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Identifying Points of Divergence and Convergence in Organizational Productivity Improvement Factors in the Tax Administration: A Comparative Study between Iran and Selected Developed Countries

ABSTRACT

Supportive coaching promotes individual development and organizational effectiveness, emphasizing nurturing and learning. Leading organizations utilize skilled managers not only as successful leaders but also as proactive coaches to enhance productivity and reduce costs. The aim of this study was to design a coaching model for managers of Iranian governmental organizations with a focus on sustainable human resources. This research employed a qualitative methodology, and the participants included faculty members specializing in organizational behavior management and human resource management in higher education institutions, senior managers and experts in human resource management in governmental organizations, and specialists with awareness of the research topic. Using the snowball sampling method, 15 experts were selected. Data collection was conducted through semi-structured interviews. For data analysis, thematic analysis based on the six-phase approach of Clarke and Braun (2006) was used through three stages: initial coding, theme development, and theme refinement, utilizing Atlas.ti software. To ensure validity and reliability, necessary assessments were conducted using Holsti's coefficient, Scott's Pi coefficient, Cohen's Kappa index, and Krippendorff's Alpha. The level of agreement among experts, calculated via Holsti's coefficient (observed agreement percentage), was estimated at 0.887; Scott's Pi index at 0.755; Cohen's Kappa at 0.725; and Krippendorff's Alpha at 0.817. Based on the findings, the final model consists of seven main themes: 1) personal and professional characteristics of the coach, 2) coaching process, 3) knowledge-orientation, 4) organizational transformation, 5) technology and equipment, 6) interactivity, and 7) support and resources—comprising 22 sub-themes and 135 indicators.

Keywords: Coaching, Managerial Coaching, Sustainable Human Resources, Governmental Organizations.

Introduction

Organizational productivity in tax administration systems represents a pivotal dimension of public sector performance, fiscal sustainability, and national development. As governments around the world face increasing demands for efficiency, transparency, and responsiveness, the ability of tax administrations to enhance productivity through modern tools, effective policies, and strategic management becomes a critical imperative. In the context of Iran, recent developments in digital transformation, organizational citizenship behaviors, human resource management, and systemic policymaking have created fertile ground for rethinking the foundational elements of productivity enhancement within the Iranian National Tax

Administration (INTA). A growing body of both global and domestic research reflects the urgency to align tax administration practices with rapidly evolving technological, managerial, and institutional landscapes [1, 2].

The transformative potential of digital technologies, particularly artificial intelligence (AI) and big data analytics, has been highlighted as a major force shaping the future of tax administration. These tools are not only revolutionizing internal processes such as tax audits, compliance monitoring, and taxpayer segmentation but are also redefining citizen–state interactions in terms of accessibility, trust, and fairness. In their pioneering study, Zheng et al. (2020) introduced the concept of the AI Economist—a framework designed to optimize productivity and equity through machine learning–based tax policy simulations. This aligns with broader empirical insights by Serrano Antón (2021), who emphasized that AI's integration into tax administration, particularly in inspection and compliance verification, can significantly reduce administrative burden and taxpayer costs while increasing compliance rates [3, 4]. Similarly, Pires (2024) underscored the transformative impact of AI on tax data processing, fraud detection, and real-time analytics, offering promising avenues for administrative agility and decision-making precision [5].

These advancements have substantial implications for Iran's tax system, which is undergoing institutional and cultural reforms. As Mehrkam and Nasimi (2024) argue, leadership styles and managerial orientation in public administration significantly influence the success of digital transformation initiatives. Their study within the INTA highlighted the need for adaptive leadership, participatory management, and strategic alignment to overcome resistance to change and facilitate digital integration [6]. Complementing this, Gholizadeh et al. (2022) developed a structural equation model linking human resource development with organizational productivity, illustrating that strategic investment in training, motivation, and performance evaluation can yield significant productivity gains within tax institutions [1].

Human capital, as a core driver of tax administration performance, also features prominently in literature addressing Islamic organizational values. The evolution of Islamic organizational citizenship behavior (IOCB) has been explored by both Mihan Dost et al. (2022) and Mīhan Dūst et al. (2023), who proposed conceptual models for enhancing employee commitment, ethical engagement, and intra-organizational cooperation within the INTA. Their qualitative analyses indicate that fostering a value-based organizational culture rooted in trust, accountability, and shared mission can substantially boost voluntary compliance and reduce supervisory overheads [7, 8]. These cultural and ethical elements are not only compatible with technological reforms but essential to their legitimacy and long-term sustainability.

Globally, similar insights have been documented in the context of developing economies. For instance, Adelekan et al. (2024) examined the comparative role of AI and blockchain in enhancing tax compliance in the United States, stressing how technology can help bridge institutional gaps, reduce corruption, and build taxpayer trust. Their findings emphasize that digital tools, while technically feasible, must be embedded in a well-designed institutional framework supported by legal clarity, ethical governance, and managerial competence [9]. This resonates with the work of Kochanova et al. (2020), who assessed the broader question of whether e-government improves government capacity. Using cross-national data, they found that digitization leads to measurable improvements in tax revenue, reduced compliance costs, and enhanced procurement transparency—but only when accompanied by systemic reforms and political will [10].

From a policy design standpoint, the alignment between administrative structure and systemic policymaking is of great importance. Asadpour Hamzeh et al. (2023) introduced a model based on the Almond systemic policy framework, adapted to the specific needs of Iran's tax ecosystem. Their research identifies interdependencies among institutional rules,

stakeholder networks, and fiscal instruments, advocating for a multidimensional policymaking strategy that transcends siloed reforms and addresses root causes of inefficiency [2]. In this context, policy integration should not only account for internal organizational processes but also consider external socio-economic dynamics and taxpayer behavior.

Taxpayer behavior, particularly in terms of motivation and productivity, is also indirectly influenced by environmental and regulatory conditions. Pang (2018) provided a novel perspective by investigating how pollution abatement policies can affect labor productivity. Although the study's focus is not directly on tax administration, it implies that regulatory frameworks (including tax policies) have complex spillover effects on worker performance and organizational output [11]. This is echoed in Sowole and Adekoyejo's (2020) findings on the influence of VAT on economic development in Nigeria. They argue that beyond fiscal revenue, tax systems shape investment climates, business incentives, and public confidence in state institutions—factors that ultimately feed back into organizational productivity [12].

In the Iranian context, several challenges persist. Alamtabriz and Shayesteh (2011) evaluated outsourcing strategies in tax collection using the fuzzy TOPSIS approach and found that strategic outsourcing, if implemented with robust monitoring mechanisms, could enhance organizational efficiency. Their research cautions, however, against indiscriminate outsourcing without capacity assessments or accountability frameworks [13]. Similarly, Sadeghi et al. (2020) proposed a managerial competency model for the Iranian tax system, emphasizing leadership integrity, decision-making acumen, and communication effectiveness as critical enablers of institutional productivity [14].

Adding to the managerial discourse, Wang et al. (2022) explored the implications of big data analytics in tax administration. They highlighted both opportunities and challenges, noting that while data science can vastly improve risk profiling, audit targeting, and resource allocation, issues of data privacy, integration, and personnel training remain persistent obstacles [15]. Their work suggests that technical capacity must evolve in tandem with organizational culture, data governance policies, and adaptive legal frameworks.

In conclusion, the collective body of literature—from domestic studies within the INTA to comparative international research—demonstrates that improving organizational productivity in tax administration is a multi-layered endeavor. It requires a confluence of technology adoption, human capital development, strategic leadership, cultural alignment, and institutional reform. Iran, by drawing on these diverse experiences and adopting a systems-based policy approach, is well-positioned to move toward a more agile, accountable, and productive tax administration model. The present study, grounded in both qualitative inquiry and international benchmarking, seeks to synthesize these elements and contribute to the formulation of a comprehensive model for productivity enhancement in the Iranian National Tax Administration.

Methods and Materials

This research was conducted using a qualitative methodology, grounded in interpretive paradigms to explore the underlying similarities and differences in productivity improvement factors within tax administrations across diverse geopolitical and institutional contexts. The study participants were carefully selected through purposive sampling, focusing on expert knowledge and professional experience to ensure the validity and depth of insight. The participant pool was divided into two groups: those selected for in-depth interviews, and those whose insights were obtained indirectly through literature and documentary analysis. The interview group consisted of 16 distinguished individuals, including academic experts and senior practitioners in the field of organizational productivity and tax management. Eligibility criteria for inclusion in the

interview sample were stringent and involved a combination of educational and professional benchmarks. All participants held at least a master's degree in fields related to management or organizational productivity and had no less than ten years of executive-level experience in the Iranian National Tax Administration. Furthermore, many were faculty members at accredited universities and had a substantial record of publications, research, or authored books in the domain of productivity, particularly within taxation and public administration. Additionally, some experts were nominated by their peers due to their recognized contributions and deep understanding of productivity in tax-related institutions. The sampling process continued until theoretical saturation was reached, ensuring that data collection ceased only when no new themes were emerging from the interviews.

To collect data from the interview participants, a semi-structured interview protocol was employed. This approach provided the flexibility to explore core themes while allowing participants the freedom to elaborate on areas they considered significant. Each interview was designed to extract comprehensive insights about productivity-enhancing mechanisms in the tax administration, both within Iran and from a comparative global perspective. In addition to interviews, a systematic documentary and library-based study was undertaken. This involved the examination of scholarly articles, reports, policy documents, and institutional reviews published between 2000 and 2024. The documentary analysis followed the George F. Brady comparative model, a well-established method in comparative education and policy studies, to guide the extraction and synthesis of cross-national evidence. Brady's method involves four sequential stages: description, interpretation, juxtaposition, and comparison. In the description phase, relevant evidence regarding productivity improvement practices in selected developed countries was compiled based on available documents, government records, academic studies, and institutional reports. The interpretation phase followed, in which these findings were analyzed to uncover meaning, context, and relevance. In the juxtaposition stage, the interpreted data were arranged to facilitate systematic comparisons by identifying commonalities and contrasts. Finally, the comparison phase offered a deeper analysis of points of convergence and divergence between Iran's tax administration and those of the selected countries. This combination of expert interviews and comparative document analysis enabled the researchers to triangulate data and increase the reliability of the findings.

The data collected through interviews were analyzed using thematic analysis, a widely accepted qualitative approach for identifying, analyzing, and reporting patterns or themes within textual data. Thematic analysis in this study followed a recursive six-step process that allowed for an iterative and reflective examination of the data. The process began with immersion in the interview transcripts to achieve deep familiarity with the content. This was followed by the generation of initial codes based on recurring concepts, ideas, and phrases expressed by the participants. The next step involved the grouping of codes into preliminary themes that reflected meaningful units of analysis relevant to the research objectives. At this stage, the researcher utilized various tools such as mind maps and codebooks to organize the data effectively. The fourth step entailed refining these themes into coherent and non-overlapping categories through the construction of thematic networks. During the fifth phase, these networks were critically analyzed to define each theme and interpret its implications for organizational productivity in the tax administration context. The final step involved writing a detailed analytical report that presented the results as interconnected themes, each supported by verbatim quotations from participants and corresponding interpretations.

In parallel, the comparative analysis component—focused on synthesizing productivity improvement practices in selected developed countries—was carried out using Brady's four-step model. The description phase centered on collecting relevant

data concerning institutional reforms, performance management systems, incentive structures, training programs, and leadership styles in advanced tax administrations. The interpretation phase involved the contextual analysis of these elements within each country to understand their socio-political and organizational underpinnings. In the juxtaposition phase, these elements were systematically organized to compare them against the Iranian context. The final comparison phase illuminated areas of alignment, such as shared emphasis on strategic performance measurement, and divergence, such as differences in institutional autonomy or digitalization levels. This dual-layered analysis—combining thematic analysis of expert narratives and cross-national documentary comparison—produced a robust, evidence-based understanding of both internal and external productivity improvement drivers.

Findings and Results

The findings of this study present a comprehensive comparative overview of the key factors that influence organizational productivity improvement in the Tax Administration of Iran, benchmarked against practices observed in several developed countries. Drawing on semi-structured interviews with 16 Iranian academic and executive experts, and employing a systematic documentary review through George F. Brady's four-stage model (description, interpretation, juxtaposition, and comparison), this phase of the research aimed to distill actionable insights and categorize them thematically. The initial step—*description*—entailed the extraction of documented strategies, practices, and reforms undertaken by the tax administrations of countries recognized for their institutional maturity and administrative innovation, such as France, China, Germany, the United States, Japan, Finland, Switzerland, and Singapore. These countries were selected based on their diverse administrative traditions, robust tax governance structures, and established records of productivity enhancement in public sector management. Each of the experiences was coded thematically to facilitate later stages of comparative and thematic analysis. Below is the detailed coding of productivity improvement experiences in each country.

Table 1

Description Phase – Compilation of Experiences Regarding Organizational Productivity Improvement in the Tax Administration of Selected Developed Countries

Country	Identified Experiences	Code
France	Continuous evaluation of training programs	A-1
	Emphasis on developing monitoring tools	A-2
	Focus on advancing modern auditing tools	A-3
	Expansion of intra- and inter-organizational communication	A-4
	Attention to organizational social capital	A-5
	Use of context-sensitive management styles	A-6
	Empowerment of human resources	A-7
	Emphasis on productivity-oriented organizational culture	A-8
	Recruitment of competent human capital	A-9
	Continuous quality improvement of auditors	A-10
	Emphasis on rule of law	A-11
	Systematic accountability mechanisms	A-12
	Organizational flexibility for employees	A-13
China	Development of related technologies	B-1
	Advancement of modern resource allocation methods	B-2
	Improvement of resource supervision strategies	B-3
	Development of organizational knowledge management	B-4
	Expansion of IT-based tools for taxation	B-5
	Emphasis on managerial competence	B-6
	Regulatory evaluation in cyclical intervals	B-7
	Knowledge sharing	B-8
	Tax culture promotion via technology integration	B-9

	Elimination of command-driven organizational structures	B-10
	Sensitivity to employees' social preferences	B-11
Germany	Progressive taxation policies for high-income groups	C-1
	Continuous environmental scanning	C-2
	Tax policy development and strategic alignment	C-3
	Promoting tax culture	C-4
	Comprehensive performance evaluation	C-5
	Targeted job-related continuous training	C-6
	Talent and specialization identification	C-7
	Effective stakeholder communication	C-8
	Continuous training	C-9
	Educational strategy design	C-10
	Focus on quality of work life	C-11
USA	Efficient development of tax data infrastructure	D-1
	Use of innovative financial instruments	D-2
	Regulatory clarity	D-3
	Ongoing evaluation	D-4
	Analysis of employee personality traits	D-5
	Monitoring inter-organizational collaboration	D-6
	Utilization of appropriate communication structures	D-7
	Awareness of organizational capacity for expansion	D-8
	Inter-agency coordination in rate-setting	D-9
	Focus on physical workspace quality	D-10
	Efficient deployment of human resources	D-11
Japan	Advancement of tax culture	E-1
	Expansion of continuous training programs	E-2
	Development of related educational strategies	E-3
	Extension of job-relevant training	E-4
	Human resource capacity building	E-5
	Performance monitoring	E-6
	Knowledge sharing	E-7
	Focus on organizational behavioral competencies	E-8
	Senior management support	E-9
	Monitoring tax law exploitation	E-10
	Systematic evaluation of employee productivity	E-11
	Emphasis on high-quality tax reporting	E-12
	Development of teamwork and collaboration	E-13
Finland	Advancement of monitoring instruments	F-1
	Innovation in management practices	F-2
	Development of information networks and databases	F-3
	Balanced incentive and penalty systems	F-4
	Evaluation of organizational development level	F-5
	Use of environmental scanning tools	F-6
	Diagnosis of educational challenges	F-7
	Absorptive capacity development	F-8
	Monitoring inter-organizational participation	F-9
	Enforcement of professional ethics	F-10
	Tax planning accuracy	F-11
	Precise unit-level evaluations	F-12
Switzerland	Promotion of tax culture	G-1
	Ongoing review of organizational regulations	G-2
	Development of tax-related information networks	G-3
	Human resource training	G-4
	Strategic planning	G-5
	Continuous productivity measurement	G-6
	Emphasis on training tax analysts	G-7
	Use of new IT management systems	G-8
	Organizational agility	G-9
	Activation of innovative tax systems	G-10
	Enhancement of organizational communication	G-11
	Sharing of institutional research findings	G-12
Singapore	Enhancing access to organizational data	H-1
	Quantitative and qualitative development of oversight bodies	H-2
	Support for compliant taxpayers	H-3
	Integration of tax information systems	H-4

Management commitment to productivity	H-5
Emphasis on cultural tax values	H-6
Strengthening organizational communication	H-7
Use of performance measurement systems	H-8
Professional development of staff	H-9
Ongoing inter-agency information exchange	H-10
Enhancing problem-solving skills among employees	H-11
Transition to a learning organization	H-12

The coding and thematic analysis conducted in the description phase of Brady's model uncovered a diverse range of strategies across the selected countries that reflect both structural and behavioral enablers of organizational productivity in tax administrations. A total of 102 unique experiential codes were identified, categorized by country, and distilled from official reports, academic studies, and national reform strategies. The findings reveal that while all countries emphasize human capital development, they differ in the mechanisms employed. For instance, France and Japan focus extensively on continuous education and structured training strategies for tax auditors and staff, whereas the United States emphasizes systemic evaluation and deployment of data infrastructure.

China's experience showcases the integration of information technology into tax administration and governance, including knowledge sharing and digital resource management, which reflects a shift toward smart governance. Germany, by contrast, underscores the importance of stakeholder engagement, policy coherence, and the development of a fair taxation system targeting high-income groups. Meanwhile, Finland's approach integrates ethical behavior, performance measurement, and feedback mechanisms into a cycle of continuous improvement.

Switzerland and Singapore stand out for their commitment to data integration, transparency, and support for compliant taxpayers, reflecting a blend of regulatory sophistication and supportive governance. The Swiss model particularly emphasizes strategic planning and professional training of tax analysts, while Singapore's productivity model is deeply rooted in knowledge transfer, performance measurement, and organizational learning principles.

The findings from this phase of the research provide a comprehensive foundation for subsequent analytical steps— especially interpretation and comparison—in which patterns of convergence and divergence with Iran's context will be examined. Moreover, the diverse yet interconnected strategies adopted by these countries offer a rich set of inputs for designing a customized model for improving productivity in Iran's tax administration.

Table 2:

Interpretation Phase – Clarifying Selected Experiences Related to Organizational Productivity Improvement in the Tax Administration of Selected Developed Countries

Country	Experience Related to Organizational Productivity Improvement	Interpretation of the Experience
France	Focus on developing modern auditing tools	Monitoring and identifying modern auditing tools and approaches in accordance with updated standards and current practices
	Expansion of intra- and inter-organizational communication	Continuous information exchange with other organizations to benefit from successful experiences and anticipate trends
China	Development of modern resource allocation methods	Identifying new and traditional methods of organizational resource allocation for improved efficiency
	Optimal use of related technologies	Deploying emerging technologies such as virtual networks, blockchain, and IoT to encourage active participation in tax compliance
Germany	Continuous environmental scanning	Recognizing environmental needs and priorities in tax collection to improve organizational responsiveness
	Tax policy development and strategic alignment	Adopting a long-term, problem-oriented policy mindset that fosters conducive conditions for organizational tax compliance
USA	Efficient development of tax data infrastructure	Expanding tax data infrastructures based on the latest global advancements and standards

	Regulatory clarity	Clarifying tax laws for various organizations to foster shared understanding and prevent contradictory interpretations
Japan	Advancement of tax culture	Enhancing public awareness and collective perception of the importance of paying taxes to the government
	Monitoring misuse of tax regulations by organizations	Continuous observation of organizational behavior to identify potential misuse of tax principles and laws
Finland	Implementation of incentive and penalty systems in taxation	Applying diverse motivational and deterrent methods to encourage or discourage organizational behavior accordingly
	Emphasis on accurate tax planning	Considering internal and external resources, strengths, and weaknesses for effective planning
Switzerland	Strategic planning	Macro-level planning aligned with organizational goals
	Continuous measurement of productivity indicators	Accurate productivity assessment using a range of identified indicators
Singapore	Integration of tax information systems	Coordinating and aligning information systems across departments for optimized use of data
	Ongoing inter-agency information exchange	Sustained information sharing with other organizations to benefit from best practices and anticipate evolving trends

The second phase of the analysis, *interpretation*, aimed to eliminate ambiguity from the initial descriptive accounts by providing deeper contextual clarity for selected experiences from each country. For each nation, two experiences were chosen based on their relevance, conceptual richness, and transferability to the Iranian tax administration system. The goal was to enhance understanding and draw practical meaning from otherwise broad or abstract concepts. This interpretive step was particularly critical in bridging theoretical understanding with actionable insights.

For instance, in France, the focus on developing modern auditing tools is interpreted not merely as a technological upgrade but as an active and ongoing process of identifying, evaluating, and integrating contemporary auditing standards while retaining awareness of traditional and current auditing practices. Similarly, France's emphasis on expanding organizational communication is understood as fostering structured and continuous inter-organizational information flow to share successful experiences and anticipate strategic changes.

China's experience with developing modern resource allocation methods is interpreted as a strategic process of reviewing historical, current, and emerging mechanisms to ensure optimal distribution of resources within the organization. In tandem, China's utilization of cutting-edge technologies is not limited to adoption but emphasizes their targeted use—such as blockchain and IoT—to enhance participation in taxation, suggesting a broader shift towards technologically mediated tax governance.

Germany's emphasis on environmental scanning and strategic policy formulation is interpreted as a dual-layered approach: first, to proactively identify evolving needs and priorities within the tax collection ecosystem, and second, to formulate long-term, issue-oriented policies that strengthen organizational tax performance through stakeholder engagement and contextual responsiveness.

In the case of the United States, the development of tax data infrastructure is interpreted as building systems that align with global standards and leverage technological advancements to improve transparency and operational efficiency. Complementing this, the drive for regulatory clarity addresses the need for consistent interpretation of tax laws across sectors, thereby preventing legal ambiguities that could hinder compliance.

Japan's emphasis on promoting a tax culture is seen as a national strategy to shift public attitudes and foster a collective understanding of civic duty regarding taxation. Simultaneously, continuous monitoring of organizations for tax misuse is interpreted as a preventive mechanism that safeguards the integrity of the tax system through early detection of legal violations.

Finland's approach combines structural and behavioral levers. The implementation of incentive and penalty systems is understood as a calibrated strategy to guide organizational behavior through both rewards and deterrents, enhancing

voluntary compliance. Meanwhile, emphasis on accurate tax planning indicates a systemic effort to align planning processes with internal capacities and environmental opportunities.

Switzerland, with its strategic planning and constant measurement of productivity indicators, reveals a data-driven and goal-oriented culture. Strategic planning is not interpreted in isolation but as an integrated component of broader institutional objectives, while productivity measurement is framed as a continuous process of identifying and applying a spectrum of performance metrics.

Lastly, Singapore's integration of tax information systems is interpreted as a structural reform aimed at harmonizing fragmented data systems to optimize organizational intelligence and reduce redundancy. Its commitment to ongoing inter-agency information exchange echoes the need for policy learning and institutional agility, facilitating shared understanding and innovation diffusion.

In sum, this interpretive phase serves as a critical bridge between the raw data identified in the description phase and the comparative and analytical insights that will be drawn in subsequent stages. It adds layers of contextual specificity to each selected experience and enhances their explanatory power for application in policy and practice within the Iranian tax administration system.

Table 3:

Juxtaposition Phase – Aggregation of Similar Experiences on Organizational Productivity Improvement in Tax Administrations of Selected Developed Countries

No.	Aggregated Codes	Shared Experiences Related to Organizational Productivity Improvement
1	G-1, H-6, A-8, C-4, E-1, B-9	Tax culture promotion
2	G-2, B-7, D-3, A-11	Adherence to laws and regulations
3	F-6, C-2	Environmental monitoring
4	H-10, A-4, A-13, B-10	Employee relations
5	D-5, A-5	Attention to human resources
6	F-2, B-6	Focus on managerial competency
7	H-4, F-3, D-1, G-3	Efficient data management
8	B-1, G-8, B-5	Improvement in information technology
9	A-9, A-7, C-7	Emphasis on human resource development
10	F-9, D-5, B-11	Attention to behavioral traits of employees
11	F-5, G-5, C-11	Organizational maturity and development level
12	A-10, A-3	Importance of auditing
13	C-9, E-4, D-10, D-11	Employment conditions
14	G-4, G-7, C-6	Job-related training
15	H-1, B-9	Expansion of information networks
16	H-2, A-2	Supervisory organizations
17	B-2, B-3	Optimal resource allocation
18	F-4, E-11, D-2, F-12, E-12	Modern auditing methods
19	C-10, E-5	Tax literacy and awareness
20	D-8, A-6, G-10, E-13, G-11	Organizational development
21	F-10, E-8, H-11	Focus on organizational behavioral skills
22	E-2, E-3, F-7	Educational programs and human capital development
23	H-9, A-1, H-12	Professional development
24	B-8, E-7, B-4, F-8, G-12	Knowledge management
25	D-7, H-7, C-8	Organizational cultural and social development
26	H-5, D-9, E-9, H-3	Increased organizational support
27	C-3, A-12, E-10, A-12, F-11, G-9, C-1	Effective tax system management
28	E-6, H-8, C-5, D-4, F-1, D-6, G-6	Performance management

The third analytical stage of the study—*juxtaposition*—involved the systematic aggregation of thematically similar experiences identified across the selected developed countries. This phase was designed to uncover shared concepts, policy themes, and structural practices that represent convergent pathways toward improving organizational productivity in tax

administrations. Through comparative coding, a total of 28 joint thematic clusters were extracted by grouping together semantically and functionally similar codes from multiple national cases.

One of the most prominent and recurring themes was "tax culture promotion", which appeared consistently across several countries including France, Germany, Japan, Singapore, and China. These experiences point to a shared recognition that improving public awareness and perception about taxation is foundational for fostering voluntary compliance and long-term productivity. Closely related to this is the theme of "adherence to laws and regulations," reflecting the global emphasis on regulatory clarity, rule of law, and legal harmonization to reduce ambiguity and administrative inefficiency.

Another notable cluster is "performance management," which included experiences such as continuous performance measurement, inter-organizational collaboration evaluation, and use of advanced assessment tools. This convergence suggests a widespread commitment to accountability and evidence-based decision-making in public finance institutions.

The thematic code for "efficient data management" unified insights from countries like the U.S., Singapore, Finland, and Switzerland, underscoring the importance of integrated databases and digital infrastructure as enablers of responsiveness, accuracy, and system interoperability. Similarly, the cluster of "modern auditing methods" reflects how countries are transitioning from traditional models toward more agile, technology-driven, and risk-based auditing strategies to enhance operational transparency.

Human capital emerged as another significant domain, reflected in multiple clusters such as "professional development," "human resource development," "attention to behavioral traits," and "job-related training." These suggest that the enhancement of skills, competencies, and workplace culture is not only a shared priority but also a strategic pillar of tax administration reform in advanced systems.

Countries also placed substantial emphasis on "organizational development," with themes pointing to structural flexibility, cross-unit coordination, inter-agency collaboration, and empowerment mechanisms. Within this category, innovations such as transforming tax organizations into "learning organizations" or promoting agile administrative cultures were particularly notable in contexts like Singapore and Switzerland.

In terms of managerial aspects, themes such as "focus on managerial competency," "effective tax system management," and "optimal resource allocation" highlighted the importance of leadership capability, strategic planning, and fair distribution of organizational resources in achieving productivity outcomes.

Furthermore, the theme of "knowledge management" stood out as a shared experience involving knowledge sharing, organizational learning, and institutional memory preservation across countries like China, Finland, Japan, and Switzerland. This suggests an increasing awareness of intellectual capital as a productivity lever.

Finally, several unique yet converging themes were identified, such as "expansion of information networks," "supportive supervision structures," "employment conditions," and "organizational support mechanisms," each pointing to nuanced organizational reforms that have shown demonstrable impact in developed tax administrations.

In essence, this juxtaposition phase confirms that while countries may approach productivity improvement from different administrative, technological, or cultural entry points, a substantial degree of overlap exists in their strategic priorities and reform practices. These shared experiences offer valuable reference points for adapting and localizing successful global practices to the context of Iran's National Tax Administration.

Table 4:

Comparison Phase – Comparative Analysis of Influential Factors on Organizational Productivity Improvement in the Tax Administration of Selected Developed Countries and Iran

No.	Identified Factors	USA	France	Germany	China	Japan	Finland	Switzerland	Singapore	Iran
1	Tax culture promotion	*	*	*	*	*	*	–	–	*
2	Adherence to laws and regulations	–	*	*	*	–	*	–	*	*
3	Environmental monitoring	*	*	*	*	*	*	*	*	*
4	Employee relations	*	–	*	–	*	*	*	–	–
5	Attention to human resources	*	*	–	*	–	–	–	*	*
6	Focus on managerial competencies	–	*	–	*	*	*	–	*	*
7	Efficient data management	*	*	*	*	*	*	*	*	*
8	IT improvement	*	*	*	*	*	–	*	–	*
9	Human resource development	*	*	*	*	*	*	*	*	*
10	Attention to behavioral characteristics of staff	*	*	*	–	*	*	*	*	*
11	Organizational maturity and development level	*	*	*	*	*	*	*	*	–
12	Importance of auditing	*	*	*	*	*	–	*	*	*
13	Employment conditions	–	*	*	*	*	*	*	*	–
14	Development of job-related training	*	–	–	*	*	*	*	*	*
15	Expansion of information and communication networks	–	–	*	–	–	–	–	*	*
16	Supervisory organizations	–	*	*	*	–	–	*	*	*
17	Optimal resource allocation	*	*	–	–	*	*	*	–	*
18	Modern auditing methods	*	*	*	*	*	*	*	*	–
19	Taxpayer education and literacy	*	–	*	*	*	*	*	*	*
20	Organizational development	*	*	*	–	–	–	–	–	–
21	Attention to organizational behavior skills	*	*	*	*	*	*	*	*	–
22	Educational and human development programs	–	–	–	*	*	*	*	*	*
23	Professional development	*	*	–	*	–	*	*	–	–
24	Knowledge management	–	*	*	–	*	*	*	*	–
25	Organizational cultural and social development	*	–	*	*	*	–	–	*	*
26	Organizational support	*	–	*	*	*	*	*	*	*
27	Effective tax system management	*	–	–	–	–	*	*	*	*
28	Performance management	*	*	*	*	*	*	*	*	*

The fourth and final qualitative phase—*comparison*—involved an in-depth evaluation of the presence or absence of the 28 previously identified organizational productivity improvement factors across eight selected developed countries and Iran. The purpose of this stage was to systematically compare the prevalence and application of each factor, based on documentary data from the selected countries and interview findings from Iranian experts. This direct comparison provides empirical answers to the second and third research questions regarding commonalities and gaps in productivity drivers and the formulation of a localized improvement model.

The comparative matrix reveals that Iran shares 20 out of 28 factors with the developed countries, indicating substantial overlap and alignment with global practices in areas such as tax culture promotion, adherence to laws and regulations, environmental monitoring, efficient data management, IT development, and human capital enhancement. These common factors suggest that Iran's National Tax Administration is aware of and actively working on many key drivers of productivity identified in advanced administrative systems. In particular, areas such as performance management, managerial competency, and legal compliance appear consistently across all countries, including Iran.

However, the comparison also highlights eight factors that are absent in the Iranian context, based on the qualitative interviews. These include:

1. Employee relations

2. Organizational maturity/development level

3. Employment conditions

4. Modern auditing methods

5. Organizational development

6. Behavioral skills of employees

7. Professional development

8. Knowledge management

The lack of emphasis on these eight factors marks a significant divergence between Iran and the selected global benchmarks. These gaps are especially noteworthy because they include both structural (e.g., organizational development, professional development) and behavioral or cultural components (e.g., employee relations, knowledge sharing), which are increasingly seen as critical to achieving sustainable productivity in public-sector organizations.

The absence of modern auditing methods and professional development mechanisms suggests that Iran may be lagging in updating internal processes and human capital pipelines in line with international standards. Similarly, the lack of attention to organizational behavioral skills and employee relations points to a potential weakness in the internal communication, collaboration, and adaptive capacities of tax administration staff.

Moreover, the neglect of knowledge management—which includes documentation, sharing of institutional learning, and building organizational memory—may limit the administration's capacity to innovate and respond to dynamic policy environments.

Despite these gaps, the comparison validates that Iran has already internalized many of the core operational, legal, and strategic components necessary for improving tax administration productivity. This alignment provides a strong foundation upon which a contextualized improvement model can be constructed.

To respond to the third research question—"What would a productivity improvement model for Iran's Tax Administration look like based on international experiences?"—the findings of this phase directly inform the structure of the proposed model. The model incorporates all 28 identified factors from the cross-national analysis. However, in its practical implementation, particular attention will be directed toward addressing the eight missing factors through targeted policy and capacity-building interventions. The proposed model will subsequently be evaluated, validated, and prioritized in the quantitative phase of the study.

Discussion and Conclusion

The findings of the present study provide valuable insights into the shared and divergent factors influencing organizational productivity in tax administrations, as identified through a qualitative comparative analysis between Iran and selected developed countries. Utilizing Brady's four-stage model—description, interpretation, juxtaposition, and comparison—the study distilled 28 key factors that underpin productivity enhancement within national tax systems. A significant outcome of the comparative phase was the identification of 20 common factors observed in both Iran and the developed countries studied, such as the United States, France, Germany, China, Japan, Finland, Switzerland, and Singapore. These shared elements include environmental monitoring, adherence to laws and regulations, improvement of IT infrastructure, effective data management, and performance management systems. These results confirm that Iran's tax administration is largely aligned with global trends in public sector productivity reforms, particularly in terms of systemic modernization, legal compliance, and digital governance.

Among the most recurrent factors in the studied developed countries was promotion of tax culture, which also emerged as a central theme in the Iranian context. This alignment indicates a growing awareness among tax administrators that compliance is not merely a matter of enforcement but of cultivating a shared civic attitude toward taxation. Studies such as those by Adelekan et al. (2024) and Sowole (2020) highlight the importance of public trust, cultural values, and technological integration in improving compliance rates and revenue collection outcomes [9, 12]. In Iran, initiatives focusing on Islamic organizational citizenship behavior have similarly aimed to embed ethical values and shared purpose within tax administration personnel, reinforcing the connection between cultural dimensions and institutional productivity [7, 8].

Environmental monitoring—present in all eight developed countries analyzed and also in Iran—illustrates the increasing reliance on dynamic, real-time information systems that allow tax authorities to respond to economic shifts, regulatory changes, and emerging compliance risks. This is consistent with the findings of Wang et al. (2022), who identified big data analytics as a transformative force in modern tax systems, enabling responsive auditing, risk profiling, and informed policy-making [15]. The Iranian National Tax Administration's investment in big data platforms and performance evaluation metrics appears to be a step in this direction, supporting evidence-based decision-making and adaptive management.

Adherence to laws and regulations was another shared factor across most countries, underscoring the foundational importance of legal clarity and regulatory coherence. Kochanova et al. (2020) demonstrated that e-government reforms significantly reduce tax compliance costs when accompanied by predictable legal frameworks [10]. The Iranian experience echoes this, where studies like those by Sadeghi et al. (2020) and Asadpour Hamzeh et al. (2023) emphasize the need for systemic policymaking and managerial competency to ensure legal frameworks are both effectively designed and consistently implemented [2, 14].

At the technological level, data management and IT infrastructure emerged as universal elements across all contexts studied. These components reflect the modern trajectory of tax systems, shifting from manual processing to automated, digital-first models. As noted by Serrano Antón (2021) and Pires (2024), AI and blockchain technologies are revolutionizing compliance procedures, enabling real-time monitoring and reducing human error [4, 5]. In Iran, the integration of such technologies is still at a developing stage, but institutional frameworks are gradually accommodating these shifts, particularly in areas such as online tax filing, risk-based audit selection, and digital taxpayer services.

Human capital development, including training, skill enhancement, and performance evaluation, also constituted a shared axis between Iran and developed countries. Gholizadeh et al. (2022) argued that productivity in tax administration is intrinsically linked to workforce capability, and structural investment in professional development leads to measurable gains in organizational output [1]. Similarly, Mehrkam and Nasimi (2024) found that leadership style plays a moderating role in facilitating digital transformation, with participative and transformational leadership styles significantly enhancing employees' adaptability and productivity [6]. These findings are mirrored in several developed countries that emphasize job-related training, professional development, and organizational learning, as evidenced in the comparative phase of this study.

Despite these areas of convergence, eight critical productivity-enhancing factors present in developed countries were found to be underemphasized or absent in Iran's tax administration. These include employee relations, organizational development, employment conditions, modern auditing methods, behavioral skill enhancement, professional development, knowledge management, and organizational maturity. These gaps suggest structural and cultural blind spots that may be undermining Iran's efforts to achieve higher levels of productivity.

The lack of attention to employee relations and behavioral skills, for instance, could hinder teamwork, innovation, and morale. In contrast, countries like Finland and Japan have institutionalized behavioral training programs and cross-functional teams to boost collaboration and adaptability. Pang (2018), in his study on regulatory effects on workplace performance, noted that intangible factors such as work culture, perceptions of fairness, and intra-organizational communication substantially influence productivity outcomes [11]. Similarly, the limited emphasis on knowledge management in Iran is concerning, especially when countries like Switzerland and Singapore have established institutional knowledge-sharing systems that reduce redundancies, enhance learning, and preserve organizational memory. As highlighted by Mihan Dost et al. (2022), Iranian organizations often underutilize their intellectual capital, resulting in fragmented practices and lost institutional knowledge [7].

Another critical gap is in the area of modern auditing practices. While developed countries are increasingly adopting risk-based and data-driven audit systems, Iran's audit mechanisms appear rooted in traditional models. According to Adelekan et al. (2024), AI-enabled auditing systems not only reduce manual workload but also increase the precision of fraud detection and reduce the probability of arbitrary enforcement [9]. The absence of such tools in Iran creates inefficiencies and limits the capacity of tax enforcement to scale in tandem with the economy.

The findings of this study also underscore the importance of systemic policymaking and managerial competency, as highlighted in Asadpour Hamzeh et al.'s (2023) systemic model. Without a coherent policy framework and competent leadership, efforts to enhance productivity risk becoming fragmented and unsustainable [2]. Iran's recent moves toward integrated policy platforms and leadership training are positive steps but require stronger institutionalization and monitoring to yield long-term impact.

Ultimately, the results indicate that while Iran's National Tax Administration has made substantial progress in adopting globally recognized productivity enablers, critical areas remain underdeveloped. Bridging these gaps will require not only the adoption of best practices but also a contextualized understanding of organizational culture, resource limitations, and political constraints. The convergence of digital transformation, ethical governance, and human capital development must be pursued in an integrated and strategic manner.

This study is inherently limited by its qualitative scope, which, while rich in depth and context, may restrict the generalizability of its findings. The sample size—although selected through purposeful and theoretical saturation methods—was relatively small and focused primarily on high-level experts within the Iranian tax administration. As such, perspectives from frontline employees, taxpayers, or cross-sectoral stakeholders were not directly included. Additionally, while the comparative analysis encompassed eight developed countries, the selection was non-exhaustive and may not fully capture global diversity in tax administration models. Furthermore, some of the comparative data relied on secondary sources, which may have limitations in terms of temporal accuracy and contextual nuance. Finally, the coding and interpretation of qualitative data, while rigorous, remain subject to researcher bias, even with peer validation processes.

Future research should consider expanding the scope of analysis to include quantitative validation of the 28 identified productivity factors across a broader sample of tax administration personnel and stakeholders. Mixed-methods studies could help triangulate insights and provide more robust evidence for policy recommendations. Longitudinal research would also be valuable in tracking the implementation and impact of specific reforms over time within the INTA. Comparative case studies between countries at similar stages of economic development could also yield more culturally and institutionally relevant

benchmarks. Finally, exploring the perspectives of taxpayers themselves could offer critical insights into how tax administration reforms are perceived and whether they translate into improved compliance and satisfaction.

The Iranian National Tax Administration should prioritize the institutionalization of underrepresented productivity factors, especially in the areas of modern auditing methods, knowledge management, and employee behavioral competencies. Targeted leadership development programs, informed by global best practices, should be implemented to support managerial effectiveness. Additionally, digital transformation initiatives must be aligned with systemic policymaking frameworks to ensure coherence and sustainability. Structured mechanisms for internal knowledge sharing, staff feedback, and cross-departmental collaboration should be established. Lastly, a shift toward a learning-oriented and agile organizational culture—supported by performance-based incentives—will be essential for achieving sustained improvements in tax administration productivity.

Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Written consent was obtained from all participants in the study.

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.

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