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# Public Utilities and Manufactured Failure: A Telecommunications-Focused Case Study of Belize

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***Abstract***

*In developing nations, public services experience cycles of underinvestment, privatization, foreign profit extraction, and renationalization, a process that has been conceptualized as "manufactured failure." This structural issue arises from strategic or institutionally driven suboptimal performance in public sectors, which legitimates privatization but facilitates rent-seeking, only to result in renationalization during times of crisis. This article examines the telecommunication industry in Belize, focusing on ownership changes, with a detailed examination of renationalization in 2009, penetration rates of telecommunication services, tariff structures, and disparities in access from 1970 to 2026. Secondary data from official reports, international databases (such as ITU and World Bank), and archival research underscore the continued monopoly power, delayed infrastructure development, high tariffs during private management, and continued digital divides between rural and urban areas. Internet penetration rates were stabilized at 72.4% and mobile subscriptions at 82.3% of the population by the end of 2025, thanks to substantial fibre investments following renationalization, but affordability and consolidation concerns persist. These trends are consistent with manufactured failure, which has its roots in the asymmetric power relationships between small states and foreign capital. Building on the foundational work of Eduardo Araral on the failure of privatization, including his application of transaction cost theory, this research weaves together comparative data from the Caribbean (such as the case of telecommunications privatization in Jamaica) and Latin America, with in-text citations to analogous cycles of electricity and water privatization in Belize. Recommendations include strengthening regulatory frameworks, making pricing structures transparent, developing hybrid governance structures, and continued public investment to break the cycle of exploitation. (278 words)*

***Keywords:*** *Public utilities; manufactured failure; privatization; renationalization; Belize; telecommunications; transaction cost theory; digital divide; development economics*

***Abbreviations:*** *BTL-Belize Telemedia Limited (branded as Digi); PUC-Public Utilities Commission; ITU-International Telecommunication Union; BWS-Belize Water Services Limited; BEL- Belize Electricity Limited*

## INTRODUCTION

Telecommunications infrastructure plays a vital role in driving socioeconomic development in developing countries, it supports connectivity, fuels economic growth, enhances education, and enables effective governance. However, in many of these settings, especially smaller states, the sector often struggles with instability, high costs, and unequal access. The concept of *manufactured failure* explains this recurring pattern, where public services are intentionally or structurally made to underperform due to ongoing underinvestment, weak regulation, and misaligned incentives. This sets the stage for privatization, allows short-term profit extraction by foreign actors, and eventually forces renationalization during fiscal or social crises.

Belize, home to roughly 424,000 people as of 2025, is a clear example of these trends playing out across its key public utilities, with telecommunications standing out as the most prominent case. Since achieving independence in 1981,

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Belize's telecom sector has cycled through phases of state ownership, partial privatization in the 1990s (notably involving investors linked to foreign interests such as British Caribbean Bank and Michael Ashcroft), and a full return to state control in 2009. This shift followed a series of conflicts over issues like debt, service quality, repatriation of profits, and regulatory compliance. The sector, now operating under the Digi brand through Belize Telemedia Limited (BTL), has since experienced significant infrastructure growth, including the rollout of over 2,000 kilometres of fibre optic cable, reaching 80% of homes and connecting over 34,000 fibre customers by 2025.

Today, challenges remain. Discussions about market consolidation are gaining attention, particularly BTL's proposed $170 million acquisition of rival Speednet/SMART, which triggered antitrust concerns raised by the Belize Chamber of Commerce and Industry in January 2026. At the same time, rural access gaps continue to persist.

This article argues that Belize's telecommunications history represents a case of manufactured failure, driven more by systemic exploitation than mere inefficiency. By zeroing in on the 2009 renationalization and applying Eduardo Araral's (2009) framework on privatization failures, especially his transaction cost theory, this study contributes to a broader understanding of utility reform in small developing nations. It also offers comparative insights from Jamaica's telecom privatization experience and brief connections to similar patterns in Belize's electricity and water sectors.

## Literature Review

Privatizing telecommunications and other public utilities has often been promoted as a way to improve efficiency, attract private investment, and expand services. However, real-world evidence: particularly from developing countries, presents a more complex picture. In these contexts, natural monopolies are especially vulnerable to rent-seeking behaviour, especially when regulatory systems are weak or ineffective (Klein & Roger, 1994). Across Latin America and the Caribbean, privatization efforts have frequently led to higher prices, limited reinvestment in infrastructure, and the outflow of profits, often at the expense of fair and inclusive service delivery (Bayliss & Fine, 2008; Dunn, 1995).

Eduardo Araral's influential work on the privatization of water utilities (2009) offers a powerful framework that also applies to telecommunications. In his study titled *"The Failure of Water Utilities Privatization: Synthesis of Evidence, Analysis and Implications,"* Araral reviews global data to challenge two key assumptions often used to justify privatization: the fiscal hypothesis (that private funding will ease the burden on public finances) and the efficiency hypothesis (that competition will lead to better performance). His findings show that privatization tends to fail in many developing countries because of fundamental structural issues, such as high transaction costs, poorly designed or incomplete contracts, information imbalances, weak regulatory enforcement, and political interference.

Araral's Transaction Cost Theory in Privatization Contexts

Eduardo Araral turns to transaction cost economics (TCE), a theory developed by scholars such as Oliver Williamson, to shed light on why privatization often fails, particularly in developing countries. TCE highlights that economic transactions involve more than just production costs; they also come with additional expenses like searching for information, negotiating terms, monitoring performance, and enforcing agreements. The goal of an effective governance system, whether public or private, is to minimize these costs, especially when factors like asset specificity, uncertainty, and opportunistic behaviour are at play.

In sectors like telecommunications and water, the infrastructure involved, such as fibre-optic networks or pipelines, is highly specialized. This creates what's known as a "hold-up" problem: once investments are made, one party can exploit the other through renegotiation or by under delivering. At the same time, uncertainty, due to things like shifting demand or changes in regulation, leads to contracts that can't account for every possible outcome. These incomplete agreements open the door for opportunism.

Araral shows how privatization often makes these problems worse in countries with weak institutions. For example, private companies might overpromise during the bidding process, only to later renegotiate the deal and shift financial risks back onto the government. Weak regulators may be captured by private interests, allowing firms to extract excessive profits. Political pressures, such as keeping rates artificially low to win public support, can further undermine long-term viability.

Araral's findings are backed by real-world data: between 2000 and 2007, more than 50 privatization contracts in developing nations were terminated prematurely due to these challenges. The result is a manufactured failure, initial underfunding by the public sector sets the stage for privatization, but private-sector opportunism eventually leads to crisis and renationalization. This framework applies directly to telecommunications, especially in Caribbean nations where foreign ownership and monopoly conditions are common.

In more recent work, Araral and others have called for practical, evidence-based reforms rather than ideological commitments to privatization. They argue that hybrid governance models are more appropriate for fragile states. Belize's experience, with stalled progress under private management followed by notable improvements after renationalization, illustrates many of the vulnerabilities TCE seeks to explain.

## Materials and Methods

This study adopts a qualitative case study approach focused on the telecommunications sector, using descriptive quantitative analysis of secondary data spanning from 1970 to 2026. Key data sources include regulatory rulings from the Public Utilities Commission (PUC), international databases from organizations like the ITU and World Bank,

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DataReportal publications, government documents, and academic literature, including Araral's 2009 work.

Historical timelines are used to map out changes in sector ownership, while service penetration rates and pricing trends are presented in table form to support visual analysis. For periods before the 1990s, where data is scarce, the study uses triangulation methods to fill in gaps. The analysis seeks to identify structural patterns that align with the concept of manufactured failure, factoring in recent developments such as fibre network expansions and ongoing debates around market consolidation between 2025 and 2026.

## Results and Discussion

**Historical Overview of Telecommunications in Belize**

Telecommunications in Belize traces its roots back to the colonial era and eventually evolved into a state-run monopoly under Belize Tele media Limited (BTL) following independence. In the 1990s, the industry was privatized, handing over control to investors with foreign ties. This period was marked by limited competition, steep pricing (international calls, for instance, cost around $0.50 per minute), and stifled innovation, Voice over IP (VoIP) services remained banned until as late as 2012.

Tensions steadily grew over issues such as pricing, service quality, increasing debt, the repatriation of profits, and allegations of non-compliance with regulatory standards. These challenges reached a breaking point in 2009, prompting the government to fully renationalize the sector. This move was formalized through the Belize Telecommunications (Amendment) Act passed in August 2009, which authorized the government to acquire roughly 94% of BTL's shares from majority stakeholder British Caribbean Bank (BCB) and other private entities.

The government justified the acquisition as necessary to protect national interests, especially given BTL's financial troubles, over BZ$100 million in debt, and its failure to adequately invest in infrastructure. Compensation was eventually settled through international arbitration under the UK-Belize Bilateral Investment Treaty, with the government paying BZ$40 million to BCB in 2013 and resolving the final disputes in 2017.

Following renationalization, ownership of BTL was transferred to the state via the Social Security Board and direct government holdings. This shift allowed for a more open approach to the market and accelerated infrastructure investments. In 2018, BTL was rebranded as Digi, with a new focus on expanding digital services.

More recently, speculation around Digi's potential acquisition of rival provider Speednet/SMART, valued at approximately $170 million, has raised fresh concerns. In January 2026, the Belize Chamber of Commerce and Industry voiced worries about reduced competition, risks to consumer welfare, and the use of public funds. In response, the government signalled it may implement a 12-month rate freeze while discussions continue.

Contextual Parallels: Cycles in Belize's Electricity and Water Sectors

The same pattern of manufactured failure seen in Belize's telecommunications sector is also evident in its electricity and water services. In the electricity industry, the Belize Electricity Board was privatized in 1992 and became Belize Electricity Limited (BEL), with the majority eventually owned by Canadian company Fortis. However, years of tariff instability, power supply issues, and a lack of adequate investment led the government to seize a controlling stake in June 2011, effectively bringing the sector back under public ownership (currently around 63.85%).

A similar trajectory unfolded in the water sector. In March 2001, the former Water and Sewerage Authority (WASA) was privatized, and Belize Water Services Limited (BWS) was formed using WASA's assets. Cascal BV, an Anglo-Dutch multinational, acquired approximately 83% of the company. But the privatization soon ran into trouble, with rising tariffs, mounting service complaints, and financial conflicts. In October 2005, just four and a half years later, the Government of Belize bought back the majority of shares from Cascal at the original price (US$24.8 million, paid in instalments). This restored majority public ownership, now split between the government (roughly 83%) and the Social Security Board (10%). The buyback was driven by dissatisfaction with the private operator's failure to expand rural access and keep services affordable.

Since returning to public hands, BWS has worked to improve efficiency: such as reducing water loss to below 25%, while operating under the regulation of the Public Utilities Commission (PUC). Still, pricing pressures remain. In November 2025, the PUC approved a 13.5% increase to the Mean Water Rate (MWR), effective April 1, 2026, lower than the 20% hike BWS had requested. This change is expected to raise the average water bill by 5.5%. As part of the new rate structure, the flat rate for low-volume users (those consuming up to 1,000 gallons) will be replaced with a per-gallon billing system to promote greater fairness. The PUC also approved $130 million in capital investments, with an additional $20 million earmarked for rapidly growing areas like Placencia, Caye Caulker, and San Pedro.

These patterns across sectors all reflect the logic of manufactured failure: short bursts of private ownership allow for profit extraction, followed by government intervention when systems falter and public dissatisfaction grows.

**Trend Analysis**

Since renationalization, Belize's telecommunications sector has seen a noticeable acceleration in service expansion. However, despite these gains, significant disparities in access and service quality remain.

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***Table 1:*** **Telecommunications Trends in Belize (Sources: ITU, World Bank, DataReportal)**

| Year | Internet Penetration (%) | Mobile Connections (% of population) | Avg. Local Call Tariff (USD/min) |
|---|---|---|---|
| 1990 | 0 | N/A | N/A |
| 2000 | 6 | N/A | 0.20 |
| 2010 | 27 | 80 | 0.10 |
| 2020 | 62 | 85 | 0.05 |
| 2023 | 72.4 | ~67 (mobile broadband est.) | 0.03 |
| 2025 | 72.4 | 82.3 | 0.03 (est.) |

Internet users reached 307,000 (72.4%) by 2025, with mobile connections at 349,000 (82.3%). Growth stagnated under monopoly/privatized phases but surged after 2009 renationalization. Tariffs declined post-intervention.

***Figure 1. Telecommunications penetration in Belize (1990–2026). The sigmoid curve shows flat growth during monopoly/private periods, steep rise post-2010, and saturation at ~72% by 2026.***

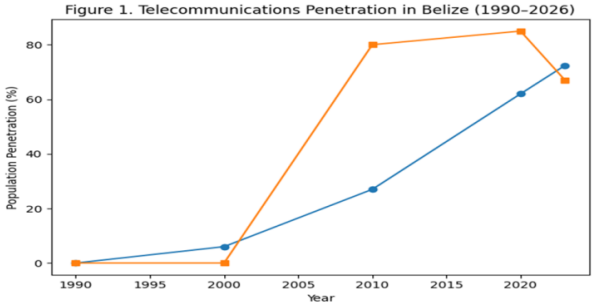



***Figure 2. Average local telephone tariffs in Belize (1995–2026). Declines followed renationalization and regulatory pressure.***

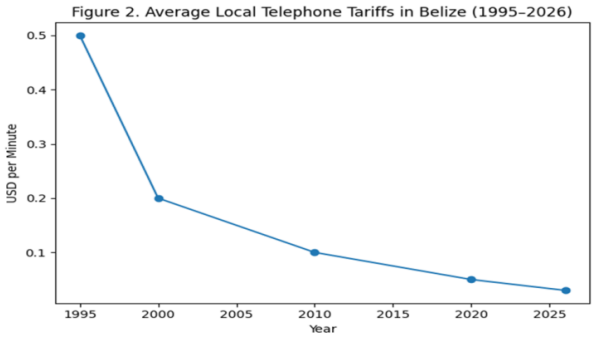
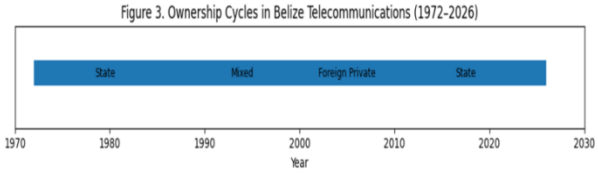
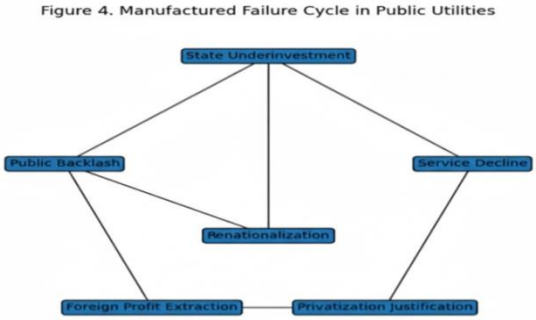



***Figure 3: Ownership Cycles in Belize Telecommunications (1972-2026)***




These patterns support manufactured failure: public neglect justified privatization, enabling extraction; renationalization yielded gains, but risks remain. Araral's (2009) TCE explains failures via high transaction costs and opportunism.

***Figure 4: Manufactured Failure Cycle in Public Utilities***




Comparative Insights: Jamaica's Telecommunications Privatization Case

To better understand Belize's experience, it's helpful to look at a comparable case from the Caribbean: Jamaica's approach to privatizing its telecommunications sector. Historically, the industry in Jamaica was dominated by the Jamaica Telephone Company (JTC), which was nationalized in 1975 after disputes over contracts and regulatory flexibility drove up transaction costs between the government and the company, eventually prompting the state to take control.

Between 1987 and 1990, a wave of reforms led to the creation of Telecommunications of Jamaica (TOJ), a joint venture between the Jamaican government and Cable & Wireless. This new setup granted exclusive licenses for both domestic and international telecom services. Key regulatory changes at the time included guaranteed returns on investment, limits on government interference in rate-setting, the introduction of binding arbitration, and judicial review mechanisms, all designed to curb opportunism and lower transaction costs.

These reforms triggered a surge in investment, a broadening of services, and healthy profits, all without causing immediate hikes in consumer prices. As a result, the privatization effort gained political acceptance across party lines, with both the Jamaica Labour Party and the People's National Party supporting the model. The World Bank even pointed to Jamaica as a strong example of how to design effective regulatory frameworks in countries with weaker bureaucratic institutions, especially through the use of flexible but enforceable contracts to attract private investors.

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However, the model wasn't without flaws. Critics noted that the process lacked democratic input, gave too much power to foreign companies, and eventually led to issues like tariff instability and rural service disparities. These elements echo the concept of manufactured failure, even in a case that initially appeared successful. Unlike Belize, which opted for full renationalization, Jamaica's hybrid approach helped soften some of the negative cycles. Still, the long-term challenges affirm key lessons from transaction cost economics (TCE): incomplete contracts and political meddling can eventually erode early gains. The comparison ultimately highlights Belize's greater vulnerability due to its smaller economy and less mature regulatory infrastructure.

## Discussion

Belize's telecommunications journey clearly reflects the concept of manufactured failure as a form of structural exploitation. When public utilities are allowed to underperform, it creates justification for privatization. Foreign investors then enter the scene, often prioritizing profit over public service, delaying infrastructure development and raising costs. Eventually, these conditions fuel a crisis, leading the government to step back in, as happened during Belize's 2009 renationalization.

While state control has brought improvements, current concerns, like potential market consolidation, show that challenges remain. Eduardo Araral's (2009) transaction cost economics (TCE) framework helps explain these recurring failures. In sectors with highly specific assets like telecom infrastructure, combined with uncertainty and weak institutions, opportunism tends to flourish. This undermines privatization outcomes.

Jamaica's case offers a useful comparison: its regulatory protections initially reduced transaction costs, but over time, foreign influence created new dependencies, another form of vulnerability. Belize's electricity (renationalized in 2011) and water (repurchased in 2005) sectors follow similar patterns, reinforcing the idea that these are not isolated incidents, but part of a broader systemic cycle.

Altogether, these experiences cast doubt on purely neoliberal solutions in fragile states and point toward the need for evidence-based, hybrid governance models that balance efficiency with equity.

## Conclusions

Belize's telecommunications history illustrates that simply shifting ownership, whether through privatization or renationalization, won't succeed without confronting deeper issues like power imbalances and weak institutional frameworks. As Araral (2009) argues, manufactured failure is not accidental, it reinforces long-term dependency and inequality. Meaningful reform must begin with strengthening governance systems to break this cycle of exploitation.

## Recommendations

Building on Araral's (2009) focus on reducing transaction costs through strong institutions, Jamaica's regulatory innovations (like binding arbitration and guaranteed returns), and recent developments in Belize (such as the National Digital Infrastructure Plan unveiled in November 2025 with IDB backing), a set of targeted, actionable recommendations can help Belize break the recurring cycle of manufactured failure in its telecommunications sector. These also reflect local progress, like BTL/Digi's rural fibre expansion and Digi AirNet wireless rollout, and recent regulatory responses, including the PUC's 12-month telecom rate freeze introduced in early 2026 amid market consolidation concerns.

1. Strengthen Regulatory Independence and Capacity
   Leverage the current Public Utilities Commission (PUC) structure by ensuring its funding is ring-fenced and free from ministerial control. Hire technical experts such as economists and competition analysts to improve regulatory decision-making. Adopt mechanisms used in Jamaica, including mandatory binding arbitration for interconnection disputes and judicial review of regulatory decisions. These changes would help prevent political interference, lower transaction costs related to opportunistic behaviour, and reduce the risk of regulatory capture, particularly critical in evaluating potential mergers like the BTL-Speednet/SMART deal.
2. Institutionalize Transparent, Performance-Based Tariff Structures
   Require that tariffs be cost-reflective and tied to measurable service benchmarks: such as achieving 95% high-speed rural coverage by 2030, network latency below 50ms, and uptime above 99%. Conduct independent annual audits and host public consultations (in-person or online). To support affordability, introduce tiered subsidies for low-income households, such as BZ$10–20 monthly vouchers for eligible rural users. Extend the current 12-month rate freeze into a longer-term policy, linked to infrastructure rollout milestones, in response to public concerns raised during the consolidation discussions.
3. Promote Hybrid Governance Models for Rural Connectivity
   Encourage the formation of public-private partnerships or community-led cooperatives for expanding service to rural and underserved areas. Require reinvestment of 20–30% of profits into these regions and offer minimum equity returns to attract private-sector involvement without fostering rent-seeking. Align Digi's ongoing initiatives, like Digi AirNet (targeting villages such as Blue Creek and August Pine Ridge), with the National Digital Infrastructure Plan. Provide government co-funding to support last-mile connections and community-managed Wi-Fi hotspots.
4. Ensure Sustained Public Investment and Technology Diversification
   Dedicate public budget lines: potentially sourced from telecom license fees, to support broadband

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expansion under the 2025 National Digital Infrastructure Plan. The goal: universal high-speed internet access by 2030. Prioritize renewable-powered rural towers to reduce reliance on imports and enhance operational resilience. Begin 5G trials in rapidly growing areas and invest in programs to make devices more affordable, building on Digi's social investments, which exceeded BZ$500,000 in 2024–2025.

5. Support Long-Term Research, Monitoring, and Regional Collaboration
   Fund multi-year independent studies, possibly through partnerships with the University of Belize, to monitor the impacts of consolidation, digital equity progress, and shifts in transaction costs pre- and post-reform. Create a national digital inclusion dashboard for real-time tracking of rural connectivity and affordability. Engage with Caribbean partners, such as Jamaica's Office of Utilities Regulation, to share best practices in areas like spectrum management, interconnection rules, and strategies for small states to reduce vulnerability to foreign influence.

These practical, data-driven recommendations aim to reduce systemic inefficiencies, promote fairness, and align Belize's telecom evolution with inclusive, long-term national development goals.

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