

Designing a Model for Evaluating the Implementation of Transparency Policy in Iranian Government Organizations (Case Study: Ministry of Industry, Mine, and Trade)

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Abstract: The present study aims to design a model for evaluating the implementation of transparency policy in Iranian government organizations, with a case study on the Ministry of Industry, Mine, and Trade. The research follows a sequential mixed-methods design with an exploratory approach. In terms of nature, the qualitative phase includes Delphi method stages, while the quantitative phase is descriptive with survey/correlational stages. The statistical population in the qualitative phase comprises all theoretical foundations and related literature from domestic and international databases. Additionally, 15 expert participants were selected for the Delphi stage using a purposive non-probability sampling method. In the quantitative phase, the statistical population included all headquarters employees of the Ministry of Industry, Mine, and Trade, from which 335 respondents were selected using stratified random sampling. Data collection methods included a literature review in the qualitative phase, worksheets in the Delphi stage, and a researcher-developed questionnaire in the quantitative phase. The questionnaire consisted of 51 items derived from the qualitative phase to assess internal validity and 34 items to measure model validity. The reliability and validity of the research instruments were evaluated in both qualitative and quantitative phases, and the results confirmed their validity and reliability. Data analysis methods included literature analysis in the qualitative phase and Kendall's coefficient of concordance in the Delphi stage. In the quantitative phase, statistical analysis comprised descriptive and inferential statistics, including confirmatory factor analysis and one-sample t-test, using Maxqda-V2018, SPSS-V23, and Smart PLS-V3 software. The findings indicated that the evaluation of transparency policy implementation in Iranian government organizations consists of three dimensions: content evaluation, implementation evaluation, and outcome evaluation. Content evaluation includes the components of formation factors with eight indicators and procedural factors with eleven indicators. Implementation evaluation consists of the components of implementers with six indicators, laws and policies with eight indicators, and support with five indicators. Outcome evaluation includes the components of social outcomes with seven indicators and organizational outcomes with six indicators. Finally, based on the identified dimensions, components, and indicators, a model for evaluating the implementation of transparency policy was designed. The research was assessed for both internal and external validity and was confirmed.

Keywords: Evaluation, Transparency, Transparency Policy Implementation, Implementation Evaluation, Content Evaluation

1. Introduction

Policy-making is a structured method based on the technical aspects of governance, shaped by specific intellectual foundations and performance backgrounds. Policy-making plays a role not only in political science but also in geographical literature. Policy-making procedures can lead to dynamism and act as a catalyst for change [1]. Policy focuses on what the government actually does in practice rather than what it merely proposes or intends to do, distinguishing it from a decision that is simply one option among many [2]. Generally, implementing policies in organizations faces numerous challenges and limitations. These limitations include a lack of a systemic perspective, absence of a precise information system, superficial policies, neglect of the policy-making process, and obstacles related to the nature of policies, policy implementers, and users. These obstacles encompass personal characteristics, lack of expertise, disregard for target groups, and organizational barriers [3]. Various challenges exist in implementing policies, and governments must strive to minimize policy implementation barriers by adhering to key success factors. Societies worldwide, whether in developing or developed countries, encounter similar policy-making and implementation challenges, each with unique constraints and issues within its policy-making processes [4].

Given the impact of public participation in policy-making on increasing trust and enhancing policy efficiency and effectiveness, reliance on traditional, closed policy-making models is no longer viable. Instead, open policy-making models must be embraced, where transparency is a crucial component of governance. In recent years, this issue has gained international attention, as evidenced by the second Political Innovation Conference in Canada in 2016, where open policy-making was the central theme [5, 6]. Reports from the European Union and the UK Reform Program highlight open public policy-making as a new approach to leveraging public capacities in policy-making.

Evaluations typically occur before and after policy approval. Post-approval evaluations assess how the policy is implemented, its impact, and its outcomes. Governments conduct policy evaluations to strengthen and identify costs and benefits, align policy goals, ensure coherence, increase transparency, and enhance accountability [5, 7]. Unfortunately, in Iran's academic community, emphasis is primarily placed on policy formulation and legitimacy rather than implementation. While legislative and regulatory drafting performance is satisfactory, execution is often inadequate, and policy evaluation has received limited attention in academic circles.

Iran ranks 144th out of 177 countries in transparency, a position that is relatively unfavorable compared to neighboring countries such as Kuwait (69), Jordan (66), Saudi Arabia (63), Oman (61), Qatar (28), and the United Arab Emirates (26) (Ghahramani, 2014). Despite the passage of 64 articles within 34 laws related to transparency, only some have been implemented, while others remain unenforced or lack enforceability due to legal weaknesses (Transparency Watch). Key legislation such as the Law on Publication and Free Access to Information (2008), the Law on Promoting Administrative Health and Combating Corruption (2011), and the Government Financial Transparency Law (2019) play vital roles in increasing transparency, accountability, and public satisfaction with governance. However, ambiguities in their implementation necessitate evaluating executive bodies' performance to measure success rates and leverage best practices from leading organizations to improve transparency across governmental institutions.

A review of Iran's administrative system before enacting new laws reveals various deficiencies, including lack of accountability and transparency, failure to decentralize administrative and financial systems, neglect of urban management, lack of performance-based budgeting, insufficient separation of governance from executive functions, weak innovation culture, poor policy-making and planning roles, absence of a comprehensive

performance evaluation system, injustice in the compensation system, inadequate use of information technology, disregard for citizens' rights in government interactions, ambiguity in oversight mechanisms, lack of inclusive laws, low administrative health indicators, absence of meritocracy in selecting and appointing managers and employees, and low productivity indicators. While some of these issues have been addressed, efforts in policy transparency and implementation have not been sufficiently effective. Experts emphasize that if the political system does not adopt a more open approach utilizing scientific and technological capabilities, the administrative foundation of the country will gradually weaken [2, 5, 7-9].

Theories related to evaluating the implementation of transparency policies are generally based on principles such as accountability, access to information, and public participation. One key theory views transparency as a tool to reduce corruption and increase public trust, arguing that providing access to information and clarifying decision-making processes can prevent potential abuses. However, in practice, implementing this theory faces challenges, particularly due to a lack of coordination among government institutions and insufficient information infrastructure. Another significant theory, the theory of public participation, emphasizes the importance of engaging citizens in decision-making and monitoring government institutions, advocating that transparency should be actively reinforced through public involvement. However, in Iran, cultural and social barriers, including public distrust in government institutions and fear of negative repercussions, hinder effective civic participation. This underscores the need for cultural and educational reforms to strengthen social responsibility [2, 5, 6, 10, 11].

Ultimately, challenges related to transparency policy implementation in Iran stem from discrepancies between theoretical frameworks and real-world conditions. The absence of necessary infrastructure for data collection and dissemination, weaknesses in regulatory and evaluation bodies, and an unstable culture of transparency acceptance all hinder the realization of transparency goals. These challenges can perpetuate corruption and erode public trust, making transparency policy implementation a significant concern. Addressing these issues requires a comprehensive, multi-faceted approach involving structural, cultural, and institutional reforms [12, 13].

In recent years, the evaluation of transparency policy implementation in Iran has gained attention as a crucial tool for enhancing accountability, reducing corruption, and increasing public trust in government. However, multiple challenges hinder transparency efforts, including inadequate infrastructure, weak transparency culture, and deficiencies in oversight and evaluation. Each of these issues has distinct consequences that must be addressed. One of the primary challenges in implementing transparency policies in Iranian government organizations is the lack of appropriate information and technology infrastructure. Many government agencies have yet to adopt modern, integrated information systems, obstructing the collection, storage, and dissemination of data. This issue is critical because, without proper infrastructure, accurate and up-to-date information cannot be made available to the public, leading to decreased trust in government institutions and heightened social skepticism. Another challenge is the unstable culture of transparency acceptance within government organizations and society. Many government employees and even citizens resist transparency due to a lack of awareness or fear of potential repercussions. Without changes in attitudes and organizational culture, government transparency initiatives are unlikely to achieve desirable outcomes. This can perpetuate corruption and abuse of power in government institutions and ultimately reduce public engagement in political and social processes. A third challenge is the weakness in oversight and evaluation of transparency policy implementation. Many regulatory and evaluation bodies in Iran face legal constraints and lack independence, limiting their ability to fulfill their roles effectively. Without proper oversight, identifying and addressing weaknesses in transparency processes is difficult, leading to continued mismanagement and corruption, further eroding public trust [14-17].

One of the critical obstacles in evaluating transparency policy implementation is the lack of integrated, modern information systems in Iranian government organizations. For instance, data on government projects and activities are often stored in scattered and disorganized formats, making public access challenging. Additionally, financial and operational information is not consistently available online, further hindering transparency. Government employees may also hesitate to disclose information due to fear of negative consequences, particularly regarding sensitive financial and operational matters linked to corruption [18, 19]. Reports from the National Inspection Organization indicate that many regulatory agencies struggle with monitoring policy implementation, which can obscure decision-making processes and contribute to continued corruption and mismanagement.

The implementation of transparency policies in Iran and the associated challenges have profound implications across various domains, including cultural, social, economic, psychological, technological, educational, political, and legal spheres, particularly within government organizations. From a cultural perspective, lack of transparency fosters distrust and weakens social cohesion. When people feel that information is concealed or inaccessible, they may lose trust in both government institutions and one another, undermining values such as honesty and responsibility. Socially, transparency challenges can increase public dissatisfaction and distrust in government institutions, potentially leading to social tensions and public protests. Additionally, lack of transparency exacerbates corruption and inequality in resource distribution, further intensifying social disparities. Economically, insufficient transparency deters both domestic and foreign investments, as investors seek predictable and transparent environments. This can slow economic growth, increase unemployment, and ultimately weaken the national economy [6, 12]. In summary, the selection of this research topic, which focuses on designing a model for evaluating the implementation of transparency policies in Iranian government organizations, is driven by multiple concerns and challenges, including inadequate information infrastructure, unstable transparency culture, and weaknesses in oversight and evaluation. Addressing these issues and proposing effective solutions can enhance public trust and accountability within the country's administrative system. In this context, the present study aims to develop a model for assessing the implementation of transparency policies in Iranian government organizations.

2. Methodology

This study is applied in terms of its objective. Based on data type, it follows a sequential mixed-methods approach. In terms of paradigm, it adopts a pragmatist or combined (interpretivist and positivist) perspective. Regarding its nature (approach and design), it first employs an exploratory research approach and then a descriptive-analytical approach. In terms of reasoning type (implementation logic), it is a mixed-methods study (inductive-deductive) as it incorporates both inductive reasoning (in the qualitative phase and Delphi method) and deductive reasoning (in the quantitative survey and correlation phases).

In the qualitative phase, the statistical population comprises all academic articles and scholarly works in domestic and international databases, as well as relevant documents and regulations in this field. At this stage, 20 articles were selected through purposive non-probability sampling based on the PRISMA guideline for article selection. In the quantitative phase, the statistical population includes all headquarters and provincial employees of the Ministry of Industry, Mine, and Trade. Given the use of confirmatory factor analysis and the need for greater generalizability, 350 respondents were selected using proportional stratified random sampling.

For reliability in the qualitative phase, methods such as precise documentation of the research process, intra-researcher consistency, and inter-researcher agreement were employed. Research validity was determined using Cohen's kappa coefficient. In the quantitative phase, construct validity was assessed using both convergent and

discriminant validity through SmartPLS 3 software. Reliability was measured using Cronbach's alpha coefficient, composite reliability, and McDonald's omega coefficient.

The following table presents the distribution of questionnaire indices, along with validity and reliability statistics:

Table 1. Distribution of Researcher-Developed Questionnaire Indices and Their Validity and Reliability

Dimensions	α	CR	ω	AVE	MSV	ASV	1	2	3	Component	Mean	SD	Skewness	Kurtosis	No. of Indicators
Content Evaluation	0.73	0.80	0.83	0.54	0.40	0.21	0.73			Formation Factors	3.210	0.668	0.759	-0.173	8
										Procedural Factors	3.014	0.764	0.597	-0.299	11
Implementation Evaluation	0.80	0.82	0.85	0.57	0.43	0.25	0.55	0.75	0.75	Implementers	3.503	0.645	0.460	-0.452	6
										Laws and Policies	3.344	0.718	0.556	-0.314	8
										Support	3.345	0.721	0.555	-0.378	5
Outcomes	0.75	0.87	0.88	0.62	0.47	0.29	0.51	0.61	0.79	Organizational Outcomes	3.157	0.889	0.391	-0.079	6
										Social Outcomes	3.455	0.653	0.471	-0.454	7

According to the table, the reliability of the dimensions is confirmed as Cronbach's alpha and composite reliability exceed 0.7. Additionally, AVE is greater than 0.5, confirming convergent validity since $CR > 0.7$, $CR > AVE$, and $AVE > 0.5$. Discriminant validity is also confirmed as $MSV < AVE$ and $ASV < AVE$.

In addition to the above-mentioned questionnaire for assessing internal validity, a researcher-developed validation questionnaire adapted from Shoqi and Karimi (2024) was used to evaluate model validity. This questionnaire consisted of two sections: external validity (24 items) and internal validity (10 items), totaling 34 items, rated on a five-point Likert scale from very low to very high. The questionnaire was distributed both online and in person, and respondents were asked to express their views on each item. To ensure accuracy and reliability, theoretical and empirical evidence supporting the model, along with the designed model and necessary explanations about the research objective and questionnaire completion process, were provided to experts. Content validity was used to assess questionnaire validity, and Cronbach's alpha coefficient was used for reliability measurement, confirming its validity and reliability.

The following table provides details on the distribution of questionnaire items for model validation:

Table 1. Distribution of Items in the Model Validation Questionnaire

Dimension	Component	Cronbach's Alpha	No. of Items	Score Range	No. of Options	Option Scores	Source
External Validity	Objective	0.78	4	4-20	Five-point Likert Scale	5 = Very High; 4 = High; 3 = Medium; 2 = Low; 1 = Very Low	Shoqi & Karimi (2024)
	Research Method Design		4	4-20			
	Control of Confounding Variables		8	8-40			
	Alignment		7	7-35			

Internal Validity	Logical Review	0.83	3	3-15
	Expert Feedback		4	4-20
	Sensitivity Analysis		3	3-15

In the qualitative phase, thematic analysis was conducted using MAXQDA Analytics Pro 2018 software to identify the dimensions, components, and indicators for evaluating transparency policy implementation. Common themes and patterns were extracted from selected articles and responses to open-ended Delphi worksheets. In the Delphi stage, for closed-ended questions, mean and standard deviation were used to assess results and expert consensus levels, while Kendall's coefficient of concordance was employed to evaluate expert agreement on priorities related to the closed-ended questionnaire using IBM SPSS Statistics 16.

In the quantitative phase, descriptive statistics were used to describe demographic characteristics such as age, gender, education level, and work experience through frequency percentages, tables, and charts. Research variables were analyzed using mean, standard deviation, skewness, and kurtosis. Inferential statistics included confirmatory factor analysis for internal validity and a one-sample t-test for external validity. Data analysis was performed using IBM SPSS Statistics 23 (2015) and SmartPLS 3 (2016) software.

3. Findings

In the first phase, based on qualitative studies, the dimensions, components, and indicators of the model for evaluating the implementation of transparency policy in Iranian government organizations were identified. Using a systematic review and the PRISMA model approach, the dimensions of transparency policy implementation evaluation in Iran were recognized. The following steps were taken:

1. Steps for conducting a synthesis study to identify components of transparency policy implementation evaluation in Iran, including:

Phase 1: Defining the research scope – determining the studies to be used, which included:

- a) Identifying search parameters such as publication date and research type.
- b) Defining selection criteria for collected documents.
- c) Establishing search strategies for documents and databases.

Phase 2: Systematic critique of selected documents, including:

- a) Broad screening.
- b) Narrow screening.
- c) In-depth analysis.

Phase 3: Synthesis, which involved creating new insights from separate elements, using two types of synthesis:

- **Aggregative synthesis**, which contrasts with configurative synthesis (Gough et al., 2012). Aggregative synthesis resembles a physical transformation, where findings from selected studies are combined, similar to meta-analysis in quantitative research.
 - **Configurative synthesis**, where findings from different sources merge and are recreated with a new identity.
2. **Flowchart (article search process) for evaluating transparency policy implementation in Iranian government organizations:** This phase first outlined the applied limitations in terms of temporal (domestic

and international time frames), spatial (domestic and international databases), research nature (synthesis, review, qualitative, and quantitative), and subject matter (keywords for search). The broad and narrow screening processes were then conducted. Based on the PRISMA model flowchart and after screening, 20 articles were ultimately selected, their quality was reviewed, and they were analyzed.

3. **A 27-item checklist for assessing the quality of identified articles on dimensions of transparency policy implementation evaluation in Iranian government organizations:** The search results of all relevant journals in this field indicated that between 2011 and 2024, only 30 qualitative-oriented articles were published, both domestically and internationally, using keywords such as evaluation, implementation, policy-making, and transparency. The overall compliance of article quality with checklist criteria was estimated at 64%. The most significant quality deficiencies were found in the methodology section, estimated at 54%. The most notable shortcomings in systematic review reports were errors in primary studies, errors resulting from synthesizing findings, and failure to address biases. The majority of identified articles were published between 2017 and 2020 (64.7%), with 42.5% in organizational management and 33.1% in legal studies. Of the selected articles, 33.3% were domestic, and 66.6% were international.

The results of the 27-item checklist for selected article quality indicated that all articles had either acceptable or high quality, as the quality percentage for each item was either above 75% or between 50% and 75%. If the quality score was below 50%, the item was considered low quality. Additionally, the kappa coefficient for agreement between two evaluators was calculated. Given the obtained kappa coefficient (0.57), it was concluded that the evaluations of the two assessors were consistent.

4. **Analysis and synthesis (aggregative and configurative):** Finally, synthesis was conducted to identify the dimensions of transparency policy implementation evaluation. Based on the conducted review, indicators derived from the qualitative phase were identified, and overarching concepts were extracted and illustrated.

In the second phase, the Delphi method was used for screening and expert validation. The extracted indicators from the literature review were presented to experts in a Delphi worksheet. Experts were asked to assign a score between 1 and 5 to each indicator. Indicators with an average score below 4 were excluded. In the first Delphi round, five indicators scored below 4 and were eliminated. In the second Delphi round, four previously excluded indicators were removed, six indicators were revised based on expert feedback, and no additional indicators were eliminated. Experts confirmed the structure of dimensions, components, and indicators. To ensure model finalization, a third Delphi round was conducted, in which all indicators scored above 4. Kendall's coefficient of concordance was used to verify consensus among Delphi panel members. The results indicated strong expert consensus in the second and third rounds, leading to the termination of the Delphi process. The findings of the third Delphi round are presented in the following table:

Table 3. Third Delphi Round for Evaluating Transparency Policy Implementation in Iranian Government Organizations

Dimension	Component	Indicator	Score
Content Evaluation	Formation Factors	Understanding cultural diversity	5
		Information technology	4.4
		Recognizing transparency objectives, processes, and criteria	4.6
		Correctly understanding organizational issues	4.9
		Policy alignment and flexibility	5
		Integrated and macro perspective on issues	5

Implementation Evaluation	Process Factors	Presence of standard infrastructure	4.3
		Allocation of financial and non-financial resources	5
		Personal and behavioral characteristics of policymakers	4.9
		Employee reliability	5
		Adherence to laws	4.9
		Acceptance of negative feedback	5
		Information disclosure without concealment	5
		Personnel training	4.7
		Work ethic	5
		Strategic perspective	4.7
		Competency standards	5
		Rationality	4.8
	Implementers	Reviewing relationships	4.8
		Transparency in implementers' performance	5
	Laws and Policies	Justice-seeking	4.8
		Accountability	5
		Policymaker's willingness toward transparency	4.6
		Self-efficacy	5
		Easy access to information within the organization	4.5
		Budgetary policies	4.8
		Monetary and banking regulations	5
		Annual publication of public information, including performance and financial statements	5
		Monitoring financial transactions	5
		Improving administrative health and anti-corruption efforts	5
		Support for policy implementation	4.3
		Government laws and regulations	5
		Influence of foreign actors	5
	Support	Sufficient budget allocation for transparency policy implementation	5
		Establishing independent institutions to support policy implementation	5
		Capacity-building for citizen participation in transparency policy support	4.7
		Public access to information systems	5
		Legal penalties for transparency law violations	4.7
		Policy outcomes' alignment with objectives	5
Outcomes	Organizational Outcomes	Positive organizational image	4.8
		Economic growth	4.8
		Cost reduction	5
		Sustainable organizational development	4.3
	Social Outcomes	Efficiency and productivity	5
		Accountability	5
		Citizens' access to information	5
		Creating a positive perception of the government	4.7
		Citizen satisfaction with government services	5
		Social responsibility	5
		Increased social welfare	5
		Improved citizen understanding of public policies	4.8

Finally, based on the identified dimensions, components, and indicators, the model for evaluating transparency policy implementation in Iranian government organizations was developed, as depicted in the following figure:

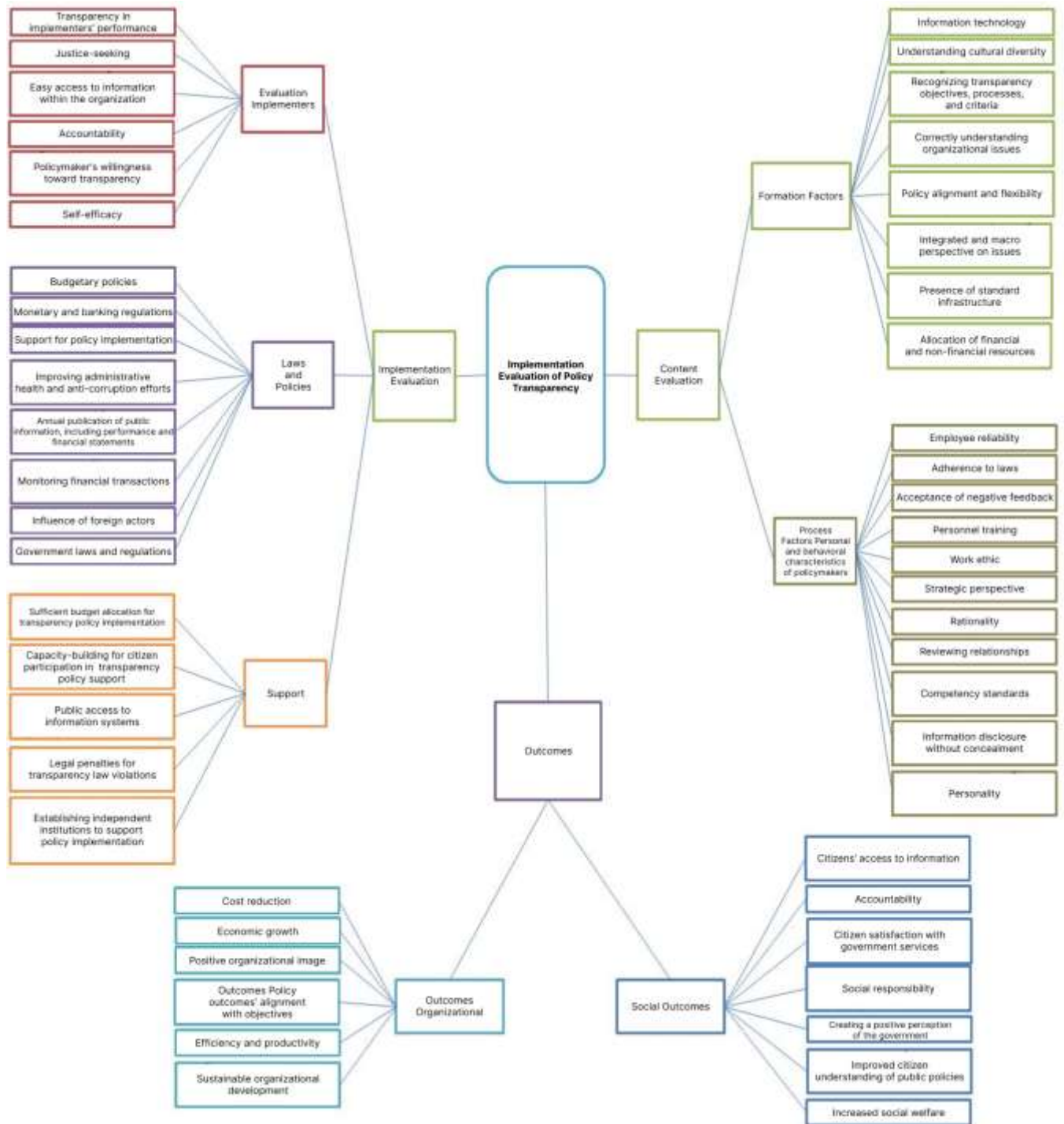


Figure 1. Final Model Derived from Qualitative Research and Delphi Technique for Evaluating Transparency Policy Implementation in Iranian Government Organizations

The validation of the proposed model was conducted in two dimensions: internal and external validity. Model validity, as a key aspect of research, not only reflects the accuracy and reliability of the designed model's results but also indicates its applicability in real-world environments. Therefore, in the process of designing the evaluation model for transparency policy implementation in Iranian government organizations, the validity of this model was assessed.

For this purpose, a 34-item questionnaire, based on a five-point Likert scale ranging from very low to very high, was distributed among 30 experts in the research domain and in policy-making fields related to the topic. This questionnaire measured the external validity of the designed model through components including objective, research methodology design, control of confounding variables, and adaptation. Additionally, the internal validity of the designed model was assessed through logical review, expert feedback, and sensitivity analysis. To evaluate the validity of each component, a one-sample t-test was employed. The results of this test generally indicated a high level of validity for the different components of the evaluation model for transparency policy implementation in Iranian government organizations in terms of both internal and external validity. The statistical results from the one-sample t-test are presented in the following table:

Table 4. Findings from the One-Sample t-Test for Evaluating the Validity of the Transparency Policy Implementation Model in Iranian Government Organizations

Components	Mean	SD	Computed t	Significance Level	Mean Difference	Lower Bound	Upper Bound
External Validity	4.20	0.65	9.00	0.000	1.20	3.90	4.50
Objective	4.20	0.70	8.90	0.000	1.20	3.90	4.50
Research Methodology Design	4.25	0.70	9.10	0.000	1.25	3.90	4.60
Control of Confounding Variables	4.10	0.75	8.30	0.000	1.10	3.80	4.40
Adaptation	4.05	0.80	7.50	0.000	1.05	3.70	4.40
Internal Validity	4.35	0.60	9.20	0.000	1.35	4.00	4.70
Logical Review	4.15	0.75	8.00	0.000	1.15	3.80	4.50
Expert Feedback	4.30	0.60	9.50	0.000	1.30	4.00	4.60
Sensitivity Analysis	4.40	0.55	9.80	0.000	1.40	4.10	4.70

Based on the table, the significance level for both internal and external validity of the model and all components within each validity category is less than 0.001. Additionally, the calculated means range from 4.05 to 4.40, clearly indicating statistical significance at a 99% confidence level. This means that the obtained results are not random and confirm the high validity of the model. Thus, it can be inferred that the designed model possesses considerable validity and can be used as an effective framework for enhancing transparency in organizations.

Moreover, according to expert opinions, the internal validity of the designed model, with a mean of 4.35 and a computed t-value of 9.20, is higher than its external validity. Among the components of external validity, research methodology design holds the highest validity with a mean of 4.25 and a computed t-value of 9.10. On the other hand, among the internal validity components, sensitivity analysis ranks the highest, with a mean of 4.40 and a computed t-value of 9.80.

Next, internal validity was assessed using confirmatory factor analysis and the coefficient of determination, while external validity was measured using model fit indices and the Q² index.

Confirmatory Factor Analysis (Measurement Model) for Each of the Three Dimensions: To confirm model fit, confirmatory factor analysis based on the partial least squares (PLS) method was employed. Findings indicated that the significance of all components and indicators exceeded 1.96. Based on this, the model was deemed statistically significant and sufficiently valid.

Coefficient of Determination (R²) for the Dependent Variables in Evaluating Internal Validity: The R² coefficient measures the impact of an independent variable on a dependent variable, with values of 0.19, 0.33, and 0.67 representing weak, moderate, and strong effects, respectively. For all three dimensions of the model, the R² values exceeded 0.67, indicating strong explanatory power.

Predictive Relevance Index (Q^2) for Evaluating External Validity: The Q^2 criterion assesses the model's predictive power for dependent variables. According to interpretative standards, values of 0.02, 0.15, and 0.35 indicate weak, moderate, and strong predictive power, respectively. A positive Q^2 value is desirable. The Q^2 values for the main constructs were 0.312, 0.238, and 0.295, all of which were positive and within the acceptable range. Thus, the model demonstrates satisfactory predictive power across all three dimensions.

Model Fit Index (GOF) Proposed by Tenenhaus et al. (2005): This comprehensive model fit index is calculated as the geometric mean of the average variance extracted (AVE) and R^2 values. Structural equation modeling experts using the PLS approach classify GOF values below 0.1 as small, between 0.1 and 0.25 as moderate, and above 0.36 as large. Based on these criteria, the GOF index for the examined model was calculated as 0.652, categorizing it within the large effect range.

Considering these findings, it can be concluded that the tested model exhibits an appropriate fit within the examined sample. Additionally, since all factor loadings for the model's observed variables exceed 0.5 and significance levels exceed 2.58, it can be stated that the proposed model has satisfactory construct validity.

4. Discussion and Conclusion

In this study, the final model was developed based on a qualitative approach (literature review), conceptual model design, and the Delphi technique. The model consists of three main dimensions: content evaluation (formation factors and process factors), implementation evaluation (implementers, laws and policies, and support), and outcomes (organizational outcomes and social outcomes).

One of the key dimensions of this model is "content evaluation," which includes the components of "formation factors" and "process factors." These components serve as essential foundations for ensuring the success and effectiveness of transparency policies. Formation factors include understanding cultural diversity, recognizing transparency objectives, processes, and criteria. These factors help determine whether policies align with the cultural and social needs of the society. Understanding cultural diversity is particularly important in countries such as Iran, where diverse cultural contexts exist. This understanding enables policymakers to design policies and programs that not only address the varying needs of the population but also enhance public trust and citizen participation in governance processes. Process factors include policy alignment and flexibility, an integrated and comprehensive approach to issues, and the existence of standard infrastructures. These components indicate whether implementation processes are designed in a way that allows for effective and efficient execution. Policy alignment and flexibility refer to the ability of policies to respond to emerging changes and challenges. In today's world, where rapid and unpredictable changes occur in social, economic, and political environments, this feature is particularly critical. The formation and process factors directly impact transparency and accountability. For example, organizations that disclose information without concealment and accept negative feedback contribute to a transparent and accountable environment, which in turn increases public trust and citizen engagement in governance. Additionally, the personal and behavioral characteristics of policymakers, such as work ethics and strategic thinking, significantly influence how policies are implemented and how stakeholders are engaged. These two components—formation and process factors—serve as key dimensions in "content evaluation" within the model for evaluating transparency policy implementation in Iranian government organizations. They contribute not only to transparency and accountability in government but also to improved organizational performance and increased public satisfaction. Ultimately, content evaluation functions as a critical tool for identifying strengths and weaknesses in policy implementation and for facilitating continuous improvement.

Another key dimension of this model is "implementation evaluation," which includes the components of "implementers," "laws and policies," and "support." These components are considered fundamental to ensuring the success and efficiency of transparency policies. Implementers, as those responsible for executing policies, play a vital role in the success or failure of transparency initiatives. Transparency in the performance of implementers, justice-seeking, and accountability are essential characteristics that should be present among implementers. These qualities enable them to perform their duties effectively and efficiently while also earning public trust. The commitment of policymakers to transparency also has a direct impact on policy implementation. If implementers are dedicated to transparency, their performance is likely to improve, leading to enhanced execution of transparency policies. Laws and policies serve as legal frameworks and implementation guidelines, playing a crucial role in defining how policies should be executed. Budgeting policies, monetary and banking regulations, and the annual publication of public information are among the factors that can support transparency in policy implementation. For example, the annual disclosure of public information, including performance and financial statements, allows citizens to monitor government performance, thereby enhancing accountability. Additionally, the ability to track financial transactions and promote administrative health aids in combating corruption, reinforcing transparency in financial and executive processes. Support and assistance in implementing transparency policies are also crucial elements in the evaluation of execution. Adequate budget allocation for transparency policy implementation, the establishment of independent institutions to oversee policy execution, and capacity-building for active citizen participation are measures that can improve the execution of transparency policies. Public access to information systems and legal penalties for violating transparency laws are additional critical factors that contribute to strengthening transparency and accountability in government. The components of "implementers," "laws and policies," and "support" are essential aspects of "implementation evaluation" in the model for evaluating transparency policy implementation in the Ministry of Industry, Mine, and Trade. These elements help in gaining a better understanding of how policies are effectively executed. Not only do they promote transparency and accountability in governance, but they also enhance organizational performance and increase public satisfaction. Ultimately, implementation evaluation serves as a vital tool for identifying strengths and weaknesses in policy execution and facilitating continuous improvement.

The third dimension of this model is "outcomes," which consists of the components "organizational outcomes" and "social outcomes." These components represent the final results of implementing transparency policies and help assess the impact of such policies on organizations and society. Organizational outcomes refer to the direct results of implementing transparency policies within organizations. These outcomes include the extent to which results align with policy objectives, a positive organizational image, economic growth, cost reduction, and sustainable organizational development. For instance, if implementing transparency policies leads to improved efficiency and productivity within an organization, this can result in cost reductions and increased economic growth. Furthermore, a positive organizational image in society can attract investors and enhance international cooperation. Consequently, organizational outcomes not only improve internal performance but also strengthen the organization's position in the market and community. Social outcomes refer to the broader impacts of transparency policy implementation on society and citizens. These outcomes include public access to information, fostering a positive perception of the government, citizen satisfaction with government services, and an increase in social welfare. For example, if citizens have access to information regarding government performance, this can enhance public trust and improve their perception of the government. Additionally, citizen satisfaction with government services is directly related to the quality of transparency policy implementation. Ultimately, increasing

social welfare and improving citizens' understanding of public policies can strengthen their social and political participation. Organizational and social outcomes directly and indirectly influence each other. For instance, if an organization successfully implements transparency policies and establishes a positive public image, this can lead to increased citizen satisfaction, thereby improving social outcomes. Conversely, if citizens are satisfied with government services and feel that the government is responsive to their needs, this can enhance the organization's reputation and efficiency. The components of "organizational outcomes" and "social outcomes" in the "outcomes" dimension of the model for evaluating transparency policy implementation in the Ministry of Industry, Mine, and Trade help in understanding the broader impact of transparency policies. These components not only contribute to government transparency and accountability but also enhance organizational performance and public satisfaction. Ultimately, outcome evaluation serves as a crucial tool for identifying strengths and weaknesses in policy implementation and ensuring continuous improvement.

Based on the findings, the identified dimensions, components, and indicators in this study align with previous research on transparency policy implementation. The content evaluation dimension (formation factors and process factors) is consistent with prior findings [8, 11, 20]. The implementation evaluation dimension (implementers, laws and policies, and support) aligns with other findings [5, 6, 21]. Finally, the outcomes dimension (organizational and social outcomes) is consistent with the research of Walter et al. (2022) and Abbasabadi et al. (2022).

Additionally, the findings indicate that the external validity of the designed model—measured through the components of objective, research methodology design, control of confounding variables, and adaptation—and the internal validity of the model—measured through logical review, expert feedback, and sensitivity analysis—demonstrate high validity. The model can thus serve as a useful tool for analyzing and evaluating transparency policy implementation in Iranian government organizations. Moreover, according to expert opinions, the internal validity of the designed model is higher than its external validity. Among the external validity components, research methodology design holds the highest validity, whereas among the internal validity components, sensitivity analysis has the highest validity. Therefore, it can be concluded that this model, with its strong and precise structure, can assist analysts and researchers in gaining a better understanding of transparency policy implementation. This, in turn, can facilitate better decision-making and more effective strategies for evaluating transparency policy execution. These findings highlight that, although generalizability of results (external validity) is important, accuracy and reliability within the research itself (internal validity) are of particular significance.

Based on the study's findings, recommendations for improving transparency policy implementation in Iranian government organizations are presented in three categories: managerial, operational, and stakeholder-related recommendations. These include training programs for executive managers on the importance of transparency, implementing digital systems for public access to policy execution data, and raising awareness among civil society organizations and the media about the impact of transparency on governance and public welfare.

Finally, the study acknowledges several limitations, including managerial and policy changes within the Ministry of Industry, Mine, and Trade, geographical constraints affecting result generalizability, and external factors such as social and political changes that may influence transparency policy implementation. Future research should focus on comparative analyses between public and private sector transparency policies, identifying barriers to policy implementation in ministries, and considering longitudinal research methods to examine the impact of managerial and policy changes over time.

Authors' Contributions

Authors equally contributed to this article.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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