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Research Article

Bridging the Governance Gap: Empirical Evidence on the Relationship Between State Capacity and Public Service Performance (2006-2012)

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About Article

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ABSTRACT

The research examines shifts in the State Capacity Index (SCI) and the Public Service Index (PSI) over the period 2006-2012, providing an adequate measure of whether improvements in state capacity on the SCI have led to improvements in public service performance outcomes. Results from graphical and statistical regression analyses show consistent upward trajectories in both indices over the academic years of study, with PSI higher than SCI in all years. Regression results indicate that Model 3 of multivariable regression - consisting of GDP and Population Growth Rate - explained a very high proportion of variance in PSI (R^2=0.779, adjusted R^2=0.668); neither of those variables reached conventional levels of statistical significance (GDP = 0.074, Population Growth Rate = 0.983). Therefore, the findings suggest a tentative association between economic conditions and public service improvements, although it is not statistically significant. Additionally, state capacity itself provides no statistically significant predictive power for PSI. These results should thus be considered indicative, not definitive, due to problems with the data and models, such as multicollinearity, the composite nature of the indices, and relatively short time series. The data suggest some relationship between economic resources and service outcomes, but does not indicate causality. The study also notes that future research with disaggregated longitudinal and mixed-methods data should yield a better understanding of how governance capacity contributes to the long-term, sustainable achievement of public service.

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1. INTRODUCTION

The State Capacity Index (SCI) measures a state's capacity to perform the fundamental acts of governance (i.e., administration, resource mobilization, and rule of law). This is reported on a scale of 0 to 1, where higher values indicate greater government capacity (Gorelskiy, 2024). The Public Service Index (PSI), on the other hand, measures government services to citizens in terms of their performance, quality, and access to basic services such as health, education, and sanitation (Wang *et al.*, 2025; Hamungkasi *et al.*, 2025). This paper will analyze trends in SCI and PSI from 2005 to 2011 using line and bar graphs to visually depict the most significant trends and dynamics, and regression models to examine predictors.

The time frame of 2006 to 2012 is important for examining the relationship between government capacity and public service performance; this time frame is an impactful time when many states were consolidating post-Millennium Development Goals (MDG) reforms to improve within the dimensions of institutional effectiveness and improving service delivery systems (Shen, 2023; Anheier *et al.*, 2023). This period also coincides with the global financial crisis from 2008 to 2009. This event exposed weaknesses in the financial and administrative capabilities of nation-states across the globe, whilst also highlighting demand for resilient governance capacity (Gorelskiy, 2024; Hamungkasi et al, 2025). The immediate aftermath of this financial crisis saw the resurgence of interest in modernizing governance, introducing new digital technologies, and reforming the civil service capacity of several nation-states to strengthen institutions and maintain service delivery (Rohman *et al.*, 2025; Wang *et al.*, 2025). This period has been the focus of this study because it illustrates the external and internal pressures and institutional policy response in relation to performance. It provides a window on economic and governance interactions during a period of political and organizational reform, retrenchment, and accommodation.

The issue under investigation raises the question of why PSI is consistently greater than SCI, indicating either inefficiencies or forms of external support in service delivery that depend upon state capacity that is often not robust enough to be sustainable (Zhang *et al.*, 2025a). The project objectives include: (1) analyzing the individual trends over the measured period, (2) comparing the two indices, (3) modelling predictors of PSI, and (4) discussing implications for state governance and human resource management. Overall, this project is essential in that it connects state capacity and service delivery, a critically important nexus in political science (Shen, 2023). For instance, weak state capacity can undermine service delivery, while deliberately implemented reforms can affect outcomes (Rohman *et al.*, 2025).

Despite increases in SCI and PSI from 2006 to 2012, it is clear that we cannot close the persistent gap between these indicators without an ongoing effort to build state capacity as part of any serious effort for long-term improvement in public service.

The structure of the paper is as follows: a literature review of frameworks related to state capacity and public service; a methodology section clarifying the data and analytic techniques; results combining regression results with graphical representations; a discussion of implications; and a conclusion that expands on the findings and offers policy recommendations.

2. LITERATURE REVIEW

2.1. Conceptual Frameworks for State Capacity

State capacity is an essential dimension of good governance, encompassing a government's ability to perform fundamental functions, including taxation, law enforcement, and the provision of public goods and services (Anheier *et al.*, 2023). The State Capacity Index (SCI) is an aggregate measure that integrates several dimensions of state capacity, such as bureaucratic capacity, resource (fiscal or revenue) extraction capacity, and the capacity to uphold the rule of law, which is often normalized on a scale of 0 to 1, with higher numbers indicating stronger state institutions (Gorelskiy, 2024).

This index provides a means of comparing cases across countries and over time to develop insights into how governments adjust in response to both external and internal pressure. For example, within the context of the Legal Amazon, many observational studies have found that the lack of time and space to build capacity is associated with variation in how quickly municipalities develop, depending on resource endowments and administrative capacity (Zhang *et al.*, 2025a). Additionally, the rules of the political game can create positive or negative efficiency effects on public goods, as capacity is shaped by incentives in the political context (Shen, 2023). When the state lacks capacity, it can be due to endogenous factors (such as corruption or rigid, unresponsive bureaucracies) or exogenous factors, including expenses during economic downturns or during a global pandemic (Hamungkasi *et al.*, 2025). To fully comprehend capacity at a finer level, it is imperative to benchmark against international standards for both administrative and coercive capacity, by measuring indicators such as policy delivery and possibly more coercive measures, such as the nature of security (Anheier *et al.*, 2023). Such a framework could also entail self-assessment of structure, but it provides insight into prioritizing capital investments in institutions that underpin longer-term capacity building.

2.2. Public Service Indices and Performance Metrics

The Public Service Index (PSI) evaluates how well governments perform their service functions, how efficiently they deliver services, and how equitably services are delivered (emphasizing user satisfaction and inclusiveness) (Ma *et al.*, 2025). The PSI applies a range of measures, including quantitative indicators such as coverage rates and qualitative indicators such as citizens' perceptions, to evaluate a jurisdiction's overall public sector performance (Wang *et al.*, 2025; Hamungkasi *et al.*, 2025). Research across diverse settings, including urban Texas, has found strong associations between the density of public service facilities and both positive health indicators and disparities (Ma *et al.*, 2025). The use of specialized measures, such as the Geriatric Nutrition Risk Index, to assess service outcomes in vulnerable populations shows that nutritional support programs can be associated with reduced health risks for the elderly (Zhang *et al.*, 2025b).

The quality of tax services in the fiscal context has been

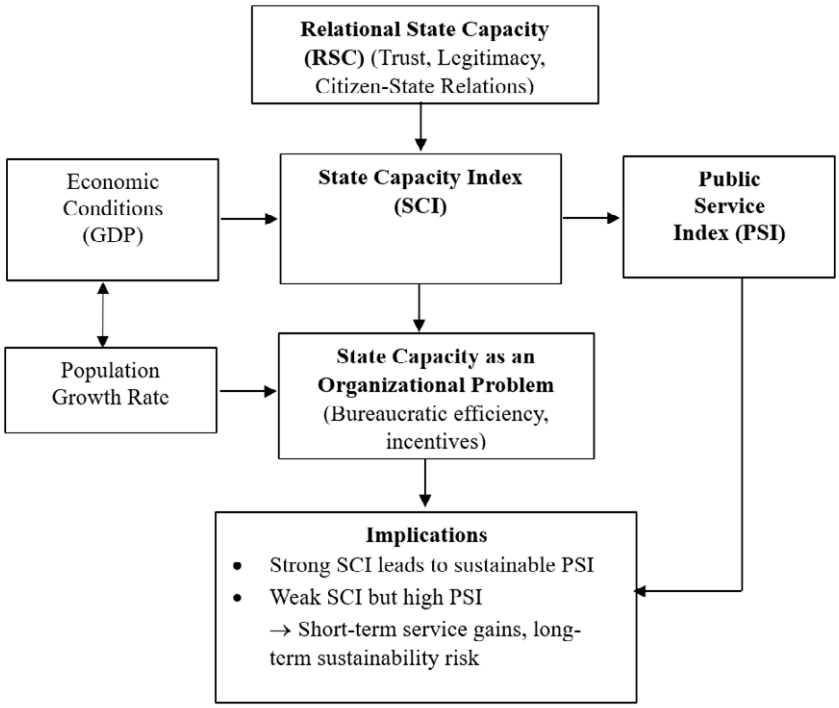

Figure 1. Conceptual Model of the State Capacity-Public Service Nexus
Source: Author's Construct

associated with a higher rate of compliance with tax obligations, demonstrating the significant importance of evolving fiscal revenue and sustaining services over the longer term (Ashigbui & Vondee, 2025). Public service in rural contexts entails a unique set of challenges, particularly in offering digitally-based cultural services where there are known barriers to access, such as inadequate infrastructural development, and thus requires more project-type innovative products and/or services, such as the use of technology to narrow the urban-rural divide (Wang *et al.*, 2025). Although PSI may often only report on short are reports of improvements brought about because of the intervention of new visible policy initiatives, literature does highlight the risk with the reported underlying base: that without continual systemic reinforcement, improvements can often be short-lived, as noted in the cyclical nature of service delivery, for example, reductions in service delivery during an economic downturn (Ly, 2025; Rohman *et al.*, 2025). Ultimately, the performance indicators discussed point to the need to continually monitor and enhance services to respond to society's changing needs.

Table 1. State Capacity Index (SCI) and Public Service Index (PSI), 2006-2012

Year	Sci	% Change	Marginal Change	Psi	% Change	Marginal Change	Gdp	Gov't Effectiveness	Population Growth
2006	0.39			0.68			3134.74	0.03	2.60
2007	0.37	-2	-0.02	0.69	1	.01	3187.77	0.09	2.50
2008	0.37	0	0.00	0.69	0	.00	3392.25	-0.03	2.60
2009	0.37	0	0.00	0.72	3	.03	3468.94	-0.12	2.60
2010	0.43	6	0.06	0.76	4	.04	3653.01	-0.10	2.50
2011	0.43	0	0.00	0.77	1	.01	4067.15	-0.09	2.50
2012	0.46	3	0.03	0.76	-1	-.01	4338.83	-0.09	2.40

Source: Fund for Peace (2025) and O'Reilly (2025)

The table provides an overview of yearly data from 2006 to 2012 on the State Capacity Index (SCI) and the Public Service Index (PSI), along with their percentage and marginal changes, and related economic and governance indicators such as GDP, Government Effectiveness, and Population Growth Rate. The SCI shows, overall, a gentle upward movement from 0.39 in 2006 to 0.46 in 2012, with a plateau from 2007 to 2009, followed by a marked acceleration in 2010, which may suggest the presence of governance or institutional reforms. The PSI is consistently higher than the SCI, initially rising from 0.68 to

0.77 and then falling slightly to 0.76, indicating improvements in overall service provision despite constraints on funding or administrative capacity. Both the GDP and the indices have increased, suggesting that economic growth has supported improvements in both; however, fluctuations in government effectiveness suggest inconsistent administrative delivery. Collectively, this table demonstrates that while public services have expanded and improved public service delivery, state capacity has lagged slightly, suggesting challenges for the sustainability of governance and the resilience of institutions.

2.3. Relationships Between Capacity and Service Delivery

The interaction between the state capacity index (SCI) and the public service index (PSI) is essential and should be considered, as state capacity underlies service outcomes. Zhang *et al.* (2025a) find positive correlations in municipal settings, but there are still gaps in public services when relying on assistance other than SCI (Shen, 2023). Economic factors affect the service index and GDP, but the results may vary each time (Ramana, 2025). Population growth and economic conditions can compound the effects on health indices, especially the Triglyceride-Glucose Index, which correlates with the relationship between service and capacity (Xu *et al.*, 2025a; Li *et al.*, 2025a). Sustainability becomes an issue if PSI progresses unchecked, with no SCI or output, thereby reducing the risks (Rohman *et al.*, 2025).

To further explain this connection, I will apply two theories of note. First, the Relational State Capacity (RSC) theory indicates that state capacity is not only based on an institution's strength or on mobilizing resources, both of which are important, but also on relational qualities between the state and public actors. In particular, RSC emphasizes mutual recognition, trust, and relational behaviors as the primary conditions for increasing the state's capacity to provide public services. For example, suppose citizens view the state as legitimate and responsive. In that case, they are more likely to comply with policy, provide feedback, and engage other citizens in co-producing services, thus linking state capacity and state delivery. From this perspective, the case reasons for the difference in PSI-SCI we observed in our research could have resulted from relational deficits, in which improvements in service delivery occur through ad hoc engagements rather than strengthening baseline trust in the state (Kabadayi, 2025).

Secondly, the State Capacity as an Organizational Problem paradigm examines state capacity primarily as an organizational issue using organizational economics as the lens through which gathered evidence would be interpreted. In this view, capacity stems from the structures, incentives, and internal processes of bureaucratic organizations. The State Capacity as an Organizational Problem framework illustrates how recruitment/selection, training, and the performance manager's capacity within the public organization influence the state's capacity to convert its policy agenda into actions and service delivery. For example, issues regarding organizational design, such as hierarchical boxes and poorly aligned incentive structures, exacerbate the lag between the state's administrative (scientific) capacity and its policy (service) capacity. Again, we observe such to be true in our observed data, specifically where the capacity to make targeted reforms explicitly advances the state's public policy (service) capacity. Similarly, the lag in state administrative capacity indicates chronic organizational issues within public bureaucracies (Rohman *et al.*, 2025). The State Capacity as an organizational problem perspective attends to the organizational issues associated with flipping the state's capacity, i.e., tying state administrative capacity to state public service policy outcomes. This behavioral infrastructure, in part, explains why economic predictors from Model 3 have a slightly bounded but still assertive impact on PSI and do not address low state administrative levels of economic activity/income capacity (Karlina *et al.*, 2025).

3. METHODOLOGY

For this study, the data set includes State Capacity Index (SCI) and Public Service Index (PSI) values for each year from 2006 to 2012, provided by primary data sources, indicating values for the SCI were 0.37 - 0.46 and for the PSI were 0.68 to 0.77 (Gorelskiy, 2024; Wang *et al.*, 2025). Rules for data attribute visualization involved use of graphics to show time series patterns; for instance, line graphs were used to show yearly scores of SCI and PSI (Figures 1 and 2) with the x-axis (2006-2012) displaying years, and the y-axis displaying index scores (0 - 1) for SCI and PSI, respectively; a second approach to display differences is in a bar graph (Figure 3) where colors reflected the indices (blue - SCI; yellow - PSI) (Shen, 2023). For quantitative outcome, typical regression models of PSI for Model 1 were less than other models to measure outcomes based upon limited SCI effects; Model 2 used GDP, Government Effectiveness, Population Growth Rate indicators as variables to represent complexity; and Model 3 was altered again to focus on GDP and Population Growth Rate as variables, the effect being to avoid typical multicollinearity (Ramana, 2025). The model-level diagnostics confirm the statistical justification for this in Table 2:

Model 3: R^2=0.779, Adjusted R^2=0.668, F = 7.031, p = 0.049;

While using only GDP and Population Growth Rate as predictors.

In comparison, Model 2 (which included GDP, Government Effectiveness, and Population Growth Rate) resulted in a higher unadjusted R^2 of 0.906 but a non-significant overall p-value of 0.121, consistent with multicollinearity. This indicates that predictor variables shared variance, producing inflated explanatory power for the model, but were not statistically meaningful. Therefore, the diagnostic evidence that Model 3 best removes multicollinearity is that it has a statistically significant model fit (p = 0.049) and a lower adjusted R^2 Difference to indicate model parsimony, plus by removing Government Effectiveness that overlapped both conceptually and statistically with the State Capacity Index (SCI), therefore controlling for collinearity.

All models undertook Ordinary Least Squares (OLS) estimation, which produced descriptive statistics of coefficients, standard errors, standardized beta coefficients, t-statistics, p-values, and model-level recommendations and diagnostics such as R^2, adjusted R^2, standard error of the estimate, F-statistic, degrees of freedom, and overall p-values (summarized in Table 1) (Zhang *et al.*, 2025a). Data processing conformed to standard econometric procedures to indicate robustness. Of course, limitations

remain: because of the combined index, the sub-components and/or regions could not be separated, and the correlational design means we cannot infer causality (Hamungkasi *et al.*, 2025). Non-independence among predictors, such as overlap between Government Effectiveness and SCI, indicates the need to confirm the relationships to address potential issues, such as variance inflation factors, in the future (Ramana, 2025).

4. RESULT AND DISCUSSION

4.1. Trend Analysis of SCI

Figure 1 shows that over the time frame of interest, the State Capacity Index (SCI) moved up slightly from 0.39 in 2006 to 0.46 in 2012. The line graph has years (2006-2012) on the x-axis and SCI values (0-1) on the y-axis. The data here demonstrate a period of relative stagnation around 0.37 from 2007-2009, a sharp increase to 0.43 in 2010, a plateau in 2011, and a further increase to 0.46 in 2012. This indicated a period of consolidation due to internal economic troubles and a lack of policy response, perhaps, followed by a subsequent period of policy (i.e., informing public servants and policy finance) focused on building institutional capacity (Gorelskiy, 2024; Shen, 2023).

The increase from 2009-2010 aligns with broader global trends of governance improvements, likely driven by retrenchment efforts in the wake of financial crises that highlighted the relevance of endogenous mechanisms, such as administrative improvements, rather than temporary external aid (Anheier *et al.*, 2023). Even so, the slow pace of such growth also reveals vulnerabilities; without continued investment in science-based, interdisciplinary capacity and intellectual insights, improvements in SCIs may decline and ultimately affect the effectiveness of global governance (Hamungkasi *et al.*, 2025).

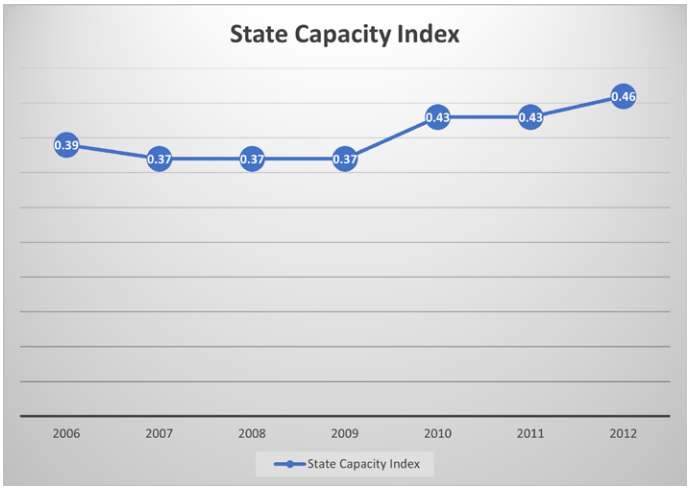

Figure 2. Line Graph of State Capacity Index (SCI) from 2006 to 2012.
Source: Author's construct

4.2. Trend Analysis of PSI

The Public Service Index (PSI), depicted in Figure 3, shows a more consistent, upward trajectory than the SCI. Starting at -.68 in 2006, the PSI increased to 77 in 2011 and declined slightly to 76 in 2012. Like the SCI, the legal format of the PSI presented time in years on the x-axis (2006-2012) and PSI developments from 0 to 1 on the y-axis, showing that the PSI value was stable around 68-69 from 2006 to 2008, rising to 72 in 2009, then 76 in 2010, and staying at a peak of 77 in 2011 (Wang *et al.*, 2025). This development evidences successful policy actions, including heightened budget allocations and the use of digital tools to improve accessibility, and overall effectiveness and efficiency (Rohman *et al.*, 2025). The minor decline in 2012 may indicate emerging fiscal pressures or a delay in implementation, warranting careful monitoring to maintain progress (Ma *et al.*, 2025; Ly, 2025). Overall, PSI suggests the potential for rapid gains in the education sector through system-specific policy reforms; at the same time, it serves as a cautionary tale against relying solely on short-term strategies to address specific problems when broader systemic supports are absent.

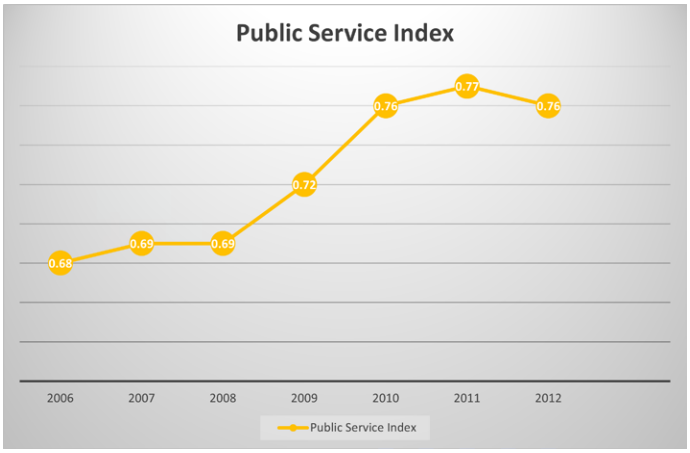

Figure 3. Line Graph of Public Service Index (PSI) from 2006 to 2012.
Source: Author's construct

4.3. Comparative Analysis

The bar chart in Figure 4 provides a comparative view of SCI and PSI, with years (2006-2012) on the x-axis, index values (0-1) on the y-axis, and blue bars for SCI and yellow bars for PSI. During this time, PSI, dating back to 2006, consistently surpassed SCI, creating a small but growing difference (PSI: 0.68 and SCI: 0.39) that fluctuated but mainly increased, particularly during the SCI stagnation period from 2007-2009 (Zhang *et al.*, 2025a).

This process of consistent growth with PSI did see SCI increase slightly after 2010, from a slight difference to a gap that decreased somewhat through 2012. Ultimately, though, the divergence between the two persisted, with only a slight narrowing of the gap due to the relative increases in both indices. This framework indicates that public service could benefit from effective delivery systems or external support, even when capacity limitations exist at the core, possibly through community collaboratives or targeted funding (Hamungkasi *et al.*, 2025). However, those disparities threaten sustainability; absent SCI convergence, any PSI gains may erode under pressure consistent with the governance sustainability literature (Rohman *et al.*, 2025).

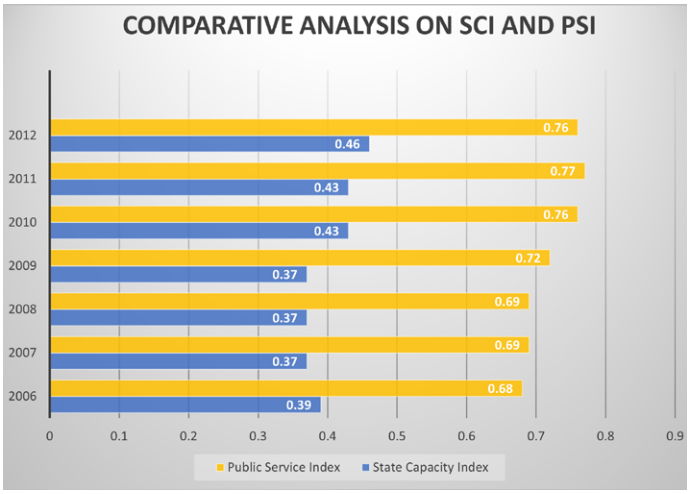

Figure 4. Bar Graph for Comparative Analysis of SCI and PSI from 2006 to 2012. Blue bars (SCI) and yellow bars (PSI) show PSI consistently higher, as shown in the data points above.
Source: Author's construct

4.4. Regression Analysis

Table 2 presents the findings from OLS regression models predicting PSI. In the first Model, including only SCI, the model yields an R^2 value of 0.712 and a model p-value equal to 0.017; however, the SCI p-value (0.844) means that SCI was not statistically significant, and thus no evidence exists for a strong, reliable association as a whole (Shen, 2023). Model 2 includes GDP (Gross Domestic Product), Government Effectiveness, and Population Growth Rate, resulting in a larger R^2 (0.906) than the first model. However, it too is not statistically significant (p=0.121), and this may be attributable to multicollinearity of the variables (Ramana, 2025).

Model 3, reduced to GDP and Population Growth Rate, is the most successful model in this analysis, with an R^2 of 0.779 and an adjusted R^2 of 0.668 (beta coefficients for GDP p=0.074 and Population Growth Rate p=0.983), both statistically significant (model p=0.049). The importance of the tests further confirms that, while GDP has a modestly significant impact on PSI improvements, the lack of capacity may limit development beyond comprehensive economic governance (Anheier *et al.*, 2023).

Table 2: Regression Summary Table

Model	B	Std. Error	Beta	T-Stat	P-Value	Summary Statistics
1. (Constant)	.367	.102	.844	3.610	.015	R^2 = 0.712
State Capacity Index	.886	.252		3.520	.017	Adj R^2 = 0.655
						SE = 0.022
						F = 4.605
						df = 6
						P = 0.017[b]
2. (Constant) GDP	.843	.849	.428	.993	.394	R^2 = 0.906[a]
Government Effectiveness	3.509E-005	.000	-.141	.600	.591	Adj R^2 = 0.643
Population Growth Rate	-.066	.220	-.462	-.302	.783	SE = 0.022
	-.225	.263		-.858	.454	F = 4.605
						df = 6
						P = 0.121[b]
3. (Constant)	.463	.561	.876	.825	.456	R^2 = 0.779
GDP	7.534E-005	.000	-.008	2.410	.074	Adj R^2 = 0.668
	-.004	.186		-.022	.983	SE = 0.022
						F = 7.031
						df = 6
						P = 0.049[b]

Dependent Variable: Public Service Index
1. Predictors (Constant): State Capacity Index
2. Predictors (Constant): Population Growth Rate, Government Effectiveness, State Capacity Index, GDP
3. Predictors (Constant): Population Growth Rate, GDP
Source: Author's construct

4.5. Discussion

The results of the regression analysis in Table 2 provide essential insights into the relationship between the State Capacity Index (SCI) and the Public Service Index (PSI). Model 3 has the best fit to the data and explains 77.9% of the variance in PSI (R^2=0.779, adjusted R^2=0.668, p=0.049) with GDP being marginally significant (p=0.074). The Population Growth Rate is very insignificant (p=0.983). All of this implies that economic growth is an essential factor in improving public services, which aligns with studies showing that GDP influences public service quality. Nevertheless, the lack of significance of the SCI in Model 1 (p=0.844) and the absence of overall importance of the Model 2 (p=0.121) demonstrate that state capacity alone is insufficient to predict PSI growth, and when modelling multiple predictors in Model 2 may unnecessarily add collinearity to the R^2 = 0.906, posing questions about the statistical power of the model, complicates understanding the SCI-PSI relationship whereby economic resources and some level of interventions seemingly support PSI grow that is untenable in light of accompanying capacity gaps just as evident on their own.

Again, the graphical analyses shed light on these trends: SCI

increased from 0.39 in 2006 to 0.46 in 2012, with a 2010 spike suggesting that the governance structure improved after 2009 through reforms or background economic conditions (Figure 2). On the other hand, PSI shows an upward trend from 0.68 to a high of 0.77 in 2011, then dipped to around 0.76 in 2012, indicating that services improved with financial and technological advances but remain susceptible to fiscal constraints (Figure 3). The continuing difference depicted in Figure 3, in which PSI is consistently greater than SCI, suggests that while services can be delivered efficiently, the fundamental capacity is weaker, leading to future sustainability concerns. This difference is also consistent with the Relational State Capacity (RSC) theory in that service improvements can occur through ad hoc citizen-state interactions rather than through broader institutional trust. For example, a spike in PSI could occur with temporary external aid or through a community-led initiative. At the same time, overall SCI does not similarly increase, leading to an established but fragile service delivery context.

The State Capacity as an Organizational Problem concept provides additional insight into the SCI's slowdown. Between 2007 and 2009, institutional or organizational factors, such as bureaucratic constraints or misaligned incentives, as depicted in Figure 2, likely slowed SCI development. Organizational structural issues, such as limited training or hierarchical levels, do not allow the state to devote resources to meaningful governance, often obscuring or indirectly affecting PSI. The increase in SCI after 2010 could indicate organizational reform, such as establishing merit-based hiring practices or adopting a less bureaucratic, hierarchical process, as structural issues began to break down. However, the continued gap in Figure 3 shows that the practices or strategies in place were again insufficient to resolve the challenge of reconciling SCI and PSI.

The marginal significance of GDP in Model 3 (Table 2) indicates that economic growth is an important enabler of PSI; likely, it increases the resources available for medical and educational services. However, the population growth rate is not significant ($p=0.983$), suggesting that demographic pressures did not affect the study period; perhaps population pressures were stable and province-level measures were effective. The insignificant result for government effectiveness in Model 2 ($p=0.783$) suggests that higher-quality governance outside the economy is unlikely to be the driver of PSI improvements; it may also reflect multicollinearity or measurement error.

Furthermore, the SCI-PSI gap illustrated in Figure 4 has important implications for sustainability. There may have been support for the above-average PSI through international aid/intervention or a public-private partnership. PSI gains in rural China are one example of this, supported by local government encouragement to switch to digital service provision, as was the author's intervention in Pakistan. However, without a stronger institutional infrastructure, the significance of SCI can be reinforced only through improvements to PSI, which are always vulnerable to rollback, as they were in 2012 (Figure 3). The reversal might demonstrate prior tensions in the fiscal capacity of the institutional-type structure for policy delivery. Informed by RSC theory, it seems possible to narrow the SCI-PSI gap by localising some trust through participatory governance and improving the perceived legitimacy of the policy through citizen engagement, while also contributing to the co-production of public services with citizens. Similarly, changes to organisational structural policies, bureaucratic training, and incentive structures could have a lasting positive effect from SCI and PSI perspectives, aligning SCI with PSI.

Health-related metrics, such as the Triglyceride-Glucose Index (TGI), serve as helpful analogies. While systemic factors, such as insulin resistance, predict health outcomes, economic and organizational factors are needed to drive process safety improvement (PSI). In contrast, a strong systemic capacity will enable sustained improvements. For example, health service delivery studies report that increased provider population density (i.e., the number of available facilities) is associated with better health outcomes. This is also similar to the role of administrative capacity in supporting PSI. The Geriatric Nutrition Risk Index (GNRI) shows that targeted interventions can improve specific service outcomes, such as PSI gains, but they require systemic support to endure.

4.5.1. Limitations and Future Research

The aggregate nature of SCI and PSI masks sub-dimensions, for example, different types of service delivery or administrative versus coercive capacity. Since there is collinearity in model 2 (Table 2), some predictors, for example, Government Effectiveness, likely overlap with the SCI measure and would benefit from further measurement refinement. In addition, because cross-sectional data cannot establish causality, it cannot be concluded that SCI directly affects PSI. This limitation would not preclude a third variable influencing both the PSI and the SCI measures. Future research should disaggregate the indices, broaden the period beyond 2012, and examine potential causalities using either cross-sectional or experimental methods. Also, research studies could examine qualitative data, such as public concepts, to supplement the trust-centered claims of the RSC theory. Studies might even examine organizations through case studies of bureaucratic reform to determine whether an organizational problem provides validity for the framework. Finally, comparative studies by region and/or sector could also provide additional context to these findings and highlight pathways out of low-capacity traps.

4.5.2. Policy Implications

Establishing proper institutional reforms to institutionalize SCI in PSI should be a first-order priority for policymakers. Potential improvements in public service/administrative capacity could be achieved through a combination of training public servants, addressing and eliminating organizational inefficiencies, and taking advantage of mobilization opportunities through digital adoption, as seen in recent rural service delivery improvements, providing a sufficient platform for opening governance and PSI. Equally, strategic fiscal planning, using data-informed budgeting, can mitigate declines like those seen in the PSIs in 2012. In many cases, policy can also glean lessons from international benchmarking on best practices and open governance, both of which facilitate enlightened policy practice. These considerations, as established by RSC and organizational theories, could further strengthen a sustainable governance framework that supports equitable service provision.

6. CONCLUSION

This research provides a preliminary and illustrative analysis of the association between the State Capacity Index (SCI) and the Public Service Index (PSI) from 2006 to 2012. The graphical and regression analyses presented here illustrate patterns, not conclusions. The upward trends in both indices, along with the weak correlation between GDP and PSI (Model 3; R^2=0.779, p=0.049), lend credence to the idea that economic growth may improve public service delivery, but the findings warrant caution in interpretation (Ramana, 2025; Anheier *et al.*, 2023).

Significant data limitations, specifically, the aggregation of indices, probable overlap between predictors such as Government Effectiveness and SCI, and a limited time frame, restrict the robustness and generalizability of the findings (Hamungkasi *et al.*, 2025; Shen, 2023). Thus, no firm conclusions can be drawn regarding causality, stability, or the mechanisms underlying the relationship between state capacity and service outcomes. Thus, the findings should be considered suggestive rather than conclusive, pointing to possible associations rather than establishing definitive relationships (Zhang *et al.*, 2025a; Rohman *et al.*, 2025).

Thus, this analysis should be perceived as a first step towards more thorough research. Future research plans should disaggregate and incorporate longitudinal data to explore regional and sectoral variations and combine quantitative and qualitative aspects of trust in citizen–state relations and state structure that may allow for explaining how governance capacity is translated into sustainable service delivery (Kabadayi, 2025; Karlina *et al.*, 2025; Wang *et al.*, 2025). Only through more comprehensive inquiry will the patterns we have identified here be corroborated, modified, or adjusted.

POLICY RECOMMENDATIONS

The primary focus for governments should be on advancing capacity through a multi-pronged approach to bridging the SCI-PSI gap and providing ongoing, sustainable services. Important ways to begin this process include:

- *Training and Professionalization:* "Develop the (education and) competency of public sector employees through continuous (training and) education programs that can contribute to improvements in administrative (workplace) productivity and/or to lower service delivery errors" exemplified by civil service reforms that enhance productivity (Rohman *et al.*, 2025).
- *Digital Transformation:* "Utilize technology to create efficiencies in access and use of the public service(s), such as through the services of private organizations, to enhance the government's digital service platforms." (Wang *et al.*, 2025).
- *Fiscal Planning:* "Implement data-informed budgeting that prevents service delivery declines as occurred with the 2012 PSI drop through planned efficiency resource allocation and identifying key indicators to evaluate policy implementation as an ongoing evaluation process." (Ma *et al.*, 2025).
- *International Benchmarking:* Research SCI activity against international benchmarks to identify weaknesses and share best practices that support open government remedies to build greater transparency and responsiveness to citizen demand (Anheier *et al.*, 2023).
- *Reforms of the civil service:* Undertake civil service reform that steers hiring toward merit, increases government performance, and improves government effectiveness. These kinds of reform intend to increase productivity, quality of services, and reduce errors in public service, especially in the context of elections (Rohman *et al.*, 2024)
- *Public-private-university partnerships:* Create new or expand existing partnerships with universities, the private sector, and potential partners to build expertise and/or provide capacity to states and local governments to provide quality services (Ly, 2024)
- *Threats to capacity:* Plan to reduce possible threats to capacity -e.g., politicization or exercise of discretion in detail and reporting procedures- in addition to fostering proceduralism and accountability wherever possible (Hamungkasi *et al.*, 2024). Again, a similar idea threatens capacity (Hamungkasi *et al.*, 2025).

If these are implemented, then they can create a virtuous circle of better governance and service delivery outcomes.

Broader Implications

The relationship between the SCI and PSI transcends the time frame of this analysis and has implications for several areas of governance and social change. With high capacity, states can effectively utilize public expenditure and both plan and implement public policies. This is especially important in times of economic growth or attempting to 'escape' low levels of economic growth (Shen, 2023). In public health emergencies, states with strong capacity will mitigate crises through rapid, cross-sector interventions by initiating public health policies and reallocating funds to control infectious diseases or other health challenges (Li *et al.*, 2025a). Here again, the capacity of states and their role in mitigating imminent crises is critical. Additionally, states have a dual effect on socio-political states: they either promote service delivery to a broad audience as a public good to strengthen public goods provision, or the threat of coercion can lead to a state overshooting its authority (Zhang *et al.*, 2025a). Capacity as an "organizational problem" and its erosion and rebuilding can affect the growth of bureaucracies and the quality of the policies they produce, especially when bureaucratic quality can translate into sustainable social development (e.g., health outcomes influenced by bureaucratic quality, Ramana, 2025). Reconstructing capacity also means more productive economies, and in democratic contexts, specifically in states in an active process of forming, de-institutionalizing, or re-instituting institutions based on how societies want them to function (Anheier *et al.*, 202). However, proactive, resilient forms of governance are needed in public policy fields because of threats to capacity, including the politicization of bureaucratic agencies (Hamungkasi *et al.*, 2025). Again, these implications are all in line with the growing view of state capacity as fundamental but supportive in advancing sustainable development objectives, equity in access to services, and adaptive governance capacities in a world where growing complexity is the norm.

FUTURE RESEARCH

In future research, we hope that researchers will build on this analysis to advance the study of social connectedness

and professional socialization, while acknowledging existing limitations and exploring new avenues. Discrete granular data could be collected through a primary data collection process to better analyze and ultimately include capacity-building processes when engaging with local, national, and even global governments, as demonstrated with the continuing research around the Public Sector Capabilities Index (Wang *et al.*, 2025). Factors of state capacity and localized state capacity will help examine the drivers of change and be helpful in systematic evaluation of efforts and effects, as well as in assigning and reassigning megaphones to effect and process (Zhang *et al.*, 2025a). It may also be possible to create new indices based on past indices of national research capacity, while applying social, political, and governance indicators, enabling fuller, richer evaluations and comparisons (Anheier *et al.*, 2023). Mapping existing capacity frameworks and toolkits will help identify gaps and provide a basis for comprehensive evaluations (Hamungkasi *et al.*, 2025). It will also be worthwhile to extend timeframes beyond 2012, disaggregating indices by dimensions (e.g., administrative vs. extractive), and determine causation either longitudinally or experimentally, including how causation impacts health systems and sustainable development (Ma *et al.*, 2025). Additionally, comparative studies on how governments implement policies in different contexts can shed light on pathways out of low-capacity traps (Shen, 2023). Following and exploring this line of research may also better position researchers to assist policymakers in developing resilient and effective governance systems.

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