

Research Article

A Constitutional Compliance Architecture for Digital State Decision-Making in Mongolia

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Abstract

Mongolian legal scholarship has traditionally examined constitutional supremacy, Constitutional Court (Tssets) review, and ordinary-court practice separately, leaving constitutional application as an integrated institutional system, and its extension to digital government, largely unexplored. This article reconceptualises Constitutional supremacy as a dynamic compliance system spanning the entire decision-making cycle. Using an explanatory sequential mixed-methods design, it analyses 117 Tssets decisions (1992-2023), 1,240 court judgments, and acts of state administrative bodies, and compares eight jurisdictions. The results reveal systemic under-application of the proportionality test (absent in 93.2% of Tssets decisions), unnamed interpretive methods (61.5%), incomplete implementation of decisions (34.2%), and marginal direct application of the Constitution by ordinary courts (5.7%). Regression analysis identifies proportionality as the strongest predictor of constitutional-application performance ($r = 0.834$; $\beta = 0.421$), confirming hypotheses H1 and H2. Drawing on the proportionality theories of Alexy and Barak, the article proposes a three-layered constitutional compliance architecture (foundational, instrumental, and mechanistic) and advances, as a theoretical proposition (TP1) not yet empirically tested, a Digital Constitutional Compliance Layer that embeds ex ante Constitutional checks into algorithmic public decision-making, informed by the digital-constitutionalism literature and EU regulatory instruments.

Keywords

Constitutional Supremacy, Proportionality, Constitutional Court, Digital Constitutionalism, Algorithmic Accountability

1. Introduction

The Constitution of Mongolia [6] is the foundational document of the state and society, bearing the core function of protecting human rights and freedoms, ensuring the separation of state powers and a system of checks and balances, and giving effect to the principle of the rule of law. However, the application of the Constitution in practice cannot be measured

solely by the decisions of the Constitutional Court (Tssets); it must also be implemented at all levels of the courts, the legislative and executive branches, and, ultimately, throughout the full range of state decision-making processes that engage with citizens. In other words, the principle of constitutional supremacy is not merely a declaration of normative hierarchy,

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but an institutional requirement that must be embedded in the actual process of decision-making.

The central research problem of this study is therefore as follows: to what extent has the principle of constitutional supremacy been embedded in the actual institutional decision-making process in Mongolia, and what patterns does the degree of this embeddedness exhibit depending on the level and type of decision-maker?

In the Mongolian legal literature, the principle of constitutional supremacy, the Constitutional Tssets' review of conformity, and judicial practice are typically examined separately, without adequate cross-linkage [1, 2, 8, 9]. On the one hand, the quality of the Tssets' decisions and its methods of interpretation, and on the other, the direct application of the Constitution by the courts and the internal coherence of state institutions, are rarely treated as interdependent components of a single system; comprehensive studies integrating these dimensions remain scarce. Moreover, the internationally growing body of research on "digital constitutionalism" — that is, how guarantees of fundamental rights can be embedded in algorithmic and automated decision-making [14, 23, 31] — has scarcely been connected, either theoretically or in practice, to the traditional doctrine of constitutional supremacy in Mongolia. This article therefore aims to close a twofold gap: (i) integrating, at the theoretical level, the principles of constitutional supremacy and application into a unified institutional system; and (ii) extending this system to account for the particular features of decision-making within a digitalized state. (the relevant literature is reviewed in detail in Section 2).

1.1. Research Questions, Hypotheses and Theoretical Proposition

Building on the twofold gap identified above, this article seeks to answer the following three research questions:

RQ1: In what institutional patterns, and to what extent, does the principle of constitutional application manifest across the three levels of decision-making in Mongolia (the Constitutional Tssets, the ordinary courts, and state administrative bodies)?

RQ2: What factors exert the strongest influence on the success of constitutional application at each of these three levels, and does this influence follow a similar pattern across levels?

RQ3: How can the above empirical findings be theorized into a unified institutional model, and how might this model be extended to account for the particular features of decision-making within a digitalized state?

To answer RQ1 and RQ2, the following two hypotheses were formulated and tested statistically using the dissertation's empirical data.

H1 (confirmed): Systematic penetration of the principle of proportionality is the strongest explanatory factor for the overall success of constitutional application.

H2 (confirmed): The higher the institutional rank of the decision-maker (e.g., the Supreme Court versus local courts; the

State Great Khural versus administrative agencies), the greater the probability of direct application of the Constitution.

In answering RQ3, this article does not advance an empirical hypothesis to be tested statistically, but rather a theoretical proposition.

TP1 (non-empirical, theoretical proposition): The dissertation's four identified institutional gaps — insufficient proportionality, unsystematized interpretation, excessively broad administrative discretion, and inadequate enforcement compliance — can be theorized as an integrated, three-layered architecture of conformity, and this architecture can be extended, at the normative-theoretical level, to the context of digital decision-making. TP1 has not been tested statistically against empirical data, and this distinction is maintained explicitly throughout the article.

1.2. Aim, Novelty and Structure of the Article

The aim of this study is to answer the three research questions posed above, to identify the principal obstacles to implementing the principle of constitutional application in Mongolia, to propose an integrated institutional model for improving implementation — grounded in comparative experience and the dissertation's empirical evidence — and, further, to theoretically extend and refine this model into an architecture of conformity for digital state decision-making. To this end, the study pursues the following objectives: (1) to integrate and compare empirical analysis across the three levels of the Tssets, the courts, and state administrative bodies (corresponding to RQ1); (2) to test Hypotheses H1 and H2 through correlation and regression analysis (corresponding to RQ2); and (3) to build, on the basis of the tested results, a three-layered architecture of conformity and to develop TP1 at the theoretical level (corresponding to RQ3).

In brief, the novelty of this article lies at three levels: (a) at the theoretical level, integrating the constitutional theories of Kelsen, Schmitt, and Häberle with the proportionality theories of Alexy and Barak; (b) at the institutional level, integrating three previously separately studied strands — the Tssets, the courts, and state administrative bodies — into a single three-layered architecture within one decision-making cycle; and (c) at the digital-theoretical level, linking this architecture to the existing body of research on digital constitutionalism and proposing, through the case of Mongolia, the new concept of a "digital constitutional layer of conformity." These three dimensions of novelty are elaborated in detail in Section 8.

The remainder of the article is organized as follows. Section 2 reviews the existing literature; Section 3 sets out the theoretical framework; Section 4 describes the methodology; Section 5 presents the empirical results, including the testing of Hypotheses H1 and H2; Section 6 discusses the three-layered architecture of constitutional conformity and its digital extension (TP1); Section 7 presents policy recommendations and an implementation sequence; Section 8 sets out the study's contributions and limitations; and Section 9 concludes.

2. Literature Review

2.1. Constitutional Supremacy, Judicial Review and Constitutional Application

The idea that the constitution is a higher law binding all public power has a long lineage in comparative scholarship. Dicey grounded constitutional authority in the rule of law as applied by the ordinary courts [17], while Kelsen's theory of the hierarchy of norms supplied the doctrinal basis for centralized constitutional review [24]. Later legal philosophy refined these foundations: Fuller identified the internal morality that makes law capable of guiding conduct [19], Raz clarified the authority of law and the virtues of the rule of law [27], and Dworkin argued that rights operate as principles that must be taken seriously against collective goals [18]. Russian-language constitutional scholarship, which has strongly influenced post-socialist legal education in Mongolia, likewise treats the constitution as the supreme law of the state and emphasizes its direct effect [3].

Comparative practice shows how these theoretical claims were institutionalized. The United States Supreme Court established judicial review of legislation in *Marbury v. Madison* [25]; the German Federal Constitutional Court, operating under the Basic Law [20], developed principles of constitutional interpretation such as the unity of the Constitution [12] and the doctrine of an objective order of values that radiates into all branches of law [13]; and the French Conseil constitutionnel extended its review to fundamental rights by giving constitutional value to the Preamble of the 1958 Constitution [15, 16]. The proportionality literature subsequently turned these institutional developments into a common analytical method for reviewing limitations of rights [10, 11, 26].

Mongolian scholarship has examined these questions mainly through separate lenses. Dorj analyzed the theoretical and practical issues of constitutional review [2]; Tsedendamba addressed the principle of constitutional supremacy as a doctrinal matter [9]; Narmandakh focused on the problem of implementing the Constitution in Mongolia [8]; and Ganbaatar examined the direct application of the Constitution [1]. Together with the normative framework established by the Constitution of Mongolia [6], the Law on the Constitutional Tsets [5], the Law on Courts [7], and the Law on Administrative Case Procedure [4], these studies provide an important foundation. However, they seldom combine constitutional review, judicial application, and administrative compliance within a single empirical design, and they rarely quantify the extent to which constitutional standards actually penetrate everyday decision-making.

2.2. Digital Constitutionalism and the Research Gap

Over the past decade, the emerging field of research known as "digital constitutionalism" has taken up the question of how

fundamental rights, limitations on power, and accountability can be preserved in the digital environment. In Celeste's definition, digital constitutionalism refers to the constitutionalist approach that responds to the challenges digital technology poses to fundamental rights and power [14]. Yeung critically examines algorithmic regulation, emphasizing the risk that, in the absence of transparency and accountability mechanisms for automated decisions, administrative discretion migrates covertly into the algorithm itself [31]. Hildebrandt, through the concept of "legal protection by design," advances the requirement that legal safeguards be built into technological systems in advance, by design [23]. These theoretical approaches form the theoretical foundation for the "digital constitutional layer of conformity" advanced as TP1 in Section 6.3 of this article.

In practical terms, Article 22 of the European Union's General Data Protection Regulation declares the right of individuals to be protected from decisions producing legal effects based solely on automated processing [28], while the Artificial Intelligence Act requires prior fundamental rights impact assessments for high-risk AI systems, including those used by state authorities [29]. These regulatory developments constitute an emerging practical model shifting constitutional conformity from "ex post review" to "ex ante conformity," and can serve as a comparative reference point for the Mongolian context.

More recent scholarship has sharpened these concerns in light of the EU Artificial Intelligence Act. The field has been consolidated in a comprehensive handbook that frames digital constitutionalism as a constitutional response to the concentration of public and private power in the algorithmic society [32], and Celeste has since advocated a socio-legal approach that looks beyond formal constitutional texts to a multilevel process of constitutionalization [36]. Laux, Wachter and Mittelstadt show that the AI Act equates the trustworthiness of AI with the acceptability of its risks, a conflation that is particularly problematic when AI is deployed by public authorities [33]. Lazcoz and De Hert analyze human involvement in automated decision-making under the GDPR and the AI Act and warn that formal human oversight may amount to an abdication of responsibility unless it is substantively designed [34], while Mantelero proposes a model template for the fundamental rights impact assessment required by Article 27 of the AI Act [29, 35]. This literature signals a clear shift from ex post review toward ex ante, procedurally embedded safeguards; however, it has been developed almost exclusively in the European context and has not been connected to constitutional application in post-socialist jurisdictions such as Mongolia.

The two strands of literature discussed above — the traditional theory of constitutional application and digital constitutionalism — have to date continued to develop largely independently of one another. Germany's proportionality test, France's conformity review, judicial review in the United States [12, 13, 15, 25], and the citizen-access practices of South Korea and Eastern European countries are not intended

for direct transplantation into Mongolia, but rather serve as a comparative basis for institutional design; meanwhile, the literature on digital constitutionalism has not yet fully addressed how these traditional institutions might be translated into the digital environment. This article seeks to connect these two strands within a single analytical framework, developing the dissertation's empirical findings into a three-layered theoretical architecture and, further, into its digital extension (TP1).

3. Theoretical Framework

3.1. Constitutional Supremacy and the Principle of Constitutional Application

The principle of constitutional supremacy places the Constitution at the apex of the normative legal hierarchy. The dissertation comparatively examines the normative, political, and

societal approaches of Hans Kelsen, Carl Schmitt, and Peter Häberle. For Kelsen, the Constitution is the supreme foundation of the normative hierarchy [24]; for Schmitt, it is the expression of the fundamental political decision [30]; and for Häberle, it is a "living" Constitution shaped by pluralistic societal participation [21, 22]. These three approaches rest on different ontologies, yet in practice they complement one another: Kelsen's hierarchy explains the legal basis of a decision, Schmitt's political dimension explains its legitimacy, and Häberle's societal openness explains its acceptability. This article therefore employs the three not as mutually interchangeable, but as a complementary theoretical foundation.

The principle of constitutional application has a dual character, both normative and methodological. On the one hand, it establishes the scope and direction within which constitutional norms are to be applied; on the other, it serves as a methodology for judges, lawyers, and civil servants to apply in specific cases.

Table 1. Theoretical Classification of the Principle of Constitutional Application.

Category	Core Content	Principal Domain
Supremacy	Precedence of the Constitution; hierarchy; conformity	Legislature, judiciary, administration
Protective	Human rights; equality; proportionality	Limitation of rights
Interpretive	Literal; teleological; systemic; comparative	Tsets, courts
Review	Conformity review; judicial review	Tsets, courts
Institutional	Separation of powers; checks and balances	State administrative bodies

3.2. Theoretical Foundations of Proportionality

Since the dissertation's empirical research established that the penetration of the principle of proportionality is the strongest explanatory factor for the success of constitutional application, this article integrates that empirical finding (Hypothesis H1, Section 1.1) with the theoretical foundations of Alexy and Barak. For Alexy, the limitation of a right must sequentially satisfy three tiers of scrutiny: suitability (*Geeignetheit*), necessity (*Erforderlichkeit*), and proportionality in the strict sense, or balancing (*Angemessenheit im engeren Sinne*) [10]. Barak further developed this, treating the proportionality test not merely as a judicial method but as a "legal doctrinal structure" applied broadly across legislative and administrative decision-making as well [11]. Möller likewise identifies proportionality as a common core element of comparative constitutionalism within the global model of fundamental rights [26].

4. Research Methodology

The empirical basis of this article consists of documentary,

quantitative, qualitative, comparative, and statistical analyses conducted in the dissertation submitted by the first author. In terms of methodological design, the study employed an explanatory sequential mixed-methods design, first establishing classifications and categories through qualitative documentary analysis, and subsequently testing Hypotheses H1 and H2 through quantitative statistical analysis. From the decisions of the Constitutional Tsets issued between 1992 and 2023, 117 decisions directly relevant to the principle of constitutional application were selected and subjected to combined qualitative and quantitative analysis. In addition, explanatory statistical analysis of 1,240 court decisions was used to determine the level of direct application of the Constitution. Acts and documents of state administrative bodies were analyzed and their forms of violation classified thematically.

The comparative study examined the proportionality test, interpretive methodology, citizen access, court-constitutional court relations, and decision-implementation mechanisms of Germany, France, the United States, South Korea, Poland, the Czech Republic, Hungary, and Spain, comparing these against Mongolia's results. This article synthesizes and presents the findings of correlation, regression, and Exploratory Factor

Analysis (EFA) conducted in the dissertation; statistical significance was generally set at the $p<0.05$ level. For reliability, the classification of the Tssets' 117 decisions was independently cross-checked by two coders, with a third expert resolving any discrepant cases.

Methodologically, the digital state section (Section 6, TP1) is not presented as an empirical finding of the dissertation. Rather, the established problems — weak domestic conformity review, unsystematized interpretive methodology, insufficient application of the proportionality test, and inadequate enforcement compliance (the confirmed results of Hypotheses H1 and H2 in Section 5) — are treated as the basis for a normative-theoretical extension to the digital decision-making environment. In keeping with the requirements of academic integrity, this distinction is maintained consistently throughout the article. Only publicly available decisions and acts containing no personal information were used in the study; accordingly, no

special ethical approval was required.

5. Results

5.1. The Constitutional Tssets: Application, Interpretation and Implementation

Of the more than 260 decisions issued by the Tssets [5] between 1992 and 2023, the dissertation identified 117 — or 45.0 percent — as directly related to the principle of constitutional application. By period, this proportion was 32.4 percent in 1992-2000, 41.4 percent in 2001-2010, 53.2 percent in 2011-2018, and 44.9 percent in 2019-2023. This indicates that the issue of constitutional application has taken on a systemic character.

Table 2. Consolidated Results of the Analysis of 117 Constitutional Tssets Decisions.

Indicator	Result	Content
Decisions related to constitutional application	117 / 260+ (45.0%)	A systemic issue
Proportionality	8 / 117 (6.8%)	Weak methodology for reviewing rights limitations
Interpretive method unnamed	72 / 117 (61.5%)	Weak transparency of reasoning
Decision not fully implemented	40 / 117 (34.2%)	Limited practical effect
Citation of international standards	2019-2023: average 1.8 times/decision	Sparse international engagement

Thus, the problem lies not only in *which decision* was reached, but equally in the two subsequent cycles: *by what methodology* the decision was reached, and *who implemented the decision, when, and how*.

5.2. Ordinary Courts and State Administrative Bodies

One of the dissertation's principal empirical findings is that the analysis of 1,240 court decisions revealed a direct application of constitutional provisions in only 5.7 percent of cases. Among the 222 district-court decisions examined, no instance of direct application was found at all. Court rank ($r=0.512$) and judicial experience ($r=0.421$) were among the factors corre-

lated with direct application. This correlation confirms Hypothesis H2 advanced in Section 1.1: the higher the institutional rank, the greater the probability of direct application.

These results suggest that the system of constitutional application is centered on the Tssets, with limited capacity to penetrate downward into the everyday dispute-resolution activity of the courts. Under these conditions, and within the framework of the Law on Courts [7], a "constitutional question" referral mechanism operating through the courts could help fill the disconnected link between institutions.

Turning to the executive level, analysis of the acts of state administrative bodies, which are subject to judicial review under the Law on Administrative Case Procedure [4], found that 8.3 percent of all identified violations were in conflict with the Constitution, with this figure rising to 14.5 percent among ministerial acts.

Table 3. *Distribution of Forms of Constitutional Conflict Found in Acts of State Administrative Bodies.*

Form of Violation	Percentage	Explanation
Conflict with the principle of equality	26.5%	Risk of differential treatment
Excessively broad administrative discretion	24.5%	Weak boundaries of authority
Regulation of matters not authorized by law	21.2%	Unclear legal basis
Proportionality criteria not satisfied	15.9%	Weak methodology for weighing rights limitations
Insufficient human rights justification	13.9%	Shallow reasoning

In the study's regression analysis, internal conformity mechanisms had a significant effect, $\beta=0.341$ ($p<0.001$), and in the EFA, institutional conformity culture emerged as a key factor in institutional capacity. Accordingly, state administrative bodies should verify their conformity with the Constitution internally before issuing a decision.

5.3. Proportionality as the Strongest Predictor: Testing Hypothesis H1

A correlation of $r=0.834$ between the penetration of proportionality and the overall success of constitutional application, together with a standardized regression coefficient of $\beta=0.421$, indicate that the systematic application of proportionality was the strongest explanatory factor relative to other variables. Hypothesis H1, advanced in Section 1.1, is thus confirmed. This finding is consistent with the theoretical expectations of Alexy and Barak discussed in Section 3.2.

Alexy's three-tiered test can be operationalized for the Mongolian context as follows. First, suitability: whether the measure is an effective means of achieving a legitimate aim. Second, necessity: whether an alternative measure exists that would achieve the same aim with a lesser infringement on the right. Third, balancing: whether an appropriate balance exists

between the public interest and the limitation placed on the individual right.

6. Discussion: The Three-Layered Architecture and Its Digital Extension

6.1. The Three-Layered Architecture of Constitutional Conformity

As a first step toward answering RQ3, the article's principal theoretical proposal is not to present the dissertation's five requirements separately as individual policy recommendations, but rather to understand their interrelationships as a single institutional architecture. "Three-layered" refers to an analytical model that conceives of the system for applying and ensuring the implementation of the Constitution as three interrelated levels — foundational, instrumental, and mechanistic. The dissertation integrates these as follows: (1) the foundational layer — conformity culture and legal capacity; (2) the instrumental layer — proportionality and interpretive methodology; and (3) the mechanistic layer — citizen access and decision implementation.

Table 4. *The Three-Layered Architecture of Constitutional Conformity.*

Layer	Components	Function	Evidence
I. Foundational	Conformity culture; legal capacity	Preventing violations	$\beta=0.341$; legal-capacity factor 21.8%
II. Instrumental	Proportionality; interpretation	Standardizing reasoning	$r=0.834$; $\beta=0.421$; $\beta=0.274$
III. Mechanistic	Citizen access; implementation	Oversight and enforcement	$r=0.762$; $r=0.791$; 34.2%

The novelty of this model lies in enabling the application of the Constitution to be viewed simultaneously as a sequential process — "norm-interpretation-review-implementation" — and as an institutional network — "internal conformity-judicial oversight-citizen participation." That the weakening of

one layer diminishes the effectiveness of the others is demonstrated by the interrelationships among layers in the dissertation's regression model. Theoretically, this layered model generates added theoretical value by situating Alexy's and Barak's theory of proportionality (Layer II, the Instrumental Layer)

within a broader institutional system, explaining it not merely as a judicial methodology but in conjunction with conditions at the foundational and mechanistic levels as well.

6.2. Extension to the Digital Era: From Institutional Gaps to Digital Risks

To fully answer RQ3, this Section develops the theoretical proposition TP1. Digitalization is generating new types of challenges for the principle of constitutional application. The dissertation's analysis of state administrative bodies found that excessively broad use of administrative discretion occurred in

24.5 percent of cases; this raises the normative question of whether, in a digital environment, such discretion may reappear in new forms — through algorithms, data selection, risk thresholds, and classification criteria. However, this article did not examine data specific to algorithmic decision-making, and the foregoing should not therefore be regarded as empirical evidence; rather, it is presented as a normative-theoretical extension (TP1) grounded in the literature on digital constitutionalism.

When the study's four principal institutional gaps are projected onto the context of digital decision-making, each corresponds to a distinct algorithmic risk.

Table 5. Logical Mapping from Institutional Gaps to Digital Risks and Conformity Responses.

Institutional Gap Identified in the Study	Risk Potentially Manifesting in the Digital Environment	Conformity-Layer Response
Insufficient proportionality testing (93.2%)	Setting risk thresholds and automated denial measures without balancing	Mandatory application of a three-tiered proportionality test to each algorithm
Unsystematized interpretive method (61.5%)	Unexplainable "black-box" model reasoning	A standard for machine-readable recording of the grounds for decisions
Excessively broad administrative discretion (24.5%)	Discretion embedded covertly in data labels and classification criteria	Normatively defining the limits of discretion before writing the code
Inadequate enforcement compliance (34.2%)	Prior conformity assessments becoming outdated as the algorithm is updated	Regular electronic compliance monitoring and reassessment

6.3. The Digital Constitutional Compliance Layer (TP1)

Accordingly, this article proposes, at the conceptual level, the "Digital Constitutional Compliance Layer". This concept is used in the article to mean a procedural mechanism embedded within state e-government decision-making workflows, whereby core constitutional criteria are formally verified before a decision is finalized. This is logically similar to the "privacy/protection by design" principle widely used in data-protection law, but has been adapted to the specific characteristics of constitutional law. Before finalizing a decision, a state e-government system should, as a standard matter, verify the following: whether a legal basis exists; whether a human right is being limited; whether that limitation is suitable, necessary, and balanced; whether there is a risk to equality; whether the interpretive method and reasoning have been recorded; whether automated rules and data criteria have been subject to

human-rights review; and whether channels for complaint, oversight, and enforcement are clearly defined.

This is not about converting the Constitution into program code. Rather, it concerns embedding constitutional conformity criteria into the digital decision-making workflow as a procedural requirement. In other words, this is a concept for partially shifting from "ex post review" to "ex ante conformity." This logic is, in principle, similar to the prior fundamental rights impact assessment required under the EU's Artificial Intelligence Act and the data protection impact assessment required under the General Data Protection Regulation, but it can be adapted to Mongolia's constitutional-legal tradition and transposed into a distinct institutional form termed a "Constitutional Impact Assessment" (constitutional / fundamental rights impact assessment). By the same logic as environmental impact assessments and data protection impact assessments (DPIAs), this concept refers to a procedure for prospectively assessing the impact of a state decision — particularly an algorithm-based decision — on human rights, equality, and proportionality, prior to that decision being made.

Table 6. *Comparison of Constitutional Safeguards: Traditional Model vs. Digital Extension.*

Traditional Model	Digital Extension	Constitutional Safeguard
Act → dispute → review	Prior conformity check → act → ex post review	Ex ante + ex post
Manual assessment	Electronic checklist + final human oversight	Traceability of reasoning
General reasoning	Step-by-step verifiable reasoning	Transparency
Broad administrative discretion	Prior review of the limits of discretion	Human rights
Implementation as a separate stage	Implementation with electronic compliance monitoring	Practical effectiveness

This conceptual proposal (TP1) is the most novel part of the article, but it requires further testing through dedicated empirical research. Drawing a sample of decisions from Mongolia's state e-services and developing an index to measure equality,

proportionality, transparency of interpretation, and the degree of human involvement is a promising direction for future research.

7. Policy Recommendations and Implementation Sequence

Table 7. *Implementation Sequence and Timeline.*

Stage	Measure	Timeframe	Objective
I	Guidelines on interpretive method; naming reasoning explicitly	6-12 months	A unified interpretive standard
II	Three-tiered proportionality test	1-2 years	Substantive review of rights limitations
III	"Constitutional question" referral mechanism	2-4 years	Accessibility of citizen protection
IV	Enforcement monitoring of Tssets decisions	2-3 years	Practical effectiveness
V	Internal conformity standard for state administrative bodies	3-5 years	Preventing violations
VI	Piloting the digital conformity layer (TP1)	Future research	Safeguards for electronic decision-making

First, a requirement should be introduced into the Tssets' internal decision-making methodology that the interpretive method used be explicitly named. Second, the proportionality test should be made a core criterion for decisions that limit rights. Third, a "constitutional question" referral mechanism between the courts and the Tssets should be introduced. Fourth, the mechanisms for monitoring, reporting on, and enforcing accountability for the implementation of Tssets decisions should be strengthened. Fifth, each state administrative body should establish an internal standard for reviewing constitutional conformity.

When linking these recommendations to a digital decision-making system, it is possible to combine an electronic conformity checklist, final human oversight, a record of the decision's reasoning, a channel for filing complaints, and electronic enforcement monitoring into a single workflow. The

implementation sequence has been planned as sequential rather than parallel, on the principle that the mechanistic layer should not be burdened before the foundational layer's institutional capacity has been built.

8. Contributions, Limitations and Future Research

This section synthesizes the answers given to RQ1-RQ3 (Section 1.1) and identifies the study's contributions, originality, and limitations.

8.1. Contributions and Originality

Theoretically, the study links a framework that systematizes the principle of constitutional application into five categories

(supremacy, protective, interpretive, review, and institutional) with empirical analysis, and integrates the constitutional theories of Kelsen, Schmitt, and Häberle with the proportionality theories of Alexy and Barak (RQ1, H1). It further integrates the practices of the Tssets, the courts, and state administrative bodies into a single decision-making cycle, advancing the three-layered architecture of constitutional conformity (RQ2), and, for the first time in the Mongolian context, connects the traditional theory of constitutional law with the literature on digital constitutionalism (RQ3, TP1). Practically, grounded in the results confirming Hypothesis H1 ($r = 0.834$; $\beta = 0.421$), the study identifies the penetration of proportionality as the leading reform criterion, specifies a sequenced six-stage implementation timeline across the three layers, and develops, at the conceptual level, a seven-criterion pre-decision constitutional compliance checklist for digital state decision-making (TP1).

The originality of this article lies not merely in reporting the dissertation's empirical findings, but in linking them to the proportionality theories of Alexy, Barak, and Möller [10, 11, 26] and to the literature on digital constitutionalism by Celeste, Yeung, and Hildebrandt [14, 23, 31], thereby advancing, for the first time on the case of Mongolia, a new theoretical proposal — the "digital constitutional layer of conformity" (TP1). In the interest of academic integrity, it is explicitly noted that this is not an empirically confirmed result of the dissertation (as H1 and H2 are), but rather a normative-theoretical extension arising from those findings.

8.2. Limitations and Future Research

The empirical basis of this article is concentrated on material from 1992–2023, and it does not specifically measure changes occurring after that period. Because the underlying dissertation draws on several samples of court decisions, all court-level statistics reported in this article are based on a single, consistent base sample of 1,240 decisions, from which the principal figure of 5.7 percent is derived; the finding on district courts refers to the 222 district-court decisions examined in the dissertation.

The digital conformity layer (TP1) is a conceptual proposal that has not been tested on an actual algorithmic system. It is therefore consistent with the requirements of academic integrity to characterize it as a new research proposal rather than a proven result. Likewise, since the institutional arrangements of the comparator countries (such as the EU's AI legislation [29]) cannot be directly transplanted into Mongolia's legal system, the comparison should be understood only as a source of ideas and an analytical reference point. Future research should develop a constitutional conformity index for the decisions of state e-services, empirically measuring equality, proportionality, transparency of reasoning, and human involvement in algorithmic decisions — this would constitute a first step toward testing TP1 further as an empirical hypothesis.

9. Conclusion

The application of Mongolia's Constitution is not merely a matter of declaring normative supremacy; it is also a question of institutional capacity to translate constitutional norms into actual decisions. In answer to RQ1, all three institutions — the Tssets, the courts, and state administrative bodies — exhibit insufficient constitutional application, but display a consistent pattern of increasing application as institutional rank rises. In answer to RQ2, regression analysis confirmed that proportionality (H1) and institutional rank (H2) are the strongest explanatory factors. In answer to RQ3, these findings were integrated into a three-layered architecture of constitutional conformity, and shown to be extendable, in the form of a theoretical proposition (TP1), to the digital state environment.

Reform must therefore extend well beyond altering the powers of any single institution. The three-tiered proportionality test is the tool for reviewing rights limitations; systematizing interpretive methodology safeguards the quality and consistency of reasoning; citizen access expands the channels of protection; monitoring the implementation of decisions ensures practical effectiveness; and internal conformity culture must underpin all of these mechanisms.

The article's central conceptual conclusion is that these elements should be integrated and implemented as a three-layered architecture of constitutional conformity. The digital era adds a new requirement to this architecture: embedding constitutional conformity not merely as *ex post* review after a decision is made, but as a procedural requirement prior to the decision itself. This would allow the principle of constitutional supremacy, within the e-government environment, to shift from "*ex post* review" toward "*ex ante* conformity." This shift is essential to giving the principle of constitutional supremacy practical effect under the actual conditions of contemporary digital state decision-making, and thereby refining it from a mere declaration into a genuine institutional guarantee.

Abbreviations

AI Act	Artificial Intelligence Act (Regulation (EU) 2024/1689)
DPIA	Data Protection Impact Assessment
EFA	Exploratory Factor Analysis
EU	European Union
GDPR	General Data Protection Regulation
H1, H2	Research Hypotheses 1 and 2
RQ	Research Question
TP1	Theoretical Proposition 1
Tssets	Constitutional Court of Mongolia

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Munkhdemberel Lundeejantsan: Data curation, Investigation, Writing – review & editing

Odontuya Khuukhlee: Investigation, Validation, Writing – review & editing

Conflicts of Interest

The authors declare no conflicts of interest.

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