

Validation of a Taxpayer Participation Model for Tax Policy-Making in the Iranian National Tax Administration

1. Rahim. Asgarzadeh  : Department of Management, As.C., Islamic Azad University, Astara, Iran
2. Seyed Hamed. Hashemi  : Assistant Professor, Department of Public Administration, Payame Noor University, Tehran, Iran
3. Petro. Sepehri  : Department of Accounting, As.C., Islamic Azad University, Astara, Iran

*corresponding author's email: hamed.hashemi@pnu.ac.ir

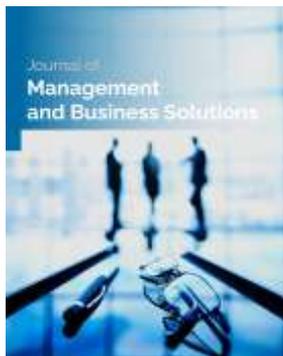
ABSTRACT

The objective of this study was to develop and validate a structured and hierarchical model of taxpayer participation in tax policy-making within the Iranian National Tax Administration. This study adopted an exploratory sequential mixed-method design with an interpretivist philosophy and an inductive approach. In the qualitative phase, thematic analysis was applied to an extensive review of theoretical and empirical literature and to semi-structured interviews with tax policy experts and academic specialists, resulting in the identification of organizing and base components of taxpayer participation. In the subsequent quantitative phase, Interpretive Structural Modeling was used to examine the directional relationships and hierarchical structure among the identified components based on expert judgments. A researcher-developed questionnaire was also employed to assess the alignment of the extracted model with organizational realities, and internal consistency was evaluated to confirm measurement reliability. The inferential results revealed a hierarchical structure in which governance, legal and regulatory requirements, and economic conditions functioned as the primary driving components of taxpayer participation in tax policy-making. Technology and infrastructure, administrative structure, and knowledge and awareness occupied enabling positions within the system, mediating the effects of higher-level drivers. Cultural factors, including tax culture and public trust, emerged as the most dependent components, shaped by upstream institutional, legal, and economic influences. The structural relationships indicated that taxpayer participation is predominantly determined by systemic and institutional drivers rather than isolated administrative or behavioral factors. The validated model demonstrates that effective taxpayer participation in tax policy-making is a systemic outcome rooted in governance quality, regulatory stability, and economic rationality, and facilitated by technological, administrative, and human capacities. Strengthening these foundational drivers is essential for achieving sustainable and legitimate participatory tax policies in Iran.

Keywords: Tax policy-making; taxpayer participation; interpretive structural modeling; thematic analysis; Iranian National Tax Administration

Introduction

Tax policy-making has increasingly moved beyond a purely technical and revenue-oriented exercise toward a multidimensional governance process that integrates economic efficiency, social legitimacy, technological capability, and citizen participation. In contemporary public finance literature, taxation is no longer viewed solely as a coercive instrument of state power, but rather as a relational mechanism that shapes trust between governments and taxpayers, influences economic behavior, and structures long-term development trajectories (1). Within this



Article history:
Received 26 June 2025
Revised 13 September 2025
Accepted 20 September 2025
Published online 10 October 2025

How to cite this article:

Asgarzadeh, R., Hashemi, S. H., & Sepehri, P. (2025). Validation of a Taxpayer Participation Model for Tax Policy-Making in the Iranian National Tax Administration. *Journal of Management and Business Solutions*, 3(5), 1-16. <https://doi.org/10.61838/jmbs.125>



© 2025 the authors. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

evolving paradigm, the role of taxpayers as active participants—rather than passive subjects—in tax policy formulation has gained growing scholarly and practical attention, particularly in contexts where compliance challenges, informal economies, and rapid technological change intersect.

One of the central motivations for incorporating taxpayer participation into tax policy-making lies in its potential to enhance voluntary compliance and ethical tax behavior. Classic and contemporary studies emphasize that taxpayers' perceptions of fairness, legitimacy, and inclusion significantly affect their willingness to comply with tax obligations (2). When taxpayers perceive tax rules as imposed without consultation, disconnected from social realities, or inconsistently enforced, compliance costs rise and avoidance or evasion behaviors become more prevalent. Conversely, participatory approaches that acknowledge taxpayers' identities, expectations, and constraints can strengthen tax morale and foster a cooperative compliance environment (3). This behavioral perspective has been reinforced by empirical evidence showing that social norms, psychological factors, and trust in institutions are as influential as enforcement mechanisms in shaping compliance outcomes.

In developing and emerging economies, including Iran, these issues are particularly salient. Structural economic volatility, sanctions, inflationary pressures, and the expansion of the digital economy have intensified the complexity of tax systems and the expectations placed upon tax administrations. Research on tax capacity and tax effort demonstrates that institutional quality, administrative effectiveness, and societal engagement are decisive determinants of a country's ability to mobilize sustainable tax revenues (4). In such contexts, tax policy-making that excludes taxpayers from deliberation risks reinforcing distrust and undermining both fiscal capacity and policy effectiveness. Accordingly, integrating taxpayer participation into policy design is increasingly framed as a governance necessity rather than a normative ideal.

The Iranian National Tax Administration operates within this challenging environment, facing simultaneous pressures to increase revenue efficiency, reduce tax avoidance, modernize administrative processes, and respond to societal demands for transparency and fairness. Previous Iranian studies have highlighted systemic weaknesses in tax policy coherence and coordination, emphasizing the need for more holistic and systemic policy-making models (5). However, much of the existing literature remains focused on institutional or legal dimensions, with relatively limited empirical attention to the structured role of taxpayers in shaping tax policies. This gap is particularly important given evidence that incentive-based and participatory tax policies can reduce financial stress among taxpayers and improve their outlook toward the tax system (6).

International research further supports the relevance of participatory and inclusive approaches. Studies conducted during the COVID-19 pandemic demonstrated that taxpayers' education level, income stability, and understanding of tax policies significantly influenced compliance behavior under crisis conditions (7). These findings suggest that tax policy effectiveness is contingent not only on policy content but also on taxpayers' cognitive and informational engagement with the system. Similarly, research on small businesses shows that effective tax management and participatory policy optimization can enhance business resilience and formalization, particularly in uncertain economic environments (8). Such insights are directly relevant to Iran, where small and medium-sized enterprises constitute a substantial share of economic activity.

Technological transformation adds another critical layer to this discussion. The expansion of electronic tax filing systems, digital platforms, and data-driven enforcement tools has reshaped interactions between tax authorities and taxpayers. Empirical evidence from multiple countries indicates that digitalization can reduce corruption, improve efficiency, and lower compliance costs when properly designed and implemented (9). However, technology

alone does not guarantee improved outcomes. Without taxpayer trust, adequate digital literacy, and participatory feedback mechanisms, technological reforms may exacerbate exclusion and resistance. Recent studies on blockchain integration and artificial intelligence in tax policy design highlight both opportunities and risks, underscoring the need for governance frameworks that incorporate stakeholder participation to ensure legitimacy and adaptability (10-12).

The rise of the digital economy, including cryptocurrencies and cross-border digital transactions, further complicates tax policy-making. In Iran, scholars have identified significant regulatory and compliance challenges associated with digital assets, emphasizing the mismatch between traditional tax frameworks and emerging economic realities (13). Comparative studies from other jurisdictions reveal similar patterns, where inadequate engagement with affected taxpayers and businesses has led to policy resistance, avoidance behaviors, and enforcement difficulties (14). These developments reinforce the argument that adaptive, participatory, and learning-oriented tax policy models are essential in the twenty-first century.

From a macroeconomic perspective, tax policies also interact with broader stabilization and development strategies. Research on fiscal policy design shows that demand-side and supply-side considerations, investment incentives, and innovation-oriented tax measures must be carefully balanced to avoid unintended economic distortions (15-17). Regulatory stability plays a particularly important role in shaping investment behavior, as frequent or unpredictable tax policy changes can deter long-term planning and undermine economic confidence (18). Incorporating taxpayer participation into policy design can contribute to stability by aligning policies more closely with economic actors' expectations and capacities.

Corporate behavior and tax avoidance constitute another critical dimension of the problem. Empirical studies demonstrate that corporate governance structures, business strategies, and cultural factors significantly influence tax avoidance practices (19, 20). These findings suggest that tax policy effectiveness cannot be fully understood without considering how firms and individuals interpret, negotiate, and respond to tax rules. Participatory policy-making, by facilitating dialogue and mutual understanding, may help reduce aggressive avoidance and promote more transparent financial reporting (21). At the same time, enforcement mechanisms and legal guarantees remain indispensable, highlighting the need for integrated models that balance participation with regulatory authority.

Within this broad international and theoretical context, the Iranian case presents both challenges and opportunities. While significant investments have been made in electronic tax systems and administrative reforms, persistent issues related to tax culture, public trust, and perceived fairness continue to constrain policy effectiveness. Earlier work on taxpayer services and compliance costs emphasized that reducing administrative burdens and improving service quality can enhance voluntary compliance (22). However, service-oriented reforms alone may be insufficient if taxpayers remain excluded from meaningful participation in policy formulation and evaluation. What is needed is a validated, context-sensitive model that systematically identifies the dimensions, relationships, and hierarchical structure of taxpayer participation in tax policy-making.

Despite the growing body of international research, there remains a notable gap in empirical studies that both conceptualize and validate participatory tax policy models using mixed qualitative–quantitative methodologies, particularly in developing country contexts. Many studies focus either on behavioral aspects of compliance or on technological and regulatory reforms, without integrating these elements into a coherent structural framework. Moreover, few studies explicitly examine the interdependencies among cultural, technological, administrative,

economic, and governance dimensions in shaping participatory tax policy outcomes. Addressing this gap is essential for moving from normative advocacy of participation toward evidence-based policy design.

Accordingly, this study responds to both theoretical and practical needs by developing and validating a comprehensive model of taxpayer participation in tax policy-making tailored to the Iranian National Tax Administration, drawing on international insights into tax behavior, digital transformation, regulatory stability, and participatory governance (2, 9, 12, 18). By employing thematic analysis and interpretive structural modeling alongside quantitative validation, the study seeks to clarify not only which dimensions matter, but also how they interact and which function as key drivers within the system.

The aim of this study is to develop and validate a structured model of taxpayer participation in tax policy-making within the Iranian National Tax Administration, identifying the key dimensions and their hierarchical relationships to inform more effective, legitimate, and sustainable tax policies.

Methods and Materials

This study employed an exploratory sequential mixed-method design with an interpretivist philosophical stance and a predominantly inductive logic in the qualitative phase. In terms of purpose, the research was positioned as both applied and developmental, because it aimed to address a real-world policy problem in the Iranian National Tax Administration while also extending the knowledge base on tax policy-making through taxpayer participation. The qualitative phase used thematic analysis to identify and systematize the core dimensions and components of taxpayer participation relevant to tax policy-making. The statistical population for the expert-based phases consisted of tax-domain elites and specialists, including senior tax administrators (e.g., provincial directors and deputies in higher-performing provinces in tax collection) as well as university faculty members specializing in taxation and public policy. Participants were recruited through snowball sampling to form an expert panel. The first expert panel was initially formed with 35 individuals, and after distribution of the structured interaction instrument, 33 completed responses were returned and used as the analytical basis for subsequent steps in model structuring. In the later quantitative validation phase, experts again provided judgments regarding the degree of alignment (“fit”) between the extracted model factors and the organizational realities of the Iranian National Tax Administration.

1. Data Collection Tools

Data collection combined documentary/library sources, semi-structured interviews, and two researcher-developed questionnaires aligned with the sequential logic of model development and validation. First, extensive documentary and library-based data were used to build an initial conceptual foundation and to extract an initial set of codes from prior literature, including books, peer-reviewed articles, research reports, and reputable electronic databases. These sources were treated as a major input in the qualitative phase, given the intention to derive and refine a comprehensive set of candidate concepts for taxpayer participation in tax policy-making. Second, semi-structured interviews were conducted with subject-matter experts to deepen understanding of the phenomenon, refine and confirm emerging codes and themes, and support the identification and prioritization of model dimensions. These interviews also served practical functions such as clarifying the research path, identifying specialized references, and strengthening the interpretive credibility of the thematic structure.

Third, two questionnaires were applied for model structuring and validation. The first questionnaire was designed to capture expert judgments on the pairwise relationships among the organizing themes (dimensions) derived from thematic analysis, using the logic of Interpretive Structural Modeling. In this instrument, experts evaluated whether

and how each dimension influenced another by selecting symbolic relationship indicators commonly used in ISM (directional influence, reverse influence, mutual influence, or no relation). The output of this tool supported building the Structural Self-Interaction Matrix and subsequent reachability analysis for level partitioning and hierarchical structuring of the model. The second questionnaire was developed to assess the degree of organizational fit between the extracted model and the Iranian National Tax Administration context. In this instrument, experts rated each factor on a ten-point scale ranging from 1 (lowest fit) to 10 (highest fit). A ten-point scale was adopted to increase measurement sensitivity and enable clearer differentiation across factors for confirmatory factor analytic procedures. The items of this second questionnaire were derived directly from the thematic outputs, organized under seven main dimensions identified in the qualitative phase (knowledge and awareness; cultural factors; technology and infrastructure; administrative structure; legal and regulatory requirements; economic conditions; governance). Evidence for content validity was established through iterative review with academic advisors and domain experts, and reliability was assessed via internal consistency; Cronbach's alpha for the overall instrument was 0.884, indicating strong reliability, with dimension-level alphas also reported as acceptable to excellent.

2. Data Analysis

Data analysis proceeded in integrated qualitative–quantitative steps consistent with an exploratory sequential mixed-method framework. In the qualitative phase, thematic analysis was used to identify, analyze, and report recurring patterns in the collected textual and interview data. The process involved iterative familiarization with the data, generation of initial codes, development of candidate themes, refinement and review of themes, and final definition and naming of themes. Thematic analysis was operationalized to support both interpretive explanation and systematic structuring of concepts, allowing the extraction of base themes, organizing themes, and overarching themes. The thematic outputs were then used to construct thematic networks that provided an analytic representation of how sub-themes clustered into higher-order dimensions relevant to taxpayer participation in tax policy-making.

Following theme development, Interpretive Structural Modeling was applied to identify and model the directional relationships among the extracted dimensions and to produce a structured representation of influence pathways within the system. This stage included developing the Structural Self-Interaction Matrix from expert judgments, converting it into an initial reachability matrix, applying transitivity checks to ensure internal consistency, computing driving power and dependence, and then performing level partitioning to determine the hierarchical placement of dimensions. The ISM procedure resulted in a structured model depicting how foundational elements influence intermediate and outcome-level elements within taxpayer participation for tax policy-making.

In the quantitative validation phase, the researcher-developed fit questionnaire data were analyzed to examine the adequacy and coherence of the factor structure implied by the qualitative and ISM results. Reliability was evaluated using Cronbach's alpha for the overall instrument and for each dimension. The factor-analytic logic was used to assess whether the extracted factors coherently represented the proposed model in the organizational context of the Iranian National Tax Administration, leveraging the experts' numerical ratings to test the alignment and robustness of the model's measurement structure.

Findings and Results

Table 1 presents the qualitative output of the thematic analysis by organizing the extracted open codes into base themes and, subsequently, into seven organizing themes. This hierarchical arrangement clarifies how granular

statements from the evidence base were consolidated into conceptually coherent domains that together constitute the taxpayer-participation-oriented framework for tax policy-making in the Iranian National Tax Administration.

Table 1. Organizing themes, base themes, and open codes

No.	Organizing theme	Base theme	Open code
1	Knowledge and Awareness	Professional Ethics	Promoting human values
2	Knowledge and Awareness	Professional Ethics	Organizational justice
3	Knowledge and Awareness	Professional Ethics	Personal feedback system
4	Knowledge and Awareness	Professional Ethics	Social conscience
5	Knowledge and Awareness	Dynamism and Flexibility	Skill change
6	Knowledge and Awareness	Dynamism and Flexibility	Job-relevant knowledge
7	Knowledge and Awareness	Dynamism and Flexibility	Dynamism of staff and systems
8	Knowledge and Awareness	Dynamism and Flexibility	Agility of tax systems
9	Knowledge and Awareness	Professional Competence	High communication skills
10	Knowledge and Awareness	Professional Competence	Organizational social cohesion
11	Knowledge and Awareness	Professional Competence	Self-management
12	Knowledge and Awareness	Professional Competence	Self-motivation
13	Cultural	Tax Culture	Awareness of new technologies in the tax system
14	Cultural	Tax Culture	Non-tax evasion
15	Cultural	Public Values	Acceptability/legitimacy of the tax system
16	Cultural	Public Values	Organizational social responsibility
17	Cultural	Public Trust	Trust in the online tax system
18	Cultural	Public Trust	Confidence in new technology
19	Cultural	Public Trust	Accountability of the tax system regarding taxation
20	Cultural	Public Trust	Willingness to accept change
21	Technology and Infrastructure	Development of the Electronic Tax Environment	Development of online taxation
22	Technology and Infrastructure	Development of the Electronic Tax Environment	Investment in modern tax technologies
23	Technology and Infrastructure	Development of the Electronic Tax Environment	Awareness of technological changes
24	Technology and Infrastructure	Development of the Electronic Tax Environment	Awareness of modern tax systems
25	Technology and Infrastructure	Development of the Electronic Tax Environment	Awareness of laws and technologies in developed countries
26	Technology and Infrastructure	Development of the Electronic Tax Environment	Moving toward digitalization of platforms/systems
27	Technology and Infrastructure	Development of the Electronic Tax Environment	Eliminating administrative bureaucracy
28	Administrative Structure	Strategic Functions	Identifying new processes
29	Administrative Structure	Strategic Functions	Identifying taxpayers' needs
30	Administrative Structure	Strategic Functions	Resolving system defects aligned with taxpayers' needs
31	Administrative Structure	Strategic Functions	Reviewing organizational competencies
32	Administrative Structure	Supervisory Functions	Electronic supervision
33	Administrative Structure	Supervisory Functions	Controlling and reducing work constraints
34	Administrative Structure	Supervisory Functions	Aligning organizational objectives with taxpayers' needs
35	Administrative Structure	Support Functions	Precise technical support and system responsiveness
36	Administrative Structure	Support Functions	Training taxpayers on modern systems
37	Administrative Structure	Support Functions	Standardizing systems
38	Administrative Structure	Support Functions	Maintaining and improving the quality level of tax staff and systems
39	Administrative Structure	Executive Functions	Creating a rotational work pattern to reduce objections
40	Administrative Structure	Executive Functions	National capacity building
41	Administrative Structure	Executive Functions	Flexible human resource activities
42	Administrative Structure	Executive Functions	Supporting creative activities toward system simplification
43	Legal and Regulatory Requirements	Accountability	Moving toward e-government

44	Legal and Regulatory Requirements	Accountability	Global awareness and communications
45	Legal and Regulatory Requirements	Accountability	Foresight/futures studies
46	Legal and Regulatory Requirements	Stability of Laws and Systems	Continuous improvement of systems
47	Legal and Regulatory Requirements	Stability of Laws and Systems	High system productivity/efficiency
48	Legal and Regulatory Requirements	Stability of Laws and Systems	Compliance with organizational policies
49	Legal and Regulatory Requirements	Enforcement Guarantee	No legal compromise
50	Legal and Regulatory Requirements	Enforcement Guarantee	Law-making considerations
51	Legal and Regulatory Requirements	Enforcement Guarantee	Unified legal and systemic consequences and penalties
52	Economic Conditions	Revenue Role	Reducing the revenue role of tax in the budget
53	Economic Conditions	Revenue Role	Spending tax revenues on infrastructure investments
54	Economic Conditions	Revenue Role	Surveying taxpayers on the allocation of collected taxes
55	Economic Conditions	Economic Improvement	Market control
56	Economic Conditions	Economic Improvement	Consumption control
57	Economic Conditions	Fair Distribution of Resources	Reducing the gap between social classes
58	Economic Conditions	Fair Distribution of Resources	Directing resources toward productive projects
59	Economic Conditions	Fair Distribution of Resources	Increasing the power of the banking system
60	Governance	Organizational Communications	Developing networked communications
61	Governance	Organizational Communications	Developing organizational communications
62	Governance	Organizational Communications	Developing internal communications
63	Governance	Organizational Communications	Multiple organizational relations
64	Governance	Reducing Complexities	Organizational size
65	Governance	Reducing Complexities	Task complexity
66	Governance	Reducing Complexities	Division of labor
67	Governance	Organizational Centralization	Organizational fit/alignment
68	Governance	Organizational Centralization	Reducing discretion by moving toward systemization
69	Governance	Organizational Centralization	Control and coordination of activities and reviews
70	Governance	Organizational Centralization	Job safety
71	Governance	Organizational Centralization	Flexible organizational structure

The first organizing theme, Knowledge and Awareness, consolidates codes that describe the human and professional capacity required for a participatory tax policy environment. The base theme of Professional Ethics highlights value-centered conduct and fairness (e.g., promoting human values, organizational justice), which are foundational for credible engagement between the tax authority and taxpayers. The complementary base themes—Dynamism and Flexibility and Professional Competence—underscore adaptability, system agility, and interpersonal capability (e.g., communication skills, self-management), implying that participation is not only procedural but also competence-dependent within the organization.

The Cultural organizing theme captures the social and normative environment that shapes willingness to participate and comply. Tax Culture includes codes tied to understanding the evolving technological context of taxation and resisting tax evasion, framing participation as intertwined with both literacy and compliance norms. The base themes of Public Values and Public Trust stress legitimacy, social responsibility, accountability, and openness to change, indicating that taxpayer participation is more likely when the tax system is perceived as acceptable, responsive, and trustworthy—particularly in online interactions.

Within Technology and Infrastructure, the data converge on a single base theme: Development of the Electronic Tax Environment. The codes emphasize expansion of online taxation, investment in modern technologies,

awareness of technological shifts and international practices, platform digitalization, and the removal of bureaucratic barriers. Conceptually, this theme positions digital transformation not as a peripheral modernization project but as a direct enabler of participation by lowering transaction costs, improving access, and making feedback and engagement scalable.

The Administrative Structure organizing theme specifies the organizational mechanisms that translate participation principles into operational practice. Strategic Functions focus on identifying new processes, mapping taxpayer needs, correcting system defects, and assessing organizational competencies—elements that define readiness for participatory policy-making. Supervisory Functions emphasize electronic oversight and aligning organizational objectives with taxpayer needs, while Support Functions foreground technical responsiveness, training, standardization, and quality improvement. Together, these base themes depict an administration that must be simultaneously adaptive, accountable, and service-capable to sustain taxpayer participation.

The Legal and Regulatory Requirements organizing theme frames participation within the institutional rules that ensure predictability and enforceability. The base theme of Accountability contains movement toward e-government, global connectivity, and futures-oriented thinking, reflecting a regulatory posture that anticipates change and communicates beyond domestic boundaries. Stability of Laws and Systems captures continuous improvement, efficiency, and policy compliance, suggesting that participation is weakened in unstable or incoherent rule environments. Enforcement Guarantee codes (no legal compromise, legislative considerations, unified penalties) indicate that participation also relies on credible enforcement and consistent consequences.

The Economic Conditions organizing theme situates participatory tax policy within macro-fiscal and distributive expectations. The Revenue Role base theme includes reducing the budget's dependency on tax revenue, directing tax proceeds to infrastructure, and surveying taxpayers about spending priorities, which collectively signal that transparency and earmarking perceptions can motivate engagement. The Economic Improvement base theme (market and consumption control) implies that participation is linked to confidence in economic governance, while Fair Distribution of Resources (reducing class gaps, channeling resources to productive projects, strengthening banking capacity) frames taxpayer participation as contingent on perceived distributive justice and tangible developmental outcomes.

Finally, the Governance organizing theme brings together structural and relational features that coordinate the whole system. Organizational Communications codes stress networked, organizational, and internal communication as prerequisites for sustained stakeholder interaction. Reducing Complexities highlights how size, task complexity, and division of labor affect manageability and clarity in participatory processes. Organizational Centralization codes—organizational alignment, reducing discretion via systemization, coordination and control, job safety, and flexible structure—together suggest that effective participation requires a governance balance: standardized and coordinated processes that reduce arbitrariness, while maintaining enough flexibility to adapt to stakeholder inputs.

Across all seven organizing themes, Table 1 demonstrates that taxpayer participation in tax policy-making is a multidimensional construct spanning people and ethics, culture and trust, digital capability, administrative capacity, legal coherence, economic legitimacy, and governance architecture. The coding structure indicates that participation is best understood as a system-level configuration rather than a single mechanism; it depends on aligned improvements in organizational behavior, institutional design, and socio-technical infrastructure. This

thematic foundation provides a defensible basis for subsequent structuring (e.g., ISM) and measurement validation phases by explicitly linking micro-level codes to meso-level base themes and macro-level organizing domains.

Table 2 summarizes the descriptive results of the second-stage questionnaire analysis by reporting the mean scores of both base components and their corresponding organizing components. These results reflect expert judgments regarding the degree of alignment between the extracted model dimensions and the current conditions of the Iranian National Tax Administration, with higher mean values indicating stronger perceived fit.

Table 2. Analysis of the results of the second-stage questionnaire

Organizing component	Base component	Mean score of base component	Mean score of organizing component	Organizing component	Base component	Mean score of base component	Mean score of organizing component
Knowledge and Awareness	Professional ethics	7.156	7.763	Legal and Regulatory Requirements	Accountability	9.006	8.758
	Dynamism and flexibility	8.126			Stability of laws and systems	8.746	
	Professional competence	8.007			Enforcement guarantee	8.523	
Cultural	Tax culture	4.003	3.638	Economic Conditions	Fair distribution of resources	7.203	7.619
	Public values	3.156			Economic improvement	7.653	
	Public trust	3.756			Revenue role in the budget	8.001	
Technology and Infrastructure	Development of the IT environment	6.145	6.145	Governance	Organizational centralization	9.235	8.568
	Administrative Structure	Strategic functions			5.156	Reduced complexity	
Support functions		4.528	Political/organizational communications	8.048			
Supervisory functions		4.756					
Executive functions		4.003					

The results presented in Table 2 indicate clear differentiation among the organizing components in terms of their perceived alignment with a taxpayer-participation-oriented tax policy model. Legal and regulatory requirements and governance achieved the highest organizing-component mean scores, suggesting that experts view accountability, regulatory stability, enforcement guarantees, and centralized yet coordinated governance as the strongest existing foundations for participatory tax policy-making. Knowledge and awareness also received a relatively high mean score, driven particularly by dynamism, flexibility, and professional competence, which implies that human and cognitive capacities within the organization are viewed as comparatively well aligned with participatory objectives. Economic conditions showed a moderately high level of alignment, especially in relation to revenue allocation and fair distribution of resources, indicating that fiscal transparency and distributive considerations are salient to participation. In contrast, technology and infrastructure demonstrated a moderate fit, reflecting partial progress in digitalization and IT development. Administrative structure and cultural components recorded the lowest organizing-component mean scores, highlighting perceived weaknesses in organizational processes, support and execution mechanisms, and, more critically, in tax culture, public values, and public trust. Overall, the pattern of means suggests that while formal-regulatory and governance arrangements are relatively robust, softer dimensions related

to culture, trust, and internal administrative capacity require greater strengthening to fully realize a taxpayer-participation-based tax policy framework.

Table 3. Aggregated expert judgments on the relationships among the organizing components of tax policy-making with a taxpayer participation orientation

Organizing components (Factor i)	Knowledge and Awareness	Culture	Technology and Infrastructure	Administrative Structure	Legal and Regulatory Requirements	Economic Conditions	Governance
Knowledge and Awareness	1	28	16	28	10	19	10
Culture	16	1	16	18	12	18	15
Technology and Infrastructure	25	28	1	29	20	25	12
Administrative Structure	18	31	17	1	11	14	21
Legal and Regulatory Requirements	32	29	26	24	1	31	16
Economic Conditions	29	32	25	27	25	1	17
Governance	32	29	26	24	1	31	19

The results presented in Table 3 summarize the collective judgments of experts regarding the pairwise relationships among the seven organizing components of the tax policy-making model with a taxpayer participation perspective. The frequency patterns indicate that legal and regulatory requirements, economic conditions, and governance exhibit the strongest perceived interactions with other components, as reflected by consistently high values across multiple columns. Technology and infrastructure also show substantial relational intensity, particularly in connection with administrative structure and economic conditions, underscoring their enabling role within the system. In contrast, knowledge and awareness and cultural components display comparatively lower interaction frequencies, suggesting that while they are conceptually important, experts perceive their systemic influence to be more indirect. Overall, the table highlights a dense network of interdependencies, reinforcing the view that taxpayer participation in tax policy-making is shaped by mutually reinforcing institutional, economic, and governance-related factors rather than isolated dimensions.

Table 4. Final reachability matrix of the organizing components of tax policy-making with a taxpayer participation orientation

Organizing components (Factor i)	Knowledge and Awareness	Culture	Technology and Infrastructure	Administrative Structure	Legal and Regulatory Requirements	Economic Conditions	Governance
Knowledge and Awareness	1	1	0	1	0	0	0
Culture	0	1	0	0	0	0	1
Technology and Infrastructure	1	1	1	1	1	1	0
Administrative Structure	0	1	0	1	0	0	1
Legal and Regulatory Requirements	1	1	1	1	1	1	1
Economic Conditions	1	1	1	1	1	1	1
Governance	1	1	1	1	1	1	1

Table 4 presents the final reachability matrix derived from the Interpretive Structural Modeling procedure, translating expert judgments into a binary representation of directional influence among components. The matrix shows that legal and regulatory requirements, economic conditions, and governance possess full reachability

across all components, identifying them as dominant driving factors within the system. Technology and infrastructure also demonstrate broad reachability, influencing most components except governance, which suggests a strong enabling but not fully overarching role. Knowledge and awareness, culture, and administrative structure exhibit more limited reachability, indicating their greater dependence on higher-level drivers. Collectively, the reachability structure reveals a hierarchical configuration in which regulatory, economic, and governance dimensions form the foundational drivers of a taxpayer-participation-oriented tax policy model, while cognitive, cultural, and administrative elements function more as dependent or mediating components within the overall system.

Table 5. Final level partitioning of the organizing components of tax policy-making with a taxpayer participation orientation (Level 1 = most dependent)

Organizing component	Final ISM level	Dependency/driver status
Legal and Regulatory Requirements	Level 1	Most dependent (outcome-oriented)
Economic Conditions	Level 2	High dependence, moderate driving power
Culture	Level 3	Intermediate (mediating)
Knowledge and Awareness	Level 4	Lower dependence, enabling
Technology and Infrastructure	Level 4	Lower dependence, enabling
Administrative Structure	Level 4	Lower dependence, enabling
Governance	Level 4	Lowest dependence, strongest driver

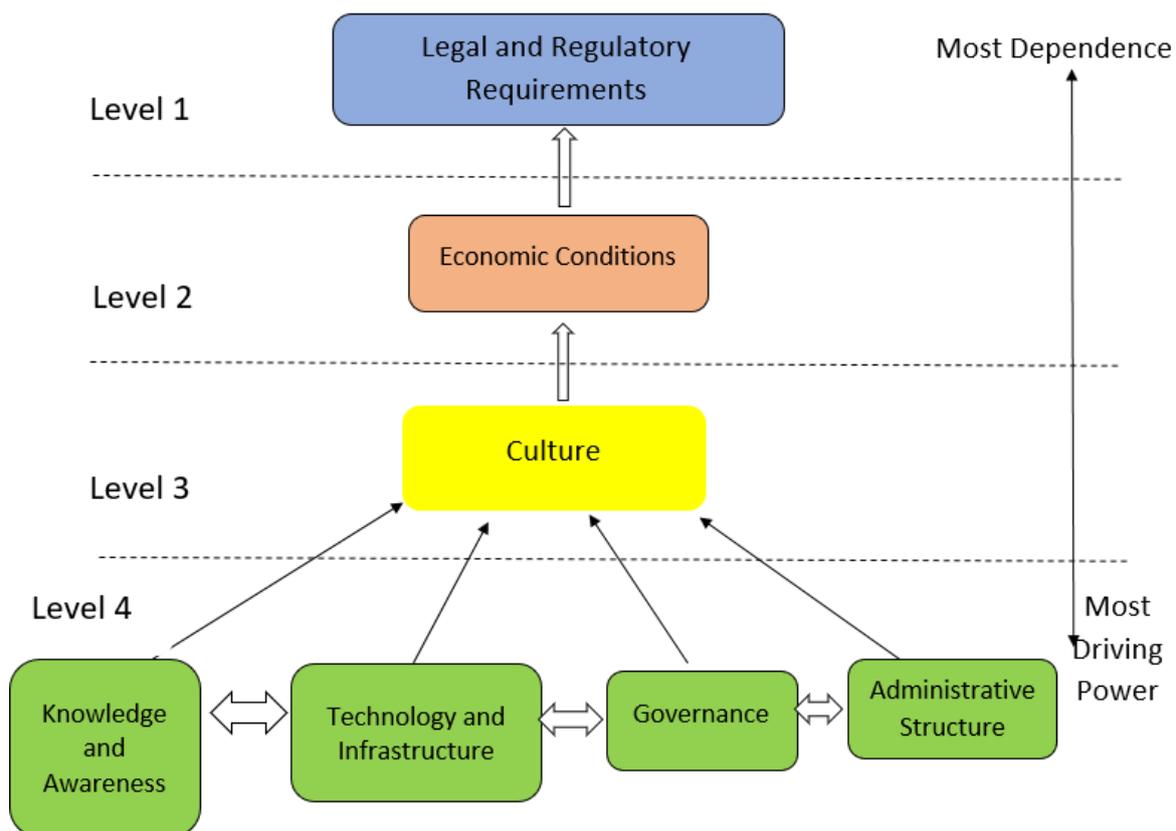


Figure 1. Final Ranking Model

Table 5 presents the consolidated results of the Interpretive Structural Modeling level partitioning by merging the outcomes of all intermediate level-identification tables into a single hierarchical structure. As shown, Legal and Regulatory Requirements emerge at Level 1, indicating that this component is the most dependent element in the system and is primarily shaped by the influence of other dimensions. Economic Conditions are positioned at Level

2, reflecting substantial dependence on upstream drivers while still exerting limited influence on downstream outcomes. Culture occupies Level 3, functioning as an intermediate or mediating component that both absorbs influences from structural drivers and transmits them toward more outcome-oriented dimensions. In contrast, Governance, along with Knowledge and Awareness, Technology and Infrastructure, and Administrative Structure, is located at Level 4, representing the least dependent and most influential layer of the system. These components act as foundational drivers that shape the overall configuration of taxpayer participation in tax policy-making. Overall, the hierarchy demonstrates that participatory tax policy outcomes are ultimately realized through legal and economic manifestations, but they are fundamentally driven by deeper governance, organizational, cognitive, and technological capacities within the tax administration system.

Discussion and Conclusion

The findings of this study provide a multidimensional and hierarchically structured understanding of taxpayer participation in tax policy-making within the Iranian National Tax Administration. The results demonstrate that taxpayer participation is not a singular behavioral or administrative phenomenon, but rather a systemic outcome shaped by the interaction of governance, legal–regulatory, economic, technological, administrative, cultural, and cognitive dimensions. This aligns with contemporary perspectives in tax policy literature that conceptualize taxation as an institutional and relational system rather than a purely fiscal instrument (1). The validated model underscores that effective participatory tax policy-making depends on deep structural drivers rather than isolated reforms.

One of the most significant results of this study is the identification of governance, legal and regulatory requirements, and economic conditions as the strongest driving forces within the system. These components occupied the highest hierarchical levels in the interpretive structural model, indicating their foundational role in shaping other dimensions. This finding is consistent with research emphasizing regulatory stability and institutional coherence as prerequisites for effective tax policy outcomes (18). When tax policies are embedded in stable legal frameworks and supported by coherent governance structures, taxpayers are more likely to perceive the system as legitimate and predictable, which in turn facilitates participation and compliance. The prominence of governance also reflects the importance of coordination, centralized oversight, and systemization in reducing discretionary practices that undermine trust, a point echoed in studies on regulatory legitimacy and tax ethics (2).

The strong influence of economic conditions observed in this study further reinforces the argument that taxpayer participation is closely tied to perceptions of distributive justice and macroeconomic rationality. The relatively high mean scores for economic components—particularly those related to revenue allocation, fair distribution of resources, and investment in productive sectors—suggest that experts perceive participatory tax policy as inseparable from broader economic outcomes. This aligns with findings that tax compliance and engagement are sensitive to how tax revenues are utilized and whether taxpayers perceive tangible social and economic returns (3). In contexts of economic pressure, such as inflationary environments or fiscal constraints, participatory mechanisms may function as legitimacy-enhancing tools that mitigate resistance and strengthen fiscal capacity (4).

The results related to legal and regulatory requirements further illuminate the dual role of participation and enforcement. While participatory approaches emphasize dialogue and inclusion, the findings show that strong enforcement guarantees and regulatory clarity remain essential. High mean scores for accountability, stability of laws, and enforcement mechanisms indicate that participation does not substitute for legal authority but rather complements it. This supports empirical evidence that voluntary compliance is most effective when participatory

and service-oriented approaches operate alongside credible enforcement frameworks (22). Moreover, the integration of accountability and foresight within the legal dimension reflects the growing importance of adaptive regulation in the face of technological and economic change (17).

Technology and infrastructure emerged as enabling but not dominant drivers in the model. While digitalization-related components demonstrated moderate to high alignment, they were positioned below governance and legal-economic drivers in the hierarchical structure. This finding nuances the often techno-optimistic narrative surrounding digital tax reforms. Although electronic tax systems, online filing, and data-driven tools can reduce compliance costs and corruption (9), the present results suggest that technology alone cannot generate meaningful taxpayer participation without supportive institutional and cultural conditions. This interpretation aligns with studies on blockchain and artificial intelligence in taxation, which caution that technological innovations require participatory governance frameworks to achieve legitimacy and effectiveness (10-12).

The relatively lower scores and dependent positioning of cultural and administrative structure dimensions represent one of the most critical insights of the study. Cultural components—such as tax culture, public trust, and shared values—received the lowest mean scores, indicating perceived weaknesses in these areas within the Iranian context. This finding is consistent with behavioral tax research demonstrating that trust and cultural norms are often the most fragile yet influential determinants of compliance (2). The dependence of cultural factors on higher-level drivers suggests that improvements in tax culture cannot be achieved through isolated awareness campaigns alone but require systemic reforms in governance, legal transparency, and economic fairness. Similar conclusions have been drawn in studies linking social norms and legitimacy to compliance behavior in both developed and developing economies (3).

Administrative structure also displayed relatively weak alignment, particularly in support and executive functions. This result highlights organizational capacity constraints that may limit the practical realization of participatory policies. Even when strategic intentions exist, insufficient administrative flexibility, limited staff empowerment, and rigid procedures can undermine participatory initiatives. Prior research on tax administration reform emphasizes that participatory policy-making requires not only external engagement with taxpayers but also internal organizational readiness, including skilled personnel, responsive support systems, and adaptive workflows (8). The findings of this study reinforce this perspective by showing that administrative reforms are necessary mediators between high-level policy intentions and on-the-ground participation.

Knowledge and awareness, encompassing professional ethics, competence, and adaptability, occupied an intermediate position in the hierarchy, with relatively strong mean scores. This suggests that human capital within the tax administration is perceived as a comparative strength that can support participatory policy-making if properly leveraged. The importance of education, skills, and professional ethics aligns with empirical findings that taxpayer understanding and administrative expertise significantly influence compliance and engagement, particularly during periods of policy change or crisis (7). However, the dependent positioning of this dimension indicates that individual competencies alone are insufficient without supportive governance and institutional frameworks.

The integrated structure of the validated model reflects broader international evidence that participatory tax policy-making is inherently systemic. Studies on corporate behavior and tax avoidance demonstrate that strategic responses to tax policies are shaped by a combination of regulatory design, organizational culture, and economic incentives (19, 20). Similarly, research on transparent financial reporting highlights that participatory and incentive-based tax policies can positively influence corporate behavior when aligned with governance and enforcement

mechanisms (21). The present study extends these insights by empirically validating how these diverse elements interact within a single coherent framework.

Importantly, the Iranian context adds a distinctive dimension to these findings. The interaction of economic volatility, digital transformation, and evolving taxpayer expectations creates both risks and opportunities for participatory policy-making. Previous Iranian studies have emphasized systemic policy coherence as a critical challenge (5). The current results complement this literature by demonstrating that taxpayer participation can function as a systemic integrator, linking governance reforms, digital initiatives, and cultural change into a unified policy approach. Incentive-oriented policies that acknowledge taxpayers' financial and psychological conditions may further strengthen this integration (6).

Overall, the discussion of findings suggests that taxpayer participation should be understood as an emergent property of a well-aligned tax system rather than as an isolated policy tool. The hierarchical structure identified in this study indicates that sustainable participation is driven from the top by governance quality, legal stability, and economic rationality, enabled by technology and administrative capacity, and ultimately manifested through cultural trust and informed engagement. This systemic interpretation advances the literature by moving beyond fragmented analyses toward an integrated model of participatory tax policy-making.

Despite its contributions, this study has several limitations that should be acknowledged. First, the research relied primarily on expert judgments, which, although appropriate for exploratory and structural modeling, may not fully capture the perceptions and experiences of the broader taxpayer population. Second, the study was conducted within the specific institutional and socio-economic context of Iran, which may limit the generalizability of the findings to other countries with different tax systems and governance structures. Third, the quantitative validation focused on perceived alignment rather than observed behavioral outcomes, which restricts causal inference regarding the direct effects of participation on compliance or revenue performance.

Future studies could extend this research by incorporating large-scale surveys of taxpayers to complement expert-based models and to examine how different taxpayer groups perceive participatory mechanisms. Longitudinal designs could be employed to assess how changes in governance, technology, or economic conditions influence participation over time. Comparative cross-country studies would also be valuable in testing the robustness of the proposed model in different institutional contexts and in identifying context-specific versus universal drivers of participatory tax policy-making.

From a practical perspective, policymakers should prioritize governance coherence, legal stability, and transparent economic communication as foundations for participatory tax reforms. Investments in digital infrastructure should be accompanied by capacity-building initiatives and feedback mechanisms that actively involve taxpayers. Strengthening administrative flexibility and internal competencies can further enable participation to translate into effective policy outcomes. Finally, sustained efforts to build trust and tax culture—through transparency, accountability, and visible social returns on taxation—are essential for embedding participation as a durable feature of the tax policy-making process.

Acknowledgments

We would like to express our appreciation and gratitude to all those who helped us carrying out this study.

Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adhered in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

References

1. Tocicka J. Assumptions of State Tax Policy. *International Journal of New Economics and Social Sciences*. 2023;18(2):93-100. doi: 10.5604/01.3001.0054.3040.
2. Wenzel M. The Multiplicity of Taxpayer Identities and Their Implications for Tax Ethics. *Law & Policy*. 2007;29(1):31-50. doi: 10.1111/j.1467-9930.2007.00244.x.
3. Belahouaoui R. Analysis of Tax Compliance Behavior of Family Businesses: Combining Social and Psychology norms and Legitimacy Determinants. *International Journal of Sociology and Social Policy*. 2024;44(7/8):672-88. doi: 10.1108/ijssp-12-2023-0314.
4. Liko E, Kola T. Tax Capacity and Tax Effort: Evidence From Albanian Economy. *J Review of Economic Theory and Polic*. 2024.
5. Asadpour Hamzeh A, Amirkabiri A, Rabiei Mandjin MR. Designing and Explaining a Model Based on Systemic Policymaking (With Emphasis on Almond Model) in the National Iranian Tax Administration. *Tax Research*. 2023;30(53):7-44. doi: 10.52547/taxjournal.30.53.1.
6. Zamani Moghadam S, Saeedi F, Kashfi H, editors. The impact of incentive tax policies on reducing financial stress and increasing optimism among taxpayers. *Second National Conference on Linking Education with Society, Organizations, and Industries (From Idea to Practice)*; 2024; Torbat Heydariyeh.
7. Kurnia K, Fajarwati RA. Effect of Education Level, Income Level, and Tax Policy on Taxpayer Compliance During the COVID-19 Pandemic. *International Journal of Health Sciences*. 2022:892-906. doi: 10.53730/ijhs.v6ns9.12336.
8. Netto AJ, Ferreira F. Enhancing Small Business Success Through Effective Tax Management and Policy Optimization. *Revista Sistemática*. 2024;14(5). doi: 10.56238/rcsv14n5-008.
9. Okunogbe O, Pouliquen V. Technology, taxation, and corruption: evidence from the introduction of electronic tax filing. *American Economic Journal: Economic Policy*. 2022;14(1):341-72.
10. Anomah S, Ayebofo B, Aduamoah M, Agyabeng O. Blockchain Technology Integration in Tax Policy: Navigating Challenges and Unlocking Opportunities for Improving the Taxation of Ghana's Digital Economy. *Scientific African*. 2024;24:e02210. doi: 10.1016/j.sciaf.2024.e02210.

11. Fratrič P, Holzenberger N, Restrepo Amariles D. Can AI expose tax loopholes? Towards a new generation of legal policy assistants. 2025.
12. Wang Y, Fang Y, Huang H, Huang T, editors. TaxAgent: Large language model based agent framework for adaptive tax policy design2025.
13. Salehnia N, Nasr Herandi MM, Salehnia S. Emerging Issues of the Digital Economy and its Tax Challenges in Iran (Case Study: Cryptocurrencies). *Economic Research and Policies Quarterly*. 2025;32(112):232-70. doi: 10.61186/qjerp.32.112.232.
14. Romadhon W, Andriani S. The Effect of Tax Policies, Money Laundering Practices, and Tax Avoidance on Crypto Asset Transactions in Indonesia. *Jurnal Ilmiah Manajemen Ekonomi & Akuntansi (Mea)*. 2023;7(1):202-15. doi: 10.31955/mea.v7i1.2865.
15. Neck R, Weyerstrass K, Blueschke D, Verbič M. Demand-side or supply-side stabilisation policies in a small euro area economy: a case study for Slovenia. *Empirica*. 2021;48(3):593-610. doi: 10.1007/s10663-021-09503-y.
16. Singh P, Verma R, Ali S. Targeted tax incentives for innovation-driven enterprises: Impacts and policy implications. *Small Business Economics*. 2025;64(2):377-99.
17. Nagato T. Designing a tax system that encourages innovation in start-ups. *Public Policy Review*. 2024;20(1):1-33.
18. Desai M. Regulatory stability and investment behavior under changing tax policies. *Public Finance Review*. 2024;52(1):88-105.
19. Zhang X, Husnain M, Yang H, Ullah S, Abbas J, Zhang R. Corporate Business Strategy and Tax Avoidance Culture: Moderating Role of Gender Diversity in an Emerging Economy. *Frontiers in Psychology*. 2022;13. doi: 10.3389/fpsyg.2022.827553.
20. Amalia AR, Firmansyah A. Debt policy, sales growth, tax avoidance: the moderating role of independent commissioners. *International Journal of Contemporary Accounting*. 2022;4(2):97-114. doi: 10.25105/ijca.v4i2.14153.
21. Titani J, editor Analyzing the Impact of Government Tax Policies on the Motivation for Transparent Financial Reporting in Companies. 21st International Conference on Management and Human Sciences Research in Iran; 2025; Tehran.
22. Haj Mohammadi F, Aghaei EM, editors. Enhancing Voluntary Compliance by Reducing Compliance Costs: A Taxpayer Services Approach. *Proceedings of the Fourth Conference on Fiscal and Tax Policies; 2011: Tax Studies and Research Office*.