

Responsive Centralism: The Political and Regulatory Landscape of Vietnam's Digital Transformation

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Digital transformation is not just a technological upgrade; it is a comprehensive process that reconfigures authority, redistributes resources, and reshapes visibility both within the state and across society. While many governments have pursued digital transformation, the outcomes have varied significantly, with some achieving rapid progress and others stalling due to institutional inertia and policy incoherence. This article uses Vietnam as a case study to explore how a highly centralized political regime can initiate and sustain extensive digital reform. Through a political economy lens, it argues that the Communist Party of Vietnam (CPV) has strategically positioned digital transformation as integral to socialist modernization and as a pillar of performance-based legitimacy. Three interrelated causal factors underpin this elite consensus: the CPV orchestrated bureaucratic coalitions and facilitated cooperation between state-owned and private sector actors; favourable enabling conditions—technological, economic

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and institutional—reduced perceived risks and aligned incentives for reform; and reinforcing feedback mechanisms strengthened political will and generated self-perpetuating momentum. Vietnam’s experience enriches broader discussions on digital transformation and state governance.

Keywords: Vietnam; digital transformation; digital reform; digital policy; state governance; performance legitimacy.

In recent years, Vietnam has embarked on an ambitious digital transformation programme designed to embed digital technologies across government, the economy and society. This scheme has been backed by extraordinary political commitment and was catalysed in 2019 by Politburo Resolution 52-NQ/TW, the Communist Party of Vietnam’s (CPV) first comprehensive blueprint for embracing the so-called Fourth Industrial Revolution. In 2020, the Prime Ministerial Decision 749/QĐ-TTg operationalized this vision through the National Digital Transformation Programme, setting bold targets such as placing Vietnam among the top 50 countries on the United Nations E-Government Development Index (EGDI) by 2025 and increasing the digital economy’s contribution to the gross domestic product (GDP) to 20 per cent by the same year.¹

Early outcomes have been encouraging. Between 2020 and 2024, Vietnam rose 15 places in the UN’s EGDI rankings, from eighty-sixth to seventy-first. It entered the “Very High EGDI” category for the first time in 2024.² That year, the digital economy accounted for 18.3 per cent of GDP, having grown at roughly three times the pace of the overall economy.³ Vietnamese policymakers routinely describe digital transformation as “an irreversible trend” and a cornerstone of the country’s ambition to become a high-income nation by 2045.⁴ Combined with near-universal internet connectivity and widespread smartphone adoption, these developments suggest a genuine digital leap forward, raising crucial questions about the political origins and logic of this transformation.

How and why have Vietnam’s ruling elites forged a broad consensus to initiate and sustain a nationwide digital transformation? This article argues that Vietnam’s digitalization drive should be understood as a political-economic project embedded in the interests, institutions and incentives of a one-party system. Three mutually reinforcing factors underpin this process. First, a carefully managed constellation of actors and power relations ensured that key stakeholders—senior CPV leaders, government ministries,

state-owned enterprises (SOEs) and emerging private technology firms—perceived digital transformation as congruent with their own political and economic interests. Second, a set of enabling conditions—technological, economic and institutional—created a favourable environment and mitigated the perceived risks of reform. Third, reinforcing feedback mechanisms meant that early successes generated positive feedback, strengthening elite commitment and public support, while cybersecurity incidents and implementation gaps produced corrective feedback, prompting institutional adaptation and policy recalibration.

The article proceeds as follows. The next section reviews existing literature and develops a theoretical framework for analysing Vietnam's case. It employs a political economy approach inspired by the work of Benno Ndulu, Elizabeth Stuart, Stefan Dercon and Peter Knaack, which demonstrates how bureaucratic politics, special interests and elite bargaining drive digital reform.⁵ However, this article tailors that approach to suit the institutional context of Vietnam's single-party regime. The following section provides the political background to Vietnam's digital transformation and outlines the key policy initiatives underpinning it. It then introduces a three-dimensional analytical lens—actors, conditions and feedback—that structures the explanation. The core analysis is organized around these three factors. The conclusion discusses the implications for broader theories of digital transformation, digital developmentalism and state governance.

Theoretical Framework: Digital Transformation as a Political Undertaking

The existing literature has increasingly explored how regime type shapes a country's adoption of digital technologies, with many of these studies highlighting the tension between modernization and political control. For example, Monique Taylor has defined “digital authoritarianism” as an autocratic government's use of digital tools, such as censorship, surveillance and the shaping of online discourse, to reinforce its rule.⁶ In her study of China, Taylor demonstrated how, under successive leaders of the Chinese Communist Party, and especially under its current general secretary, Xi Jinping, the party-state has developed a vast apparatus to monitor and direct digital activity, treating cyberspace as an extension of state sovereignty.⁷ Crucially, China's model integrates digital innovation into a party-centric administrative framework, recentralizing authority

and constraining the internet's potential liberalizing effects.⁸ In this sense, “tech-enhanced authoritarianism” ensures that digitalization strengthens authoritarian rule rather than undermining it.⁹

Other scholars, such as Seraphine F. Maerz, have observed that authoritarian regimes may also use digital reforms instrumentally to enhance their performance legitimacy by delivering economic growth and efficient services.¹⁰ This insight resonates with the existing literature on authoritarian resilience, which argues that one-party regimes such as those in China, Vietnam and Cuba maintain power by adjusting their institutions and policies to new social and economic challenges.¹¹ As such, digital transformation can function as a form of institutional adaptation, adapting to the demands of a modern economy and a young, connected society. In essence, it is a way for the regime to claim it is solving public demands, thus advancing national interests, while reinforcing regime stability.

However, there are different approaches to digital reform.¹² Some regimes lean towards “developmental” methods, which prioritize economic growth and improving public services. Others adopt “securitarian” approaches, which make security and surveillance the key aspects of their digital strategies. For example, Singapore illustrates a semi-authoritarian state that has embraced digitalization primarily for developmental gains. According to Joey Erh, the city-state’s success in this field stems from strong policy coordination across state agencies, partnerships with multinational tech firms, evidence-informed policymaking and a general culture of technocratic adaptability.¹³ While Singapore tightly regulates political dissent, it has not relied on the pervasive surveillance characteristic of China’s approach. Instead, digitalization has mainly been used by Singapore for efficient governance and economic competitiveness.

Until recently, Vietnam’s digital transformation has received limited scholarly attention, with most studies focusing on its technical or administrative aspects rather than its political drivers. Some studies have examined Vietnam’s e-government adoption and administrative reform, highlighting the improvements in service delivery.¹⁴ Others have discussed Vietnam’s information and communications technologies (ICT) infrastructure and digital economy growth.¹⁵ Legal scholars have explored the development of Vietnam’s cybersecurity law and personal data protection decrees.¹⁶ Yet what remains missing is a political economy analysis of how power relations, institutional arrangements and vested interests within the Vietnamese state shape the trajectory of digital transformation.

In 2023, Ndulu et al. devised a comparative political economy framework to explore why some developing countries have successfully initiated digital reforms. They argued that digital transformation is seldom an apolitical or purely technical process.¹⁷ Instead, it depends on three underlying causal mechanisms: bureaucratic politics, special interest groups and political settlement (or elite bargains).¹⁸ In their study of seven countries, they found that digital reforms are most likely to succeed when political leaders mobilize bureaucratic coalitions, neutralize or co-opt special interests and forge a stable elite consensus around reform objectives.

Within this framework, bureaucratic politics situates digital transformation within an arena where state agencies both collaborate and compete for authority and budgets. Success requires a clearly mandated governmental "champion" capable of setting the strategy, standardizing administrative processes, promulgating rules on data, cybersecurity and user protection, arbitrating inter-ministerial disputes and rewarding progress.¹⁹ Without a centre of coordination, reforms can fragment into siloed sectors of the bureaucracy, budget conflicts can delay common standards and shared platforms, and anxieties over changes to the status quo can limit progress. As such, unified top-level leadership, cross-ministerial coordination and transparent monitoring are pivotal to stopping bureaucratic rivalries from hindering implementation.

Special interest groups, such as large technology firms and industry associations, shape digital transformation by lobbying officials and legislators, funding research and mobilizing public opinion. Their interventions can accelerate or redirect policy and budget choices.²⁰ However, while tech companies typically favour infrastructure expansion and permissive data-use rules, privacy advocates push for tighter data limits. Without mechanisms to balance innovation with the public interest, the disproportionate influence of special interest groups—particularly by dominant platforms—risks leading to market concentration, regulatory capture and misuse of personal data.

Lastly, political settlements or elite bargains create a relatively stable accommodation between political and economic elites when it comes to allocating power, budgets and roles.²¹ When a government sets a national digital transformation strategy and forges broad consent, implementation typically proceeds smoothly: resources align, rules cohere and coordination improves. However, without such a bargain, rival interests can produce policy deadlock, budgetary volatility and legal fragmentation.²²

Building on these insights, this article reorganizes the framework into analytical components tailored to the Vietnamese context: “actor constellation and interest alignment”, which examines how elite bargaining reconciled competing interests; “enabling conditions”, which identifies the factors that made the bargain possible at a specific historical moment; and “outcome-feedback loops”, which analyses how initial results created a self-reinforcing dynamic. One limitation of Ndulu et al.’s framework is that it lacks specificity regarding different political regimes. Since this article focuses on Vietnam, it addresses this gap. According to Jonathan D. London, Vietnam operates under a “market-Leninist” system.²³ Vietnam’s political structure, where the CPV monopolizes power and permeates all state institutions, profoundly shapes how bureaucratic politics or interest group dynamics play out. To contextualize the analysis, the next section first sets out the political and legal foundations that create an enabling environment for Vietnam’s digital reform.

Context of Vietnam’s Digital Transformation

Political Foundations

Vietnam’s digitalization has not unfolded in an institutional void. It is rooted in a historically specific and institutionally distinctive political economy that combines a centralized Leninist regime with a market-based, socialist-oriented economic strategy. This mix of ideological conviction and practical adjustment has enabled the Vietnamese state to treat technology-driven reform as a strategic necessity for national modernization. Therefore, the prominence of digitalization as a major policy plank must be understood across three interlocking structural axes: the developmental orientation of the state; the CPV’s leadership-centric model; and the shifting foundations of regime legitimacy, which now rest increasingly on developmental performance.

Since the *Đổi Mới* (Renovation) reforms of 1986, Vietnam has departed from a Soviet-style centrally planned economy.²⁴ Economic liberalization has been accompanied by deep institutional reforms intended to modernize state capability and integrate the country into global networks of trade and innovation.²⁵ Conceptually inspired by the developmental trajectories of other East Asian economies,²⁶ the Vietnamese leadership has adopted a statist modernization agenda, channelling national development through strategic planning and industrial policy.²⁷ Rather than simply reproducing the classic East

Asian developmental-state template, which presumes a uniformly capable, tightly coordinated bureaucracy, Vietnam's variant reflects heterogeneous governance capacity and variable bureaucratic execution across sectors and tiers.²⁸ Nevertheless, the state remains the principal architect of economic development, and digitalization has been integrated into its broader modernization discourse.²⁹

Accordingly, digital reform is not an ancillary or experimental policy, nor is it presented as something to be achieved in the distant future. Instead, it is seen as the principal way of achieving Vietnam's long-term growth ambitions. CPV documents highlight the strong potential of digital technology for boosting productivity, economic leapfrogging and evading the middle-income trap.³⁰ At the Thirteenth National Congress in 2021, the CPV specifically outlined digital transformation as a strategic axis for unlocking modernity by 2030 and high development by 2045, a symbolic date associated with the centenary of national independence.³¹ Ideologically, the digital transformation is cast as a dawning era for advancing national competitiveness and national pride. This makes it not only economically aspirational but normatively necessary to the CPV's long-term objectives.

Political logic enabling these ambitions is grounded in Vietnam's highly centralized system of governance. The CPV exercises a monopoly on political authority through the principle of democratic centralism, directing the legislative, executive and judicial branches of the state. Policy cohesion is maintained through vertical integration: decisions by the CPV's Politburo and the Central Committee bind the entire state apparatus.³² Ministries, local governments and even mass organizations—state-led socio-political groups such as the Ho Chi Minh Communist Youth Union and the Women's Union—contain embedded CPV cells, ensuring compliance with top-down directions.³³ Thus, it is possible to quickly mobilize policy once elite agreement has been reached.³⁴ Indeed, a designated policy is sustained across the administrative levels by the party-state machine once the leadership has deemed it strategic.³⁵ The sequenced flow—from CPV resolutions to governmental decrees and then to implementation at the sectoral and provincial levels—has been evident in the swift rollout of digital transformation initiatives. Such institutional unity provides certain advantages over pluralist regimes, where electoral cycles and inter-branch rivalries often dilute policy continuity. Democratic centralism, however, is not devoid of internal tension.³⁶ The CPV is a bureaucratic coalition with competing interests, generational differences and differing policy agendas.³⁷ Yet an unprecedented

elite consensus has emerged around digital transformation, allowing for structural alignment and concerted implementation.³⁸

Digital reform has also gained traction because it aligns with the CPV's evolving foundation for legitimacy. In the post-*Đổi Mới* era, the CPV's power depends on "performance legitimacy". In essence, authority is derived less from ideological orthodoxy than from its ability to produce concrete developmental results, such as economic growth, poverty alleviation, road connectivity and public service delivery.³⁹ In this context, digital transformation serves as both a symbolic and instrumental tool of statecraft. Functionally, it promises to enhance governance efficiency and responsiveness while reducing corruption through automation.⁴⁰ Symbolically, it affirms the CPV's commitment to modernization, aligning the party with the aspirations of a young, technologically connected population.⁴¹

Party leaders have explicitly integrated digitalization into their ideological narrative. In 2024, CPV General Secretary Tô Lâm published a widely circulated article that framed digital transformation within the Marxist *telos* of historical progress.⁴² Notably, Tô Lâm has gone further than his predecessors by asserting that digital transformation is the primary catalyst for developing productive forces, which, in turn, changes the relations of production.⁴³ This rhetorical synthesis of Marxist theory and technological modernization serves as an important step in building consensus among decision-makers, ensuring that this reform aligns with the ideology and objectives of the CPV and, therefore, merits unified support. This blend of ideological adjustment and pragmatic reform is typical of Vietnam's approach to statecraft, in which a reflective socialism embraces global best practices while preserving centralized political control.

Political foundations alone do not ensure successful reform, but they do define the realm of possibility. Implementation equally depends on technocratic capability, resource availability and awareness of emergent issues. Yet Vietnam's political configuration—a developmental imperative, a centralized state and a legitimacy-based regime—creates an enabling environment for the digital transition agenda. This coalescence has made the reform not only technologically viable but ideologically acceptable and politically amicable. This also provides the context within which feedback loops, through performance statistics, popular reaction or international acclaim, can be fed back into policy revision without jeopardizing systemic stability.

Policy and Legal Instruments

The process of leveraging ICT within Vietnam's state administration began in the early 2000s, anchored in a succession of CPV and government directives.⁴⁴ Two key documents are the Politburo's Directive No. 58-CT/TW of 2000 on promoting IT application for national industrialization and modernization, and the Eleventh Party Central Committee's Resolution No. 36-NQ/TW of 2014 on the application and development of ICT to meet the requirements of sustainable development and international integration. These early programmes laid the groundwork for an e-government model: the computerization of administrative processes, the creation of ICT-based infrastructure and the provision of online public services.

Yet, these initiatives largely treated technology as a tool for digitizing administrative functions, not transforming them. By contrast, the digital transformation strategy and the concept of "digital government" currently being promoted in Vietnam is a qualitatively different vision. It entails not just digitizing processes but restructuring the entire organizational model, operating methods and public service provision based on digital data, platforms and advanced technologies such as artificial intelligence (AI), blockchain and the Internet of Things.⁴⁵ The policy goal is to build smart, effective governance centred on the needs of people and businesses. Therefore, while the application of technology in Vietnam's state administration is not new, the current transition from e-government to digital government represents a breakthrough that aspires to comprehensively reshape the state's operations in the digital era.⁴⁶

A decisive milestone in this evolution came in 2019, when the Politburo issued Resolution 52-NQ/TW, the CPV's first comprehensive directive on the Fourth Industrial Revolution. Crucially, it framed digital transformation as indispensable to Vietnam's ambitions to "catch up, advance in the global race" and to achieve the status of a modern, high-income country by 2045. Building on that mandate, Prime Minister Nguyễn Xuân Phúc enacted Decision 749/QĐ-TTg in 2020, which approved the National Digital Transformation Programme. The Decision laid out clear, measurable targets and, importantly, compelled every ministry, province and major state organization to develop its own digital transformation action plan aligned with the national strategy. This triggered a cascade of policy planning across the bureaucracy, effectively mainstreaming the digital agenda.

Another turning point came at the CPV's Thirteenth National Congress in January 2021, at which the party's Political Report elevated "comprehensive and substantive digital transformation" to a core tenet of national development. This endorsement by the highest political authority signalled that digital transformation was no longer just a technical issue for the IT-related agencies but a central task of the entire CPV. This momentum was reinforced by the Politburo's Resolution 57-NQ/TW in 2024, which officially designated science, technology, innovation and digital transformation as one of Vietnam's primary "strategic breakthroughs", describing them as fundamental drivers of the nation's next stage of development.

In parallel, Vietnam has built a dense, statute-level legal framework to institutionalize its digital transformation agenda. For instance, the 2023 Law on Telecommunications modernized infrastructure governance and sought to bring data centres and cloud services into the telecoms regime. Meanwhile, the 2022 amendments to the Radio Frequencies Law facilitate spectrum allocation and transfer, which are crucial for 5G rollout. The digital economy is further supported by the 2025 Law on Digital Technology Industry, which positions "digital technology"—including semiconductors, AI and digital assets—as a strategic industrial pillar, pairing clear definitions with state-backed incentives to cultivate a domestic technology base.

This legal infrastructure has been reinforced by a new identity and data governance regime, anchored in the 2023 Law on Identification and its implementing Decree 69/2024/NĐ-CP on electronic IDs, followed by the 2024 Law on Data and the 2025 Personal Data Protection Law. Meanwhile, the 2023 Law on Protection of Consumer Rights updates provisions for digital commerce, the 2023 Law on E-Transactions grants electronic documents full legal equivalence and the 2024 Law on Credit Institutions creates a framework for digital finance and fintech experimentation. The 2023 Law on Medical Examination and Treatment acknowledges telemedicine and digital medical records. Collectively, these measures mark a decisive shift from piecemeal decrees to a coherent, risk- and rights-based legislative scaffold for digital governance. Draft laws on Artificial Intelligence and Digital Transformation, currently under review, are expected to be approved by late 2025, further consolidating this framework.

Complementing the legal and institutional architecture are fiscal and industrial policy instruments designed to stimulate innovation and diffusion. These include tax incentives for research

and development (R&D), digital adoption subsidies for small and medium-sized enterprises (SMEs) and state financing for start-up incubators.⁴⁷ Digital transformation has also been integrated into public investment planning, with earmarked budget lines for ICT infrastructure in national and provincial investment plans, ensuring digital agendas are backed by resources.⁴⁸

Together, these fiscal and institutional tools do more than incentivize innovation; they integrate digitalization into Vietnam's overall economic development agenda.

Key Drivers of Vietnam's Digital Transformation

Actor Constellation and Power Dynamics

Vietnam's digital transformation has been portrayed as a technocratic undertaking.⁴⁹ However, beneath the surface lies a dense web of actors whose capacities, interests and rivalries are woven into a market-Leninist system. Because organizational identity in a one-party state is inextricable from the mechanisms through which power is exercised, the most useful analytical vantage point is a relational one. Instead of viewing actor mapping and power mediation as separate or sequential stages, this article examines them as a single field in which coalition building, bureaucratic bargaining, rent-seeking and ideological legitimization unfold simultaneously.

At the apex of Vietnam's policy hierarchy stands the CPV, whose Political Report to the Thirteenth Party Congress in 2021 identifies "comprehensive and substantive digital transformation" as a keystone of socialist modernization.⁵⁰ Subsequent Politburo Resolutions, including No. 57-NQ/TW in 2024, elevated this agenda to normative status by embedding it in the CPV's long-term strategy for national development to 2045. These texts perform three functions. First, they codify the alignment of traditionally competing imperatives—economic growth, national security and ideological renewal. Second, they reframe digitalization from a sectoral aspiration into a party-wide "central task", which, under the doctrine of democratic centralism, compels lower-level organizations to align their work plans and budgets with the political line. Third, by emphasizing technological leapfrogging, people-centric service delivery and party stewardship of "digital transformation", they present digital transformation not as a neoliberal import but as an organic extension of Vietnam's socialist-modernization project.

Institutionally, this elite consensus is operationalized through overlapping party and state organs. The National Committee on Digital Transformation, which replaced the National Committee on E-Government and has been chaired by the prime minister since 2021, serves as the inter-ministerial executive hub. Its mandate, however, has been partially subsumed since 2025 with the establishment of a higher-level Central Steering Committee for Science and Technology Development, Innovation and Digital Transformation, which is presided over by the CPV general secretary.⁵¹ Nonetheless, the dual structure maintains a classic Vietnamese balancing act, whereby the government handles day-to-day implementation while the CPV retains ultimate political authority.

The CPV sustains coherence through performance-based cadre management. Annual reviews of provinces and ministries now include digital-transformation indicators (DTI), which measure the percentage of public services delivered online, the deployment speed of 5G and the integration of national population data, among other metrics. These reviews are substantial enough to affect promotion prospects.⁵² By turning digital metrics into career incentives, the CPV has limited the potential for administrative inertia, fostering a controlled environment of bureaucratic competition and emulation.

Moreover, the ongoing “blazing furnace” anti-corruption campaign—initiated under the late CPV general secretary, Nguyễn Phú Trọng (2011–24)⁵³—has provided additional leverage. Officials understand that neglecting major CPV initiatives or exploiting them for rent-seeking can trigger scrutiny. Recent cases, such as the 2015 AVG–MobiFone affair and the 2020 Hanoi digitization scandal involving former Hanoi People’s Committee Chairman Nguyễn Đức Chung, illustrate persistent cronyism risks.⁵⁴ Yet the CPV’s aggressive prosecution of those involved has also sent a clear message that reinforces the digital agenda’s integrity and signals that digital projects should not become avenues for elite rent-seeking.

Beneath the CPV lies a network of ministerial actors whose interactions reveal the enduring relevance of bureaucratic politics even within a formally centralized regime. The Ministry of Information and Communications occupies a central position as the chief architect and regulator-in-chief of the ICT sector. Yet its authority has evolved. Before 2025, the ministry shared technological standard-setting responsibilities with the Ministry of Science and Technology, while digital infrastructure financing fell to the Ministry of Planning and Investment and fiscal incentives went to the Ministry of Finance. This system created overlapping mandates, which might have led to

competition between the ministries for control of the digitalization policy, stalling its process. In January 2025, the CPV approved a central government restructuring plan aimed at improving policy coherence and administrative efficiency. This was not primarily about digital transformation; it was part of a much bigger state modernization and downsizing effort. However, among its effects was the merger of the Ministry of Information and Communications and the Ministry of Science and Technology. This consolidation of authority over digital infrastructure and innovation under a single institutional umbrella could reduce fragmentation and enhance reform momentum.

The Ministry of Public Security has emerged as another pivotal player. Traditionally responsible for internal security and policing, it has extended its remit to cybersecurity and now controls key national databases and operates the government's cybersecurity centre, making it arguably the most powerful actor in the digital realm. In mid-2025, it inaugurated the National Data Centre—one of Southeast Asia's largest—alongside a National Data Exchange Platform, positioning itself at the heart of data governance.⁵⁵ The Ministry of Public Security's influence derives from both the securitization of digital policy discourse and its exceptional political weight and resources. In a system where security carries existential connotations, this institutional asymmetry allows the ministry to dominate the digital-security domain and exercise embedded authority over data governance.⁵⁶

Vietnam's large SOEs, especially in the telecoms and ICT sectors, play a dual role as implementers and stakeholders. The "big three"—Viettel, VNPT and MobiFone—form the backbone of Vietnam's digital infrastructure. They build networks, deploy 5G and expand digital platforms, often under state mandate but with commercial autonomy. Indeed, the government has leveraged them as "strategic cores" in the digital push.⁵⁷ Viettel, a state-owned telecommunications and technology conglomerate, has been tasked with developing digital platforms or granted preferential treatment and funding to roll out 5G in rural areas. In 2025, for instance, a pilot project was announced to allow state funding to support nationwide 5G deployment.⁵⁸ This clearly benefits Viettel since it is the country's leading 5G technology provider. This is an example of what Peter Evans calls "embedded autonomy".⁵⁹ Viettel and its peers enjoy autonomy and privileged treatment to innovate, yet they remain embedded in political and security networks that constrain rent-seeking behaviour. Such a configuration turns these SOEs into

pivotal actors as they supply infrastructural goods that advance national goals, capture commercial profits (or “rents”) that sustain their own expansion, and take part in policy deliberations where their technical expertise shapes regulatory outcomes. Because their own fortunes are tied to the success of the digital strategy, they are incentivized to align their special interest dynamics with driving reform rather than obstructing it.

Alongside SOEs, Vietnam’s private technology sector has expanded rapidly, driven by firms such as FPT (Vietnam’s largest IT corporation), VNG (a developer of messaging apps and games) and CMC Technology, as well as e-commerce and fintech platforms such as Tiki and MoMo. These companies are engines of innovation, building software, digital platforms and services that the state or SOEs may not be able to create. They broadly endorse the digital transformation agenda because it expands their markets and procurement opportunities, yet they also lobby for specific policy changes to gain regulatory easing and financial support. Although private entrepreneurs possess little formal political power, they are able to have their voices heard. For example, Truong Gia Binh, chairman of the FPT Corporation, Nguyen Trung Chinh, chairman of the CMC Corporation, and Nguyen Tu Quang, the chief executive officer of BKAV Corporation, are members of the Prime Minister’s Policy Advisory Council.⁶⁰ They can also participate in policymaking through quasi-corporatist channels.⁶¹ Associations such as the Vietnam Software & IT Services Association and the Vietnam Chamber of Commerce and Industry regularly submit comments on draft laws and regulations. Crucially, industry leaders frame their demands in terms legible to the CPV. Rather than invoking liberal ideas of an unfettered internet, they emphasize self-reliance and “national digital sovereignty”, language that mirrors CPV’s.⁶² This discursive alignment enables the state to incorporate private-sector input without ideological friction, sustaining a partnership model. The private sector receives space—and, at times, incentives⁶³—to grow while cooperating closely with the government’s agenda. The result is influence without overt political contestation.

Ultimately, though, digital transformation happens at the local level, making provincial authorities crucial frontline enforcers. Under the 2015 Law on Local Government, provinces have discretion over budgets and investment priorities, subject to oversight from the Ministry of Finance. Recognizing that decentralization could result in uneven reform, the central government employs a three-pronged toolkit. First, the DTI—introduced in 2020 and calculated annually by

the Ministry of Information and Communications⁶⁴—ranks provinces across dimensions such as infrastructure, data use, human capital and cybersecurity. Results are publicized in the mainstream media, meaning there are reputational considerations for the provinces to perform well. Moreover, provincial DTI performance reviews are integrated into cadre evaluations, meaning that the career progression of local officials is related to the central government's digitalization agenda. Lastly, the State Budget Law ties targeted ICT transfers to demonstrated progress in online-service adoption,⁶⁵ creating a fiscal-performance feedback loop.

In this “tournament of competitive compliance”, provinces such as Hanoi, Danang and Hue have cultivated digital-entrepreneurial identities, branding themselves as “smart city laboratories” to attract foreign direct investment, venture capital and high-skilled migrants.⁶⁶ Local governments benchmark one another's strategies, competing in a quasi-market for reputational capital. Yet regional disparities remain pronounced. For example, mountainous and socio-economically disadvantaged provinces face persistent last-mile connectivity gaps and climate-related damage to ICT infrastructure. To close the gap, Vietnam's government ministries dispatch ICT specialists to these areas,⁶⁷ while the World Bank's Digital Economy Development project earmarks concessional credits for lagging provinces.⁶⁸ Thus, this vertical coordination combines sticks, carrots and hands-on capacity-building interventions, producing a system in which local initiative is incentivized within centrally defined parameters.

Integrating these actors and power relations into a single analytical field helps explain why Vietnam has achieved a pace of reform rarely witnessed amongst lower-middle-income, single-party regimes. The CPV's apex provides integrative steering through ideological framing, cadre incentives and anti-corruption deterrence. Ministerial blocs, embedded SOEs and competitive provinces supply administrative reach, capital mobilization and experimentation spaces, respectively. Private firms contribute nimble innovation, while international interlocutors add money and normative benchmarks. The interactions among these nodes are mediated by rules of the game that dampen zero-sum competition: rent-sharing encourages cooperation, transparent performance metrics penalize obstruction, and elite consensus overrules doctrinal disputes. Crucially, these mechanisms are not additive; they operate recursively. As policy successes accumulate, private-sector lobbying intensifies. This, in turn, motivates security agencies to demand stricter data-localization, prompting fresh negotiations and, potentially, institutional redesign.

This arrangement expresses responsive centralism where top-down authority coexists with bottom-up learning.

However, the same conditions enabling success harbour latent risks. Overcentralized decision-making may suppress dissenting expertise and foster groupthink, particularly in security-sensitive domains. Reliance on SOE-led telecoms infrastructure risks cost inefficiencies and limited technological flexibility, while regional disparities may deepen if fiscal transfers fail to keep pace. Yet, so far, rent-seeking has been disciplined by party oversight and anti-corruption enforcement, preventing extractive cronyism that could derail reform. The more acute challenge may come from geopolitical technology bifurcation, which could force Vietnam to navigate sharper alignment choices and strain its internal coalition. In essence, the sustainability of Vietnam's digital transformation depends on the CPV's continued ability to balance growth, security and legitimacy objectives without allowing any bloc to hijack reform for parochial rent-seeking.

Enabling Conditions

Why did Vietnam's digital transformation gain traction in the 2020s and not earlier? The answer lies in the convergence of technological readiness, social demand, macroeconomic stability and geopolitical opportunity—a configuration that emerged only in the late 2010s. By that time, 4G coverage was nearly universal, 5G had been successfully tested,⁶⁹ mobile network coverage and fibre-optic broadband extended to almost 82 per cent of households,⁷⁰ smartphones had become inexpensive and widespread, and basic e-government solutions, such as digital signatures and electronic identification, were in place. Had the digitalization programme been attempted a decade earlier, when 3G networks were weak and smartphones uncommon, citizens and businesses would have been much less interested in digital services. By 2019, the technological landscape had changed fundamentally, enabling a leap forward.

Vietnam's progress was not accidental. Since the early 2010s, Vietnam's government has systematically expanded the telecommunications backbone through state-led investment, market liberalization and public-private partnerships. Intentional state planning has created competitive telecom markets and supported public-private partnerships to expand digital reach into previously inaccessible regions.⁷¹ Concurrent with all this, Vietnam has built a package of national ICT systems that includes a solid network of

data centres, a cloud architecture for government and an end-to-end secure fibre-optic backhaul for ministries and public offices.⁷² The most revolutionary development has been the digitization of core national databases, including those for citizen IDs and business and land registration. Once all these are integrated, it will enable seamless provision of integrated digital government services.

Vietnam's demographic profile further amplified these technological enablers. With 22 per cent of the population under 34 years old and literacy rates above 95 per cent, the country boasts a highly responsive, quickly modernizing workforce.⁷³ Smartphone penetration (above 80 per cent by 2024) and a high rate of mobile subscription provide a broad base for digital exposure.⁷⁴ This combination created not only a market for digital services but also a societal readiness—a public predisposition to accept and even expect digital solutions in daily life. Recognizing this cultural shift, the state has integrated digital literacy and coding into national curricula, rolled out nationwide upskilling programmes, and embedded digital skills into vocational education.⁷⁵

Vietnam's macroeconomic landscape over the 2010s was marked by steady growth, usually around 6–7 per cent annually. This created fiscal surpluses and corporate revenues that were reinvested back into R&D, digital infrastructure and services. Vietnamese enterprises account for approximately 64 per cent of the nation's total R&D expenditure, a share comparable to Singapore (52 per cent) and approaching that of South Korea and China (both at 77 per cent).⁷⁶ Multinationals such as Samsung and Intel brought advanced manufacturing technologies, including automation and Internet of Things systems, into local production. The country's consistent growth rates also created a sense of optimism and a forward-looking mindset among officials, enabling them to focus on transformative agendas. In the late 2000s, when Vietnam was battling inflation and banking troubles, digital transformation would have likely been sidelined. By 2019, inflation was under control, and the exchange rate was stable, giving the party-state time and space to devote to long-term modernization projects.

Even before major state intervention, several digital sectors of the economy were expanding rapidly. The e-commerce sector grew by roughly 30 per cent annually between 2020 and 2024.⁷⁷ Fintech applications became ubiquitous, and ride-hailing and delivery platforms entered the mainstream around the mid-2010s. The private sector was, in effect, digitalizing organically. Thus, government policy amplified and steered an existing trajectory rather than creating a

new one. This made coalition-building easier as officials could point to concrete successes, rendering digitalization far less abstract than it had been a decade earlier.

In addition, the COVID-19 pandemic acted as an unexpected catalyst.⁷⁸ Lockdowns between 2020 and 2021 forced rapid digital adaptation: public services moved online, telemedicine and distance education expanded and virtual meetings sustained government operations. People also became accustomed to remote processes, transactions and digital interfaces.⁷⁹ The experience crystallized a societal consensus on the indispensability of digital infrastructure. Indeed, it validated the usefulness of digital solutions and created a public sense of urgency for digitalization as a means to achieve resilience. Prime Minister Phạm Minh Chính remarked that the COVID-19 outbreak accelerated digital transformation more than the entire previous decade.⁸⁰

Since 2017, the US-China trade war and broader tech decoupling have pushed multinationals to diversify supply chains away from China, with Vietnam—a politically stable country endowed with a relatively capable workforce—emerging as a promising destination.⁸¹ A vast wave of foreign direct investment (FDI) after 2017 emboldened Vietnamese leaders' ambitions to move up the value chain, while underscoring that capturing greater value required a deeper digital economy and upgraded skills. It also created a strategic imperative: without modernized digital governance, Vietnam risked missing this FDI window and would struggle to regulate the expanding presence of foreign platforms.⁸² Moreover, having observed the weaponization of technology by Washington and Beijing, Vietnam's security establishment prioritized digital sovereignty to reduce dependence on foreign platforms and mitigate state-backed cyber threats. Meanwhile, economic actors saw an export-oriented opportunity to climb global value chains as they digitalized their operations. Together, these dynamics strengthened support for investment in domestic digital infrastructure and state control capabilities.

However, these enabling conditions also reveal some constraints that Vietnam still faces. For instance, the quality of digital infrastructure varies considerably.⁸³ Human capital is acceptable at a basic level, but high-end skills remain limited.⁸⁴ Cybersecurity vulnerabilities represent another significant barrier to digital transformation in Vietnam. As increasing volumes of personal information and critical data are digitized, data security has become a pressing imperative.⁸⁵ Yet protective measures for personal information on online public service portals remain inadequate. Most

provincial public service portals fail to meet established standards for protecting privacy and personal data, posing a significant risk of data breaches and privacy infringements.⁸⁶

Outcome and Feedback Loops

Vietnam's digital transformation is now well underway, producing both positive outcomes and new challenges. Yet these outcomes are not simply endpoints; they generate feedback into the political and policy process, creating a dynamic cycle. The concept of feedback loops is critical. As Ndulu et al. observed, reforms are often iterative: early successes build confidence and support for deeper reform, while setbacks can trigger course correction or, if neglected, erode support.⁸⁷

One of the clearest success stories has been Vietnam's rollout of digital government services. Early e-government efforts were fragmented, requiring users to have different logins across ministries. Responding to user and business feedback, the authorities accelerated the development of a National Data Exchange Layer and introduced a single sign-on mechanism. Beginning in 2023, a unified digital identity (VNeID) allowed users to access all services seamlessly. By 2024, all central ministries and all 63 provinces were offering some form of online public service. Now, more than 4,500 administrative procedures, from birth registration to business-liscence renewal, are delivered via the National Public Service Portal and interconnected provincial platforms.⁸⁸ Official data indicate that these systems have processed millions of transactions, saving substantial labour hours.⁸⁹ These efficiency gains carry political dividends: they allow the government to demonstrate improved administrative performance and to reduce opportunities for petty corruption by limiting face-to-face interactions.

Crucially, the central portal incorporates its own feedback mechanism, allowing users to rate services on a one-to-five-star scale. These scores are aggregated in dashboards visible to central authorities, meaning that agencies with persistently low scores are flagged and required to account for their performance during periodic reviews. This, in turn, creates a quantitative feedback loop, consistent with contemporary e-governance practice, in which citizen satisfaction informs bureaucratic evaluation. It has also spurred competition between provinces to improve user experience and responsiveness. For example, Ho Chi Minh City's "1022 hotline/portal" and Hue's "Hue-S" application enable residents to report local issues, such

as potholes and price gouging,⁹⁰ track the handling of their cases in real time and ensure a high-resolution rate. These initiatives enhance the reputation of local government and provide models for horizontal diffusion across provinces.

Domestic success has been amplified by international validation. Vietnam's 15-place leap in the UN's EGDI between 2022 and 2024 was more than just a statistic; it became a political asset.⁹¹ State media celebrated the achievement, while officials cited it as proof that they are following the right path.⁹² This external recognition was a reputational dividend for the CPV and fuelled a tournament of competitive compliance among provinces. The Ministry of Information and Communications' annual report on DTI, which ranks all 63 provinces and every ministry, injected another dose of quasi-market competition into the vertically integrated bureaucracy. Ambitious local leaders championed digital reform to improve their standing and promotion prospects. In a political culture where officials are acutely status-conscious, peer comparison acts as a surrogate for electoral competition, creating a form of horizontal accountability within a one-party framework.

On the economic front, the rapid expansion of the digital economy has created a new pro-reform constituency of entrepreneurs and tech workers. The government's target is for the digital economy to account for 20 per cent of GDP by 2025. By 2024, it stood at 18.3 per cent, three times more than Vietnam's GDP growth rate and the fastest rate in Southeast Asia.⁹³ E-commerce retail hit US\$25 billion in 2024, growing annually by a further 20 per cent, making Vietnam part of the world's top 10 fastest-growing digital economies.⁹⁴ Annual cashless payment speeds grew by over 50 per cent between 2023 and 2024,⁹⁵ representing a paradigm shift in consumer behaviour.

These achievements generate reinforcing feedback. They show ambivalent policymakers that nurturing the digital sector creates jobs and fiscal returns, while surging e-commerce sales broaden the tax revenue base for the Ministry of Finance. This illustrates complementarities between digital expansion and state capacity. Moreover, the rise of digital business entrepreneurs strengthens support for pro-digital policies. Businesspeople who were once sceptical have become advocates of regulatory sandboxes—controlled settings for testing new digital services—along with subsidies and other government interventions that expand digital markets.⁹⁶ As in other periods of reform, successes generated a greater desire

to extend the reforms, producing path dependence. The result is a nascent coalition of private tech firms, SOEs and modernizing officials who are aligned in sustaining reform momentum.

As Vietnam's digital transformation has advanced, shortcomings and new demands have surfaced, prompting adaptive policy responses. This can be seen as evidence of institutional reflexivity. For example, low digital uptake in some rural areas led to grassroots digital-literacy campaigns in 2022 and 2023. Volunteers from the Ho Chi Minh Communist Youth Union, Vietnam's largest youth organization under the CPV, provided training to local residents. Government officials travelled to remote communes to deliver services on site or to coach users as part of the "Mobile Public Service" scheme.⁹⁷ Most recently, the government launched a nationwide digital mass literacy drive ("Bình dân học vụ số") that aims to popularize digital knowledge and skills for all citizens, with a national rollout from April 2025 and a first-year target of cutting training costs by up to 80 per cent.⁹⁸ The scheme includes micro-courses on basic digital skills, VNID usage, cybersecurity awareness, AI literacy and sectoral content for education and transport. Its implementation stresses grassroots delivery—"đi từng ngõ, đến từng nhà, hướng dẫn từng người" (Down every alley, into every home, with one-to-one guidance)—to reach late adopters and rural constituencies. Similarly, a number of cybersecurity incidents in 2020 and 2021 exposed vulnerabilities in government systems.⁹⁹ The immediate response was to strengthen the Ministry of Public Security's mandate, granting it more authority to issue cybersecurity standards, inspect compliance and establish a National Cybersecurity Monitoring Centre to scan public websites. These measures reduced breach risks and institutionalized data protection.

Procurement integrity has emerged as another feedback channel. High-profile ICT procurement scandals highlighted the risk of corruption undermining public trust. In response, the authorities tightened bidding procedures, enhanced reporting requirements and pursued criminal prosecutions, signalling that rent-seeking would not be allowed to derail reform. While not completely eliminating corruption, these actions deterred abuses and reinforced the CPV's anti-graft credibility, aligning integrity reforms with the broader digital agenda.

Taken together, these mechanisms exemplify a self-correcting reform process: user feedback drove technical integration and inclusion; security breaches recalibrated oversight; and procurement

scandals prompted tighter governance. Each cycle of challenge and response has refined implementation and deepened political ownership of digital transformation.

Conclusion

Vietnam's ongoing digital transformation is best understood not as a narrow tech upgrade but as a political-economy project. Digital technologies are leveraged to advance the CPV's developmental ambitions and to reinforce its claim to legitimate rule. This article has shown how a one-party state, often presumed to be resistant to change, has managed to orchestrate a comprehensive digital reform with minimal internal opposition. The key lies in coalition-building and institutional design that align diverse interests towards a shared objective. This was supported by favourable timing and reinforced by positive feedback from early achievements.

Vietnam represents a distinct pathway for digital transformation among single-party systems. Its model fuses developmental objectives with measures to safeguard cybersecurity and public order. It pursued a pragmatic, mixed-ecosystem approach that accommodates both state and private initiative while prioritizing citizen-facing improvements in service delivery. For heuristic purposes, this can be described as state-centric digital developmentalism: a strategy in which the state harnesses digitalization primarily to promote socio-economic modernization and bureaucratic efficiency, while retaining strong instruments for risk management and political control. The Vietnamese case suggests responsive centralism where stability-conscious governments can adopt calibrated openness when such openness supports economic growth and that performance gains can, in turn, reinforce state capacity and public confidence.

At the same time, Vietnam's experience indicates that communist resilience increasingly depends on adaptation to the digital era. The CPV has progressively modernized its governing toolkit by combining new digital instruments of responsiveness with traditional mechanisms of organization and ideological guidance. The integration of citizen-feedback data and competitive rankings has introduced quasi-accountability into administrative practices. Vietnam's broader lesson for developing countries—whether authoritarian or democratic—is the importance of aligning institutional arrangements with reform goals and capitalizing on moments of technological and societal readiness.

Yet success carries its own vulnerabilities. Vietnam's structural advantages—highly centralized coordination, party-state management of rent-seeking and the prominent role of security institutions—also contain latent risks. Excessive centralization may suppress critical feedback. An empowered security apparatus could tilt data governance towards overregulation, constraining the information flows essential for innovation. Moreover, overreliance on SOEs risks crowding out private-sector dynamism. The challenge for Vietnam's leadership will be to sustain a balance between growth, security and inclusion, maintaining the momentum of reform without allowing any single institutional bloc to capture it for parochial interests. As digitalization deepens, new policy frontiers—data protection, cybersecurity and the ethical governance of artificial intelligence—will test the CPV's ability to manage this delicate equilibrium.

NOTES

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¹ “Program on National Digital Transformation Approved”, *Vietnam Law and Legal Forum*, 3 July 2020, <https://vietnamlawmagazine.vn/program-on-national-digital-transformation-approved-27272.html>.

² United Nations Department of Economic and Social Affairs, “Viet Nam – Country Information”, United Nations E-Government Knowledgebase, <https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/189-Viet-Nam>.

³ Trong Dat, “Vietnam's Digital Economy Expands at Record Pace, Now 18.3% of GDP”, *VietNamNet Global*, 7 February 2025, <https://vietnamnet.vn/en/vietnam-s-digital-economy-expands-at-record-pace-now-18-3-of-gdp-2369146.html>.

⁴ Hoài Thu, “Thủ tướng: ‘Chuyển đổi số là xu thế bắt buộc, không thể đảo ngược’” [Prime minister: ‘digital transformation is an unavoidable, irreversible trend’], *Báo điện tử Dân Trí*, 19 July 2024, <https://dantri.com.vn/thoi-su/thu-tuong-chuyen-doi-so-la-xu-the-bat-buoc-khong-the-dao-nguoc-20240719093724066.htm>.

⁵ Benno Ndulu, Elizabeth Stuart, Stefan Dercon, and Peter Knaack, *Driving Digital Transformation: Lessons from Seven Developing Countries* (Oxford University Press, 2023), pp. 15–16.

⁶ Monique Taylor, *China's Digital Authoritarianism: A Governance Perspective* (Palgrave Macmillan, 2022), chapter 1.

⁷ Ibid.

⁸ Ibid., p. 4.

⁹ Samantha Hoffman, “China's Tech-Enhanced Authoritarianism”, *Journal of Democracy* 33, no. 2 (April 2022): 76–89.

¹⁰ Seraphine F. Maerz, “The Electronic Face of Authoritarianism: E-Government as a Tool for Gaining Legitimacy in Competitive and Non-Competitive Regimes”, *Government Information Quarterly* 33, no. 4 (2016): 727–35.

¹¹ Martin K. Dimitrov, *Why Communism Did Not Collapse: Understanding Authoritarian Regime Resilience in Asia and Europe* (Cambridge University Press, 2013).

¹² Nhu Truong, “Repressive-Responsive Parameters of Autocracies in Asia: Vietnam and China Compared”, *Rosenberg Institute Scholars* 4 (Rosenberg Institute for East Asian Studies, Suffolk University, 2023).

¹³ Joey Erh, “Singapore’s Digital Transformation Journey”, *Journal of Southeast Asian Economies* 40, no. 1 (2023): 4–31.

¹⁴ Binh Tan Mai, Phuong V. Nguyen, Uyen Nu Hoang Ton, and Zafar U. Ahmed, “Government Policy, IT Capabilities, Digital Transformation, and Innovativeness in Post-Covid Context: Case of Vietnamese SMEs”, *International Journal of Organizational Analysis* 32, no. 2 (2024): 333–56; Tran Hung Nguyen, “Digital Transformation in Vietnam - Trends and Solutions in the Coming Time”, *International Journal of Advanced Multidisciplinary Research and Studies* 4, no. 3 (2024): 407–15.

¹⁵ Bùi Quang Tuân and Hà Ngọc Huy, *Chuyển Đổi Số: Kinh Nghiệm Quốc Tế và Lộ Trình Cho Việt Nam* [Digital transformation: international experience and roadmap for Vietnam] (NXB Chính trị Quốc gia, 2022); Le Duy Binh and Tran Thi Phuong, *Digital Economy and Digital Transformation in Vietnam: A Reader Prepared for Roundtable Series on EVFTA, EVIPA and Post-COVID-19 Economic Recovery in Vietnam* (GOPA Consultants and Economica Vietnam, November 2020).

¹⁶ Tien-Duc Nguyen, “On the Shoulder of Giants - Vietnam’s Emerging Personal Data Protection Framework and the GDPR”, *KLRI Journal of Law and Legislation* 14, no. 2 (2024); Ha N. Nguyen, “Regulating Cyberspace in Vietnam: Entry, Struggle, and Gain”, *Columbia Journal of Asian Law* 35, no. 2 (2022): 160–99.

¹⁷ Ndulu et al., *Driving Digital Transformation*, pp. 15–16.

¹⁸ Ibid., pp. 17–30.

¹⁹ Ibid., pp. 18–21.

²⁰ Ibid., p. 21.

²¹ Ibid., pp. 26–27.

²² See also, Daron Acemoglu and James A. Robinson, “Economic Backwardness in Political Perspective”, *American Political Science Review* 100, no. 1 (2006): 115–31.

²³ Jonathan D. London, “Market-Leninism”, SSRN working paper, 2011, <https://ssrn.com/abstract=1934540>.

²⁴ Tu-Anh Vu-Thanh, “The Political Economy of Industrial Development in Viet Nam: Impact of State–Business Relationships on Industrial Performance, 1986–2013”, in *The Practice of Industrial Policy: Government–Business Coordination in Africa and East Asia*, edited by John Page and Finn Tarp (Oxford University Press, 2017), pp. 168–69.

²⁵ Tien Duc Nguyen and Thu Thuy Thi Tran, “The Limits of Vietnam’s Incrementalism Towards the Abolition of Capital Punishment for Drug Offenses”, *Asian Journal of Comparative Law* 17, no. 2 (2022): 233.

²⁶ Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925–1975* (Stanford University Press, 1982).

²⁷ See, for example, Nguyễn Sĩ Dũng, “Nhà nước kiến tạo phát triển” [The developmental state], Báo Nhân Dân điện tử, 15 January 2017, <https://nhandan.vn/nha-nuoc-kien-tao-phat-trien-post283294.html>.

²⁸ *Administrative Simplification in Viet Nam: Supporting the Competitiveness of the Vietnamese Economy*, Cutting Red Tape (OECD Publishing, 2011); Việt Lâm, “Nhà nước kiến tạo phát triển hay nhà nước khởi tạo — lựa chọn nào cho Việt Nam?” [Developmental state or entrepreneurial state — which choice for Viet Nam?], Fulbright University – Blog, 23 March 2021, <https://fulbright.edu.vn/vi/nha-nuoc-kien-tao-phat-trien-hay-nha-nuoc-khoi-tao-lua-chon-nao-cho-viet-nam>.

²⁹ Nguyễn Mạnh Hùng, “Chuyển đổi số là phương thức phát triển mới có tính đột phá để giúp rút ngắn quá trình công nghiệp hóa, hiện đại hóa của Việt Nam” [Digital transformation is a new, breakthrough mode of development to shorten Viet Nam's industrialisation and modernisation], Vietnam Ministry of Science and Technology, 16 June 2023, <https://mst.gov.vn/chuyen-doi-so-la-phuong-thuc-phat-trien-moi-co-tinh-dot-pha-de-giup-rut-nganqua-trinh-cong-nghiep-hoa-hien-dai-hoa-cua-viet-nam-197158977.htm>.

³⁰ “Toàn văn Nghị quyết Đại hội đại biểu toàn quốc lần thứ XIII của Đảng” [Full text of the resolution of the 13th National Congress of the Communist Party], Vietnamese Government, 26 February 2021, <https://baochinhphu.vn/toan-van-nghi-quyet-dai-hoi-dai-bieu-toan-quoc-lan-thu-xiii-cua-dang-102288263.htm>.

³¹ Ibid.

³² Regina Abrami, Edmund Malesky, and Yu Zheng, “Vietnam Through Chinese Eyes”, in *Why Communism Did Not Collapse: Understanding Authoritarian Regime Resilience in Asia and Europe*, edited by Martin K. Dimitrov (Cambridge University Press, 2013), pp. 254–55.

³³ Jonathan D. London, “How to Study Contemporary Vietnam?”, in *Routledge Handbook of Contemporary Vietnam*, edited by Jonathan D. London (Routledge, 2022), p. 7.

³⁴ Jonathan D. London, “The Communist Party of Vietnam: Consolidating Market-Leninism”, in *Routledge Handbook of Contemporary Vietnam*, p. 32.

³⁵ Ibid., p. 30.

³⁶ Paul Schuler, “Political Representation in Contemporary Vietnam”, in *Routledge Handbook of Contemporary Vietnam*, p. 50.

³⁷ London, “The Communist Party of Vietnam”, pp. 30–31.

³⁸ Bùi Quang Tuấn Bùi and Hà Huy Ngọc, *Chuyển Đổi Số: Kinh Nghiệm Quốc Tế và Lộ Trình Cho Việt Nam* (NXB Chính trị Quốc gia, 2022), pp. 213–17.

³⁹ Carlyle A. Thayer, “Political Legitimacy in Vietnam: Challenge and Response”, *Politics & Policy* 38, no. 3 (2010): 423–44; Lê Hồng Hiệp, “Performance-Based Legitimacy: The Case of the Communist Party of Vietnam and ‘Đổi Mới’”, *Contemporary Southeast Asia* 34, no. 2 (2012): 145–72; Aurel Croissant, “Vietnam: The Socialist Party State”, in *Comparative Politics of Southeast Asia: An Introduction to Governments and Political Regimes*, edited by Aurel Croissant (Springer International Publishing, 2022).

⁴⁰ Nguyễn Minh Phương, Trần Thị Quỳnh Chi, Lê Ngọc Hân, Lã Hương Ly, Trần Thị Yên Nhi, and Nguyễn Thúy Quỳnh, “Mức độ phát triển của Chính phủ điện tử và vấn đề tham nhũng trong kỷ nguyên số: Vai trò điều tiết của kinh tế số” [E-government development and the problem of corruption in the digital era: the moderating role of the digital economy], *Tạp chí Khoa học và Công nghệ Việt Nam* [Vietnam Journal of Science and Technology] 67, no. 4B (25 April 2025): 23.

⁴¹ “Toàn văn Nghị quyết Đại hội đại biểu toàn quốc lần thứ XIII của Đảng”.

⁴² Tô Lâm, “Party General Secretary, President Writes About Role of Digital Transformation”, *Vietnam Law and Legal Forum*, 2 September 2024, <https://vietnamlawmagazine.vn/party-general-secretary-president-writes-about-role-of-digital-transformation-72484.html>.

⁴³ Ibid.

⁴⁴ Bùi Quang Tuấn and Hà Ngọc Huy, “Chuyển Đổi Số”, p. 213.

⁴⁵ Ministry of Science and Technology, Central Propaganda and Mass Mobilization Commission, National Political Publishing House Truth, *Những Nội Dung Cơ Bản về Chuyển Đổi Số: Hỏi và Đáp* [Digital transformation basics: questions and answers] (NXB Chính trị Quốc gia Sự thật, 2025), pp. 112–13.

⁴⁶ Prime Minister, Decision No. 942/QĐ-TTg (15 June 2021) Approving the E-Government Development Strategy Towards Digital Government for the 2021–2025 Period, with a Vision to 2030.

⁴⁷ Giulia Interesse, “Vietnam CIT Incentives for Software Production, High-Tech Companies”, *Vietnam Briefing News*, 10 September 2024, <https://www.vietnam-briefing.com/news/cit-incentives-for-software-production-and-high-tech-companies-in-vietnam.html>.

⁴⁸ “Gov’t Approves Digital Infrastructure Strategy”, Vietnam Government Portal, 10 October 2024, <https://en.baochinhphu.vn/govt-approves-digital-infrastructure-strategy-11124101010505598.htm>.

⁴⁹ Nguyen Dinh Chuc and Dao Tung Anh, “Digital Transformation in Vietnam: Policies, Results and Recommendations”, *Journal of Southeast Asian Economies* 40, no. 1 (2023): 127–44; Bùi Quang Tuấn and Hà Ngọc Huy, “Chuyển Đổi Số”, pp. 467–76.

⁵⁰ “Toàn văn Nghị quyết Đại hội đại biểu toàn quốc lần thứ XIII của Đảng”.

⁵¹ “Lập BCĐ về Phát Triển Khoa Học, Công Nghệ, Đổi Mới Sáng Tạo và Chuyển Đổi Số” [Establishing a central steering committee on the development of science, technology, innovation, and digital transformation], Vietnam Government Portal, 13 January 2025, <https://xaydungchinh sach.chinhphu.vn/thanh-lap-ban-chi-dao-trung-uong-ve-phat-trien-khoa-hoc-cong-nghe-doi-moi-sang-tao-va-chuyen-doi-so-119250113123121466.htm>.

⁵² “Kết Quả Đánh Giá Mức Độ Chuyển Đổi Số Cấp Bộ, Cấp Tỉnh Năm 2022 (DTI 2022)” [Results of the assessment of digital transformation at ministerial and provincial levels, 2022 (DTI 2022)], Vietnam National Digital Transformation Portal, 24 July 2023, <https://dx.gov.vn/ketqua-danhgia-mucdo-chuyendoi-so-capbo-cap-tinh-nam-2022-dti-2022-1690181687592.htm>.

⁵³ Nguyễn Khắc Giang, “The Political Economy of Vietnam’s Anti-corruption Campaign”, in *Southeast Asian Affairs 2024*, edited by Daljit Singh and Hoang Thi Ha (ISEAS – Yusof Ishak Institute, 2024), pp. 375–90.

⁵⁴ “Đại án MobiFone mua AVG: Hình phạt nghiêm khắc đối với các bị cáo” [The MobiFone–AVG ‘grand case’: strict sentences for the defendants], Vietnam Government Portal, 28 December 2019, <https://baochinhphu.vn/dai-an-mobifone-mua-avg-hinh-phat-nghiem-khac-doi-voicac-bi-cao-102266271.htm>; Tuyên Phan, “4 vụ án khiếu kiện Chủ tịch Hà Nội Nguyễn Đức Chung phải ngồi tù” [Four cases that sent former Hanoi chairman Nguyễn Đức Chung to prison], *Thanh Niên*, 23 March 2023, <https://thanhnien.vn/4-vu-an-khien-keu-chu-tich-ha-noi-nguyen-duc-chung-phai-ngoi-tu-185230323134700834.htm>.

⁵⁵ Dinh Hieu, “Vietnam Opens Southeast Asia’s Largest National Data Center”, *VietNamNet Global*, 18 August 2025, <https://vietnamnet.vn/en/vietnam-opens-southeast-asia-s-largest-national-data-center-2433441.html>.

⁵⁶ Tu Thien Huynh, “Everyone Is Safe Now: Constructing the Meaning of Data Privacy Regulation in Vietnam”, *Asian Journal of Law and Society* 11, no. 4 (December 2024): 530–58; Ha N. Nguyen, “Regulating Cyberspace in Vietnam”.

⁵⁷ Anh Diệu, “Doanh nghiệp nhà nước là lực lượng ‘nòng cốt’ dẫn dắt tăng trưởng kinh tế” [State-owned enterprises are the ‘core’ force leading economic growth], Government Portal: Hanoi Capital, 16 April 2025, <https://thanglong.chinhphu.vn/doanh-nghiep-nha-nuoc-la-luc-luong-nong-cot-dan-dat-tang-truong-kinh-te-10325041615452064.htm>.

⁵⁸ “Nghị quyết số 193/2025/QH15 … về thí điểm một số cơ chế, chính sách đặc biệt tạo đột phá phát triển khoa học, công nghệ, đổi mới sáng tạo và chuyển đổi số quốc gia” [Resolution No. 193/2025/QH15 … piloting special mechanisms and policies to break through in science, technology, innovation, and national digital transformation], Vietnam National Assembly, 19 February 2025, <https://quochi.vn/vanphongquochi/tochucdangtoanthe/Pages/van-phong-dang-doan-the.aspx?ItemID=92821>.

⁵⁹ Peter B. Evans, *Embedded Autonomy: States and Industrial Transformation* (Princeton University Press, 1995).

⁶⁰ Ngọc An, “Hội đồng tư vấn của Thủ tướng gồm những thành viên nào?” [Who are the members of the prime minister's advisory council?], *Tuổi Trẻ*, 24 April 2025, <https://tuoitre.vn/hoi-dong-tu-van-cua-thu-tuong-gom-nhung-thanh-vien-nao-20250424162339044.htm>.

⁶¹ Tu Phuong Nguyen, “Rethinking State–Society Relations in Vietnam: The Case of Business Associations in Ho Chi Minh City”, *Asian Studies Review* 38, no. 1 (2014): 87–106; An Chu, “Enabling Business Associations’ Participation in Legislative Process in Vietnam: Progress and Challenges”, *Public Goods & Governance* 8, no. 2 (2023): 35.

⁶² Sơn Hồng, “Doanh nghiệp công nghệ: Nghị quyết 57 là điểm tựa để Việt Nam bước vào kỷ nguyên vươn minh” [Technology enterprises: resolution 57 as the fulcrum for Viet Nam to enter a new era of ascent], *Thời Báo Ngân Hàng*, 15 January 2025, <https://thoibaonganhang.vn/doanh-nghiep-cong-nghe-nghi-quyet-57-la-diem-tua-de-viet-nam-buoc-vao-ky-nuoc-vuon-minh-159885.html>.

⁶³ Giulia Interesse, “Vietnam CIT Incentives for Software Production, High-Tech Companies”.

⁶⁴ Bùi Quang Tuấn and Hà Ngọc Huy, “Chuyển Đổi Số”, p. 243.

⁶⁵ “Thủ tướng Chính phủ chỉ thị xây dựng đề án chuyển đổi số của các bộ, ngành, địa phương” [Prime minister directs the formulation of digital-transformation projects by ministries, sectors, and localities], *Báo Chính phủ*, 16 September 2024, <https://baochinhphu.vn/thu-tuong-chinh-phu-chi-thi-xay-dung-de-an-chuyen-doi-so-cuacac-bo-nganh-dia-phuong-102240916164656816.htm>.

⁶⁶ Jamille Tran, “Vietnam’s Top Three Cities Spark Innovation Race to Bolster Growth”, *The Business Times (Singapore)*, 10 April 2024, <https://www.businesstimes.com.sg/international/asean/vietnam-s-top-three-cities-spark-innovation-race-bolster-growth>.

⁶⁷ Bùi Quang Tuấn and Hà Ngọc Huy, “Chuyển Đổi Số”, p. 183.

⁶⁸ Hân Ngọc, “Ngân hàng Thế giới phê duyệt gói tín dụng hỗ trợ Việt Nam phục hồi kinh tế bao trùm, xanh và chuyển đổi số” [World Bank approves credit package to support Viet Nam’s inclusive, green recovery and digital transformation], Vietnam Ministry of Industry and Trade, 3 July 2023, <https://moit.gov.vn/bao-ve-moi-truong/ngan-hang-the-gioi-phe-duyet-goi-tin-dung-ho-tro-viet-nam-phuc-hoi-kinh-te-bao-trum-xanh-va-chuyen-doi-so.html>.

⁶⁹ Đức Việt, “Phù sóng 4G ở Việt Nam đã tiệm cận các nước phát triển” [4G coverage in Vietnam has approached developed-country levels], Vietnam News Agency, 12 November 2024, <https://baotintuc.vn/thoi-su/phu-song-4g-o-viet-nam-da-tiem-can-cac-nuoc-phat-trien-20241112155744027.htm>.

⁷⁰ Van Anh, “Over 82% of Vietnamese Households Now Connected to High-Speed Fiber Internet”, *VietNamNet News*, 9 November 2024, <https://vietnamnet.vn/en/over-82-of-vietnamese-households-now-connected-to-high-speed-fiber-internet-2339216.html>.

⁷¹ Nguyen Dinh Chuc and Dao Tung Anh, “Digital Transformation in Vietnam”, pp. 129–31.

⁷² Nguyễn Nhàn, “Xây dựng hạ tầng số hiện đại, đồng bộ thúc đẩy chuyển đổi số quốc gia” [Building a modern, synchronous digital infrastructure to promote national digital transformation], *Tạp chí điện tử Thông tin và Truyền thông*, 28 November 2024, <https://vjst.vn/xay-dung-ha-tang-so-hien-dai-dong-bo-thuc-day-chuyen-doi-so-quoc-gia-67927.html>.

⁷³ Trần Quang Vinh, “Tháng Thanh niên: Những ‘số liệu vàng’ về thanh niên Việt Nam” [Youth month: ‘golden’ statistics on Vietnamese youth], *VietnamPlus*, 25 March 2022, <https://www.vietnamplus.vn/thang-thanh-nien-nhung-so-lieu-vang-ve-thanh-nien-viet-nam-post780133.vnp>.

⁷⁴ “84% thuê bao điện thoại di động sử dụng điện thoại thông minh” [84% of mobile subscribers use smartphones], Ministry of Science and Technology, 9 May 2024, <https://mst.gov.vn/84-thue-bao-dien-thoai-di-dong-su-dung-dien-thoai-thong-minh-197240906161437916.htm>; “Bộ Thông tin và Truyền thông trả lời kiến nghị của cử tri tỉnh Kiên Giang” [MIC responds to voter petitions in Kiên Giang], Vietnam Ministry of Science and Technology, 5 September 2024, <https://mst.gov.vn/84-thue-bao-dien-thoai-di-dong-su-dung-dien-thoai-thong-minh-197240906161437916.htm>.

⁷⁵ “Bình dân học vụ số: Xây dựng các quy định hướng dẫn Chương trình phổ cập kỹ năng số” [Universal ‘digital literacy’: developing guidelines for the digital skills universalisation programme], *Báo Phụ nữ Việt Nam*, 1 May 2025, <https://phunuvietnam.vn/binh-dan-hoc-vu-so-xay-dung-cac-quy-dinh-huong-dan-chuong-trinh-pho-cap-ky-nang-so-20250501222412077.htm>.

⁷⁶ Giang Hoàng, “Đầu tư vào R&D tại Việt Nam: Cần sự vào cuộc hơn nữa của các DN lớn” [Investing in R&D in Viet Nam: greater involvement by large enterprises is needed], *Báo Chính phủ*, 4 September 2021, <https://baochinhphu.vn/dau-tu-vao-rd-tai-viet-nam-can-su-vao-cuoc-hon-nua-cua-cac-dn-lon-102299707.htm>.

⁷⁷ Ines Liu, “Vietnam’s E-Commerce Sector Outlook in 2024”, *Vietnam Briefing*, 20 August 2024, <https://www.vietnam-briefing.com/news/vietnams-e-commerce-sector-outlook-in-2024.html>.

⁷⁸ Đặng Thái Sơn, “COVID-19: ‘Cú sốc’ làm thay đổi nhận thức trong chuyển đổi số” [COVID-19: the ‘shock’ that changed perceptions of digital transformation], Vietnam Government Media, 3 April 2022, <https://media.chinhphu.vn/covid-19-cu-soc-lam-thaydoi-nhan-thuc-trong-chuyen-doi-so-102220403151759482.htm>.

⁷⁹ Văn Hà, ““Người dân thấy thiết thực, hiệu quả thì chuyển đổi số khó khăn đến mấy cũng thành công”” [If people see practical benefits and effectiveness, digital transformation will succeed however difficult], *Báo Chính phủ*, 9 August 2022, <https://baochinhphu.vn/nguo-dan-thay-thiet-thuc-hieuqua-thi-chuyen-doi-so-kho-khan-den-may-cung-thanh-cong-102220809123316564.htm>.

⁸⁰ Thủ tướng Phạm Minh Chính chủ trì Hội nghị về chuyển đổi số” [Prime Minister Phạm Minh Chính chairs conference on digital transformation], *Quân đội nhân dân*, 19 July

2024, <https://www.qdnd.vn/chinh-tri/tin-tuc/thu-tuong-pham-minh-chinh-chu-tri-hoi-nghi-ve-chuyen-doi-so-voi-cac-bo-truong-truong-nganh-chu-tich-ubnd-cac-tinh-thanh-pho-786010>.

81 “Việt Nam ở tại đón ‘đại bàng’ FDI với quy mô chưa từng thấy, đưa kinh tế thăng hạng thần tốc: Vững ngôi số 1 Đông Nam Á” [Vietnam massively welcomes ‘eagle’ FDI, rapidly upgrading the economy: holding the no. 1 spot in Southeast Asia], Vietnam Chamber of Commerce and Industry—WTO Center, 26 June 2023, <https://trungtamwto.vn/tin-tuc/23798-viet-nam-o-at-don-dai-bang-fdi-voi-quy-mo-chua-tung-thay-dua-kinh-te-thang-hang-than-toc-vung-ngoi-so-1-dong-nam-a>.

82 Mai Huong Giang, “Chuyển đổi số và thu hút vốn đầu tư trực tiếp nước ngoài tại Việt Nam” [Digital transformation and the attraction of foreign direct investment in Viet Nam], *Journal of Economy and Forecast Review*, 19 November 2024, <https://kinhtevadubao.vn/chuyen-doi-so-va-thu-hut-von-dau-tu-truc-tiep-nuoc-ngoai-tai-viet-nam-30362.html>.

83 “Báo Cáo Tóm Tắt Hạ Tầng Số Quốc Gia – Nền Tảng Cho Phát Triển Việt Nam Hướng Tới 2045” [National digital infrastructure – a summary report: a platform for Viet Nam's development toward 2045] (Institute for Policy Studies and Media Development, 2024), <https://ips.org.vn/thu-vien/bao-cao-tom-tat-ha-tang-so-quoc-gia-nen-tang-cho-phat-trien-viet-nam-huong-toi-2045-ct271.html>.

84 Bùi Quang Tuấn and Hà Ngọc Huy, “Chuyển Đổi Số”, pp. 337–45.

85 Tien-Duc Nguyen, “On the Shoulder of Giants”, p. 79.

86 “Greater Attention to Online Personal Data Protection Needed to Win Public Trust in Digital Transformation: Recent Review Results Suggest”, *Vietnam Law and Legal Forum*, 31 August 2022, <https://vietnamlawmagazine.vn/greater-attention-to-online-personal-data-protection-needed-to-win-public-trust-in-digital-transformation-recent-review-results-suggest-48945.html>.

87 Ndulu et al., *Driving Digital Transformation*, p. 183.

88 Mạnh Tuyền, “Công Dịch vụ Công Quốc Gia Đã Cung Cấp 4,5 Nghìn Dịch vụ Công Trực Tuyến” [The National Public Service Portal has provided 4.5 thousand online public services], *Tạp chí Tổ chức Nhà nước*, 3 February 2024, <https://tcnn.vn/pages/detail/63521/Cong-Dich-vu-cong-quoc-gia-da-cung-cap-45-nghin-dich-vu-cong-truc-tuyen.html>.

89 “Công bố dịch vụ công thứ 2.700 trên Công Dịch vụ Công Quốc gia” [Announcement of the 2,700th public service on the National Public Service Portal], Công Thông tin điện tử Chính phủ (Government Portal), 19 October 2024, <https://vpcp.chinhphu.vn/cong-bo-dich-vu-cong-thu-2700-tren-cong-dich-vu-cong-quoc-gia-11525307.htm>.

90 Công Thông tin 1022 Thành phố Hồ Chí Minh [Ho Chi Minh City 1022 Public Service Portal], <http://1022.tphcm.gov.vn/vi/>; Công Thông tin điện tử Thừa Thiên Huế [Hue City Official Portal], <https://huecity.vn/>.

91 Trong Dat, “Vietnam's Digital Economy”.

92 Ibid.

93 “Kinh tế số Việt Nam tăng trưởng nhanh nhất khu vực” [Viet Nam's digital economy grows fastest in the region], Vietnam Government Portal, 6 February 2025, <https://baochinhphu.vn/kinh-te-so-viet-nam-tang-truong-nhanh-nhat-khu-vuc-102250206152332651.htm>.

94 “Vietnam's E-commerce Market Exceeds \$25 Billion”, *Viet Nam News*, 25 June 2025, <https://vietnamnews.vn/economy/1689608/viet-nam-s-e-commerce-market-exceeds-25-billion.html>.

95 “QR Code Payment Transactions Surge in 2024”, *VietnamPlus*, 10 January 2025, <https://en.vietnamplus.vn/qr-code-payment-transactions-surge-in-2024-post308072.vnp>.

⁹⁶ Trọng Đạt, “Doanh nghiệp kỳ vọng cơ chế sandbox thúc đẩy công nghệ mới” [Businesses expect the sandbox mechanism to spur new technologies], *VnExpress*, 30 June 2025, <https://vnexpress.net/doanh-nghiep-ky-vong-co-che-sandbox-thuc-day-cong-nghe-moi-4908246.html>; Trần Huyền, “Đề xuất ưu đãi thuế thu nhập doanh nghiệp cho phát triển khoa học công nghệ” [Proposing corporate income tax incentives for the development of science and technology], *Tạp chí Kinh tế – Tài chính*, 10 March 2025, <https://tapchitaichinh.vn/de-xuat-uu-dai-thue-thu-nhap-doanh-nghiep-cho-phat-trien-khoa-hoc-cong-nghe.html>.

⁹⁷ “Youth Volunteers Support Operation of Local Administration Model, Online Public Services”, *VietnamPlus*, 7 July 2025, <https://en.vietnamplus.vn/youth-volunteers-support-operation-of-local-administration-model-online-public-services-post322278.vnp>; Song Lê, “Thiết thực mô hình ‘Dịch vụ công lưu động’” [Making the ‘mobile public service’ model practical], *Vietnam.vn*, 25 August 2025, <https://www.vietnam.vn/thiet-thuc-mo-hinh-dich-vu-cong-luu-dong>.

⁹⁸ Hà Văn, “Thủ tướng phát động phong trào ‘Bình dân học vụ số toàn dân’” [Prime minister launches ‘national mass digital literacy’ campaign], Báo Chính phủ (Government Portal), 26 March 2025, <https://baochinhphu.vn/thu-tuong-phat-dong-phong-trao-binh-dan-hoc-vu-so-toan-dan-102250326173839409.htm>.

⁹⁹ “Cyber Security Becoming a Big Concern for Firms, Individuals”, *Viet Nam News*, 30 October 2021, <https://vietnamnews.vn/economy/1068691/cyber-security-becoming-a-big-concern-for-firms-individuals.html>.