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Regulatory Management: Weaknesses and Potential for Improvement

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ABSTRACT
Designing and implementing a regulatory management system (RMS) that both promotes a country's socio-economic development and is perceived as legitimate is a fundamental aspect of good governance. This analytical study reviews historical and contemporary theoretical works on the interaction between economic, institutional, and social factors of regulation, with a particular focus on developing countries. It argues that, alongside economic factors, both formal and informal institutional elements must be considered when designing and implementing an RMS — an issue of even greater significance for developing economies. **The purpose of the study** is to identify key elements and constraints in implementing regulatory governance, including those specific to developing countries, and to situate these within broader governance and management contexts. The research uses both quantitative and qualitative methods, resulting in the ability to triangulate the results. As a result, it proposes an analytical framework that integrates theoretical and practical insights to highlight the weaknesses and potential for improvement in designing and implementing effective regulatory management systems. **The research outcome**, the confirmation of including formal and informal institutional factors, beyond the purely economic factors, benefits both theory of regulation as well as the regulatory management practitioners.
Keywords: regulatory management system; socio-economic development; developing countries; institutional environment; transparency

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ОРИГИНАЛЬНАЯ СТАТЬЯ

Регуляторное управление: слабые стороны и потенциал для улучшения

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АННОТАЦИЯ
Разработка и внедрение системы управления нормативными требованиями, которая одновременно способствует социально-экономическому развитию страны и сохраняет легитимность, является ключевым элементом эффективного государственного управления. Настоящее аналитическое исследование основано на обзоре научных трудов, посвященных взаимодействию экономических, институциональных и социальных факторов регулирования, с особым акцентом на развивающиеся страны. Авторы утверждают, что при проектировании и реализации указанной системы необходимо в равной степени учитывать как формальные, так и неформальные институциональные факторы наряду с экономическими, что особенно важно для развивающихся экономик. В работе определены ключевые элементы и ограничения, возникающие при внедрении системы управления нормативными требованиями, включая особенности, характерные для развивающихся стран. Эти аспекты рассматриваются в более широком контексте государственного управления и менеджмента, что позволяет выявить основные принципы, элементы и структуру, способствующие эффективному экономическому развитию суверенных государств. **Цель исследования** — выявить ключевые элементы и ограничения в реализации нормативно-правового регулирования, в том числе характерные для развивающихся

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стран, и рассмотреть их в более широком контексте управления и менеджмента. В исследовании используются как количественные, так и качественные методы, что позволяет проводить триангуляцию его результатов. Авторами предложена аналитическая модель, объединяющая теоретические и практические подходы, раскрывающая слабые стороны и потенциал совершенствования процессов проектирования и внедрения системы управления нормативными требованиями. **Результаты** работы станут вкладом в теорию регулирования, а также будут полезны специалистам-практикам.
Ключевые слова: регуляторная система управления; социально-экономическое развитие; развивающиеся страны; институциональная среда; прозрачность

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INTRODUCTION

A regulatory management system (RMS) is a systematic approach to improving the quality of regulation within a country. It involves the coordinated, collaborative, and transparent design and implementation of regulatory policies, institutions, processes, and instruments, as well as the measurement of their results. The implementation of an RMS should incorporate lessons drawn from both theory and practice, addressing weaknesses identified in existing academic research and practical experience. This article expands the study of RMS by focusing on elements that are particularly relevant to developing countries. Its main objective is to identify and systematize the key elements and principles of an effective RMS and, based on this analysis, to propose an analytical framework for designing and implementing systems that deliver inclusive socio-economic benefits. The study also integrates into the RMS several cross-cutting factors such as governance quality, management capacity, and administrative competence and situates them within the broader principles of good governance. This makes the research relevant to contemporary regulatory management challenges faced by both developed and developing countries. The article further contributes to the literature by addressing existing gaps concerning both what and how to analyze when examining the influence of the institutional environment on regulation. Building on these conceptual foundations, the subsequent sections develop an analytical framework for assessing the impact of institutional factors on regulation and apply it to the case of Bangladesh. The analysis reveals that adherence to RMS meta-principles in Bangladesh has been largely superficial. Although there have been noticeable improvements in infrastructure regulation, they remain limited compared to those in developed countries. Moreover, these improvements are often de jure rather than de facto, as enforcement and practical implementation continue to lag behind OECD standards.

The literature review identifies several gaps that inform the development of an analytical framework capable of capturing the effects of institutional environments on regulation. As previous research suggests [1–6], understanding institutional context is crucial for designing appropriate regulatory frameworks for developing economies. However, because levels of institutional development and resource availability vary widely across countries, there can be no universal approach to regulation. Instead, analytical frameworks must be adapted to each country's specific institutional and regulatory context. Consequently, this article develops such a framework, drawing on elements of the "ideal model" of RMS, insights from regulatory practice, and factors specific to developing countries

METHODOLOGY

To achieve the stated objectives, the study employed several complementary research methods and analytical approaches. A historical analysis was used to trace the evolution of regulatory management and to systematize the principles of RMS as presented in earlier research. This was combined with comparative and qualitative analyses to evaluate how different constitutive elements influence the effectiveness of RMS implementation and its contribution to socio-economic development. After identifying these elements, a tailored analytical approach was developed to account for the specific characteristics of each country's regulatory and institutional framework. The study then designed an analytical framework aimed at addressing the identified gaps in the literature and capturing the impact of the institutional environment on regulation. This framework was subsequently applied to the case of Bangladesh, allowing for an empirical assessment of its practical relevance and explanatory potential. The analysis also incorporated the meta-principles

Table 1

Elements for Achieving Regulatory Legitimacy

Elements of achieving regulatory legitimacy	Development of the content of Regulations	Formal institutional context	Informal institutional context
High-level meta-principles	Efficiency	Opportunities, Obligations	Balanced social interests, equality, trust
Key principles of regulation	Economic principles of introducing market forces and competition into regulated sectors	Role of government, the judicial system, predictability of regulation, capacity	Social factors, equality, transparency, accountability, participation.
Possible indicators	Efficiency, independence, regulatory results	Government corruption, bureaucratic capacity, government stability	Accountability and voice, social risks, inequality, consultation.

Source: compiled by the authors.

of good regulation, operationalized through three dimensions (*Table 1*):

Development of regulatory content — examined through the historical evolution of regulatory models and institutions, their independence, effectiveness, and resulting regulatory outcomes.

Formal institutional context — analyzed in terms of the role of government, the judicial system, predictability, and institutional capacity.

Informal institutional context — evaluated through social factors such as equality, transparency, accountability, trust, customs, participation, and public consultation.

RESULTS

Based on the selected methodology, the results identify the key elements, principles, and building blocks of an analytical framework designed to achieve effective regulatory outcomes. The construction of the RMS framework draws on theories of regulation and institutions, the concept of the "ideal regulatory system," practical regulatory experience, and elements specific to developing countries. These components are elaborated in the following subsections.

Elements of Theories of Regulation and Institutions

A review of regulatory theories reveals a persistent gap in academic research an excessive focus on economic principles at the expense of institutional considerations. Infrastructure governance refers to the processes, instruments, and norms guiding interaction, decision-making, and monitoring by governments or independent regulatory authorities (IRAs) in delivering infrastructure to the public. It encompasses both the internal operations of public institutions and their interactions with the private sector, users, and citizens.[1] Governance thus spans the entire cycle of infrastructure provision, from planning to decision-making [7].

The regulatory system extends beyond the formally appointed regulatory body. It is a broader construct comprising institutions, laws, and mechanisms of government control over the operational and investment decisions of enterprises. The primary and most fundamental task of new infrastructure regulators remains economic regulation [8]. Within the domain of regulatory content or economic regulation, the main objectives include oversight of tariff structures, service quality standards, network access conditions, market entry and exit rules, and investment obligations for both existing and new participants [8].

Beyond normative content, regulatory tasks also involve regulatory governance — the organizational characteristics, institutional rules, procedures, and practices that guide regulatory decision-making and behavior [9]. The purpose of this article is therefore to define the constituent elements of an analytical framework that reflects the influence of regulatory structure, regulatory content, and regulatory management on overall regulatory performance (*Fig. 1*).

This part of the research focuses on identifying the key design, content, and governance elements that underpin regulation across all aspects of its substantive content and procedural processes [9–13].

[1] Organisation for Economic Co-operation and Development (OECD). 2015. *Internal interactions of state institutions and their interactions with the private sector, users, and citizens.*

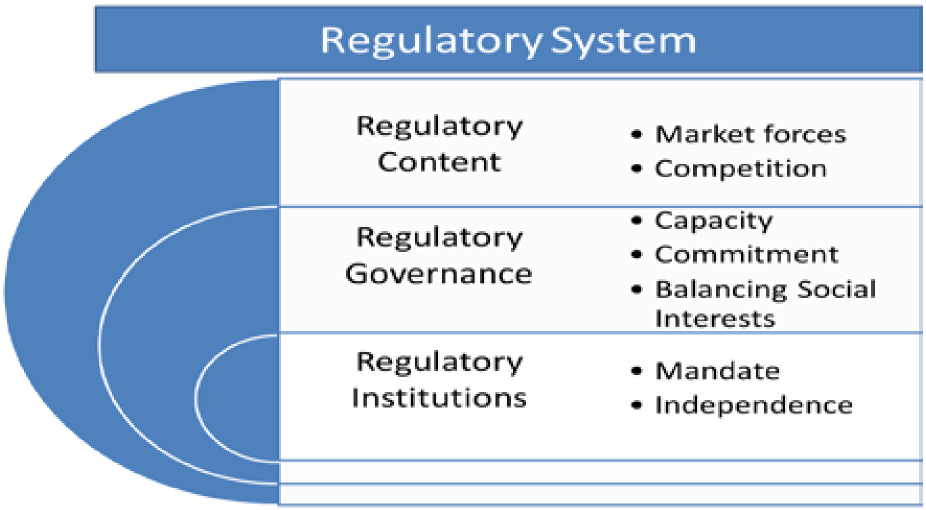

Fig. 1. **Key structural Elements of the Regulatory System**

Source: compiled by the authors.

In light of the broader literature, this article proposes that an analytical framework for examining regulation in developing countries should incorporate additional elements such as regulatory capacity building, protection of property rights (as part of formal institutional components), and anti-corruption measures, along with participation and consultation of all stakeholders, including service users (as part of informal institutional components).

Elements of the "Ideal Model" of the Regulatory System

High-Level Principles of the Regulatory Management System

The overall objectives of a regulatory system are to establish a framework that is effective, efficient, transparent, and accessible. The European Commission's Principles of Good Governance emphasize openness, participation, accountability, efficiency, and consistency as key principles. Similarly, the UK Better Regulation Task Force (BRTF)[2] identifies five "principles of good regulation": transparency, consistency, proportionality, targeting, and accountability [8, 11, 14]. The Australian Competition and Consumer Commission (ACCC) also codifies a set of best-practice principles for sound regulation (*Annex, Table*).

Operating Principles of the "Ideal Model" of the Regulatory System

Regardless of the institutional structure a regulatory system adopts, it can only be effective if it adheres to three fundamental meta-principles of regulatory governance [8]:

Meta-principle 1: Credibility. Investors must have confidence that the regulatory system will fulfill its commitments.

Meta-principle 2: Legitimacy. Consumers must trust that the regulatory system will protect them from monopoly power, whether manifested in high prices, poor service quality, or both.

Meta-principle 3: Transparency. The system must operate openly so that investors and consumers understand the terms and conditions of transactions.

In addition to these governance principles, the normative content of regulation should include a fourth meta-principle:

Meta-principle 4: Efficiency. The regulatory system should promote both pricing and production efficiency, ensuring that economic resources are used optimally.

Relationship Between High-Level Meta-Principles and Operational Principles of Regulation

While meta-principles represent the overarching standards that any effective and sustainable infrastructure regulatory system must satisfy [8], the operational principles derived from them (*Table 2*) correspond to specific dimensions of the regulatory framework. These operational principles can be applied in empirical analysis and serve as practical guidelines for evaluating the performance and effectiveness of regulatory systems across different institutional contexts.

The three meta-principles, when fully satisfied, provide a regulatory system with the overall legitimacy necessary for its survival — without which it cannot endure, even if it is technically competent. Legitimacy depends on consumers' and investors' trust that the regulatory system upholds their shared values and interests. Even when regulators act in good faith to

[2] BRTF. Principles of Good Regulation. European Business Review. DOI: 10.1108/ebr.1998.05498cab.002

Table 2

General and Operational Principles of Regulation

Meta-principles of high-level regulation	Key operational principles of regulation
• *Meta-principle 1: Credibility* • *Meta-principle 2: Legitimacy* • *Meta-principle 3: Transparency* • *Meta-principle 4: Efficiency*	Independence
	Accountability
	Transparency and public participation
	Predictability
	Clarity of roles
	Completeness and clarity of rules
	Capacity
	Necessary powers
	Relevant institutional characteristics
	Honesty

Source: compiled by the authors based on [8].

protect consumer welfare, public confidence is undermined if stakeholders do not clearly understand what the regulator or the government has agreed upon [8]. Transparency, accountability, participation, and consultation are therefore essential principles for building and maintaining consumer trust. They are equally vital for the long-term sustainability of any regulatory system, as "transparency is the first step toward a nation's confidence and well-being and its ability to compete" [15].

Elements of Regulatory Practice — Operationalizing the Three Principles of RMS

The operating principles of the RMS influence all three core components of the regulatory system: regulatory content, regulatory governance, and regulatory structure (*Table 3*).

Regulatory Content — Economic Principles of Regulation

Regulatory content refers to the substantive scope of regulation, encompassing decisions and standards related to tariff levels and structures, service quality, social obligations, and customer complaint mechanisms. It also includes requirements governing investment and connection obligations, conditions for network access by new and existing participants, metering systems, periodic reporting, and the assessment of regulatory impacts on both customers and utilities (*Fig. 2*).

Table 3

Principles of Regulation — Content, Management and Institutions

Normative Content	Regulatory Management	Regulatory Agencies
Tariff levels.	Independence and accountability of the regulator.	Independence
Tariff structures.	Relationship between regulator and politicians.	Mandate
Automatic and non-automatic cost transfer mechanisms.	Autonomy of the regulator.	Efficiency
Quality of service standards.	The processes — formal and informal — through which decisions are made.	Organizational structure
Handling consumer complaints.	Transparency of decision-making by the regulator or other organizations making regulatory decisions.	Staffing
Investment or connection commitments and reviews.	Predictability of regulatory decision making.	Financial stability
Network access conditions for new and existing customers.	Accessibility of regulatory decision-making.	
Accounting systems.	Organizational structure and resources available to the regulator.	
Social obligations.		

Source: compiled by the authors based on [8].

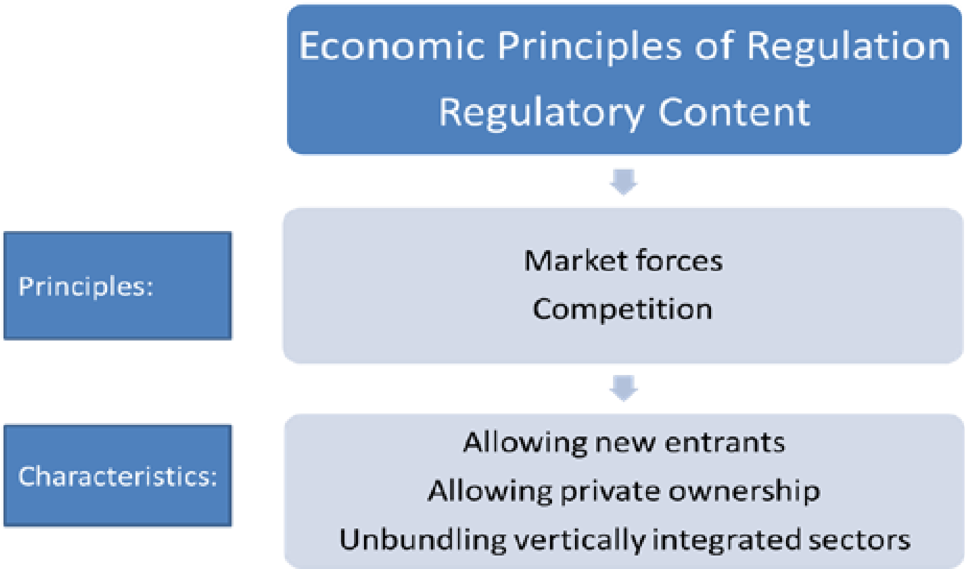

Fig. 2. **Normative Content**

Source: compiled by the authors.

Regulatory content represents the outcome of decisions made by the regulator or other government authorities [8]. One of the fundamental challenges associated with regulatory content lies in the mechanisms of regulatory control, which determine the extent of discretion that regulators possess over areas such as tariff setting.

Authors of [16] argue that, in most developing countries, clearly defined mechanisms should be established to limit regulatory discretion, particularly during the early stages of a regulator's operation when entering into regulatory contracts and concessions to ensure consistency and predictability. Conversely, other scholars contend that a certain degree of regulatory discretion is both inevitable and desirable. As A. Eberhard notes [17], "the fundamental problem is therefore how to design governance mechanisms and procedures that allow a non-trivial degree of constrained and accountable discretion."

Regulatory Governance — Processes

Regulatory governance refers to the institutional arrangements and decision-making processes that define how regulation is carried out within a regulatory system [8]. It encompasses several key dimensions: the relationship between the regulator and policymakers (including the regulator's independence, autonomy, and accountability); the formal and informal processes through which decisions are made; the transparency and accessibility of regulatory decision-making; and the organizational structure and resources available to the regulator.

Regulatory governance is shaped by the laws, procedures, and administrative practices that guide regulatory actions (*Fig. 3*). Effective regulatory governance ensures that improving the quality of regulation is a continuous governmental responsibility rather than a one-time reform effort. As Ladegaard and Jacobs

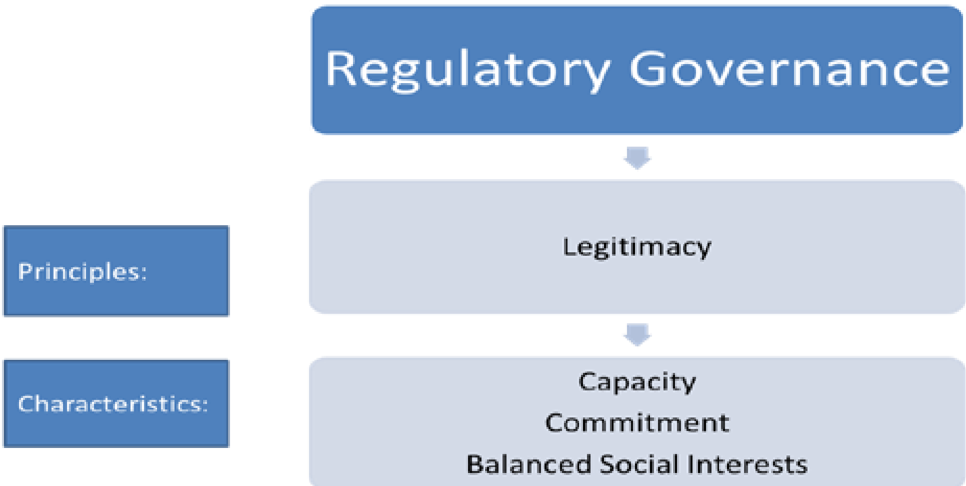

Fig.3. **Regulatory Governance**

Source: compiled by the authors.

emphasize [18], "institutional capacity must be built around a clear vision of the proper use of regulation in society."

Regulatory Institutions — Regulatory Structure

This section examines the elements of the institutional environment that influence regulation as essential factors in implementing the economic principles of regulation, which form the substantive content of regulatory systems. Regulatory effectiveness can be enhanced by improving the regulatory structure so that investors, operators, and consumers all benefit from a system in which governance aligns with the degree of regulatory discretion, the level of regulatory commitment, and the quality of the institutional environment. Effectiveness can also be strengthened through independent evaluations of regulators and sustained initiatives aimed at building long-term regulatory capacity.

A key distinction between regulation by an independent regulatory authority (IRA) and regulation by government agencies lies in the IRA's statutory mandate to promote market forces, competition, and private-sector participation, as well as its legislative independence in fulfilling that mandate (*Fig. 4*).

However, regulators may exist in different institutional forms either as departments within government ministries or as autonomous entities. This study analyzes the external economic and governance principles affecting regulators, regardless of their institutional form, emphasizing that the core determinant of effectiveness is regulatory independence. While high levels of independence are typically expected in developed countries due to stronger safeguards against regulatory capture, one of the major weaknesses of the IRA model in developing contexts remains the lack of genuine independence [8].

Elements Specific to Developing Countries

Regulatory reform in developing countries has often been unstable and uneven [19]. Many post-privatization regulatory reforms are still in the process of being designed or implemented, and in some cases, their effectiveness has yet to be fully assessed. The main institutional failures constraining regulation in developing economies can be grouped into four broad categories: limited regulatory capacity, limited commitment, limited accountability, and limited fiscal efficiency. While similar challenges can also appear in developed countries, they are generally secondary. In contrast, in developing contexts, the scale and severity of these constraints often dominate regulatory outcomes.

The OECD's ETRC indicators[3] provide a structured approach to operationalizing the channels through which regulation affects infrastructure outcomes. These indicators capture the quality of regulation and regulatory policy across key areas such as entry conditions, public–private ownership structures, market unbundling, and overall market structure, offering valuable comparative data for assessing regulatory performance and reform progress.

The independent regulatory agencies examined in this study in the energy and telecommunications sectors are the Bangladesh Telecommunication Regulatory Commission (BTRC) and the Bangladesh Energy Regulatory Commission (BERC). Comparing the development curves of these sectors in Bangladesh (*Fig. 5 and Annex, Fig.*) reveals a pattern common to many developing countries: regulatory simplification processes begin relatively late but proceed rapidly in an apparent effort

[3] URL: https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/product-market-regulation/DRAFT%20ETCR%20Explainer.pdf

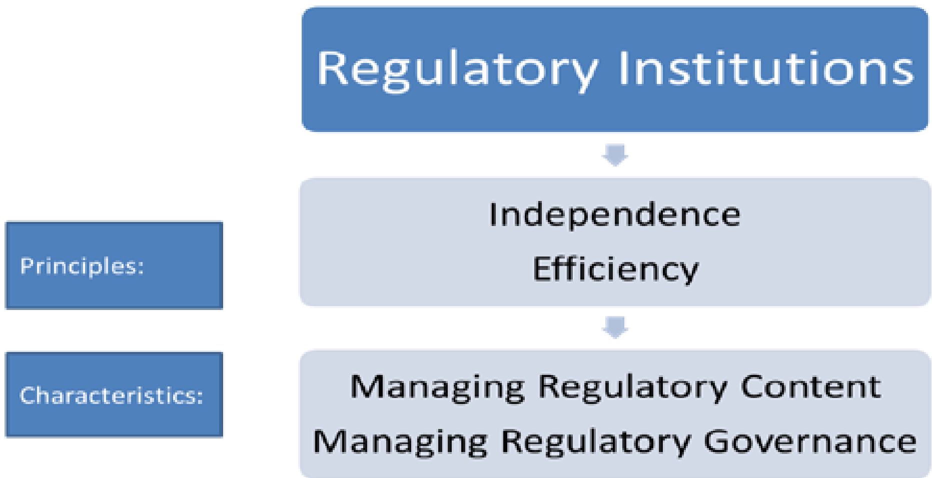

Fig.4. **Regulatory Institutions — Regulatory Design**

Source: compiled by the authors.

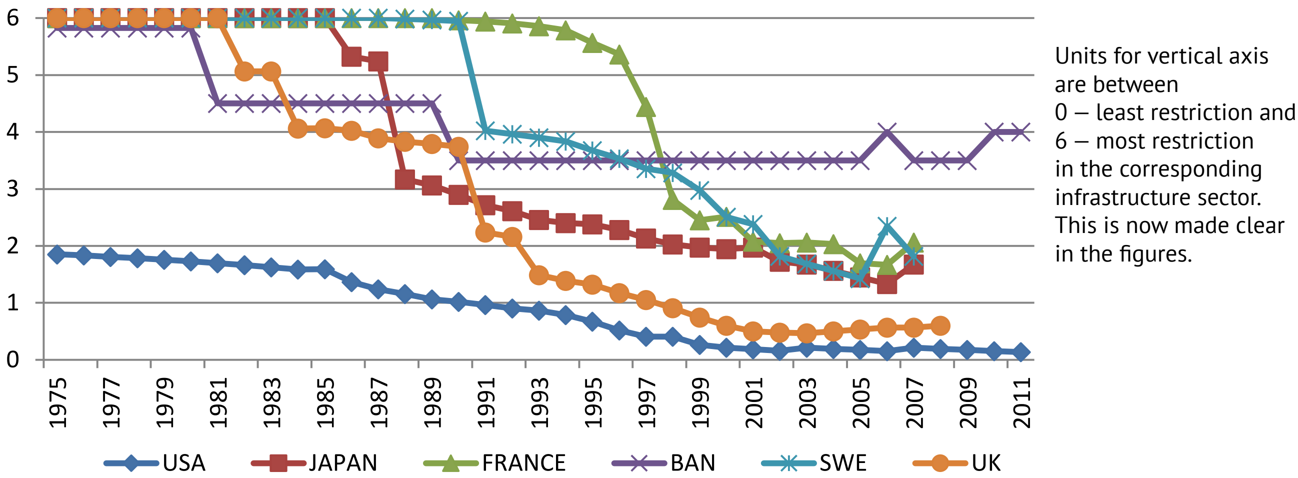

Fig. 5. **Bangladesh Telecommunication Sector Regulation Historical Data in comparison with OECD countries**

Source: compiled by the authors based on OECD indicators and own indicators on Bangladesh.

to catch up with the developed world. Similar trajectories have been observed in countries such as the United Kingdom, Canada, and New Zealand, while Japan and Sweden initiated reforms slightly later, in the late 1980s and early 1990s. Once the effectiveness of these models in improving service delivery was recognized, they became a blueprint promoted to developing countries by international development organizations.

Traditional regulatory theories, as embedded in international organizations' recommendations, emphasize economic principles of regulation as key to successful reforms. However, the impact of these principles on regulatory outcomes, investment, and output in developing countries remains poorly understood. Laffont (2005) highlights the risk of collusion and critiques the assumption that regulators and governments act as benevolent welfare maximizers, underscoring the importance of considering the institutional environment when implementing regulation in developing contexts.

In addition to general implementation challenges, developing countries face specific institutional constraints:

- Limited regulatory capacity: Regulatory agencies often lack the ability to recruit and retain qualified staff, which hampers policy development and implementation [20].
- Limited commitment: Institutional frameworks in many developing countries do not support reliance on contracts, as evidenced by frequent renegotiations [21]. Regulatory discipline often includes intangible elements, making depoliticization difficult [22]. Fears of politicization and future contract renegotiation discourage private sector participation.
- Limited accountability: Regulatory institutions in developing countries are often less accountable than those in developed nations. Weak accountability increases the risk of collusion between government actors and interest groups, including regulated firms [23, 24]. Evidence of corruption in both privatization and regulatory processes is widespread [25].
- Limited independence: IRAs in developing countries frequently lack genuine independence due to interference by government and special interests. This problem is compounded by insufficient protection of property rights, limited resources, inadequate technical expertise, and restricted ability to exercise regulatory powers effectively [8].

The Analytical Framework for Designing and Implementing RMS

To visualize the systematized elements, principles, structures, actors, and relationships, an analytical framework is presented here (*Fig. 6*) to capture the impact of the institutional environment on regulation in Bangladesh. The framework achieves this by: 1) examining the development of infrastructure regulation based on economic principles promoted by international organizations; 2) analyzing the formal institutional environment and the principles that facilitate the implementation of these economic regulatory principles; and 3) exploring the influence of informal institutions on the application of economic principles in regulation.

This framework was developed specifically for the case study of Bangladesh and builds on previous work by Sumkoski (2016a, 2016b, 2016c), providing a

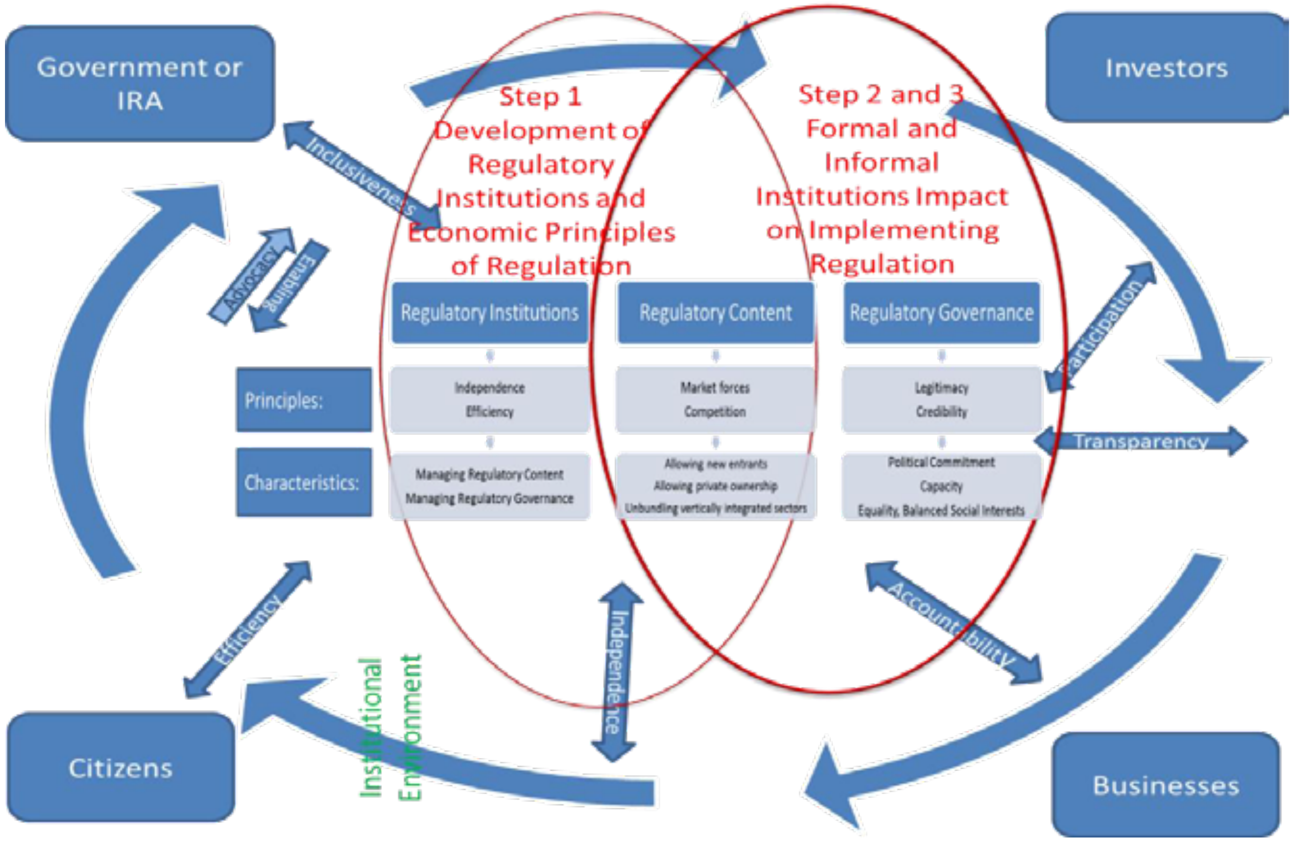

Fig.6. **Operationalizing the Analytical Framework for Designing and Implementing RMS in Bangladesh**

Source: compiled by the authors.

structured approach to designing and implementing regulatory management systems that account for both formal and informal institutional factors.

ANALYSIS AND DISCUSSION

This study systematizes RMS theoretical principles into an operational analytical framework for designing and implementing regulatory management systems. While grounded in economic principles, the framework also ensures legitimacy by incorporating formal and informal institutions within IRA bodies, regulatory processes, and the development of trust, which collectively reinforce the legitimacy of the RMS. The limited success of many liberalization and privatization initiatives in developing countries can be attributed to "the recognition that in many cases the problem was that reformers ignored the functioning of regulatory institutions, implicitly assuming that they would work as in developed countries" [2]. Although the IRA model has become the standard approach, it is not the only legal or operational model capable of satisfying meta-principles, as a range of institutional arrangements can be "compatible with higher-order regulatory principles" [26]. For legal, political, cultural, and practical reasons, it is unrealistic to expect many developing and transition countries to automatically establish fully functioning independent regulators [8].

Differences Between State Regulation and Regulation Through Independent Agencies

In some countries, regulatory functions remain within government ministries, as governments either directly own or exert significant control over infrastructure companies. Typically, sectoral ministries exercise broad and sometimes arbitrary authority over one or more state-owned infrastructure entities. The absence of competition and bureaucratic inefficiencies often leads to declining service quality and rising costs. This traditional model is deeply entrenched in developing countries and is unlikely to be replaced quickly.

With the expansion of private sector participation in infrastructure since the early 1980s, a new regulatory model based on independent regulatory agencies (IRAs) has emerged. IRAs generally operate as separate bodies with a degree of autonomous decision-making over traditional regulatory tasks. One of the most significant contributions of IRAs is the opening of decision-making processes that were previously closed to public scrutiny [27]. They introduce procedures such as consultation documents, solicitation of stakeholder comments, and public debates, which increase transparency, disseminate knowledge about regulation, and promote more participatory and accountable governance.

Good Regulation for Higher Investment in Regulated Sectors

A notable observation is that, contrary to the common assumption that improved regulation drives investment and economic growth, evidence from multiple countries indicates that investment often declines in the 1–5 years preceding infrastructure regulatory reform (*Fig. 7*). This decline frequently triggers and accelerates regulatory reform, as governments seek to prevent prolonged reductions in infrastructure investment. This pattern suggests that regulatory reform is not merely a matter of strategic choice or visionary planning, although these factors play a role. Rather, it reflects the necessity for governments to secure political support and maintain goodwill by attracting or at least demonstrating a willingness to attract investment in infrastructure that benefits citizens.

The process is further complicated by the absence of immediate investment inflows following reforms, indicating that investors are not always ready to respond instantly to regulatory changes. In practice, simplified regulations alone are insufficient to generate an immediate surge in investment; other complementary factors are required to stimulate investor confidence and engagement.

Investors seek continuous improvements in de jure regulation that are reflected in reality. They expect a long-term commitment to maintaining reforms and want to see whether regulators deliver tangible improvements in the regulatory environment, reinforcing confidence in real progress. A significant challenge in developing countries, including Bangladesh, is the mismatch between de jure and de facto regulation. Limited political commitment, institutional capacity, and enforcement mechanisms hinder the full implementation of reforms. Although regulatory improvements in Bangladesh's three main infrastructure sectors are noticeable, they still lag behind developed countries, as many reforms remain largely on paper and are only partially implemented in practice compared to OECD standards [28][4] (*Fig. 5 and Annex, Fig.*).

The Lack of Success of RMS Through IRAs in Developing Countries

Despite the theoretical benefits of transparency, independence, and public engagement, RMS often fail in developing countries due to interconnected political, institutional, and structural challenges [29]. IRAs in these contexts frequently lack insulation from political influence, preventing them from functioning as neutral, technocratic bodies, as envisioned in Thatcher's model. Key factors contributing to these difficulties include:

a) weak political and institutional independence: IRA leadership is often appointed by political actors, and regulatory outcomes may reflect government agendas rather than public interest;

b) short tenures or insecure employment for IRA leaders: These conditions undermine the ability to resist political pressure and implement consistent long-term policies;

c) regulatory capture: Corporate or political interests can influence IRAs through "revolving door" dynamics or patronage-based appointments, compromising the meritocratic selection of regulators;

d) capacity constraints and resource limitations: Staff may lack the technical expertise required for effective regulation;

e) low transparency and weak public participation: Minimal or symbolic mechanisms exacerbate information asymmetries, reducing accountability.

A fundamental reason for RMS failures in developing countries is the mismatch between imported regulatory models and local realities. The European IRA model often does not align with the institutional and political contexts of developing countries. Externally imposed structures, such as those promoted by international donors or privatization agreements, are frequently adopted on paper without genuine empowerment or support. International organizations, including the World Bank and IMF, have historically encouraged the adoption of IRAs as part of broader

[4] The OECD infrastructure model has been used in research on developing countries to show relations between regulation and investment, but has been hampered by having only a single year data available. URL: https://clck.ru/3Q56du; URL: https://www.greaterauckland.org.nz/wp-content/uploads/2010/02/OECD-infrastructure-study.pdfSutherland; URL: https://ec.europa.eu/economy_finance/events/2011/2011–11–21-annual-research-conference_en/pdf/session012_crafts_en.pdf/

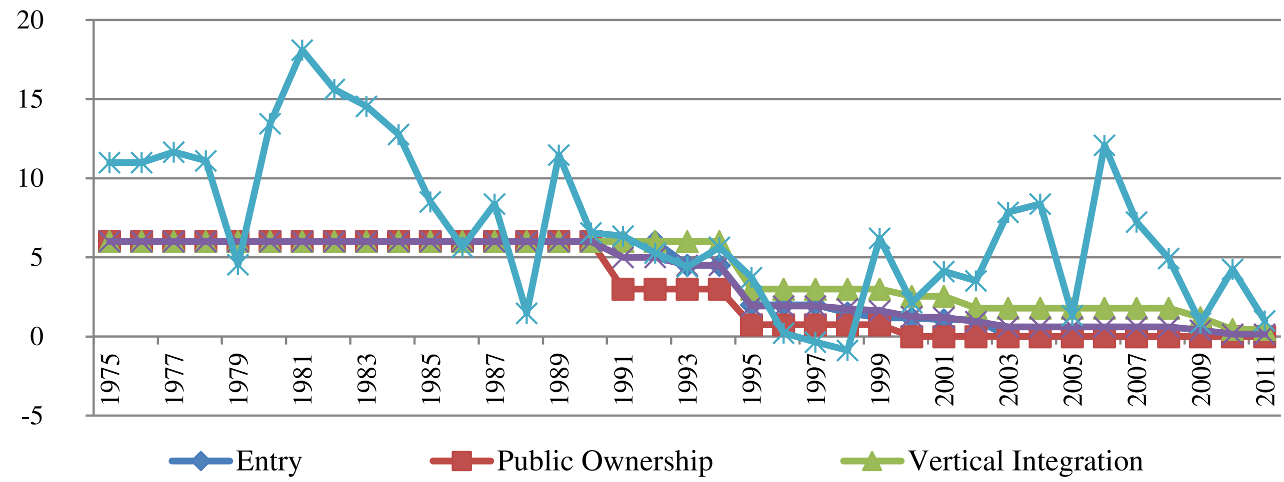

Fig. 7. **Investment Growth Rates, Annual Growth in% and Standard Indicators in the US Energy Sector**

Source: compiled by the authors based on OECD indicators and investment data from the IMF, OECD, WDI.

economic reform programs. However, these models are often transplanted without sufficient adaptation to local contexts, resulting in regulatory bodies that exist formally but lack authority, resources, or legitimacy. Dubash and Morgan describe such institutions as "hollow institutional shells", highlighting their superficial establishment without substantive operational capacity [30].

Regulatory reforms in Bangladesh confirm these findings. Although the country has adopted international regulatory models and principles, the expected outcomes have yet to materialize [29]. Despite continuous economic growth, Bangladesh's administrative and political apparatus remains bureaucratic, clientelist, and susceptible to capture. Structural gaps persist between de jure and de facto regulatory policies due to incomplete enforcement of government rules [31, 32].

RMS and Cross-Cutting Governance Issues

Management and Good Governance

The concept of good governance is essential for ensuring three fundamental prerequisites: collective action, contract enforcement, and protection of property rights [33]. Good governance is generally characterized by participation, consensus-orientation, accountability, transparency, responsiveness, effectiveness and efficiency, fairness and inclusiveness, and the promotion of the rule of law.

Definitions of governance vary according to social and economic structures.[5] Fukuyama (2013) provides a narrower definition, viewing governance as the capacity of government to set and enforce rules and deliver services. In mainstream academic discourse, governance is understood as the process of making and implementing decisions, emphasizing the role of actors involved in decision-making and implementation [34]. Kaufmann, Kraay, and Mastruzzi define governance as the traditions and institutions through which power is exercised in a country [35]. Their World Governance Indicators (WGI) measure:

- the process by which those in power are selected, supervised, and replaced;
- the ability of government to formulate and implement sound policies and deliver public services effectively;
- the respect of citizens and the state for institutions governing economic and social interactions.

Good governance also encompasses the role of public authorities in shaping the environment in which economic actors operate, determining the distribution of benefits, and managing the relationship between the ruler and the governed.[6] According to the World Bank, good governance is reflected in predictable, open, and informed policies; a professional and impartial bureaucracy; an accountable executive branch; and a

[5] World bank. Reforming public institutions and strengthening governance. URL: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/994411468766776323/reforming-public-institutions-and-strengthening-governance-a-world-bank-strategy

[6] Organisation for Economic Co-operation and Development (OECD). *Internal interactions of state institutions and their interactions with the private sector, users, and citizens*. 2015.URL: https://www.oecd.org/en/about/legal/text-of-the-convention-on-the-organisation-for-economic-co-operation-and-development.html

Table 4

Principles of Good Governance

The EU Commission's principles of «good governance» (CEC, 2001)*	(ADB, 2009)**	(UN ESCAP, 2009)***	UK Better Regulation Task Force (BRTF) ****
Accountability	Accountability	Accountable	Transparency
Participation	Participation	Joint	Accountability
Coherence	Predictability	Responsive	Proportionality
Openness	Transparency	Transparent	Consistency
Efficiency		Effective	Targeting
		Inclusive	
		Fair	
		Consensus-Oriented	

Source: compiled by the authors.

Note: * — European Governance: A White Paper. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52001DC 0428
** — Sustainability Report. Asian Development Bank (ADB). 2009& https://www.adb.org/sites/default/files/institutional-document/31390/sr2009.pdf; *** —) *What is good governance?* UN.ESCAP. 2009. URL: https://hdl.handle.net/20.500.12870/3794;
**** — BRTF — Better-Regulation-Task-Force. Principles of Good Regulation. European Business Review. URL: https://www.emerald.com/ebr/article/doi/10.1108/ebr.1998.05498cab.002/98967/Better-Regulation-Task-Force-publishes-critic-s

strong civil society participating in public affairs, all under the framework of the rule of law.[7]

Dixit emphasizes that good economic governance ensures the same three prerequisites — collective action, enforcement of contracts, and security of property rights which help minimize corruption, consider minority views, and ensure the voices of the most vulnerable are included in decision-making [33] and for comparison we list the principles of good governance adopted by various international organizations (*Table 4*).

Principles of Good Infrastructure Regulation

According to Andres et al. (2008), the literature on good governance emphasizes three main aspects of regulatory systems:

1. Independence from political authorities and autonomy in management.
2. Accountability mechanisms, both to other branches of government and to the public.
3. Transparency in rule-making and decision-making procedures.

Within these categories, indicators range from simple measures, such as the legal instruments establishing the agency, to more complex mechanisms designed to improve regulatory quality [36]. Strengthening governance can enhance regulatory outcomes, reduce the burden on regulated entities through better administration, improve compliance, and enable targeted enforcement. It also mitigates actions by actors working against community interests [37].

According to the OECD,[8] good governance provides the following benefits for regulation:

- strengthening the legitimacy and integrity of regulators by aligning with high-level policy objectives, leading to better outcomes;
- ensuring transparency of the regulatory system within national governance structures;
- improving overall efficiency of regulation;
- promoting coordinated efforts and supporting the legitimacy of necessary enforcement actions.

In conclusion, for RMS to succeed in developing countries, reforms must go beyond simply copying institutional forms from Europe or the West. Successful regulatory reform requires careful consideration of both formal and informal local institutional environments, ensuring that regulation reflects the specific institutional realities of the country. The

[7] World Development Report 1994: Infrastructure for Development.URL: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/687361468340136928/world-development-report-1994-

[8] OECD. Principles for the Governance of Regulators, Public Consultation. Draft 2013.

inclusion of these factors in regulatory changes or reforms is essential for achieving the legitimacy of the RMS.

CONCLUSION

The analytical framework presented in this study provides a foundation for designing and implementing RMS in developing countries, capturing the impact of the institutional environment on regulation. By examining the historical development of regulatory models and the formal and informal institutional contexts, the framework aims to help countries achieve regulatory legitimacy.

Applying high-level principles of good regulation, alongside key operational principles, can improve the effectiveness, independence, and outcomes of regulatory systems. Further research on key indicators in these areas will support transparency, accountability, and inclusiveness in regulatory governance, ultimately ensuring that RMS delivers tangible benefits for all stakeholders and is recognized as legitimate by citizens and businesses alike.

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ANNEX

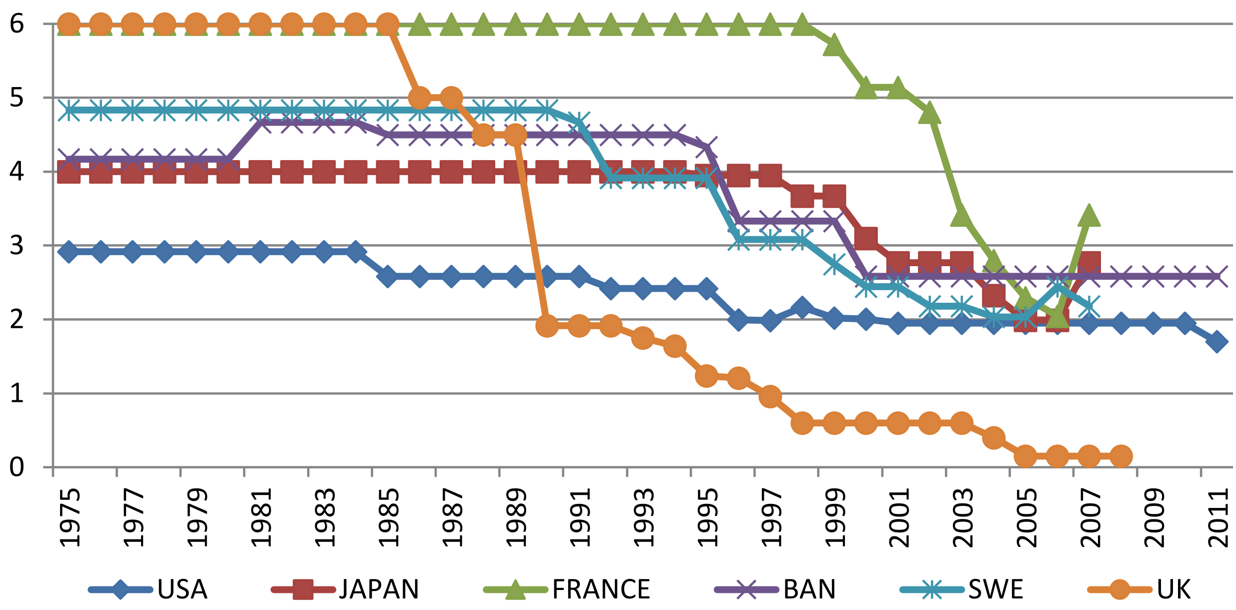

Fig. **Bangladesh Energy Sector Regulation Historical Data in comparison with OECD countries**

Source: compiled by the authors based on OECD indicators and own indicators on Bangladesh.

Table

Elements of an Ideal Control System

OECD * 2013	Stern, Brown and Tenenbaum (2006)	UK Better Regulation Task Force (BRTF) **	The Australian Competition Commission's Good Practice Principles for Good Regulation	The EU Commission's Principles of Good Governance	Jacobs (2003) Features of the modern regulatory system	Berg (2000) lists five components of a sound regulatory system.	Andres, Guasch and Azumendi (2008)
Clarity of roles	• *Meta-principle 1: Credibility*	Transparency	Communication (information to stakeholders in a timely and accessible manner)	Openness	Safety	Coherence	Autonomy
Preventing undue influence and maintaining trust	• *Meta-principle 2: Legitimacy*	Accountability	Consultations (participation of stakeholders in meetings)	Participation	Transparency	Creativity	Accountability
Structure of the management and decision-making bodies of the IRA	• *Meta-principle 3: Transparency*	Proportionality	Consistency (between market participants and over time)	Accountability	Legitimacy	Communication	Transparency
Accountability and transparency	• *Meta-principle 4: Efficiency*	Subsequence	Predictability (a reputation that facilitates planning by suppliers and customers)	Efficiency	Efficiency	Cooperation	
Engagement		Targeting	Flexibility (by using appropriate tools in response to changing conditions)	Coherence	Expertise	Trust	
Financing			Independence (autonomy in that decisions are free from undue political influence)				
Evaluation of effectiveness			Efficiency and effectiveness (cost effectiveness is emphasized in data collection and policy)				
			Accountability (clearly defined processes and rationale for decisions, including appeals)				
			Transparency (openness of the process)				

Source: compiled by the authors.

Note: * – OECD. Principles for the governance of regulators, public consultation. Draft. 2013; Regulatory Impact Analysis. OESD. URL: https://www.oecd.org/content/dam/oecd/en/publications/reports/2009/09/regulatory-impact-analysis_g1ghb202/9789264067110-en.pdf; ** – BRTF. Principles of Good Regulation. European Business Review. DOI: 10.1108/ebr.1998.05498cab.002