slight neglect. The second-order confirmatory factor analysis was used to assess the validity of the structural scales because it has components. This factor has four components and a total of 33 questions. Results also showed that with respect to the factor loadings obtained for all component questions it was greater than 0.40 and at the significant level less than 0.05 ($p > 0.05$) (all $t$ values are greater than 1.96), it can be concluded that all structural validity questions are validated. All questions have a factor loading greater than 0.40 which is significant ($p < 0.05$), and thus the validity of all structural questions is confirmed. The composite reliability value for all components of the structures was greater than 0.70, which is acceptable and indicates that the reliability of the structures is statistically confirmed. The minimum composite reliability of 0.85 was related to the transparency of organization issues and the highest composite reliability was 0.95 related to the leadership component. The average variance extracted that measures the convergent validity of the components ranged from at least 0.54 for the transparency of the organization’s issues to a maximum of 0.58 for the two components of system capacity, performance, and leadership, and as a result, the average values of variance exceeded the value of 0.50, it can be confirmed the convergent validity. Overall, the results indicate the validity and reliability of the structural questionnaire. The second-order confirmatory factor analysis was used to assess the validity of the process scale since it has components. This factor has 8 components and a total of 37 questions. The composite reliability value for all process components was greater than 0.70, which is a good and acceptable value, indicating that the process reliability is statistically confirmed. The minimum composite reliability was 0.76 for the component of service providing and delivery and the highest composite reliability were 0.91 for the two components of patient and client voice and constructive interaction with the community. Examination of average rank values, which reveals the priority and status of each component, states that the three components of efficiency, effectiveness, responsibility, and evidence-based have the highest priority, with the average rank 11.46, 10.78, and 9.95, respectively. The lowest average rank among the 15 components was related to health status, accountability, and relative freedom of action, respectively. The averages of these three components were 6.14, 6.35, and 6.49, respectively. The order of the components based on the arithmetic average equals their rank in the Friedman test. The result of the Friedman test for ranking the components of good governance exhibits that the highest average among good governance factors is related to the resource factor with an average of 2.34 and the resource factor has the highest rank. A structural factor with an average of 2.12 has the second rank and a process with an average of 1.86 has the least rank among good governance factors.

CONCLUSION

By archival and field studies of previous research on effective factors on good governance and by using the opinion of experts for effective factors on good governance in the Ministry of Health of Iran (three rounds of Delphi method) as well as distributing questionnaires among 267 people to confirm effective factors on good governance in the Ministry of Health of Iran, the factors were extracted from the above findings in order of priority and are shown in Table 10.

Table 10: Ranking the factors and components of good health governance in the Ministry of Health with Friedman test

| Good governance factors                  | Mean  | Rank |
|-----------------------------------------|-------|------|
| Transparency                            | 9.94  | 1    |
| Capacity Building                       | 9.67  | 2    |
| Standards                               | 9.39  | 3    |
| Leadership                              | 9.11  | 4    |
| Responsibility                          | 8.83  | 5    |
| Accountability                          | 8.56  | 6    |
| Constructive interaction with the community | 8.28  | 7    |
| Health status                           | 8.00  | 8    |
| Freedom of action                       | 7.72  | 9    |
| Service delivery                        | 7.44  | 10   |
| Patient voice                           | 7.17  | 11   |
| Service Area                    | Weight | Rank |
|-------------------------------|--------|------|
| Development of service delivery | 6.89   | 12   |
| Efficiency and effectiveness  | 6.61   | 13   |
| Information management        | 6.33   | 14   |
| Facility management           | 6.06   | 15   |

Source: Author computation

**IMPLICATION OF THE STUDY**

1. The government in the general sense/design and formulate a suitable program in order to provide the appropriate conditions for the implementation of good governance indicators.

2. Parliament/design and codify appropriate laws in order to provide appropriate conditions for the implementation of good governance indicators.

3. All government organizations in the country/provide conditions within the organization for the implementation of good governance indicators.

4. Organizations and companies in other parts of the country/provide conditions within the organization for the implementation of good governance indicators.

**LIMITATION AND STUDY FORWARD**

The research tool of this study was a questionnaire and the sample was limited to customers of the Ministry of Health, Hence the generalizability of the results may be considered as a limitation of the research. Another limitation of the present study is related to the period. The period in this study was limited. As a rule, the sampling period should be long enough to include all the factors that affect the behavior of the respondents. For example, the existence of political and economic developments can affect the behavior and decision-making of individuals. Hence, a future study could be concentrated on the following items:

- Prioritization of the good governance indicators by experts in larger government organizations.
- Prioritization of good governance indicators can be done by fuzzy methods.

**CO-AUTHOR CONTRIBUTION**

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