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Validation of the Structural Model of Open Data Governance in Line with the Health of the Administrative System in E-government

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Abstract

Purpose: The current research was conducted with the aim of validating the structural model of open data governance in line with the health of the administrative system in e-government in government organizations.

Method: This research, with a practical purpose, was based on a descriptive survey implementation method. The statistical population of the research included the managers of the country's tax affairs organization and several university professors, all of whom (18 person) were selected as a statistical sample. The data collection tool in this research was a researcher-made questionnaire, and confirmatory factor analysis, structural equation modeling, and Smart PLS software were used for data analysis.

Findings: The results of the research show that the structural model of open data governance in the direction of administrative health in e-government at governmental organizations includes six components: platforms (with the dimensions of intra-organizational platforms and external platforms), strategies (with the dimensions of common strategies—internal and

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external—, intra-organizational strategies, and extra-organizational strategies), intervening conditions (with common dimensions—internal and external), causal category (with dimensions of internal-external organizational factors, individual and social factors), central category, and consequences (with common dimensions—internal and external).

Conclusion: Intra-organizational and extra-organizational platforms have a positive and significant effect on common strategies. The strategies of this research have a positive and significant effect on the results. The impact of intervening conditions on the central category is positive and significant. The effect of the causal category of this research, including individual factors and social factors, on the central category, is negative and significant because the regression coefficient has become negative. The impact of the central category on strategies has become negative, but this impact is not significant.

Keywords: Open data governance, Administrative system health, E-government, Governmental organizations.



Introduction

Good governance is one of the most noteworthy issues regarding the development of countries. In the last two decades, economic, political, and social researchers and thinkers have developed various perspectives on good governance. Each of these approaches has defined good governance with specific dimensions and characteristics. According to the Oxford Dictionary, "governance" is defined as: the activity or means of exercising power. Governance has a broader concept than government and acknowledges that power exists inside and outside the authorities and official institutions of government (Samani et al., 2015). In the late 1980s and early 1990s, the term "good governance" was introduced by the World Bank (1992), with an emphasis on decisions that influence the economic performance of countries. Later, the political dimension was also added to the definition. Definitions of good governance in recent decades have included the democratization of politics (elections, accountability, and human rights) and economic liberalization. Currently, the new approach of world assemblies and international organizations such as the United Nations is a human and software approach (Lee et al., 2011: 38).

In other words, the term "good governance" was defined in the 1990s during public sector reforms and the implementation of new public management models in many countries. Good governance is a continuous process of resolving diverse, conflicting interests and implementing cooperative actions (Chien & Nghi Thanh, 2022). In the field of good governance, several definitions have been proposed by individuals, as well as national and international institutions. Good governance is considered to be the effective management of a country's economic and social resources in a way that is transparent, accountable, fair, and open (Santiso & Carlos, 2002). The concept of good governance has been introduced as an opposite to poor governance. According to the World Bank, weak governance is synonymous with the personalization of power, lack of human rights, institutionalized corruption, unaccountable and unelected governments, and naturally, good governance will be just the opposite of these issues (Xian & Lee, 2017) and Cooperation Committee mentions equality before the law, strengthening the public sector, transparency (accountability) in managing current expenses, and fighting corruption as principles of governance. It states that good governance requires a broad approach that includes the participation of various groups, such as government, civil society, and the private sector, in a transparent and accountable manner. Armsterang (2005) defines transparency as citizens'

unimpeded access to reliable and timely information about the decisions and performance of the public sector. He defines correctness as honesty and trustworthiness in the performance of official duties and as an antidote to corruption and administrative abuse. Several indicators have been proposed by different researchers for good governance. The United Nations Development Program and the World Bank list the following indicators as components of good governance: participation, rule of law, accountability, transparency, consensus building, justice and fairness, efficiency and effectiveness (Malmir et al., 2012). According to the World Bank's definition, good governance includes six general indicators: the right to comment and answer, political stability, government efficiency and effectiveness, the quality of law and regulations, rule of law, and corruption control (Rafiei & Shahnoushi, 2013).

Administrative health means that the administrative system performs its duties effectively and, in order to achieve organizational productivity, observes the governing administrative principles and regulations and acts according to the pre-designed administrative order. Administrative health has been a long-standing goal and aspiration for different societies, ensuring that the administrative system serves as a tool for the fair distribution of services to the general public. What guarantees the promotion of a healthy administrative system encompasses all acts, plans, the formulation and implementation of rules to enhance organizational potential, which in turn ensures that the organization performs its duties well and achieves its goals. Conversely, activities that address obstacles and barriers preventing the organization from performing its duties effectively also contribute to the promotion of a healthy administrative system (Sheikhi, 2017). Today, the consequences of corruption manifest in various problems and anomalies such as "abuse of job position," "embezzlement," "fraud," "injustice," "theft of the organization's property and assets," "selling confidential information," and "the creation of secret and confidential information," all appearing in individual, group, and organized forms (Karsten, 2008).

The health of the administrative system is influenced by many factors, some of which are rooted in the values and beliefs of organizational members. If these values are corrected and strengthened, many of the organization's ethical problems and anomalies can be resolved. From the perspective of Islam, organizational health means compliance with Islamic rules, regulations, and values in the performance of administrative duties and activities. It also involves the observance of Islamic values and moral

standards in relationships between employees, managers, and clients. Improving organizational health refers to any effort that enhances the organization's ability to perform its tasks correctly and achieve its goals, as well as factors that prevent the organization from performing its tasks and achieving its goals. One of the main reasons for failures in the health of the administrative system is the lack of a systematic approach to administration, which originates from a disconnection of individuals from Islamic teachings and the implementation of affairs based on trial and error methods (Mohammadi, 2013).

It can be assumed that administrative health results from a combination of factors, ranging from cultural to economic, political, and social ones. To achieve it, multifaceted remedies should be proposed. Islam links the health of the administrative system to the health of employees, especially senior managers and community leaders. It emphasizes paying attention to the material and spiritual needs of civil servants, observing qualifications in delegating affairs, applying multiple supervision over managerial activities, ensuring fair procedures in mutual relations, defining personal and service compensation, changing values and beliefs, and altering human resources education and training programs. Islam also stresses people's participation in the management of affairs and the punishment of offenders (Imani Barandagh et al., 2016). On the other hand, the last decade of the 20th century witnessed the development and expansion of information and communication technologies, as well as the emergence of computer systems and networks. These technologies have become powerful tools that make life easier and better in various human activities (Yacoubi, 2016). Industry and business have become increasingly dependent on these technologies. Despite varying levels of information technology use among governments worldwide, the fact that the world is moving towards an era of electronic governance is undeniable (Shah, 2006). Electronic government is one of the most prominent concepts that has emerged in public administration in recent years (Williams, 2008).

In such an environment, the success and global growth of e-commerce in the private sector created a significant incentive for the use of web-based technologies in the public sector to realize social benefits, rather than profit (Sharifi et al., 2013). Therefore, the public sector recognizes the importance of information and communication technology, as well as electronic business models, as tools to improve the quality of services, respond to citizens, ensure clear and fast access to government services,

increase the transparency of government activities, and encourage citizen participation (Valdes et al., 2011).

On the other hand, corruption in human societies is as old as civilizations and is currently one of the problems affecting countries worldwide. Along with other factors, corruption has been one of the main causes of the collapse of civilizations. Throughout history, governments have always been concerned about the personal abuse of power and the fringe benefits associated with official positions. Crimes such as embezzlement, bribery, and forgery are not new and date back to ancient times (Khalili Paji, 2017).

Today, the increasing growth of information and communication technologies has provided governments with the opportunity to make fundamental changes within their structures to provide the best possible services to citizens. Therefore, for more than a decade, electronic government development projects have been implemented in various countries (Doulati, 2012). The task of e-government is to provide online information and services through the Internet or other digital means. It has been claimed that the main goal of establishing e-government is to improve the method and process of administrative affairs, reduce bureaucracy and unnecessary administrative procedures, and ultimately minimize corruption (Yaghoubi, 2016). In one definition, e-government is the use of information and communication technology to change the structures and work processes of government organizations (Hariguna et al., 2020).

Electronic government is established with the goal of improving the way administrative affairs are conducted, reducing bureaucracy, eliminating unnecessary administrative formalities, and ultimately reducing corruption (Yaghoubi, 2016). In addition, in the fight against administrative corruption, electronic government can have positive and pioneering effects on combating and preventing financial and administrative corruption within organizations through existing executive solutions (Khalili Paji, 2017). Furthermore, there are fundamental and important weaknesses in national legislation and policymaking processes, such as the existence of many weak, conflicting, and ineffective laws, as well as the limited intellectual and executive participation of the public in various governance affairs. On the other hand, there are significant information needs among the general public (and even within the government itself) that new technologies can address. These technologies are mainly available to citizens and experts in various fields, especially ICT. In fact, the data needed to respond to many of the extensive and everincreasing information needs of the public currently exists or is produced within the government; however, the monopoly on this data has prevented anyone from benefiting from it. The open data approach advocates for the release of such data to meet these needs. These issues clearly highlight the necessity of transforming the country's governance and policymaking style, a transformation that goes beyond superficial changes to work procedures or their optimization.

Literature Review

In order to validate the structural model of open data governance in line with the health of the administrative system in e-government at governmental organizations and to obtain research background, databases and external sites such as Elsevier, Emerald, Science Direct, Springer, ProQuest, and others were searched. Additionally, Iranian databases such as Noormagz, Magiran, the Comprehensive Humanities Portal (ensani), and Irandoc were explored. The search results indicated that few studies have been conducted on the topic of the current research, and there is a clear research gap in the field of providing a structural model of open data governance in alignment with the health of the administrative system in e-government at governmental organizations in the country. Some related research studies are mentioned below:

In a study, Raei and Baradaran (2021) examined a model for evaluating the establishment and progress of e-governance in Iran's executive bodies. The research results showed that the components for evaluating the progress of executive bodies in the development of e-governance include: e-governance quality, e-governance leadership and motivation, productivity and facilitation, support and backup, e-service management, and e-legislation.

Abdarzadeh et al. (2021) also studied the modeling of electronic good governance in the virtual business space of the insurance industry. The findings showed the causal conditions (increasing internet penetration rate, development of information technology applications, new expectations of beneficiaries in the insurance industry based on information technology, necessity of establishing an integrated insurance system); background conditions (central insurance policies, information technology infrastructure, and new technologies in insurance, legal considerations, limitations in the development of transformative digital technologies); intervening conditions (specific features of insurance services, systematic and long-term attitude of managers, level of digital knowledge and skills,

digital culture); the central phenomenon (good electronic governance in the insurance business environment); strategies (improving interaction between insurance institutions, developing electronic insurance, effective investment in information technology, strengthening digital culture); and consequence categories (efficient and effective interaction of insurance institutions, digital transformation in insurance, increasing policyholder satisfaction, expansion of justice and social welfare) impact good electronic governance in the virtual business environment of the insurance industry.

Also, Bindu et al. (2021) investigated the process of e-governance in a study. This research examined the trend of e-governance research and depicted changes and developments from 1990 to 2020. The most important trends identified are: collaborative governance, game data, social networks, and Web 2.0 software.

Khanra and Joseph (2020) investigated the maturity models of e-governance and e-government in a research. This study identified, examined, and compared the maturity models of e-governance, comparing the levels and stages of these models and summarizing the criteria for each level. According to this research, electronic governance is possible through the strategic use of information technology.

Dias (2020) conducted research titled "Development of Global E-Government." The research results showed that the existence of official e-government strategies and programs, as well as the capacity to implement them, can make significant differences, enabling countries to achieve better-than-expected results. Conversely, in the absence of these e-government strategies, countries will perform poorly.

Daghati et al. (2019) conducted research titled "Designing a Model for the Establishment and Development of Electronic Good Governance Using a Hybrid Approach." The findings of this research revealed that the components of information and communication technology, human resources with knowledge and skills in using ICT, confidentiality of information, network security, validity and reliability of information, the degree of truthfulness of security rules, legal procedures, and civil society oversight on e-government operations are key factors among the 19 dimensions of the establishment and development of good e-governance.

D'Agostino (2018) and colleagues also wrote an article titled "Open Data and Public Health," which examined the relationship between transparent information and public health through the definition of transparent government information, public health information, and other

related key concepts. This article emphasizes the importance of transparent information policies and access in other countries.

Melayi and Taheri (2017) in their research titled "Development of E-Business with the Model of Innovation in Data, Government Open Data, and Innovation" stated that open data, due to its high potential for digital service innovation, is often described as an enabler of economic growth. Beyond financial advantages, innovation in open data, as part of data innovation, can have positive social effects and foster business development by increasing government transparency, the quality and quantity of public services, and stakeholder interaction, as well as empowering users, data providers, and entrepreneurs.

In general, over the past decades, efforts have been made to depict the evolution of governance through the presentation of various concepts. From the concept of "electronic government" to newer concepts like "participatory government," or the most recent and complete concept of government under the title "open governance," this view of governance consists of three conceptual packages: the first package, "transparency, responsibility, and accountability"; the second, "open governance data"; and the third, "participation" (Zwidruijk et al., 2014). Since the first and third conceptual packages have existed to some extent in previous perceptions of governance, and due to the novelty and breadth of the second conceptual package, "open governance data," this research attempts to present a model for proper governance based on open data and creating systemic health with the full and comprehensive use of e-government and information technology.

This research, a case study in the tax affairs organization, addresses the design of a model that can help the tax affairs organization use all available information sources to engage with taxpayers (owners of economic enterprises) and enforce the rights of the government, while ensuring the rights of citizens and taxpayers are fully respected and presented with complete transparency. For this purpose, by establishing an electronic system based on taxpayer services, they can easily access this system, ensuring transparency and accountability for their activities, particularly when the law is enforced. Therefore, considering all the points discussed, the researcher seeks to investigate the issue by answering the following question: "How will the model of open data governance, aimed at improving administrative health, be established through e-government (what will it look like)?"

Method

Considering that the results of this research are useful to the Ministry of Economic Affairs and Finance, the Ministry of Justice, and the Registration of Documents and Real Estate, it is of a practical type. In terms of the implementation method, the present research is a descriptive survey. The statistical population of the research included the managers of the country's tax affairs organization and several university professors, all of whom (18 persons) were selected as a statistical sample. The data collection tool used in this research was a researcher-made questionnaire. This questionnaire includes the components of platforms (with dimensions of intra-organizational platforms [8 items] and extra-organizational platforms [7 items]), strategies (with dimensions of common strategies [internal and external] [3 items], intra-organizational strategies [7 items], and extra-organizational strategies [4 items]), intervening conditions (with common dimensions [internal-external] [2 items], internal [8 items], and external [4 items]), causal category (with dimensions of internal-external organizational factors [6 items], individual [3 items], and social factors [2 items]), central category (3 items), and consequences (with common dimensions [inside and outside the organization] [4 items], internal organization [12 items], and external organization [3 items]). Therefore, the research questionnaire included 6 main components and 76 items. The validity of the mentioned questionnaire was based on content and form, and it was approved by the supervisors and advisors. Its reliability was also assessed using Cronbach's alpha coefficient for each component, which were reported as follows: platforms (0.990), strategies (0.984), intervening conditions (0.982), causal category (0.974), central category (1), and consequences (0.976). For data analysis, the Kolmogorov-Smirnov test was used to determine the data distribution, and then confirmatory factor analysis and structural equation modeling were performed using Smart PLS software.

Findings

In this part, data analysis has been conducted in two parts, descriptive and inferential statistics, which are described below.

Descriptive Statistics:

The descriptive statistics section of the research (demographic information section) and the results obtained from the managers of the country's tax affairs organization and university professors revealed the following:

- 72% of people were men and 28% were women. Therefore, the number of male respondents was higher than female ones.
- The majority of respondents (50%) were in the age group of 45 years and older, while the smallest group (11%) consisted of individuals aged 25 to 35 years.
- Most participants (60%) held a master's degree, while the least represented group (6%) had an associate degree (AD).
- 89 % of the participants had more than 9 years of experience, and 11% had between 6 and 9 years of work experience.

Additionally, the descriptive statistics of the research variables are presented below.

Table 1. Descriptive statistics of research variables and components

Variables	Component	Minimum	Maximum	Average	Standard deviation
The central category	7	4	5	4/46	0.50
Intervening conditions	Common (internal and external)	2	5	4	0.89
	Internal	1	5	3/52	1/22
	Foreign	2	5	3/75	0.89
Causal	Internal- external organization	2/67	5	4/36	0.65
category	Individual	2/33	5	3/91	0.71
	social	2	5	4/17	0.77
Strategies	common (internal and external)	3	5	4/52	0.63
	Internal organization	2/86	5	4/33	0.59
	External organization	2/25	5	4/36	0.76
the beds	Internal organization	3/13	5	4/39	0.58
	External organization	2/14	5	3/99	0.84

consequences	common (internal and external)	3/25	5	4/33	0.59
	Internal organization	2/25	5	4/14	0.78
	External organization	2	5	4/30	0.81

Also, the descriptive statistics of the variables of strategies, platforms and consequences are as follows:

Table 2. Descriptive statistics of variables of strategies, platforms, causal category, intervening conditions and consequences

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Variables	Minimum	Maximum	Average	Standard Deviation
Strategies	2/70	5	4/40	0.65
the beds	2/63	5	4/19	0.71
consequences	2/50	5	4/26	0.71
Causal category	2/33	5	4/15	0.69
Intervening conditions	1/67	5	3/76	0.98

According to table 1 and 2, the following results can be expressed:

- The average of the central category is 4.46, indicating that in order to create open data governance aligned with administrative health by establishing e-government in the tax affairs organization, the factors of having a common database, an appropriate accountability system, organizational transparency, and technical infrastructure are very important.
- The average value of the intervening conditions and its three subcomponents falls between 3 and 4, suggesting that the importance of common intervening factors (internal-external), internal, and external factors is considerable and above average for creating open data governance aligned with administrative health through e-government in the tax affairs organization.
- The average value of the causal category and its three subcomponents exceeds 4 or is close to 4; therefore, the importance of causal factors within and outside the organization, as well as individual and social factors, is very high in creating open data

- governance aligned with administrative health through egovernment in the tax affairs organization.
- The average value of the strategies considered in this research is greater than 4, indicating that the importance of joint solutions (internal and external), as well as internal and external strategies, is very high in creating open data governance aligned with administrative health by establishing e-government in the tax affairs organization.
- The average value of the platforms category and its two subcomponents, intra-organizational and extra-organizational platforms, exceeds 4 or is close to 4; thus, the importance of these platforms is high in creating open data governance aligned with administrative health by establishing e-government in the tax affairs organization.
- The average value of the results of this research is greater than 4, suggesting that the creation of open data governance aligned with administrative health by establishing e-government in the tax affairs organization will lead to all these consequences to a large extent. However, according to the average values of these consequences, more common consequences are expected to occur.

Inferential statistics

The reliability of measurement models is checked using Cronbach's alpha and composite reliability. The results are shown in table 3.

Table 3. Reliability analysis results of research indicators

Research variables	Composite Reliability Coefficient (CR)	Cronbach's alpha coefficients	
the beds	0.995	0.990	
Strategies	0.989	0.984	
Intervening conditions	0.988	0.982	
Causal category	0.983	0.974	
The central category	1	1	
Consequences	0.984	0.976	

The results of the reliability check show that these values of the composite reliability coefficient (CR) and Cronbach's alpha coefficient are greater than 0.7, and therefore the reliability of the items is confirmed.

Validity tests: convergent validity

This index is the average variance extracted and the minimum value of 0.5 is acceptable, which indicates that the hidden variables in question explain at least 50% of the observed variance of their subjects.

Table 4. Results of average variance extracted for variables

Research variables	Average Variance Extracted (AVE)
the beds	0.990
Strategies	0.968
Intervening conditions	0.965
Causal category	0.950
The central category	1
consequences	0.955

Evaluation of the structural model: the significance of the path coefficients Figure 1 shows the structural equation model of the research along with the significant results of the coefficients (t-values). This model tests all measurement equations (factor loadings) and structural equations using t-statistics. According to this model, if the value of the t-statistic is outside the range of -1.96 to +1.96, it indicates that the path coefficient and factor loading are significant at the 95% confidence level (at the 0.05 test level). The calculated t-values for each of the factor loadings of each indicator with its construct or latent variable are above 1.96. Therefore, it can be concluded that the questionnaire questions align with the measurement of the concepts in this valid stage. In other words, the results demonstrate that the researcher's intent to measure the concepts with the questionnaire questions has been achieved. Consequently, the relationships between constructs or latent variables can be confirmed.



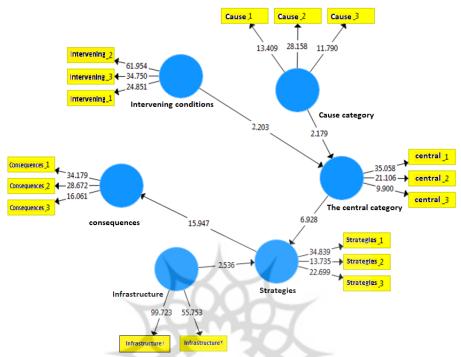
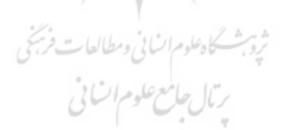


Figure 1. Research model in the state of significant coefficients (t statistic)

Also, the estimated path coefficients of the model are shown in Figure 2, which shows the size of the impact of each variable on the other variable.



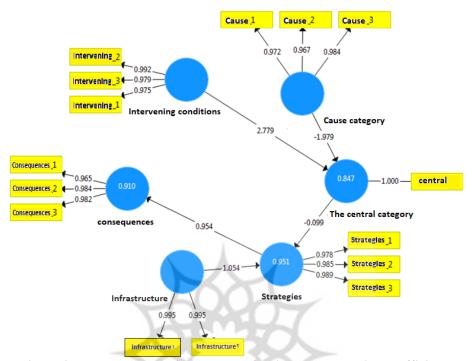


Figure 2. Research model in the state of estimated regression coefficients

The summary of the results of these figures is shown in table 5.

Table 5. Summary of structural equation modeling results

Hypothesis	Path coefficient	Significance level	Standard deviation
The impact of platforms on strategies	1.054	0.000	0.109
The impact of strategies on outcomes	0.954	0.000	0.026
The effect of intervening conditions on the central category	2.779	0.000	0.465
The effect of the causal category on the central category	-1.979	0.000	0.490

The effect of the central category on	-0.099	0.442	0.128
strategies			

Conclusion

According to the results obtained from the PLS software, it was determined that the model designed in this research has a good fit, and its questionnaire structures can also explain and show the relevant variables well.

Also, according to the regression coefficients obtained in Table 5, it was found that:

- Intra-organizational and extra-organizational platforms have a positive and significant effect on common strategies (intra-organizational and extra-organizational), extra-organizational strategies, organizational strategies. The regression coefficient is positive (1.054) and the significance value is equal to zero, which is less than 0.05. In fact, by creating clear rules in the organization, improving technological infrastructure, training and improving human resources, making data intelligent and improving electronic activities in the organization, creating a common and accessible electronic database, using the appropriate selection system and meritocracy, paying attention to organizational exchange and people's information, improvement of organizational accountability systems, efforts in culture building, greater integration of social structures, improvement of suitable economic and political conditions, more presence of the private sector instead of the government, use of experiences of other countries and civil trust building can be used to create a common database inside and outside the organization. The development of inter-organizational and international cooperation, creation of organizational and social justice, smartening of processes and data-driven approaches, improvement of selection of human resources and meritocracy, knowledge management of employees, establishment of transparent laws with executive guarantees, organizational transparency, and improvement of the accountability system, improvement of infrastructure, technological developments, the existence of incentive systems, building civil trust, creating a system of proposals, popular criticism, building culture, and creating national determination were hopeful.
- The strategies of this research, i.e. joint strategies (intra-organizational and extra-organizational), extra-organizational strategies, and intra-organizational strategies, have a positive and significant effect on the

results of this research, i.e. joint results (intra-organizational and extra-organizational), extra-organizational outcomes, and intra-organizational outcomes. The regression coefficient is positive (0.954) and the significance value is equal to zero, which is less than 0.05. As a result, the use of these previously mentioned strategies will lead to consequences such as increasing public and organizational trust, social and organizational justice, facilitating access to data and services, satisfaction of taxpayers and employees, reduction of administrative corruption and institutionalizing ethics, organizational transparency, and improving the accountability system, organizational excellence, speeding up processes, reliable data, increasing the executive guarantee of decisions, increasing organizational legitimacy, law-oriented improvement of employee behavior, realizing the organizational vision, decentralization to create organization, compliance and transparency of taxpayers' information, increasing tax culture, and public participation.

The impact of intervening conditions, i.e. joint (internal and external), internal, and external, on the central category, that is, the strengthening of open data governance in line with administrative health and emphasizing the establishment of electronic government in governmental organizations, is positive and significant because the regression coefficient has become positive (2.779) and the significance value is equal to zero, which is less than 0.05. As a result of increasing awareness of people and employees, lack of trust between people and organization, continuous change of managers, complexity and lack of transparency of laws, lack of proper accountability system, organizational corruption, lack of program change management, lack of vision and long-term plans, taste of programs, lack of clarity of patterns and responsibilities, lack of inter-organizational cooperation, political factors, public participation, and interests of those in power, efforts to create a common database and an appropriate accountability system in line with administrative health should never stop, and the emphasis on establishing e-government in governmental organizations should continue.

The effect of the causal category of this research, i.e. internal and external organizational factors, individual factors, and social factors, on the central category, i.e. strengthening open data governance in line with administrative health and emphasizing the establishment of e-government in government organizations, is negative and significant because the regression coefficient has become negative (-1.979) and the significance value is equal to zero, which is less than 0.05. As a result of weakness in enforcement of law, lack of internal and external organizational and

international interactions, lack of strict monitoring and lack of anticorruption spirit, along with the lack of easy access to data, the system of accountability and organizational transparency does not operate properly. Also, the unfavorable ability to attract and retain customers, the state of knowledge management, and the skills of employees, and the lack of social justice have prevented the technical infrastructure from developing properly.

The impact of the central category on strategies has become negative, but this impact is not significant. That is, there has been no significant relationship and impact between strengthening open data governance in the direction of administrative health and emphasizing the establishment of e-government in governmental organizations with joint strategies (intraorganizational and extra-organizational), extra-organizational strategies, and intra-organizational strategies because the significance value is equal to 0.442, which is greater than 0.05.

Also, according to the results obtained regarding the implementation of the open data governance model in the direction of administrative health by establishing an electronic government in the tax affairs organization, we should pay special attention to the following suggestions and take steps in order to achieve them:

- All services (most services) should be provided electronically (non-face-to-face consultation).
- Performance reports on how the offenders are treated, should be given out to community members.
- Non-discrimination in encounters should be on the agenda.
- Using the experiences of other countries that are pioneers and have a history in the field of creating open data governance in line with administrative health by establishing electronic government.
- Creating a bridge between the people and the organization regarding reception of public reports.
- Reducing contact between clients and employees in order to prevent corruption.
- Holding training workshops at the international or domestic level in order to promote employees and improve the knowledge management of these people.
- Creating material and spiritual motivation to use organizational hardware and software.
- Increasing the penalties of committing violations in the organization.
- Recruitment of trained and efficient human resources in the organization.

- Transparent cooperation with other organizations to access people's income sources.
- Adoption of completely transparent and clear laws to prevent any deviations and violations.
- Presenting information of all organizations and establishing a common communication base affiliated with other related organizations.
- Concurrence of government organizations in order to align policies in government organizations.
- Common and integrated software and hardware in organizations should be provided in order to create administrative health in organizations.
- National information networks and databases should be established and free education to the public should be provided.
- Appropriate infrastructure should be developed in order to globalize the provision of services in absentia.

CONFLICT OF INTEREST: The authors declare that they have no conflicts of interest regarding the publication of this manuscript.

References

- Abdarzadeh, P., Roshan Del Arbatani, T., Kimasi, M., & Agili, S. (2021). "Modeling the state of electronic good governance in the virtual business environment in the insurance industry". Business Management Quarterly, 13(4), 864-885. (In Persian)
- Armsterang, E.(2005). "Integrity, Transparency and accountability in Public administration: Recent trend, regional and international development and emerging issues".U.S: untited Department of Economic and social Affairs,
- Bindu, N., Sankar, C., & Kumar, K. (2021). "From conventional governance to e-democracy: Tracing the evolution of e-governance research trends using network analysis tools". Government Information Quarterly, 36(3), 381-311, Doi: 5305356/j.giq.23510320331,
- Chien, N. B, & Nghi Thanh. N. (2022). "The Impact of Good Governance on the People's Satisfaction with Public Administrative Services in Vietnam". Administrative Sciences, 12(35), 1-12.
- D'Agostino M., Samuel N.O., Sarol M.J., de Cosio F.G., Marti M., Luo T., et al. (2018)."Open data and public health". Rev Panam Salud Publica. 42:e66. https://doi.org/10.26633/RPSP.2018.66, Available for: https://iris.paho.org/handle/10665.2/49034
- Dias, G. P. (2020). "Global e-government development: besides the relative wealth of countries, do policies matter?". Journals Transforming Government: People. Process and Policy, 14 (3), 390-397.

- Doulati, A. (2012)." Good governance and corruption control in Iran and other countries". Danesh Quarterly, second year, 2(7), 47-68.
- Xian, G., Lee, J. (2017). E-government Services and Social Media Adoption: Experience of small local governments in Nebraska state". Government Information Quarterly, Available for: https://fardapaper.ir/mohavaha/uploads/2018/02/Fardapaper-E-government-services-and-social-media-adoption-Experience-of-small-local-governments-in-Nebraska-state.pdf
- Hariguna, T., Rahardja, U., & Ruangkanjanases, A. (2020). "The impact of citizen perceived value on their intention to use e-government services: An empirical study". Electron. Gov, No. 16, 426–440
- Khanra, S., & Joseph., R. P. (2020). "E-governance maturity models: a meta-ethnographic study." The International Technology Management Review, 8(1), 1-9,DOI: 10.2991/itmr.b.190417.001
- Khalili Paji, A. (2017). "Analyzing the function of electronic government in the prevention of corruption". Vakil Defene Quarterly, NO.170. 21-36.
- Imani Barandagh, M., Mohammadi, B., & Bagheri, Y. (2016). "Investigating the effective factors on increasing the administrative system and fighting corruption". New Research Quarterly in Human Sciences, 17, 12-27. (In Persian)
- Lee, J., Kim, H., & Ahn, M. (2011). "The Willingness of E-Government Service Adoption by Business Users: The Role of Offline service Quality and Trust in Technology". Government Information Quarterly, (28)2, 222–230.
- Malmir, A., Shirvani, A., Rashidpour, A., & Soltani, I. (2012). "Managing relations with the desired citizen and governor". Development Quarterly, 9 (3), 23-9.
- Mohammadi, J., & Hosseinian Moghadam, B. (2011). "Fraud and the role of auditors in relation to it". In Proceedings of the first National Conference of Modern Management Sciences 5th Shahrivar, Gorgan. (In Persian)
- Melayi, N., & Taheri, S.(2017)." E-business development with data innovation model, government open data and open innovation ". Rehiyaft Quarterly, 69(45), 21-40.
- Paasch, C.A.W. (2008) "Credit card fraud detection using artificial neural networks tuned by genetic algoritm". Thesis (Ph.D.). Hong Kong: Hong Kong University of Science and Technology, Available for: https://repository.hkust.edu.hk/ir/Record/1783.1-6252
- Rafiei, H., & Shahnoushi, N. (2013). "The impact of good government and good management on human development using geographic regression". Iranian Research Economics Quarterly, 19(58), 153-181.

- Raei, B., & Baradaran, V. (2021). A model for evaluating the establishment and progress of e-governance in Iran's executive bodies, Iranian Information and Communication Technology Quarterly, 13(49-50), 135-150.
- Samani, A., Nedaei, A.A., Khodadad Hoseini, S.H. & Mousavi, M. (2015) "Measurement of Good city governance For world cities". Research management in Iran. 19(1). (In Persian)
- Santiso, N., & Carlos, O. (2002)." Digital governance challenges and prospects for building forward better". U.S:United Nations Organization,
- Sheikhi, M.H. (2017). "Factors affecting the health of the administrative system and moral growth in it". Islam and Management Research Journal, 2(5), 21-35. (In Persian)
- Shah, A. (2006). "Corruption and decentralized public governance", Policy research working paper series, 3824. Washington DC: World Bank.
- Sharifi, H., Javadi, M.H., Haji Pour, M. (2013)." The Role of Information Technology in Reduction of Administrative Corruption through Increasing of Information transparency, Improvement of Accountability and Promotion of Integrity; A Case Study of Saderat Bank Branches in Isfahan". Iranian Journal of Information Processing Management, 28(3),659-679 (In Persian).
- Valdes, G., Solar, M., Astudillo, H., Iribarren, M., Concha, G. & Visconti, M. (2011). "Conception, development and implementation of an egovernment maturity model in public agencies". Government Information Quarterly, 28(2), 176-187.
- Williams, B. (2008). "Intelligent Transport Systems Standards". Uinted State: Artech House Publishers.
- Yaghoubi, I. (2016). "Good governance and improving the health of the administrative system; Explaining the role of electronic government". public management research, 10(37), 37. 203-22
- Yaghoubi, N. M., Kamalian, A. R., & Dehghani, M. (2019). "Designing a model for the establishment and development of electronic good governance using a hybrid approach". Management Research in Iran, 24(2), 1-34. (In Persian).

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