

# Developing and validating the model of improving good governance in public administration using structural equations

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## Abstract

Good governance is a new theory in the world because every organization needs it to achieve success. Despite the introduction of different characteristics to realize good governance, there is no consensus on these characteristics. Therefore, in this study, the development and validation of the model for improving good governance in public administration is the main goal. This study is qualitative-quantitative and inductive in terms of execution method and cross-sectional in terms of time. The statistical population of the qualitative section is made up of 13 people who know public administration, governance and system approach, and who were selected purposefully. The statistical population of the quantitative part of the study includes officials and senior managers of government organizations in Tehran province, and according to their willingness to cooperate, a sample of 384 people was estimated by adopting the available sampling method. The method of data collection for the theoretical and background foundations was of the library type and related to phishing tools. The method of data collection was a survey and interview, and finally, the proposed model was fitted with the PLS structural equation method. Based on the obtained results, it can be said that causal factors (management skills, unity of direction and common goals and organizational culture), background factors (supervision and control, organizational rules, knowledge management and sustainable development) and intervening factors (Human resources, weakening factors and clarification) affect improving good governance in government organizations with a systemic approach. An issue that will follow the strategies of organizational justice, economic reforms, political and legal reforms, as well as the consequences of people's trust, organizational health, reducing economic problems, and increasing organizational efficiency and transparency.

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## 1 Introduction

Good governance is a term that in the last two decades has attracted the attention of scientific-academic and research circles, even governments and organizations. Of course, the history of this term goes back more than 25 centuries ago to Aristotle, who defined good government based on the attention of the rulers to the collective interests and the absence of corruption, as opposed to bad government, which means the abuse of public power by the ruler or rulers for personal interests and A group used [20] the term good governance in today's era with more details

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and indicators such as the rule of law, accountability and accountability of the government and rulers, monitorability of the government, citizens and civil institutions, transparency of the government in decisions and actions. Serious and continuous interaction between the government and civil institutions for decision-making and better management of society, the government's view of civil institutions as a complement for fair and committed decision-making and monitoring, civil responsibility of civil institutions, timely and efficient government services for citizens, anti-corruption Criticism in the government and civil institutions, fair distribution of wealth, reduction of poverty and class conflict and the like are evaluated [15]. Therefore, good governance can be defined as follows: good governance oversees the way government and society is managed in a measured, correct and efficient manner and within the framework of the rule of law, logical and fair decision-making with accountability and responsibility, public participation and strategies. It depends on the proper interaction of the citizens and the political-social forces of the civil society with the government.

At the business level, good governance is essential for the good performance of the organization, and one of the perspectives of the good performance of companies is that the supervision and thus the management of an organization is related to the supervision of the organization's financial and environmental resources. By 2013, governance codes had been established in more than 90 countries worldwide. This concept simply means how do organizations manage themselves? The most important point is that the governance of organizations is the only means that organizations use to achieve their goals and strategies [5]. Good governance is related to the three areas of government organizations, private organizations, and civil society, and its structural requirements can be extended to these three areas [7]. Good corporate governance refers to the compliance of good governance indicators at the level of private sector companies [12]. Good organizational governance is a term that the author used for the first time in research work in 2015 in the adaptation of national governance conditions at the organization level, with relative innovation, and it is believed that the same governance indicators at the national level can be adapted for organizations as well. gave Human capital management plays an important role in organizational sustainability through economic, social and environmental cooperation of organizations [16]. In general, the prevalence of good governance is also important for organizational sustainability. If human resource management can play a major role in organizational sustainability, this makes it possible to search and investigate how human resource management can contribute to creating good governance in organizations [2]. In today's world, where societies have become extremely complex and have an increasing number of social forces and civil institutions, citizens have become more aware that the old and undeveloped methods of one-sided and authoritarian governance are not responsible without the participation of citizens and civil institutions, so governments should pay attention to good governance with the mentioned indicators, especially through interaction and cooperation and supervision of citizens and civil institutions for decision-making. And community management is more necessary than ever. In this situation, a systemic approach can open a new way for us. Systemic thinking will make our knowledge of the environment and the small and large and complicated events around us more complete, as a result, we can make better decisions and behave more appropriately. The goal of systemic theory is to create a regular theoretical framework for public relations in the empirical world and to discover how relationships and interactions occur in various types of approaches. Therefore, in this research, an attempt is made to provide a comprehensive model for the design of a model for improving good governance in public administration with a systemic approach.

## 2 Research Methodology

The present study was conducted with a qualitative-quantitative approach. Therefore, it is exploratory, developmental-applied, inductive in terms of implementation method, and cross-sectional in terms of time. Considering that in the current research, the foundation's data analysis method was used, which is a qualitative research method, the statistical population of the qualitative part covers people who have scientific knowledge of public administration, governance, and systemic approach. Based on this, the sample size based on reaching theoretical saturation was close to 13 people and the sampling was purposeful. The statistical population of the quantitative part of the study includes officials and senior managers of government organizations in Tehran province, which has been estimated as a sample of 384 people according to their willingness to cooperate by adopting the available sampling method.

The method of data collection for the theoretical and background foundations was of the library type and related phishing tools. The method of data collection to achieve the goal and answer the question was a survey type and the corresponding tool was an interview. In the interview, by obtaining the respondent's profile, the experts were asked to determine which components and dimensions are effective according to their studies and knowledge regarding governance, public management and systemic approach. Finally, the proposed model is fitted by the PLS structural equation method.

### 3 Introduction of the used model

The traditional linear structural equation model is typically made up of two parts: the measurement model describing the relationships between the observed and latent variables and the structural model describing the relationships between the latent variables. Given a vector of  $p$  observed variables  $Z_i$  for the  $i$ th individual in a sample of size  $n$  and a vector of  $q$  latent variables  $f_i$ , the linear structural equation model system can be written:

$$Z_i = \mu + \Lambda f_i + \epsilon_i, \quad (3.1)$$

$$b_o + B_o f_i = \delta_{oi}, \quad (3.2)$$

where in the measurement model, the matrices  $\mu(p \times 1)$  and  $\Lambda(p \times q)$  contain fixed or unknown scalars describing the linear relation between the observations  $Z_i$  and the common latent factors  $f_i$ , and represents the  $(p \times 1)$  vector of random measurement error independent of  $f_i$  such that  $E(\epsilon_i) = 0$  and  $Var(\epsilon_i) = \Psi$  with fixed and unknown scalars in; and in the structural model, the matrices  $b_o(d \times 1)$  and  $B_o(d \times q)$  contain fixed or unknown scalars defining  $d$  different additive linear simultaneous structural equations relating the factors to one another plus the  $(d \times 1)$  vector of random equation error  $\delta_{oi}$ , where  $E(\delta_{oi}) = 0$  and  $Var(\delta_{oi}) = \Delta_o$  with fixed and unknown scalars in  $\Delta_o$ .

The simultaneous linear structural model as written in (3.2) is very general. For many practical research questions which can be addressed by simultaneous structural models, it is useful to model specific variables in terms of the rest of the variables, i.e., it is useful to consider some of the latent variables as endogenous and others as exogenous, where endogenous variables are those that are functions of other endogenous and exogenous variables. Let  $f = (\eta'_i, \xi'_i)'$  where  $\eta_i$  are the  $d$  endogenous latent variables and  $\xi_i$  are the  $q - d$  exogenous latent variables. Then a commonly used form for the structural model (3.2) becomes:

$$\eta_i = b + B\eta_i + \Gamma\xi_i + \delta_i, \quad (3.3)$$

where it is assumed the equation errors  $\delta_i$  have  $E(\delta_i) = 0$ ,  $Var(\delta_i) = \Delta$  and are independent of the  $\xi_i$  as well as independent of  $\epsilon_i$  in (3.1), and the matrices  $b(d \times 1)$ ,  $B(d \times d)$ ,  $\Gamma(d \times (q - d))$ , and  $\Delta(d \times d)$  are fixed or unknown scalars. The structural model (3.3) is said to be in implicit form, implicit because it has endogenous variables on both sides of the equations, i.e., it is not "solved" for the endogenous variables. It is assumed that the diagonal of  $B$  is zero so that no element of  $\eta_i$  is a function of itself. A sufficient condition for solving is that  $(I - B)$  is invertible, then (3.3) can be solved for the endogenous variables and written as

$$\eta_i = b^* + \Gamma^*\xi_i + \delta_i^* \quad (3.4)$$

where  $b^* = (I - B)^{-1}b$ ,  $\Gamma^* = (I - B)^{-1}\Gamma$ , and  $Var(\delta_i^*) = (I - B)^{-1}\Delta(I - B)^{-1}$ . The structural model (3.4) is said to be in reduced form as the  $\eta_i$  now appears only on the left-hand side of the equation. It is important to note the assumption that the equation errors  $\delta_i$  were additive and independent of the  $\xi_i$ . In the implicit form (3.3) results in the equation errors  $\delta_i$  in the reduced form (3.4) also being additive and independent of the  $\eta_i$ .

Given  $p$ ,  $q$  and  $d$ , additional restrictions must be placed on  $\mu$ ,  $\Lambda$ ,  $\Gamma$ ,  $b_o$ ,  $B_o$ , and  $\Delta_o$  in (3.1)-(3.2) in order to make all the unknown parameters identifiable. The assumption that (3.2) can be written in reduced form (3.4) is the typical restriction placed on the structural model. Additionally, a common restriction placed on the measurement model is the errors-in-variables parameterization where  $q$  of the observed variables are each fixed to be equal to one of the  $q$  different latent variables plus measurement error. For a thorough discussion of identifiability in linear structural equation models see, e.g., Bollen [4]. Finally, it should be noted that there is no inherent distributional assumptions needed for  $\epsilon_j$ ,  $\delta_{oi}$ , nor fl at this point of model specification although distributional assumptions may be added eventually to perform estimation.

A mixture SEMs for a  $p \times 1$  random vector  $y_i$  is defined as follows:

$$f(y_i) = \sum_{k=1}^K \pi_k f_k(y_i | \mu_k \Sigma_k), \quad i = 1, \dots, n \quad (3.5)$$

where  $K$  is the number of components which can be unknown,  $\pi_k$ 's are component probabilities which are nonnegative and sum to 1.0,  $f_k(y | \mu_k \Sigma_k)$  is a multivariate normal density function with an unknown mean vector  $\mu_k$  and a covariance matrix  $\Sigma_k$ . Conditional on the  $k$ th component, suppose that  $y$  satisfies the following measurement model:

$$y = \mu_k + \Lambda_k \omega_k + \epsilon_k \quad (3.6)$$

where  $\mu_k$  is an  $p \times 1$  intercept vector,  $\Lambda_k$  is a  $p \times q$  factor loading matrix,  $\omega_k$  is a  $q \times 1$  random vector of latent variables,  $\epsilon_k$  is a  $p \times 1$  random vector of error measurements with distribution  $N(0, \Psi_k)$  which is independent of  $\omega_k$ , and  $\Psi_k$  is a

diagonal matrix. Let  $\omega_k$  be partitioned into  $(\eta_k^T, \xi_k^T)^T$  where  $\eta_k$  is a  $q_1 \times 1$  vector,  $\xi_k$  is a  $q_2 \times 1$  vector, and  $q_1 + q_2 = q$ . The structural equation is defined as

$$\eta_k = b + B_k \eta_k + \Gamma_k \xi_k + \delta_k, \quad (3.7)$$

where  $B_k$  and  $Y_k$  are  $q_1 \times q_1$  and  $q_1 \times q_2$  matrices of unknown parameters; and random vectors  $\xi_k, \lambda_k$  are independently distributed as  $N(0, \phi_k)$  and  $N(0, \phi_{\lambda k})$  respectively; and  $\phi_k$  is a diagonal matrix.

We assume that  $B_{ok}(q_1 - B)$  is nonsingular and  $l_{ql}$  Is Independent of any elements in  $B_k$ . One specific form of  $B_k$  that satisfies this assumption is the lower or upper triangular matrix.

As the mixture model defined in (3.5) is invariant with respect to permutation of labels  $k = 1, \dots, K$ , adoption of an unique labeling for identifiability is important. Roeder and Wasserman [17], and Zhu and Lee [10] proposed to impose the ordering  $\mu_{1,1} < \dots < \mu_{K,1}$ , for eliminating the label switching (jumping between the various labeling subspace), where  $\mu_{k,1}$  is the first element of the mean vector  $\mu_k$ . This method works fine if  $\mu_{1,1}, \dots, \mu_{K,1}$  are well separated. However, if  $\mu_{1,1}, \mu_{K,1}$  are close to each other, it may not be able to eliminate the label switching, and may introduce incorrect results. Hence, it is necessary to find a sensible identifiability constraint. In this chapter, the random permutation sampler developed by Frühwirth-Schnatter [6] will be applied for finding the suitable Identifiability constraints. See the following sections for more details.

Moreover, for each  $k = 1, \dots, K$ , structural parameters in the covariance matrix  $\Sigma_k$  corresponding to the model defined by and are not identified. A common method in structural equation modeling for identifying the model is to fix appropriate elements in  $A_k$ ,  $B_k$ , and/or  $Y_k$  at preassigned values. The positions of the preassigned values of the fixed elements in these matrices of regression coefficients can be chosen on a problem-by-problem basis, as long as each  $\Sigma_k$  is identified. In practice, most manifest variables are usually clear indicators of their corresponding latent variables. This give rather clear prior information to specify the zero values to appropriate elements in these parameter matrices. See the illustrative example in Section 5 for a more concrete example. For clear discussion of the proposed method, we let  $\Pi = (\Pi_1, \dots, \Pi_K)$ , and  $O$  be the vector which contains all unknown parameters in the covariance matrices that defines an identified model.

## 4 Findings

According to the demographic information, out of the total of 13 people who have been selected as experts, about 85% are men and more than 15% are women, only 15% of them are single and 85% of them are married. Among them, about 70 percent are in the age group of 30 to 50 years, and the share of the age group under 30 and over 50 years is about 15 percent each. In terms of educational qualifications, more than 30% have a master's degree and about 70% have a doctorate. In terms of work experience, nearly 77% of the respondents have more than 8 years and only 23% have work experience between 5 and 8 years.

According to the findings of the research, out of a total of 384 people in the statistical sample of the quantitative section, the age group of 30 to 50 years accounted for more than 64%. The share of the age group above 50 years is more than 35% and the share of the age group less than 30 years is less than 1%. In terms of gender, 95% of respondents are men and 5% are women, 91% of whom are married and only 9% are single. 51% of the respondents of the qualitative section have a master's degree, 41% have a doctorate and only 8% have a bachelor's degree.

Qualitative analysis of the data was done with the foundation data method. In the first step, after the open interviews and the study and analysis of the theoretical bases, 250 primary codes in 19 categories in the form of open interviews during the in-depth interviews with experts, university professors, managers and deputies of government agencies and the study of articles. The relevant ones were identified. Next, the categories related to the initially identified codes were determined and the codes were categorized in their respective categories. After studying and identifying the primary codes and determining the categories related to each of them, the codes that were similar or had overlapping content were removed, then the second stage questionnaire was prepared and sent to the statistical samples for a second opinion. After receiving the questionnaires of the second stage and analyzing and analyzing the answers of experts, university professors, managers and deputies of government agencies, the questionnaire of the third stage was prepared and sent. After collecting the results, it showed that the codes of the second stage (117 codes) were approved by the members of the statistical sample and according to the respondents, none of the remaining codes were deleted. Therefore, due to reaching the theoretical saturation stage, there was no need to design the fourth stage questionnaire. By examining the extracted codes from the experts' point of view, the model of improving good governance in government organizations with a systemic approach can be considered as Table No. 1:

Based on the obtained results, the conceptual model of improving good governance in government organizations with a systemic approach is drawn in Figure 1. After analyzing and checking the measurement model, the structural

Table 1: Codes and categories identified in the proposed model

Concept	category	Research dimensions
Choice of leadership style	Management skills	Causal factors
Managers' skills and knowledge		
Management commitment		
Proper management		
Behavioral competencies		
Common values and goals	Unity of direction and common goals	
responsibility		
Job commitment		
Employee participation	Corporate Culture	
creativity and innovation		
Optimal use of resources		
Continuous improvement of organizational processes		
Job security		
Suitability of work and expertise of people		
Organization efficiency	human resources	
Compliance with ethics		
staff's health		
Hiring competent employees		
Appropriate salary		
Providing facilities to employees		
Decent managers		
Growth opportunities for employees		
Corruption of the organization		Weakening factors
Ineffectiveness of laws		
People's lack of trust		
Inappropriate culture		
taking a bribe		
Types of discrimination in organizations		
People's expectations		
Improper salary		
Financial needs		
Employee abuse		
Accountability of officials	clarification	
organizational health		
Effect of laws		
Availability of required information		
Delegation of authority to employees		
Applying supervision and control	Monitoring and control	
Public supervision		
performance evaluation		
Observing the surrounding environment	Organizational rules	
Strengthening law enforcement		
Applying the law equally to everyone		
Strengthening and developing Islamic and Quranic laws		
Preservation of human dignity	knowledge management	
Compliance with ethical principles		
Strengthening knowledge management and storage		
Efficient and capable advice		
Providing quality services		
Smart employees and active managers		
Smart decision making		
Organizational knowledge		
Development of ethical programs in government organizations		Sustainable Development
Development and strengthening of infrastructure		
Human resources training		
Accepting and accompanying changes		
Development of virtual networks		

Use of environmental opportunities		
Developing strategic vision		
Sustainable Development		
Preservation of the human dignity of the people	People's trust	Implications for good governance design and implementation
Increasing people's trust in the government		
Attention to people's livelihood		
Solving financial problems		
Good relations between the government and the people		
Willingness to learn	organizational health	
Increasing empathy in the organization		
Optimal use of the treasury		
Central justice		
Empowering employees		
Appointment of competent managers		
Reduction of bribery	Reducing economic problems	
Choosing the right people		
Supervision of not accepting bribes		
Increasing the ability to respond to problems		
Reducing economic problems	Increase efficiency	
Reduce unemployment creating jobs		
Increase commitment		
Alignment of goals	Organizational transparency	
Acceptance of environmental changes		
Increasing efficiency and effectiveness		
Increasing the responsibility of employees and managers		
Increase motivation	Organizational Justice	
Increase transparency		
Increasing managers' accountability		
Increasing the ability to respond to environmental changes		
Compliance with the rules		
Transformation of work	economic reforms	
Selection and appointment based on merit		
delegation of authority		
Increase research and development		
Effective communication between managers and employees	Political reforms	
Giving importance to new ideas		
cultural issues		
Solving economic problems		
poverty alleviation		
People support the government	The rule of law	
Reforms of the country's economic issues		
Increasing national security		
Increasing peace and tranquility		
Determining appropriate financial and monetary policies	Strategies for designing and implementing good governance	
non-cruelty		
Political communication management		
Increasing people's trust in the government		
Reforming the country's political issues		
Orbital rule		
Avoiding party games and not networking		
Non-interference of responsibilities		
Attention to national production		
Appropriate punishment and encouragement system		
Job promotion based on merit		
Non-monetary incentives for employees		
Localization of rules		
Compliance with organizational rules		
Timely reprimanding errant employees		

models are evaluated

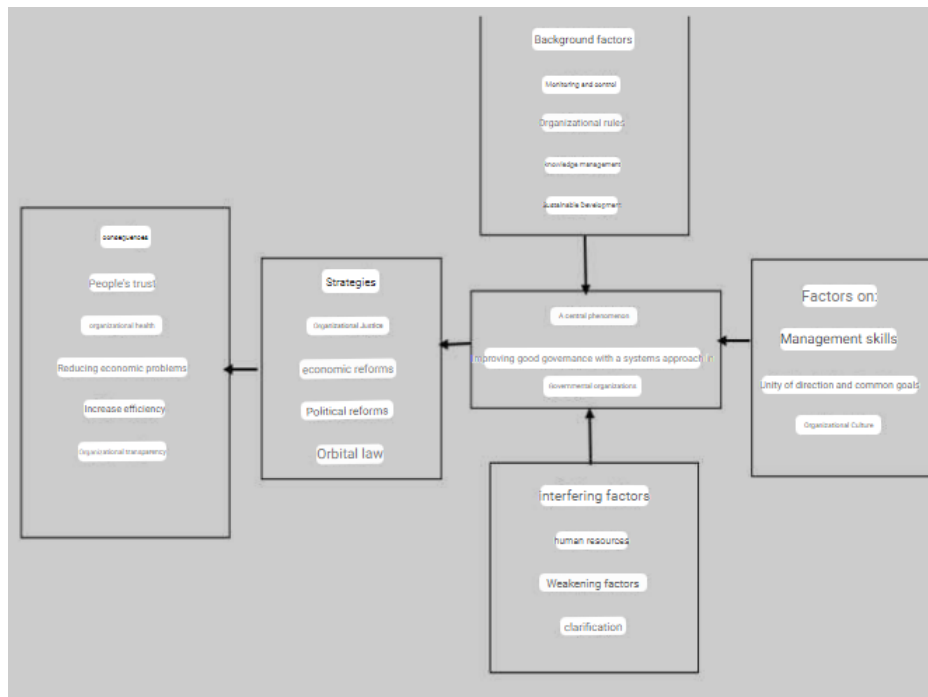


Figure 1: The model for improving good governance in public administration with a systemic approach

The results of fitting the structural model of the examined criteria are presented below:

**4.1 The first criterion) path coefficients (beta) and its significance (t-values)**

The first criterion of examining the fit of the structural model is the significance coefficients of t. If the obtained value is more than the minimum statistic at the confidence level, that relationship or hypothesis is confirmed. At the significance level of 90%, 95% and 99%, this value is compared with the minimum statistics of 1.64, 1.96 and 2.58, respectively.

Table 2: Standardized factor loading coefficients and t value between latent variables

Independent structures	dependent structure	coefficient ( $\beta$ )	t	significance level
<b>Causal conditions</b>	Phenomenon-oriented	0.258	11.834	0.000
<b>Background conditions</b>	Phenomenon-oriented	0.517	21.327	0.000
<b>Intervening conditions</b>	Phenomenon-oriented	0.350	12.674	0.000
<b>Phenomenon-oriented</b>	Strategies	0.996	2034.16	0.000
<b>Strategies</b>	Consequences	0.874	57.051	0.000

According to the results of the above table, the calculated t values between all the independent and dependent variables in the model are greater than 1.96 and are significant at the 95% level, and in other words, it shows the appropriateness of the structural model.

**4.2 The second criterion) index of determination coefficient ( $R^2$ ) endogenous hidden variables**

The second criterion of the structural model review is the  $R^2$  coefficient related to endogenous (dependent) hidden variables in the model and it indicates the effect of an exogenous variable on an endogenous variable, which has three values of 0.19 and 0.33. and 0.67 are considered as the criterion value for weak, medium and strong values of  $R^2$ . The more  $R \wedge 2$  related to the endogenous structures of a model, the better the fit of the model. Henseler and colleagues [9] believe that in a model, if an endogenous construct is affected by one or two exogenous constructs, the  $R \wedge 2$  value of 0.33 or higher indicates the strength of the relationship between those constructs. and endogenous structures. The existence of more independent variables increases  $R^2$ . Therefore, the higher the number of independent variables in explaining a dependent variable, the higher the value of  $R^2$  is needed to fit the model.

Table 3: Coefficient  $R^2$  of the dependent variables of the research

The dependent variables	$R^2$
Strategies	0.992
consequences	0.765
phenomenon-oriented	0.929

The value of  $R^2$  for the variable of strategies has been calculated as 0.992. Therefore, it is concluded that background conditions, intervening conditions and causal conditions have been able to estimate 37.1% of the changes in strategies and the rest of the changes (variance) of this variable are dependent on other factors and factors that are included in the model and in this research. Not considered.  $R^2$  for the results is equal to 0.765, which indicates that strategies, background conditions, causal conditions, intervention conditions can estimate 76.5% of the changes in the results. Also, the value of  $R^2$  for the central phenomenon variable is calculated as 0.929 and it is concluded that background conditions, intervening conditions and causal conditions have been able to estimate 29.9% of changes in the central phenomenon.

**4.3 The third criterion) predictive correlation index  $Q^2$**

The third criterion for examining the structural model is  $Q^2$ . This criterion, which was introduced by Stone-Geisser [18], determines the predictive power of the model in dependent variables. According to them, the models that have an acceptable structural fit should be able to predict the indicators related to the endogenous structures of the model. This means that if in a model, the relationships between the structures are correctly defined, the structures will be able to have a sufficient effect on each other’s indicators, and in this way, the hypotheses will be correctly confirmed. The value of  $Q^2$  in the case of all endogenous structures determines three values of 0.02, 0.15 and 0.35 as low, medium and strong predictive power.

Table 4:  $Q^2$  coefficient of dependent variables of the research

The dependent variables	$Q^2$
Strategies	0.971
consequences	0.748
phenomenon-oriented	0.903

As the results of the above table show, the value of  $Q^2$  for the investigated variables is positive and at a suitable level, and it indicates that the predictive power of the model regarding these variables is acceptable.

**4.4 The fourth criterion) effect size criterion ( $f^2$ )**

The fourth criterion for checking the structural model is the effect size  $f^2$ . With the help of the  $f^2$  criterion, it is possible to measure the effect size of an exogenous variable on an endogenous variable in the structural equation model. The values of 0.02, 0.15 and 0.35 respectively indicate the size of small, medium and large impact of one structure on another structure.

Table 5:  $f^2$  coefficients of research variables

Independent structures	dependent structure	$f^2$ independent variable	result
Causal conditions	Phenomenon-oriented	1.846	Optimal
Background conditions	Phenomenon-oriented	2.089	Optimal
Intervening conditions	Phenomenon-oriented	0.625	Optimal
Phenomenon-oriented	Strategies	12.508	Optimal
Strategies	Consequences	3.249	Optimal

**4.5 Fifth criterion) Collinearity criterion (VIF)**

The fifth criterion for checking the structural model is the VIF index. The existence of collinearity between the variables has called the model into question, so that its results cannot be relied upon; Because it has been affected by collinearity. If the VIF value is reported to be less than 5, it means that there is no collinearity problem.

The VIF value for independent variables is estimated to be less than the limit of 5, which shows that no collinearity problem has been observed between the data. In fact, the results of the above table indicate that there is no collinearity

Table 6: The results related to the collinearity index of independent variables

Independent structures	dependent structure	VIF independent variable	result
Causal conditions	A central phenomenon	1846	Less than 5 and suitable
Background conditions	A central phenomenon	1.805	Less than 5 and suitable
Intervening conditions	A central phenomenon	2.755	Less than 5 and suitable
phenomenon-oriented	Strategies	1	Less than 5 and suitable
Strategies	Consequences	1	Less than 5 and suitable

problem. Therefore, according to the indicators of the coefficient of determination ( $R^2$ ), the correlation index of the predictor  $Q^2$  and the intensity index of the path coefficients (beta) and its significance ( $t$ -values), which were all within the appropriate and acceptable limits, it can be as follows Inferred that the structural models have been confirmed, and it is possible to go to the fit of the general model and finally test the research hypotheses.

### 5 Final fit of the model

After checking the fit of the measurement part and the structural part of the model, the overall fit of the model is used through the GOF criterion, which is an index to check the fit of the model to predict the endogenous variables, its value is between zero and one, and the values are close to They are an indicator of the appropriate quality of the model, and it examines the overall prediction ability of the model, and the tested model has the prediction of endogenous variables. This criterion is calculated through the following relationship.

$$GOF = \sqrt{\overline{Communalities} \times \overline{R^2}}$$

Table 7: The results of the general fit of the model with the GOF criterion

$\overline{R^2}$	$\overline{Communalities}$
0.8954	0.900
$GOF = \sqrt{0.900 \times 0.8954} = 0.8976$	
Three values of 0.01, 0.25 and 0.36 respectively weak, medium and strong fit	

Wetzels et al. [19] introduced three values of 0.01, 0.25 and 0.36 as weak, medium and strong values for goodness of fit. So Communalitiei is the sign of the average communal values of each structure and  $R^2$  is the average of R values. Squares are endogenous constructs of the model. Considering that the value of GOF equal to 0.8976 was obtained and this value is more than 0.36, it shows the strong fit of the overall research model. Therefore, it can be said that the overall fit of the research model is very suitable. Finally, the model presented in Figure 2 was designed and implemented. In this model, the values of the t-value for all routes are higher than the standard value of the absolute value of 1.96 and it proves the existence of a significant relationship between the research variables. Figure 3 also shows the path coefficients that indicate the intensity of the relationship. The size of the path coefficient indicates the strength of the relationship between two variables. Based on the coefficient of paths, it can be said that strategies, background conditions, causal conditions and intervening conditions, the main category and consequences have an effect on the improvement of good governance in government organizations with a systemic approach.

### 6 summary and Conclusion

The purpose of this research is to design a model for improving good governance in public administration with a systemic approach in public administration. According to the obtained results, the set of background factors, intervening factors and causal conditions in the design and implementation of the good governance improvement model were identified and categorized. profit Also, in the results of good governance strategies, such as organizational justice, economic reforms, rule of law, political reforms and the consequences of implementing good governance, including people’s trust, organizational health, reducing economic problems, increasing efficiency, organizational transparency and factors related to each index. It has been described.

According to the results, it can be said: that all organizations today, including government organizations, operate in a complex and at the same time dynamic environment. Huge and continuous changes are one of the characteristics of this environment and business environment, which emphasizes the need to pay attention to coordination with



systematic perception of organizations, which will increase the quality and accuracy of attention to existing issues.

The result of this research is consistent with the research of Miryousefi et al [19], Azadiyan et al [3], Gholipour et al [8], Nasirnatri et al [14] and Mansoor et al [11]. As a result of their research, Miryousefi et al [19] found that the six components of good governance, i.e. result orientation, the effectiveness of roles and duties, promotion of values, transparency, capacity building and accountability, have a direct and significant impact on the development of human resources of sports and youth departments. According to the findings of the present research, it is recommended that the officials of sports and youth departments provide the necessary platforms for implementing the principles of the good governance model to develop human resources in these departments. Azadiyan et al [3] stated: Among the components of good governance (for the policy-making process of Iran's health system), the most important component was the rule of law. After the rule of law, central consensus and agreement, transparency, accountability, justice and fairness, effectiveness and efficiency, and ethics were in the next ranks. Good governance is a new narrative of concepts such as democracy, human rights and justice to pursue the goals of human development centered on people. The ranks obtained from the analysis of this research indicate the need to pay more attention to the rule of law in the health policy cycle. As a result of their study, Gholipour et al [8] also found that the results of the conceptual model of the research, which were obtained due to the influence of three factors, are: provision of benefits, implementation of justice-oriented laws, accountability, compliance with professional ethics, effective and centralized monitoring, increasing trust, growing wealth and portfolio, using technology, cooperation and participation, improving the penetration rate and implementation strength. The results obtained from the statistics of good corporate governance maturity indicators are a total of 721 open codes, 240 core codes and 69 selective codes. These data showed that in insurance companies, transparency, accountability, providing accurate periodical reports, having expertise, professional qualification, good reputation and experience of managers and interaction with stakeholders play an essential role in the maturity of corporate governance. Also, corporate enabling indicators can strengthen the trust of stakeholders and make the organizational culture transparent and encouraging. Nasirnatri et al [14] also stated: that the structures of commitment to quality assurance, participation, decentralization, development of life skills, empowerment of human capital, ethics, development of satisfaction, commitment to public harmony, development of flexibility, respectively interactive acceptance, development of welfare facilities, development of educational justice, development of public awareness, accountability, transparency and rule of law explain good governance in Iran's public education system. Also, the significance of these structures in explaining the phenomenon of good governance was confirmed in two modes of standard estimation. As a result of their research, Mansoor et al [11] stated that good governance methods affect the attitudes and behaviours of citizens towards the government. As a result, according to the results obtained from the research and the influence of all the identified indicators and codes in the design of the model for improving good governance in public administration with a systemic approach, the following suggestions are presented to implement the model and improve good governance in government institutions. It turns out:

According to the identified causal codes and indicators, it is suggested that the culture of selecting and appointing managers based on competencies, abilities and expertise be used in government organizations. Training courses should be planned and organized continuously for employees and managers in the organization because employee training leads to the improvement of the knowledge and technical skills of employees and provides them with the opportunity to improve their job position. Increase their technical and specialized knowledge and acquire new skills to carry out their profession, which ultimately leads to the alignment of their goals with the goals of the organization and helps the growth and development of the organization.

According to the identified interfering codes and indicators, it is suggested to prepare and present television programs about the performance of the government to increase public awareness; To provide opportunities for people to criticize the performance of government officials with the cooperation of the mass media to reduce debilitating factors such as absenteeism at work or taking bribes, etc.; The system of performance and reward management should be used in government organizations, and the observance of the rules and regulations set in government organizations and adherence to them should be emphasized both for the people and for the employees and managers of different departments.

According to the identified relevant codes and indicators, it is suggested that the supervisory institutions in government organizations be strengthened and the performance of employees be evaluated through the criteria of how to respond to the superior; In order to reduce administrative corruption in the public sector, the country's regulatory bodies should be strengthened and have more effective control and supervision than before in evaluating the performance of various organizations; Knowledge groups should be formed in different departments of government organizations to prevent many redundancies, especially in acquiring knowledge, and to help in retrieving knowledge at the desired time, in addition to the integrity and coherence of the knowledge content of the organization; Successful models of sustainable development in other countries should be provided in the space of the organization and various software

and hardware infrastructures in sustainable development should be developed and strengthened in order to create jobs and reduce the unemployment rate. Also, identifying the weaknesses and strengths of government organizations and using smart methods and environmental opportunities to develop strengths and reduce and eliminate weaknesses and identifying environmental and local threats and opportunities of government organizations to strengthen the potential in resources Personnel and equipment of government organizations are also suggested. According to the codes and indicators of the identified strategies, it is suggested that training workshops be held in the form of legal principles, strengthening and developing Islamic and Quranic laws in order to socialize employees with the organization and encourage them to be legal in the organization. ; Incentive systems or programs for competent and healthy employees in the administrative system should be formed to continue the service of employees, the salary system of government employees should be modified and follow the expertise of employees, and non-cash rewards for competent and expert employees, supervisors and managers in government organizations. Be considered. It is also suggested to adapt the salary payment system to the level of inflation and costs. Inviting and employing university professors and various economic experts and consultants and listening to their new and new opinions for the country's macro-planning and policies to correct economic issues and increase research and development programs in various government organizations. Also, providing bonuses for employees and managers of research and development departments in government organizations in order to motivate them is one of the other suggestions that are suggested according to the codes and indicators of the identified strategies. Considering that this study was based on foundational data theory and structural equation method, it is suggested to use other qualitative and quantitative analyses such as meta-composition, exploratory factor analysis, path analysis and focus groups in future research.

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