



How Ready Are LGUs for AI Adoption?

Discussion Paper Series: No. 2025-48

Francis Mark Quimba, PhD

Christopher Ed Caboverde

Alliah Mae Salazar

30 April 2026

Background

The International Trade Administration (ITA) reports that the AI sector in the Philippines is anticipated to expand from the projected value of \$772.1 million in 2024 to about \$3.5 billion by 2030 (ITA, 2024).

There has been a notable increase in the number of AI-related policies among the countries in the Organisation for Economic Co-operation and Development (OECD). In contrast, the number of AI-related policies in the Association of Southeast Asian Nations (ASEAN) has exhibited sluggish growth.

There seems to be existence of newer forms of digital divide, which developing countries like the Philippines need to address. This could pose challenges in facilitating digital technology and AI adoption by various entities, such as businesses and local government units (LGUs).

Background

Generative AI (genAI) is set to transform local government operations by improving efficiency and productivity. It is categorized into three tiers based on complexity and impact.

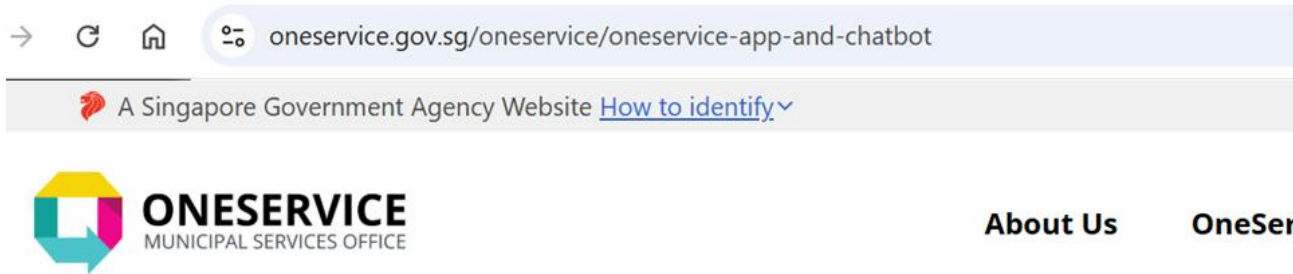
Currently, most applications are in Tier 1, where genAI functions as a digital assistant, automating tasks like meeting summaries, drafting job description, supporting research, and generating reports.

Background

Given this context, we would like to answer the following questions:

1. What is the current state of digital infrastructure, technical capacity, and human resources in LGUs that would support AI adoption?
2. What are the key barriers and challenges that LGUs face in implementing AI solutions for public service delivery and operations?
3. How do organizational, institutional, and regulatory frameworks at the local level enable or constrain AI adoption by LGUs?

Singapore's OneService Chatbot



The chatbot allows Singaporeans to more easily provide feedback or report incidents through messaging applications such as Whatsapp and Telegram aside from the OneService application.

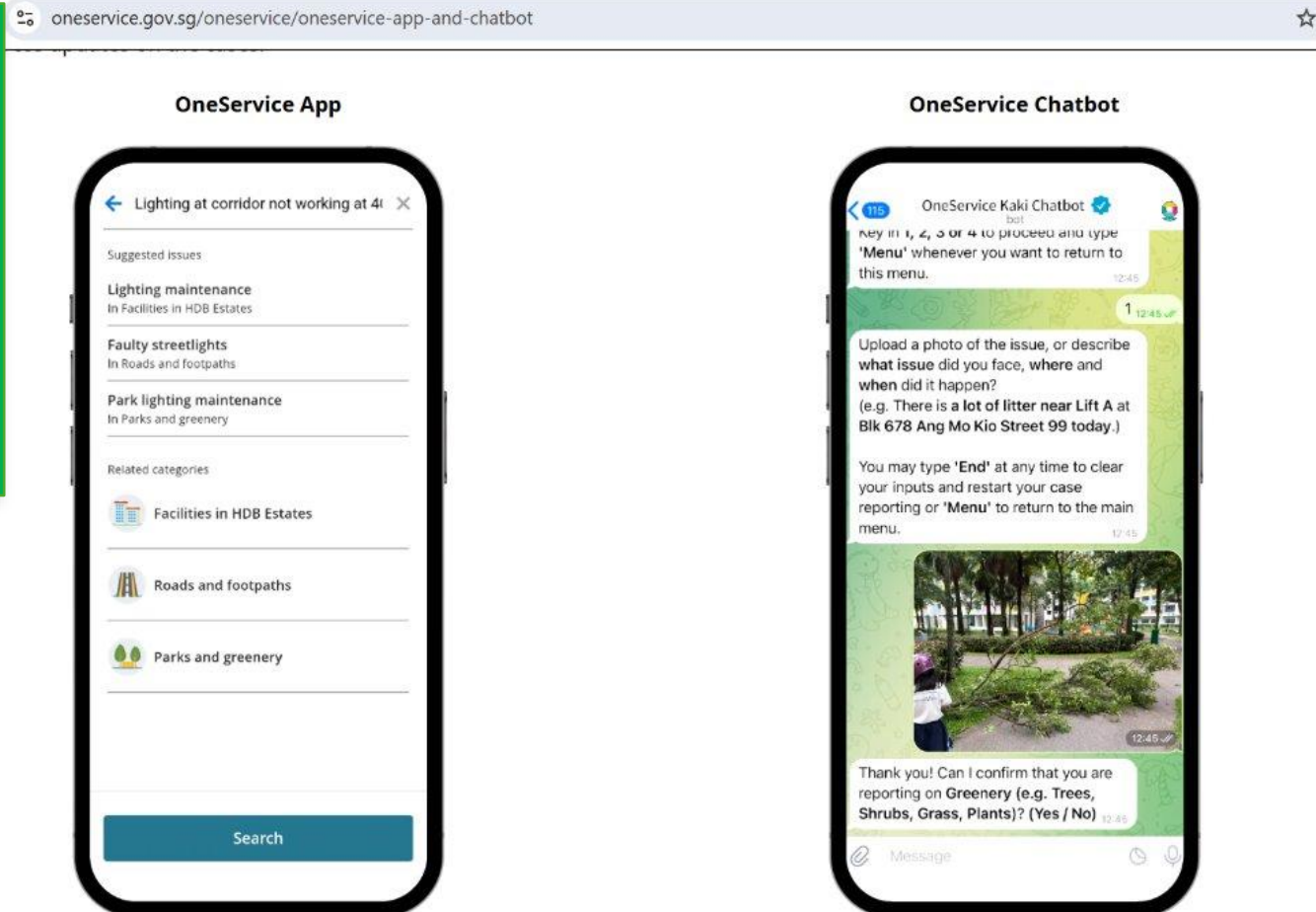


The OneService App and the OneService Chatbot are the Municipal Services Office's digital channels which provide useful e-services to residents.

Screenshot:
Website of
OneService
Singapore

Singapore's OneService Chatbot

The chatbot's Virtual Intelligent Chat Assistant (VICA) platform then classifies the report or feedback (including their attachments such as photos or videos and sorts them by the government agencies that are responsible in addressing them.



Screenshot:
Website of
OneService
Singapore

Buenos Aires' Boti

buenosaires.gob.ar/gcaba_historico/innovacionytransformaciondigital/boti



Boti is a chatbot that aims to assist Buenos Aires residents on their inquiries and feedback on city services.

[Buenos Aires](#) > [Chief of Staff](#) > [Secretariat of Innovation and Di...](#)

Boti

The City's chatbot.

Share on social media [f](#) [t](#) [in](#)

In 2019, the City of Buenos Aires government became the first in the world to use WhatsApp as a communication channel with its citizens. The arrival of Boti revolutionized communication between the government and the public by providing a simple, unique, and personalized experience through the country's most popular messaging app.

Screenshot:
Website of City
Government of
Buenos Aires

Buenos Aires' Boti

BA Áreas de gobierno BA Discapacidad Trámites y servicios

Te damos la bienvenida a Buenos Aires

¿En qué te podemos ayudar?

INFRACCIONES

Estado del subte BA
Última actualización: 13/4/2026 21:47:32 3 SERVICIOS AFECTADOS +

¿Qué trámite o servicio buscás?
En esta sección accedé a los más consultados de la Ciudad.

Servicios disponibles
Seleccioná una opción

Turno para la verificación física y policial del automotor

Otorgamiento de Licencia de Conducir

Inscripción al Curso de Manipulación de Alimentos

Soy Boti, ¿charlamos?

Other uses of Boti include the processing of government paperworks such as requesting national identification cards and driver's licenses

Screenshot: Website of City Government of Buenos Aires

Buenos Aires' Boti

Boti was used during the pandemic to detect the presence of COVID-19 in a person through using that person's coughing audio clips uploaded on Whatsapp.



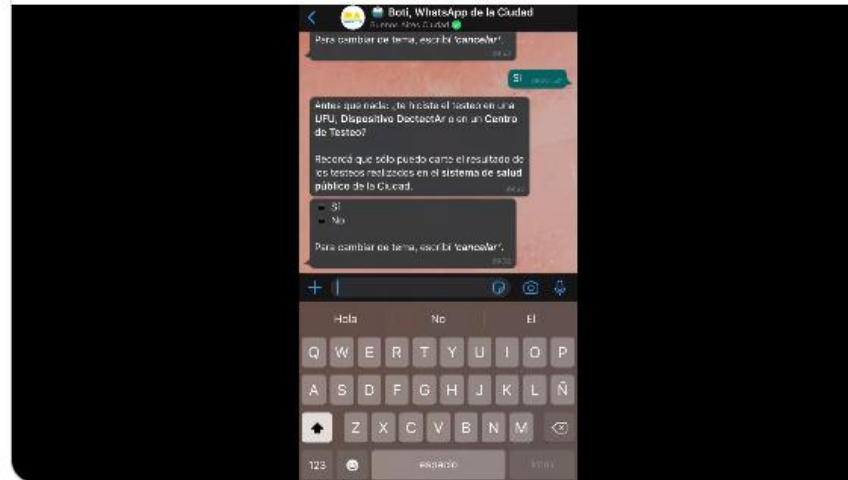
Will Cathcart ✓

@wcathcart

This is amazing. In Buenos Aires, people can now send an audio clip of their cough using a WhatsApp voice memo to the Boti chatbot and it'll check the audio pattern for COVID. Accuracy is apparently 88%. 🤖

TecBA @BAinnovacion · May 4, 2021

Estamos desarrollando un sistema con Inteligencia Artificial para detectar patrones de Covid19 a través de audios de tos 🗣️. Sí leíste bien, con AUDIOS DE TOS. Por eso si hace poco te hiciste un test en la Ciudad podés colaborar con el proyecto. Mirá el video y enterate cómo 🙌



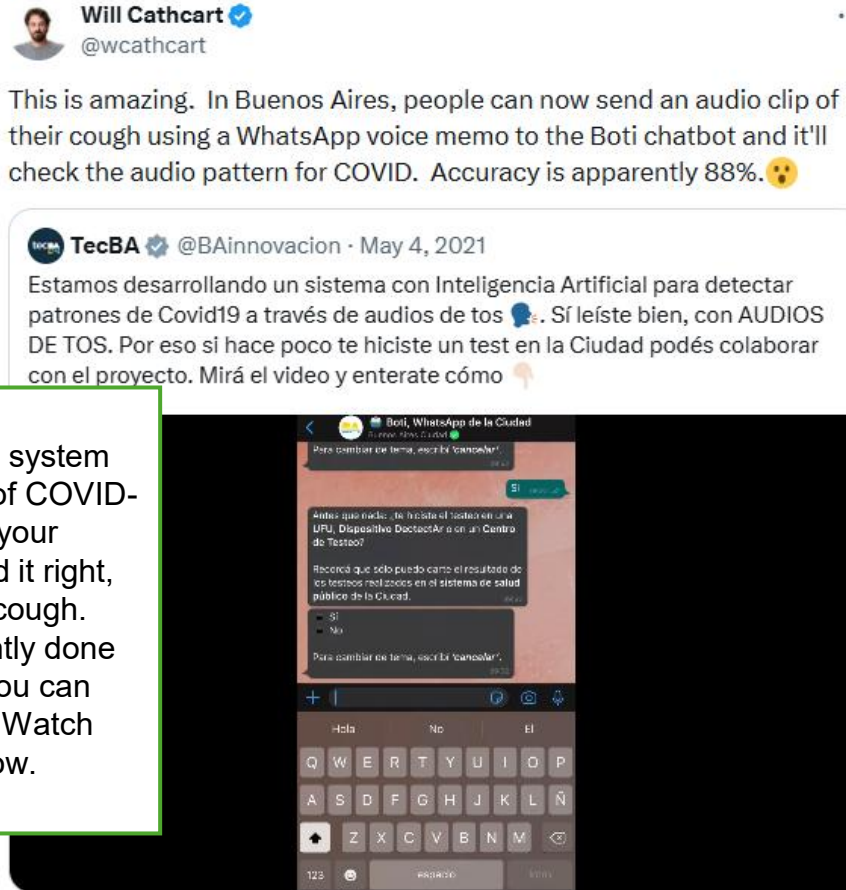
3:52 AM · May 6, 2021

Screenshot:
X - @wcathcart

Buenos Aires' Boti

Boti was used during the pandemic to detect the presence of COVID-19 in a person through using that person's coughing audio clips uploaded on Whatsapp.

Translation:
We are developing an AI system to detect patterns/signs of COVID-19 through the sound of your cough. Yes, you've heard it right, using the sound of your cough. Hence, if you have recently done a test in Buenos Aires, you can contribute to the project. Watch this video and find out how.



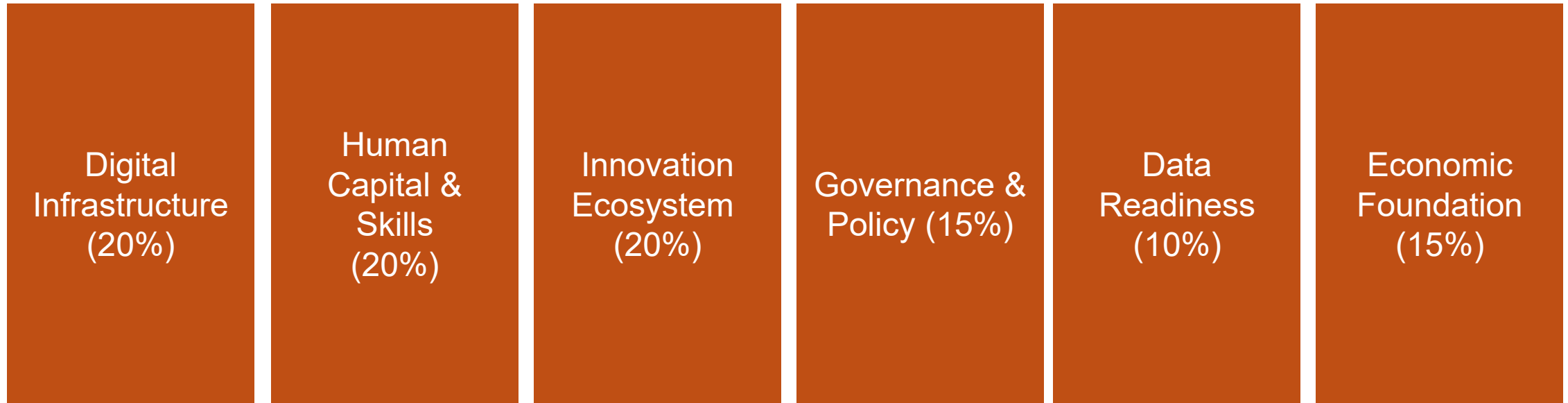
Screenshot:
X - @wcathcart

Methodology

This section describes the construction of an AI Readiness Index for Philippine Local Government Units (LGUs) using the updated 2023 DICT Satellite Survey dataset (DICT, 2023). The index synthesizes six key dimensions of AI readiness into a comprehensive score ranging from 0-100, enabling comparisons across LGUs and identification of priority areas for development.

$$AI\ Readiness\ Index = (P1 \times 0.20) + (P2 \times 0.20) + (P3 \times 0.20) + (P4 \times 0.15) + (P5 \times 0.10) + (P6 \times 0.15)$$

Methodology



Methodology

Distribution of targeted sample LGUs by income class

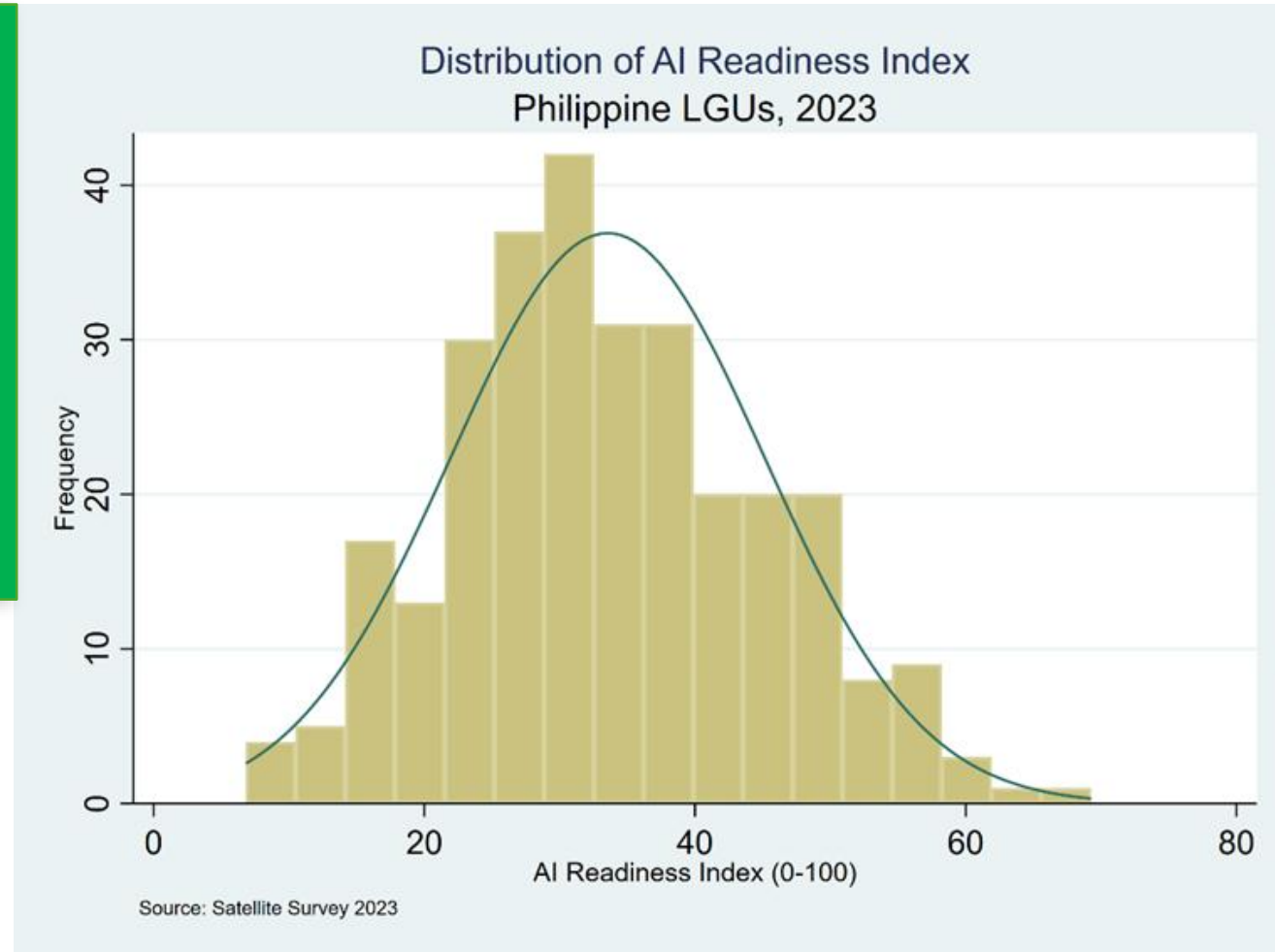
Income Class	POPULATION OF INTEREST				SAMPLE			
	Cities	Municipalities*	Provinces	Total Number of LGUs	Cities	Municipalities	Provinces	Total Sample LGUs
1 st	58	326	45	429	11	63	9	83
2 nd	16	184	16	216	3	34	3	40
3 rd	32	268	12	312	6	50	2	58
4 th	27	392	6	425	6	75	2	83
5 th	10	273	3	286	3	52	1	55
6 th	5	22	..	27	6	22	0	28
TOTAL	148	1,465	82	1,695	35	296	17	347

*Note: There are 21 municipalities in BARMM with unidentified income class and were excluded from the population of interest due to lack of information on their income classification.

Source: 2023 DICT Satellite Services Survey

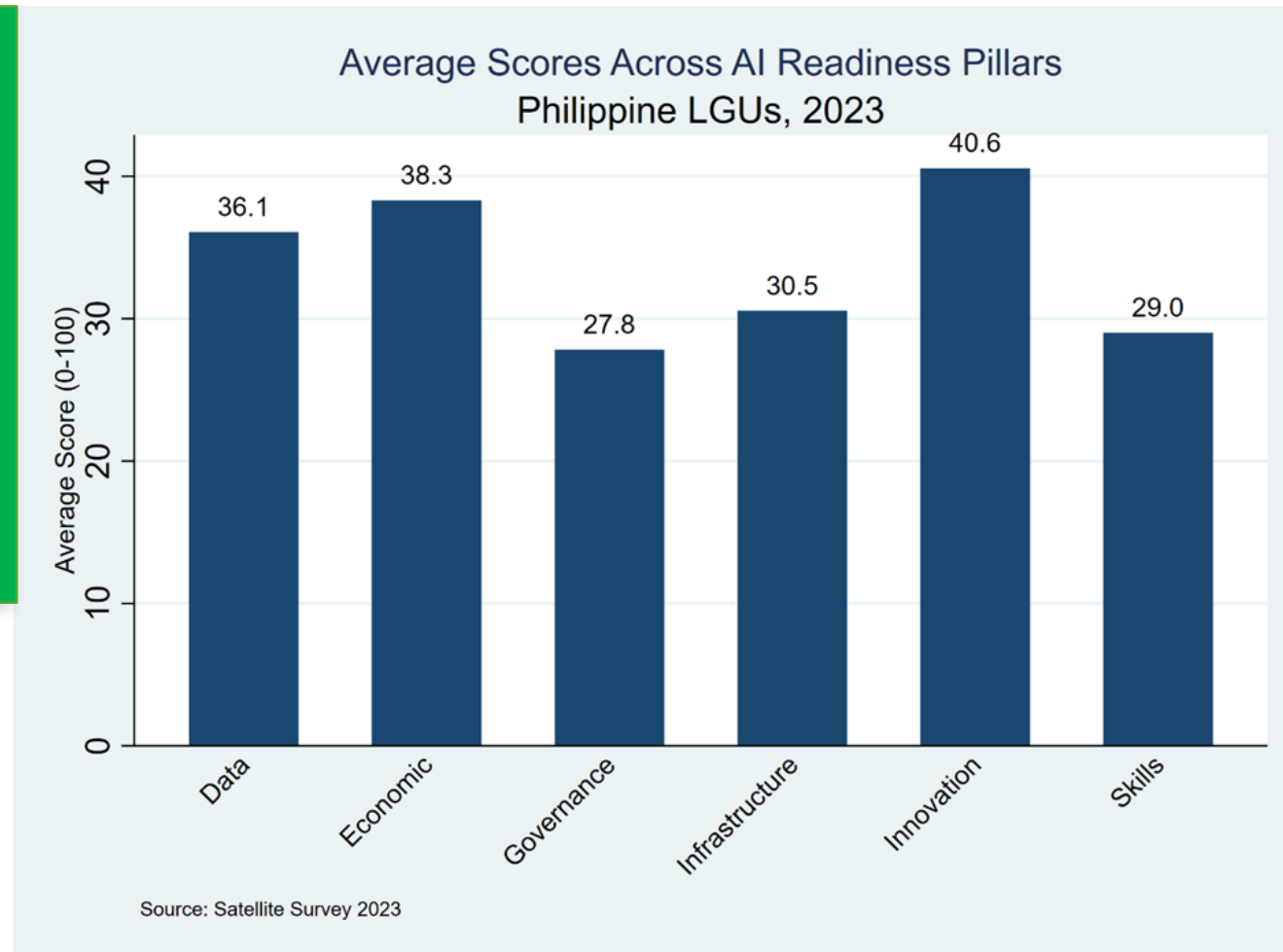
LGUs exhibit low to moderate levels of AI readiness

The long right tail, extending beyond 60, indicates the presence of a small group of high-performing LGUs that are substantially more prepared for AI use.



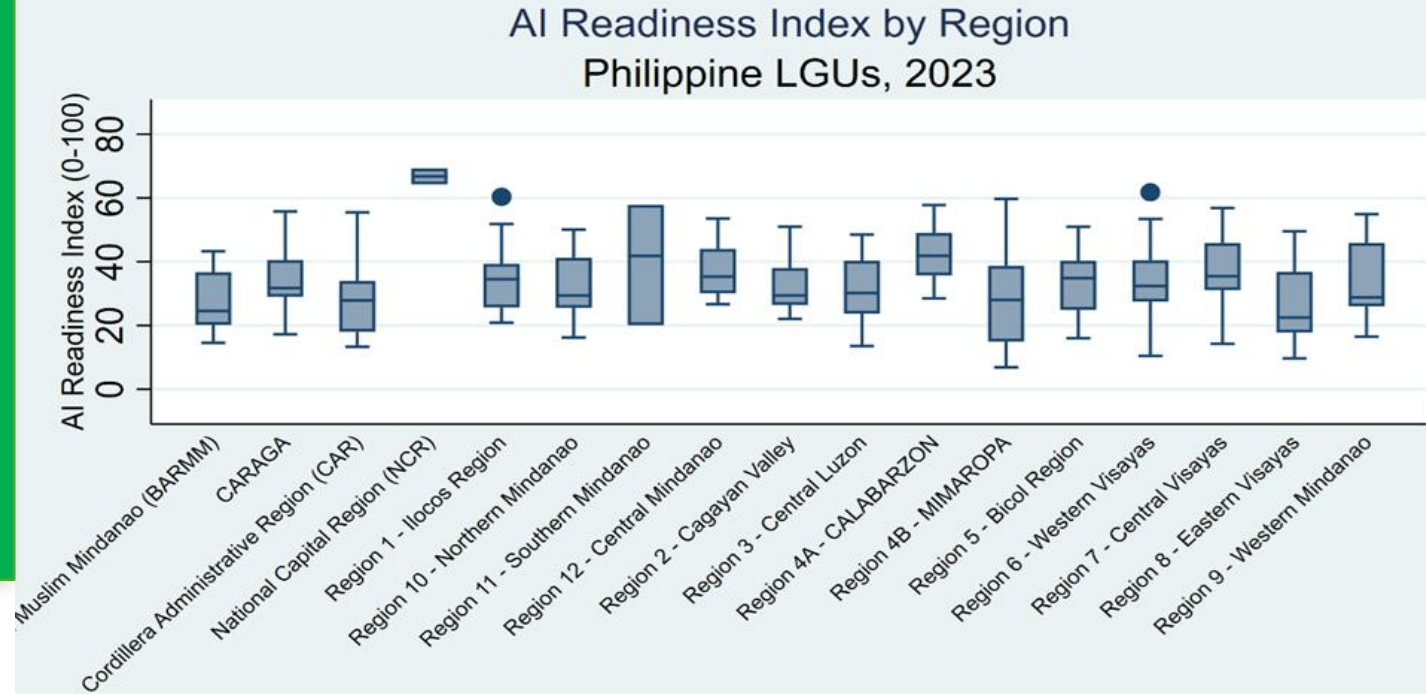
Innovation is performing well but most pillars would need urgent attention to ensure AI-readiness

These results indicate that the principal bottlenecks to AI readiness lie not in the absence of innovation potential, but in institutional and human capital constraints.



There are substantial regional disparities in AI-readiness

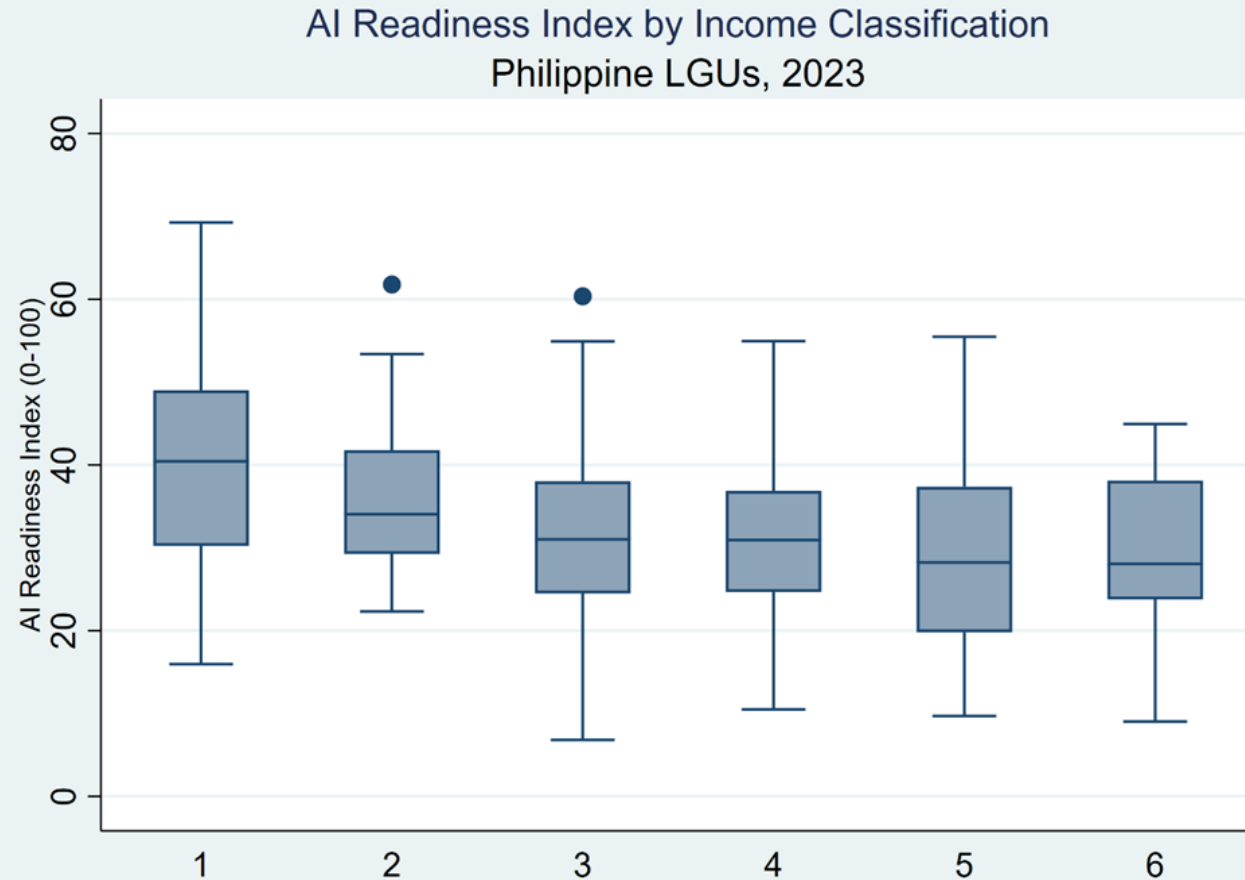
The results reflect NCR's concentration of digital infrastructure, skilled human capital, national government agencies, and exposure to technology-driven service sectors.



Source: Satellite Survey 2023

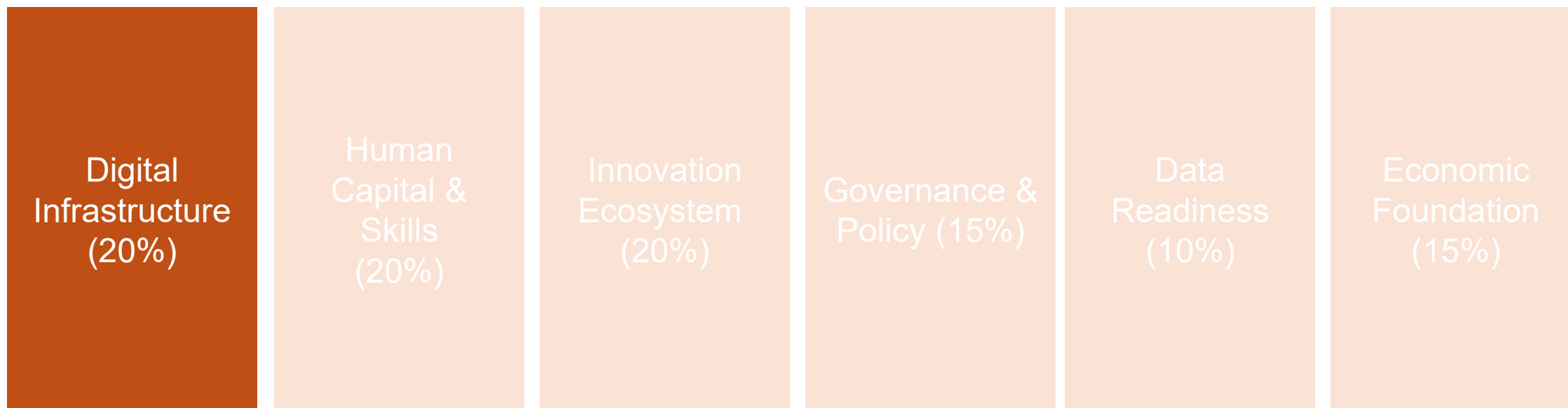
AI readiness decreases as income classes move from highest to lowest

First-class LGUs display the highest average AI readiness scores, along with a wider range and higher upper bounds, indicating both stronger average AI-readiness but also greater internal heterogeneity.



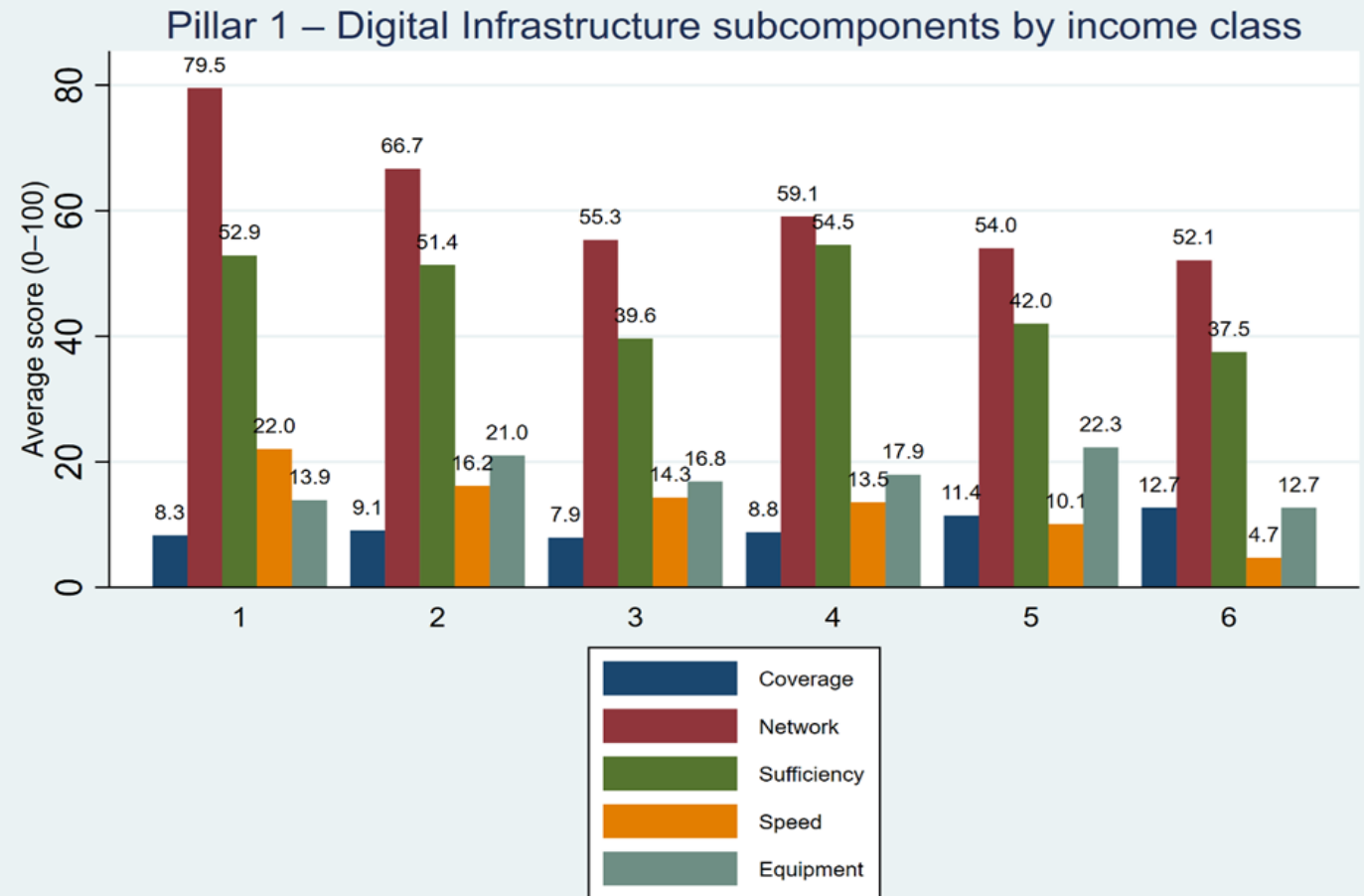
Source: Satellite Survey 2023

Methodology



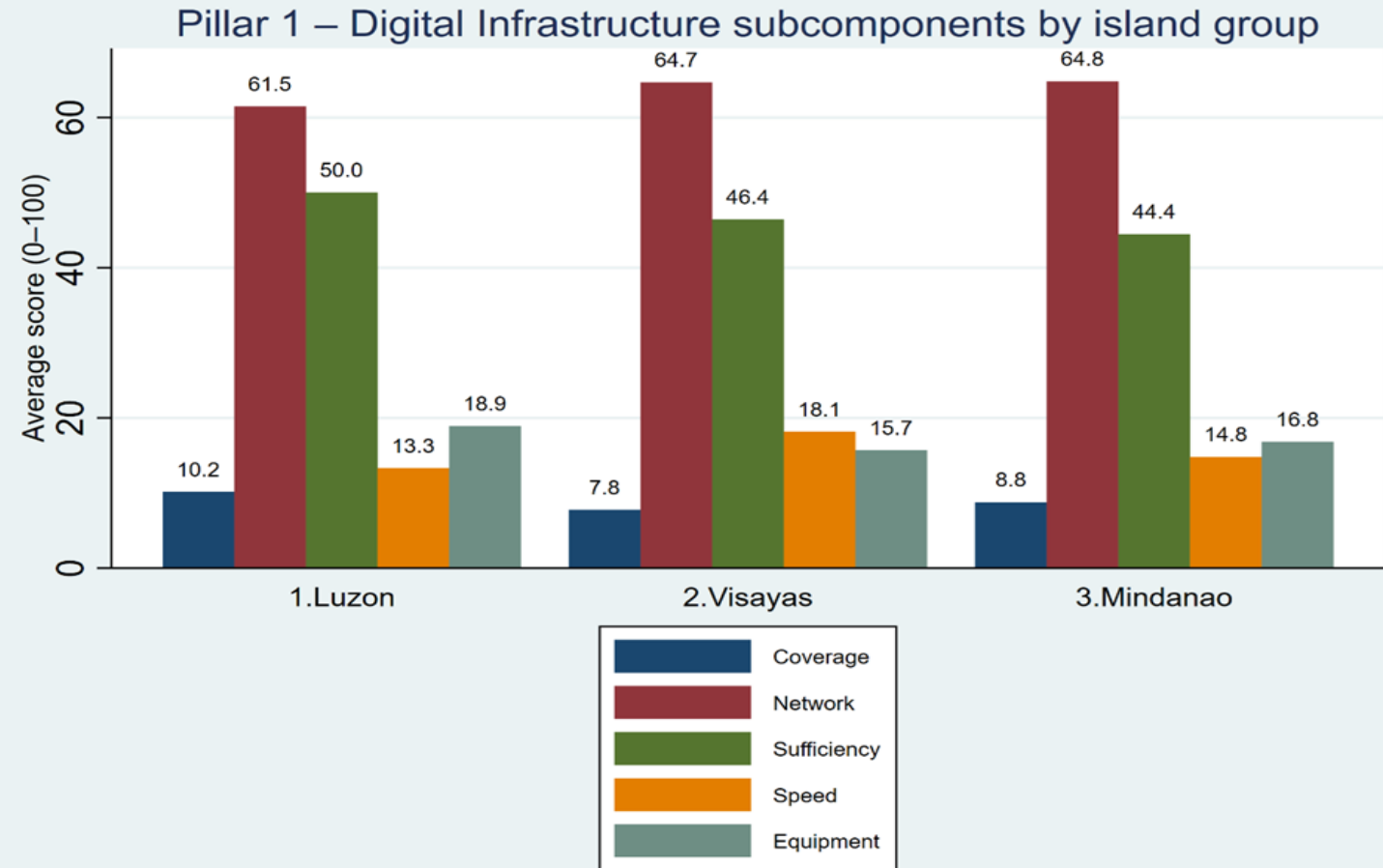
This pillar reveals a clear stratification by income level

Nevertheless, certain critical weaknesses can be perceived for all income classes.

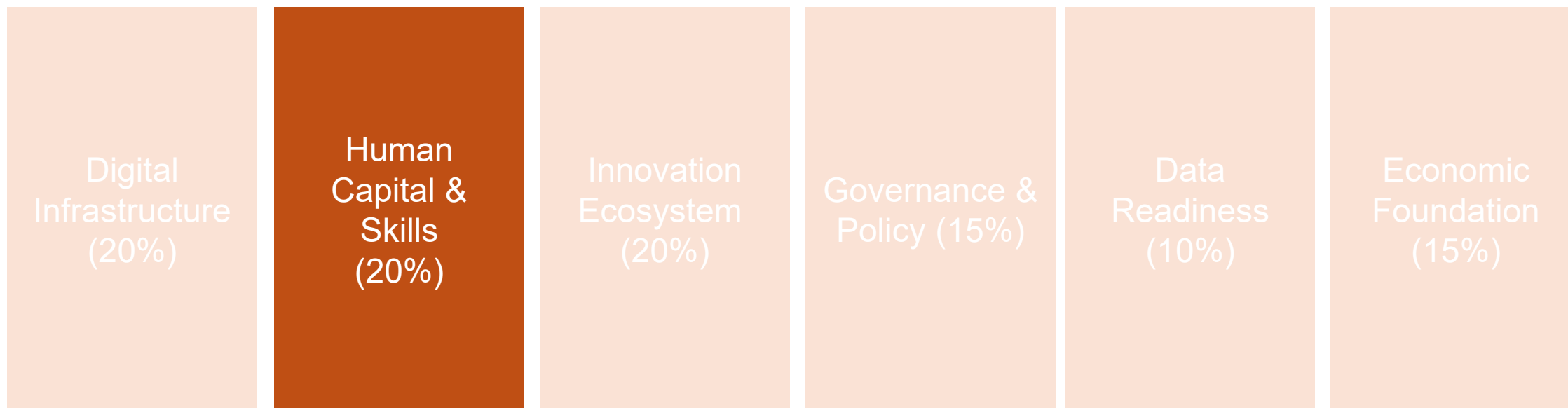


Network infrastructure demonstrates exceptional performance in all island groups

The remarkable similarity among regions may be an indication that the availability of multiple network types has become relatively standardized across the Philippines.

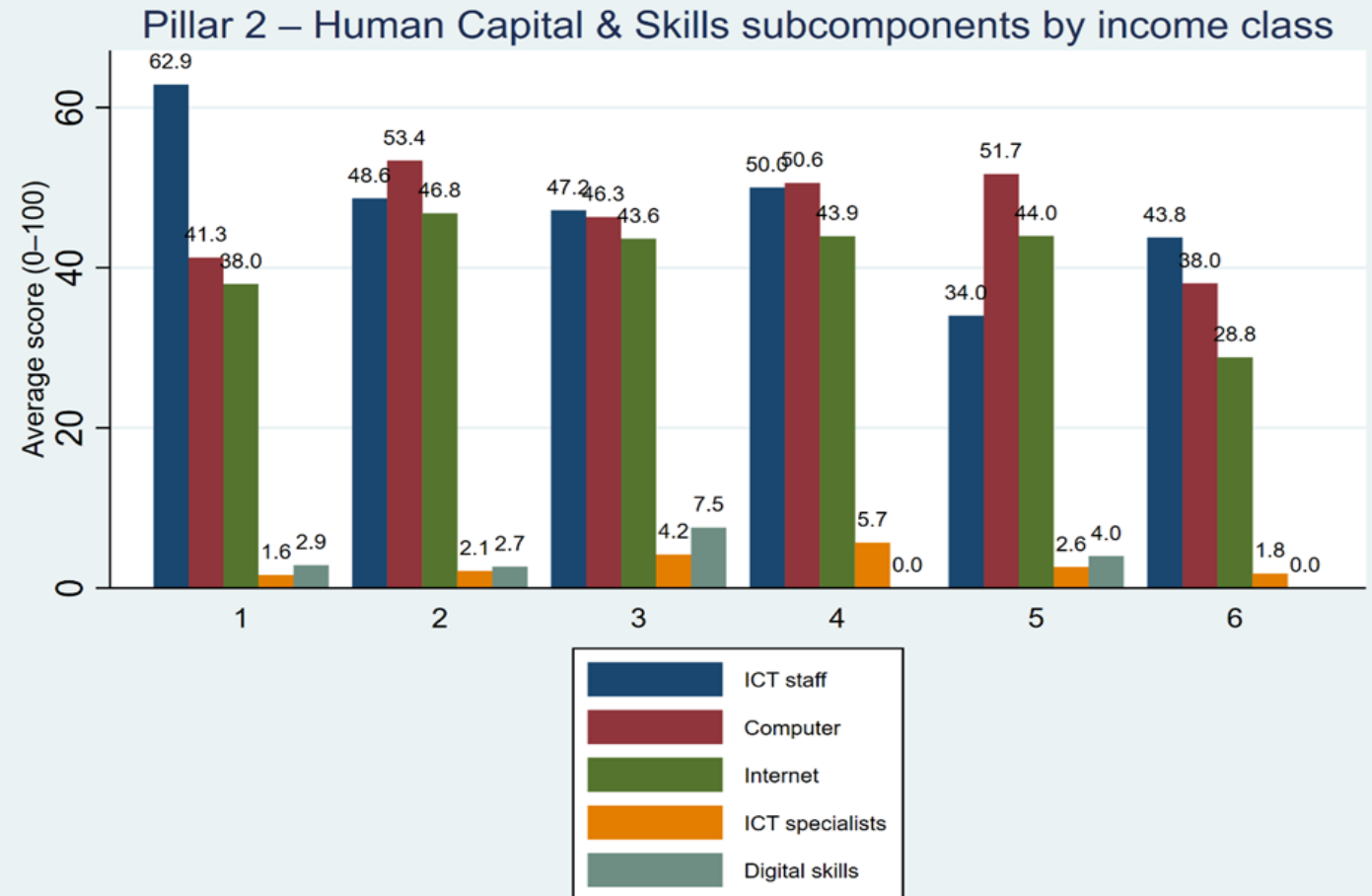


Methodology



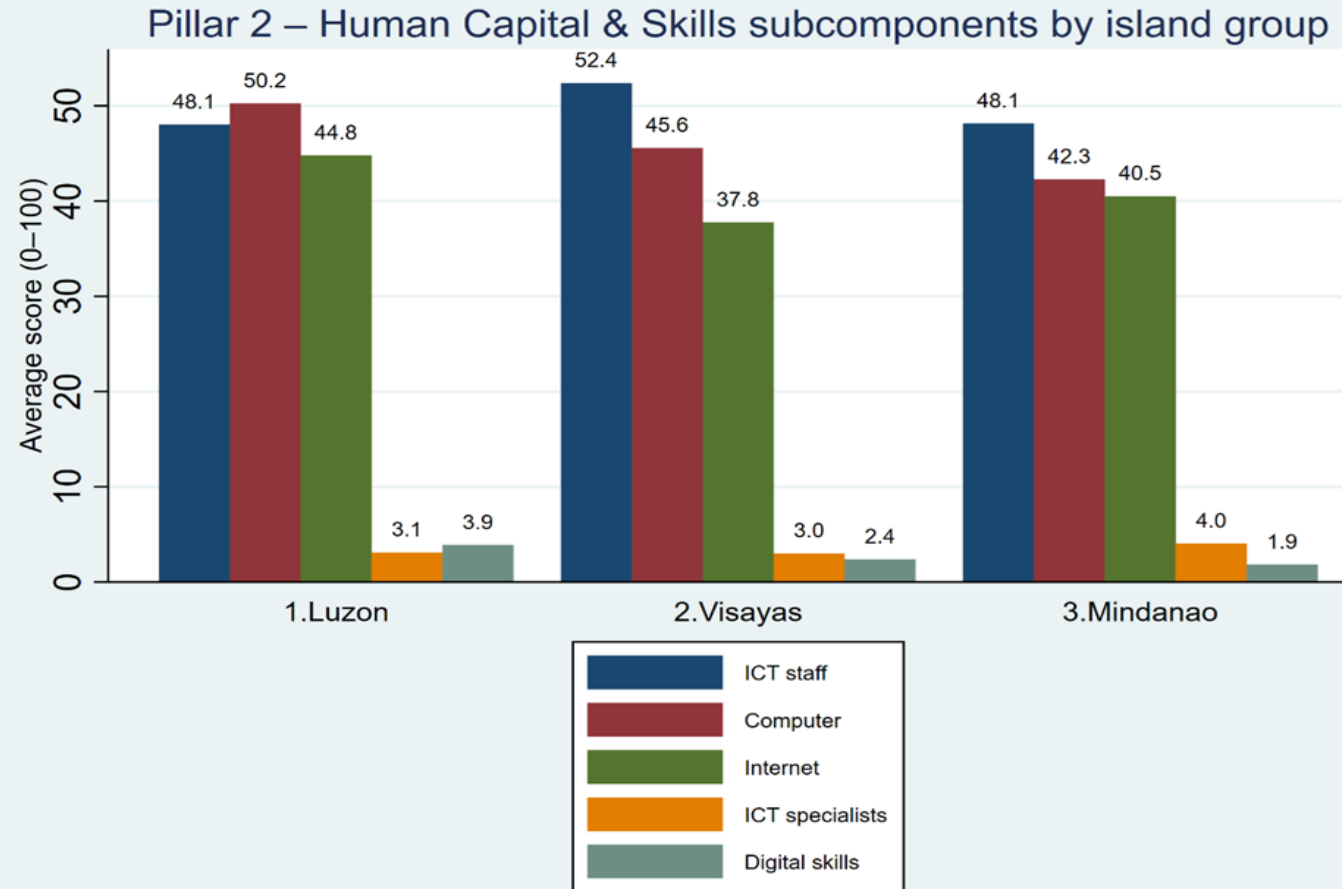
ICT staff availability demonstrates the sharpest income differences of any indicator in the assessment

A substantial majority of these wealthier/ first class LGUs have established ICT offices with dedicated personnel.

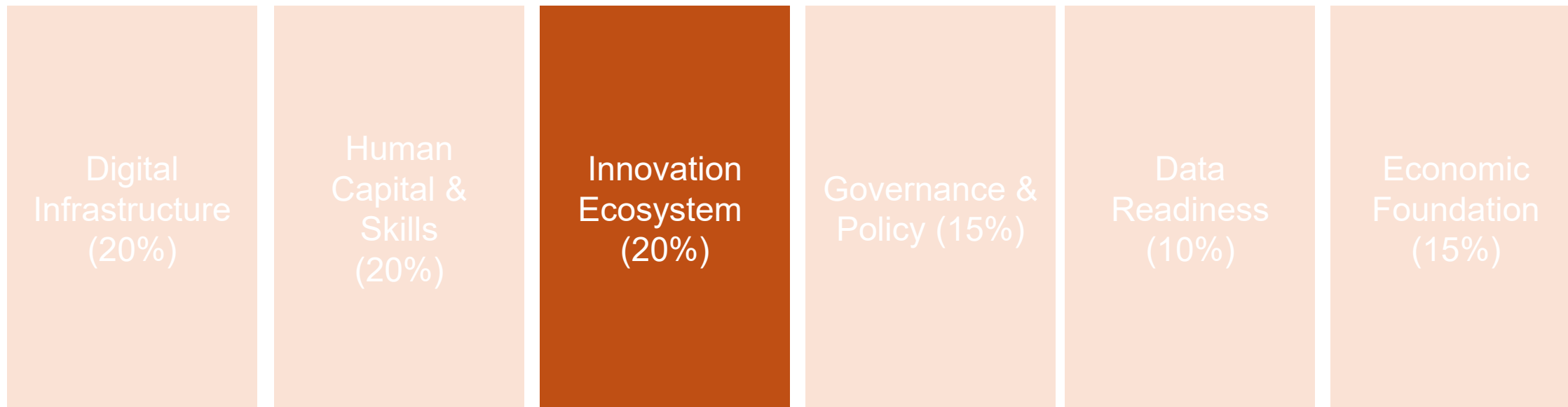


There seems to be an almost uniform performance across the island groups

There are still some geographic differentiations particularly with Visayas leading in ICT staff availability while all the island groups face critical shortages in specialized personnel and digital skills planning

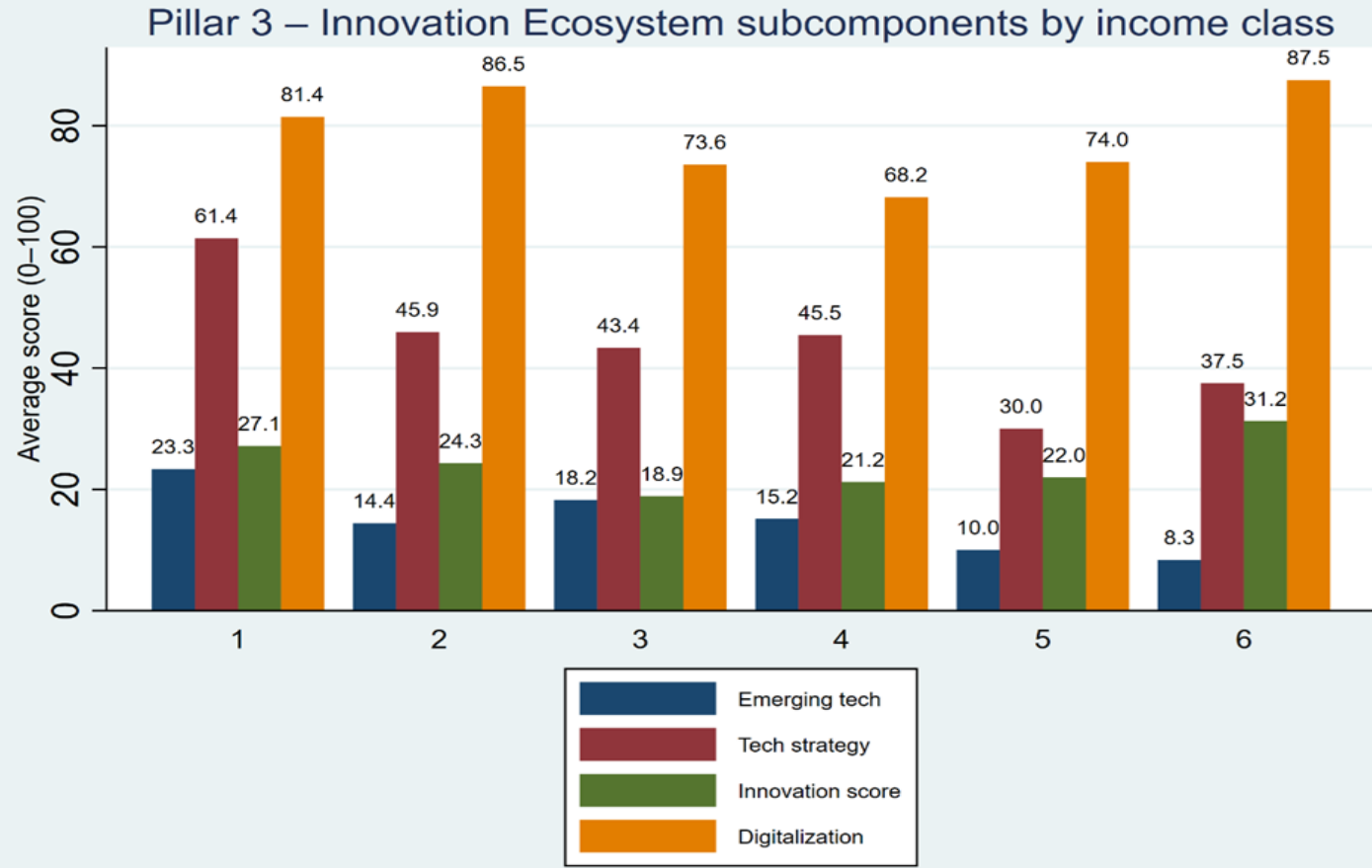


Methodology



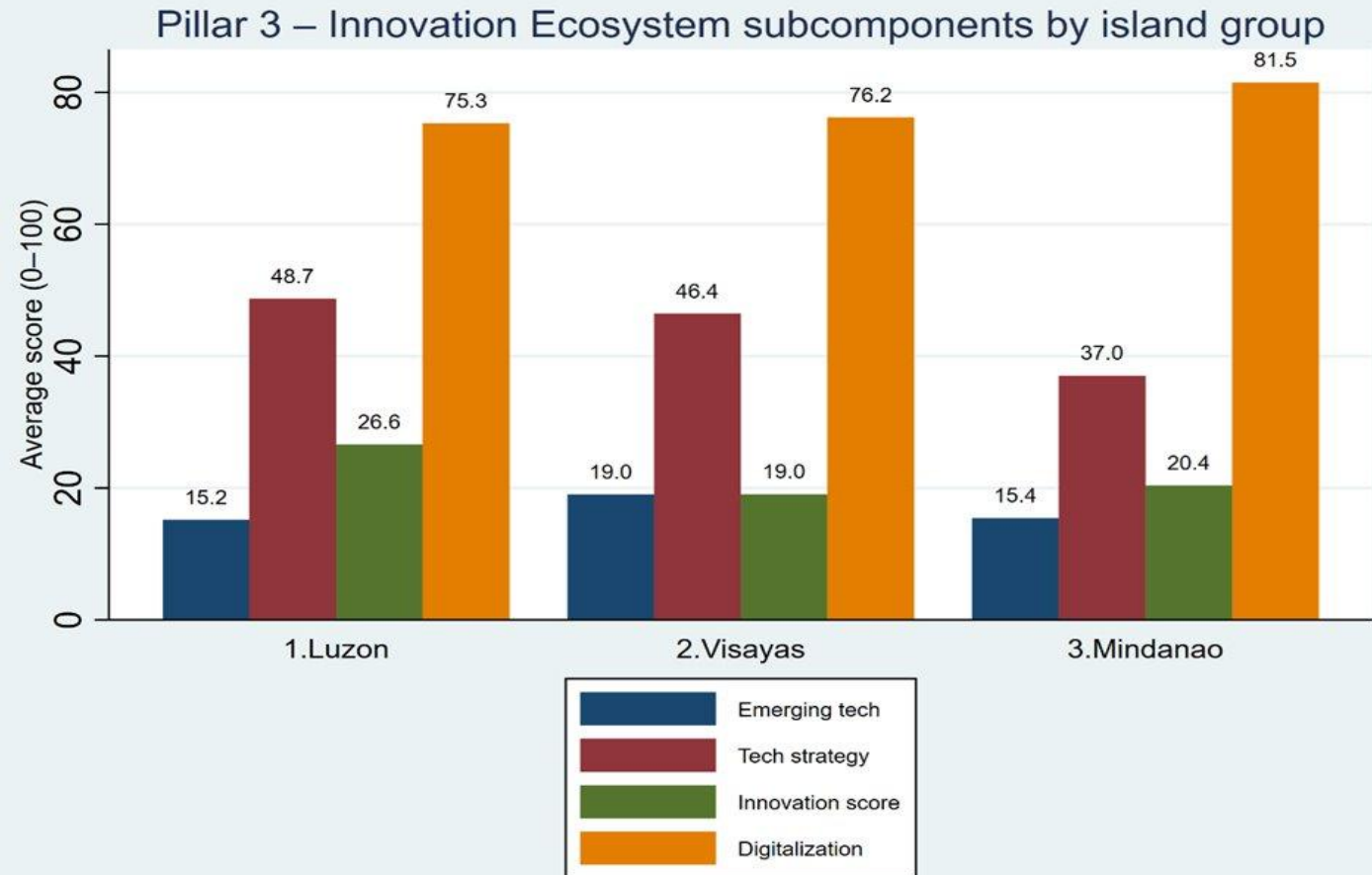
The innovation ecosystem pillar stands out as the best performing pillar overall

The results show strong scores for digitalization of services across all income classes. However, this strength is unevenly distributed across the subcomponents, with emerging technology adoption remaining critically limited across all income levels.

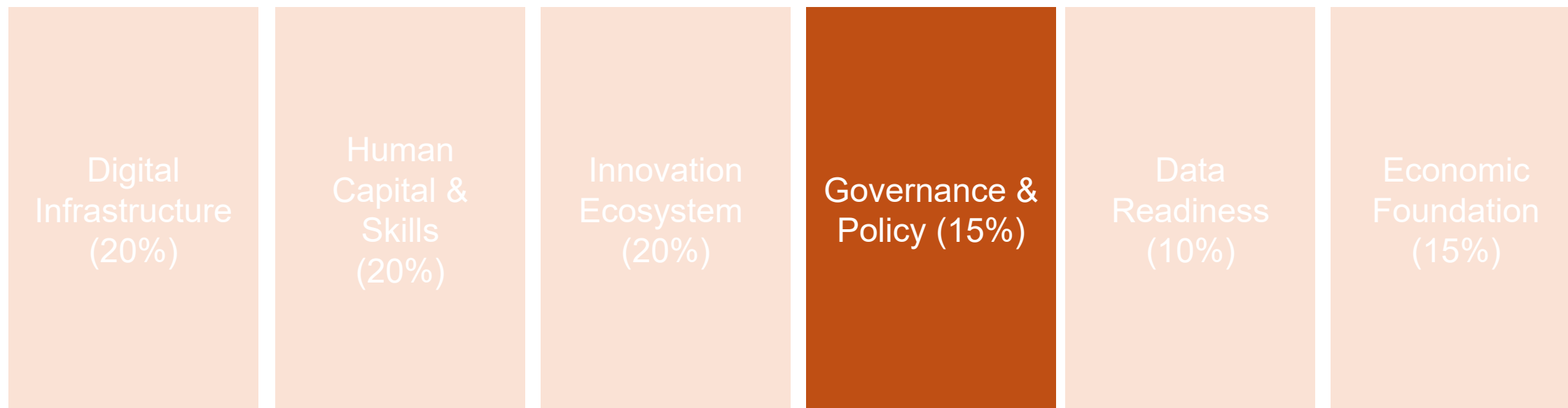


The innovation ecosystem pillar demonstrates consistent patterns across island groups

The island groups are showing strong digitalization progress while struggling with emerging technology adoption and innovation culture. This uniformity suggests that innovation readiness is shaped more by national trends and systemic constraints than by regional characteristics.

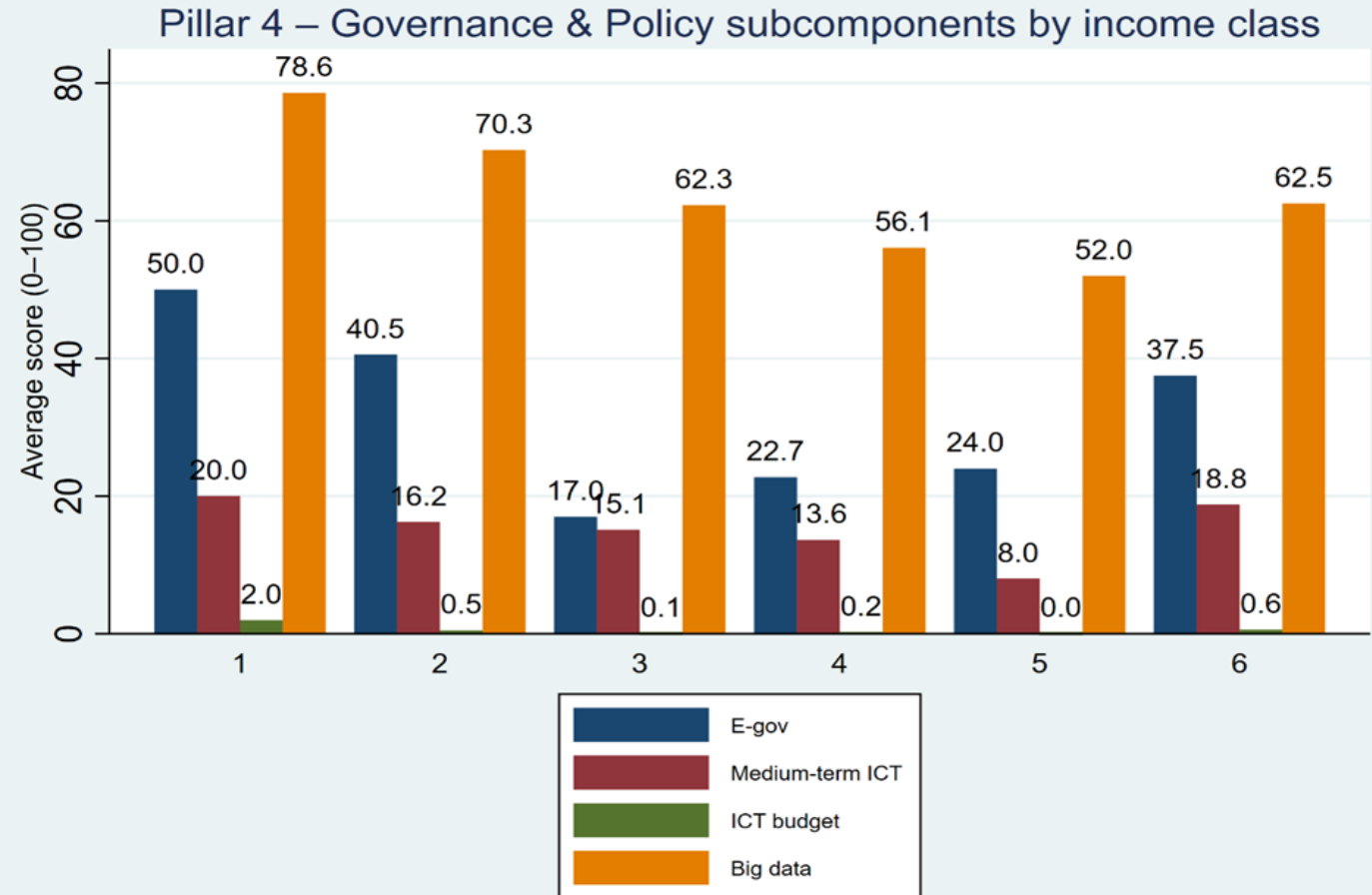


Methodology



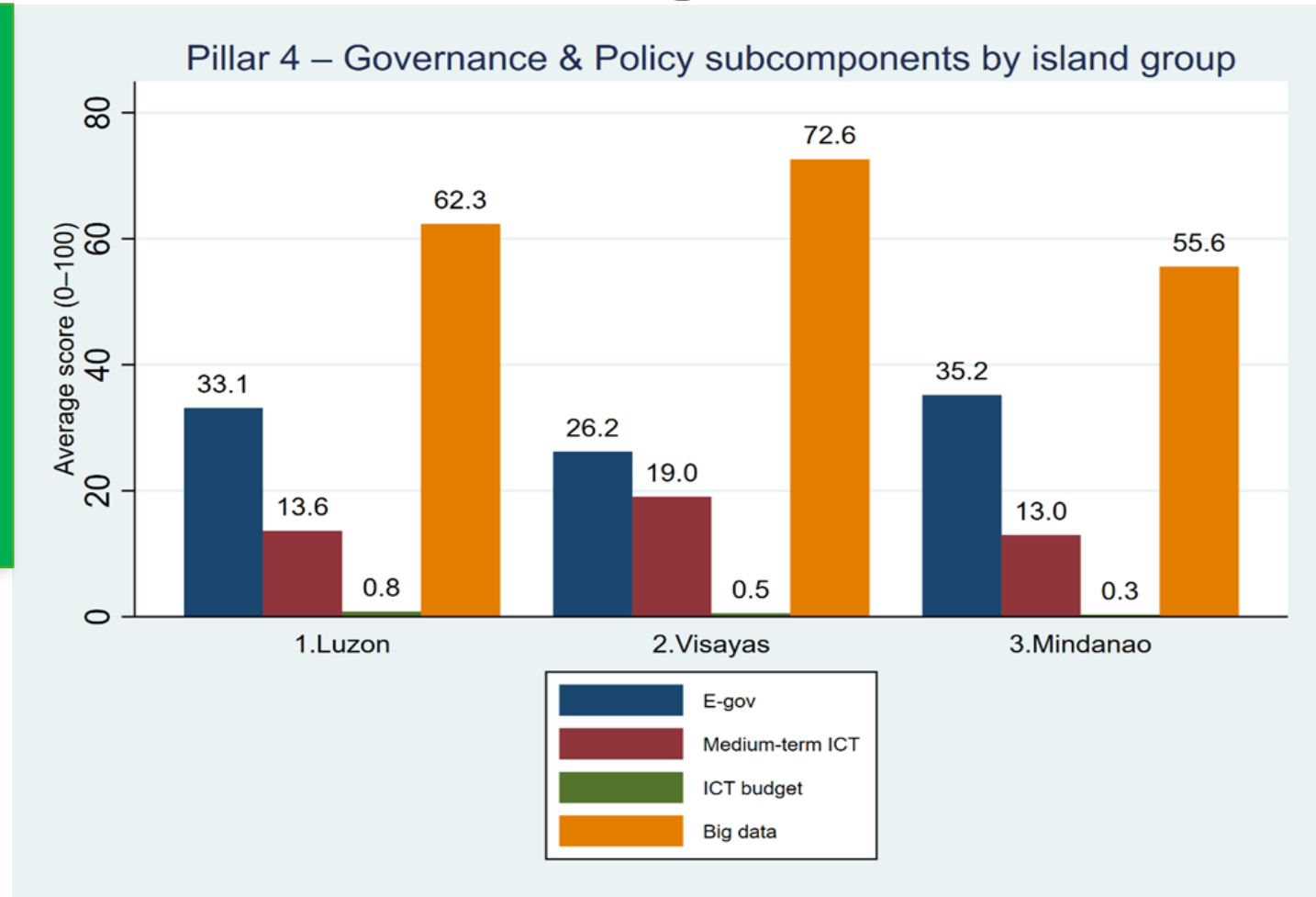
The governance and policy pillar presents a striking paradox across all income classes

While LGUs show strong scores for digitalization plans, they display critical weaknesses in ICT budget allocation and medium-term planning.

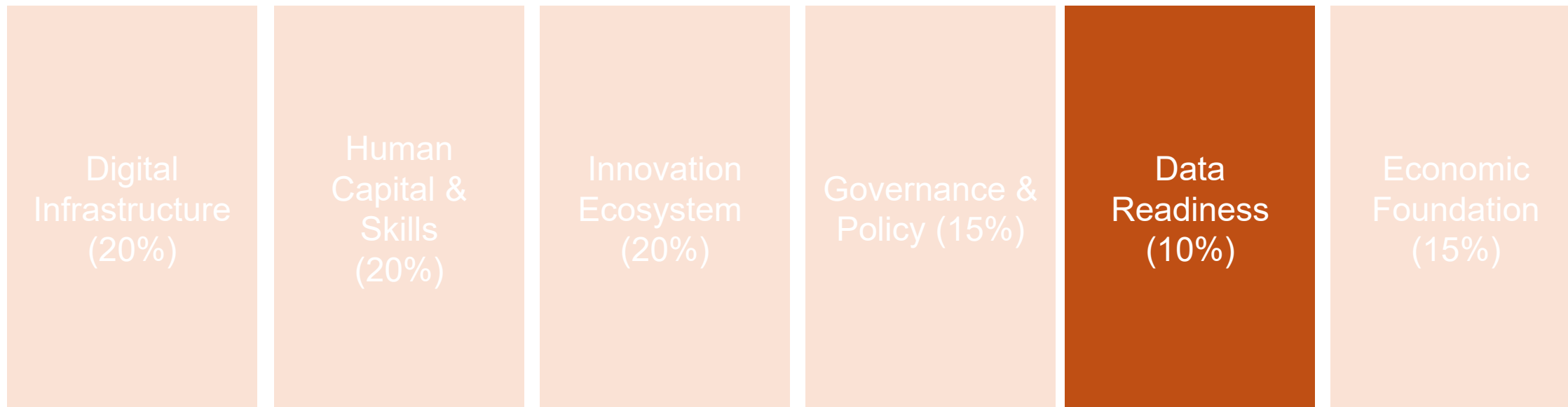


There is also a striking paradox across all island groups

There seems to be strong policy commitments to big data orientation contrast sharply with critical weaknesses in ICT budget allocation and medium-term planning.

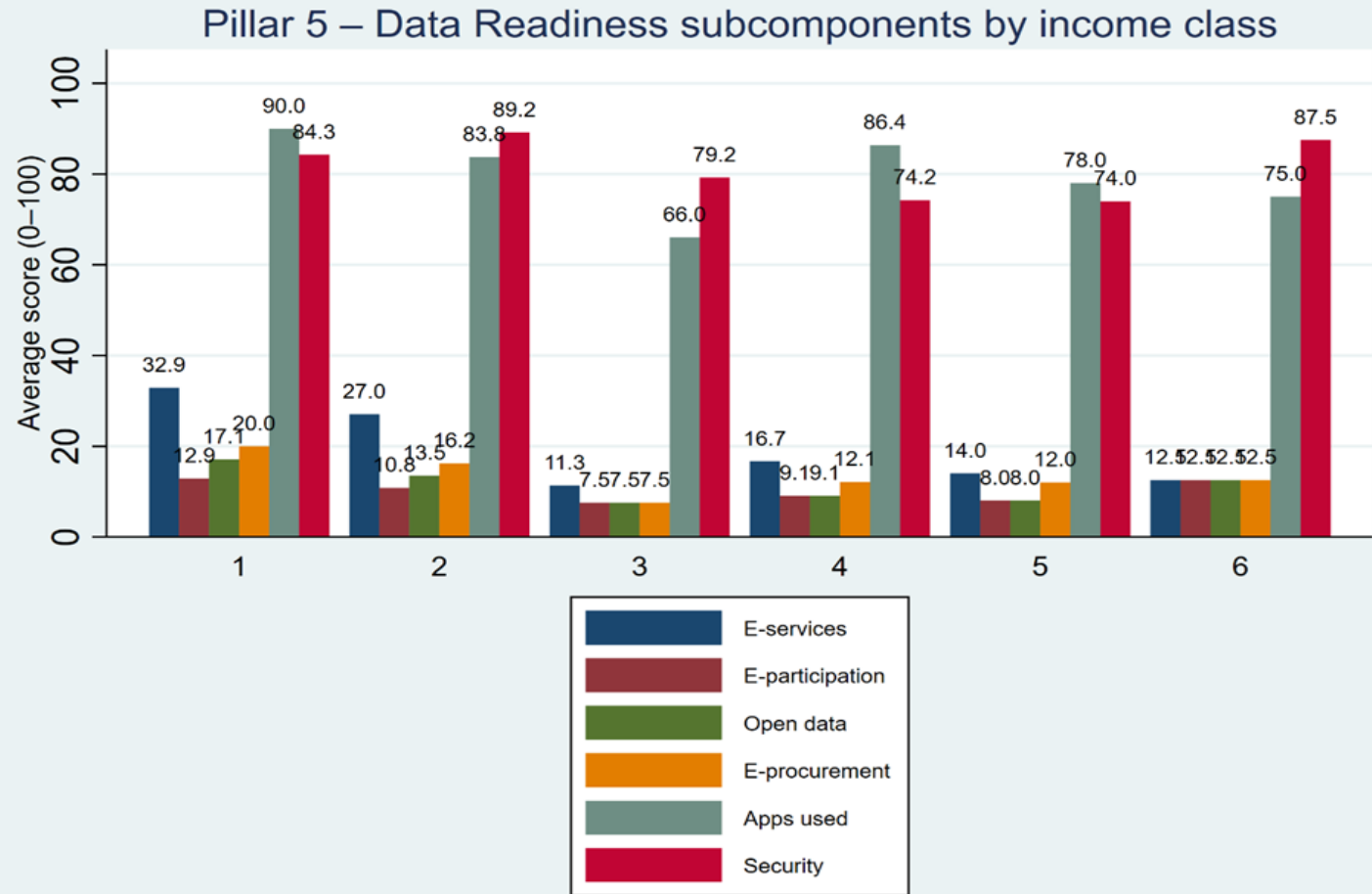


Methodology



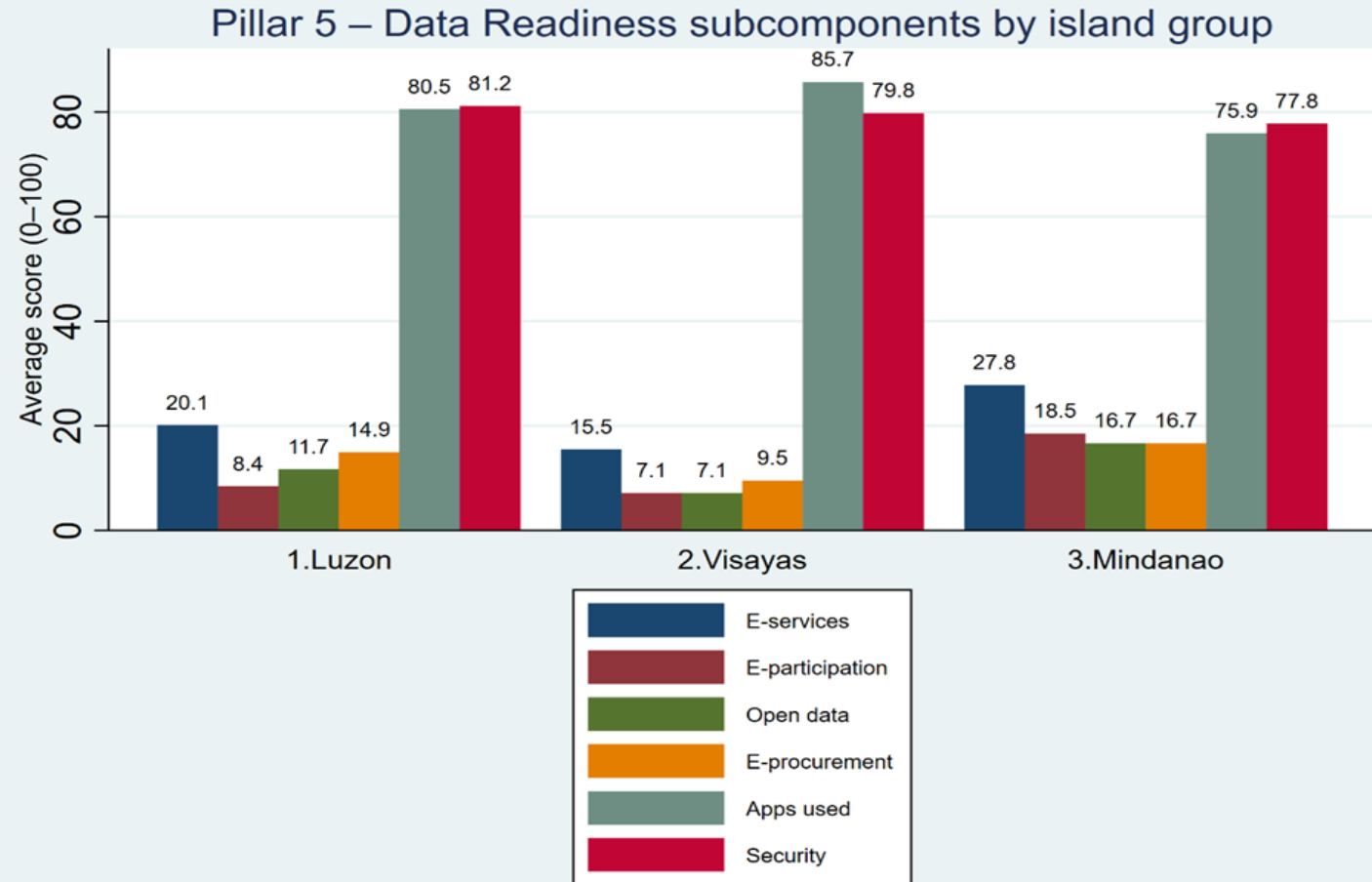
LGUs demonstrate strong performance in security measures but critical gaps remain

The data readiness pillar reveals a pattern where LGUs show strong performance in security measures and application usage but face critical gaps in the platforms needed to generate, manage, and share data effectively. Specifically, e-services availability shows weak performance across all income classes.

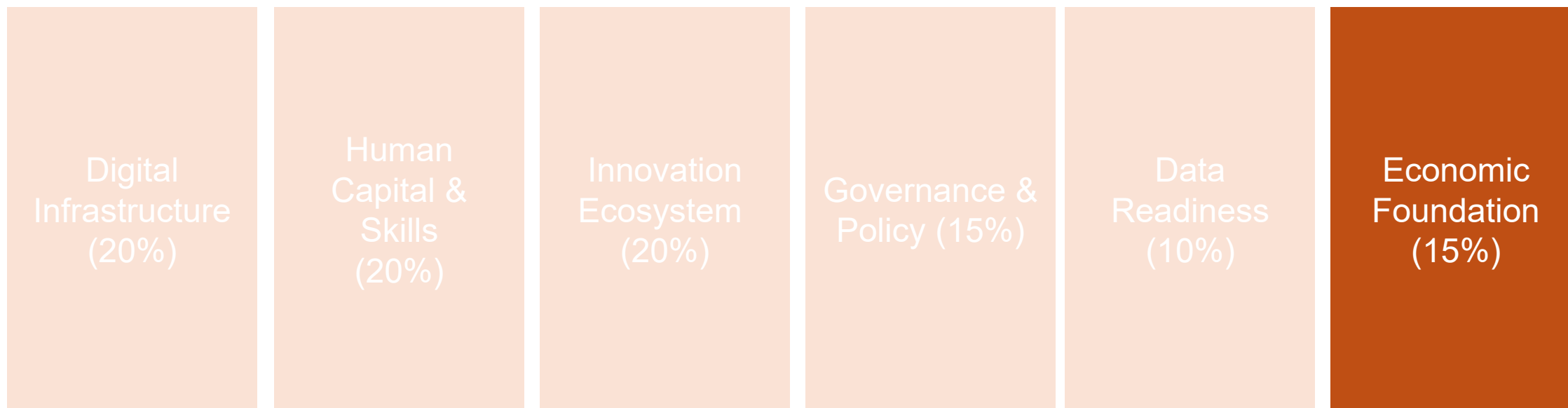


Security measures show exceptional and remarkably uniform performance

Security measures show exceptional and remarkably uniform performance across all island groups. The narrow range of just 3.4 points separating all regions indicates that cybersecurity implementation has become a universal priority throughout the Philippine local government system.

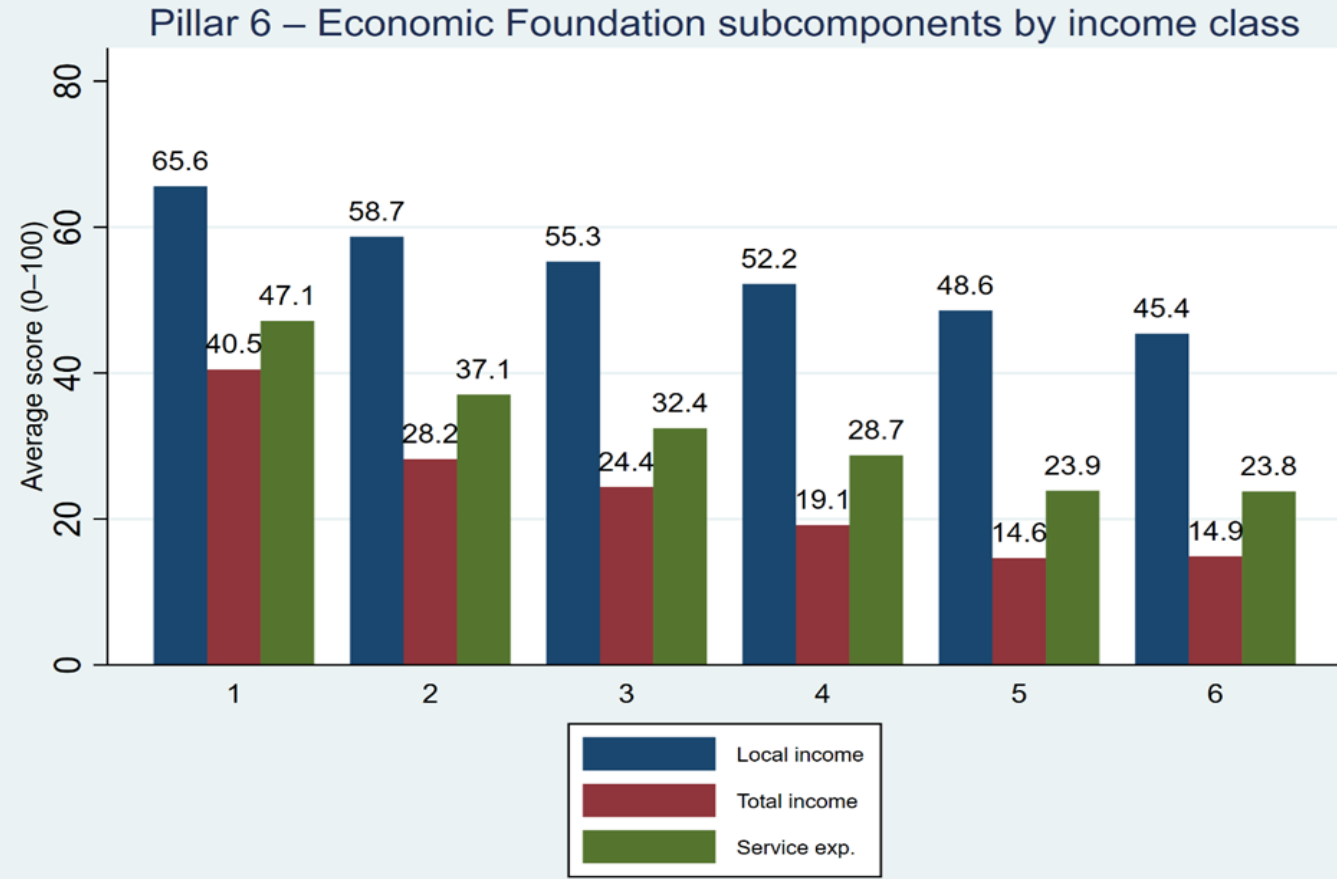


Methodology



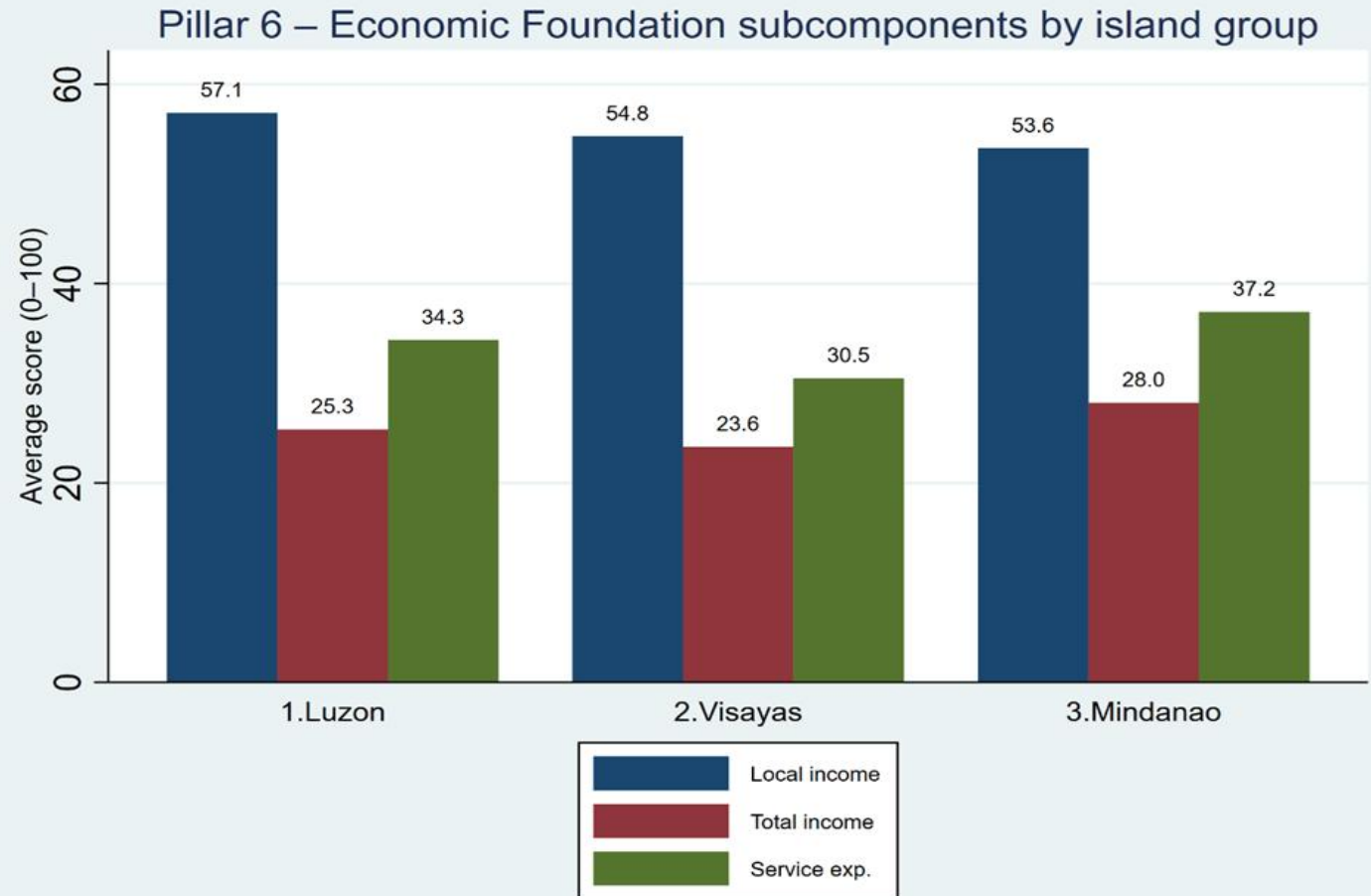
Economic foundation pillar follows a decreasing trend by income class

Higher income classes show substantially stronger fiscal autonomy and capacity for sustained technology investment, though all classes face concerning patterns in the relationship between local revenue, total income, and expenditure levels.



Local revenue generation is (surprising) uniform across all island groups

The moderate scores indicate reasonable fiscal autonomy across all island groups, meaning that LGUs have developed local revenue bases that provide some predictable and controllable funding streams for operations.



Findings: Qualitative Insights from LGU Practitioners

Respondents' profile

Respondent code	Position	Island group of <u>respondent's</u> LGU	Income class and LGU type of respondent's LGU
R1	Licensing officer / ICT department OIC	Mindanao	First-class component city
R2	Acting municipal treasurer	Visayas	First-class municipality
R3	Municipal <u>councillor</u>	Mindanao	First-class municipality
R4	Head of public information office	Luzon	First-class component city

Findings: Qualitative Insights from LGU Practitioners

All interviewees have mentioned that their respective LGUs have no official plans of adopting or using AI in the short-term.

Specifically:

- No available skilled workers within the LGU to manage or use AI as a big reason for having no plans.
- One LGU is more focused on providing social services such as scholarships and medical assistance.
- One LGU mentioned that their office is now unofficially using AI software to help with LGU's social media posts.

Findings: Qualitative Insights from LGU Practitioners

Respondents mentioned that their LGUs are, nevertheless, in the process of adopting digital solutions that are not necessarily AI.

- **R2** and **R4** shared that their LGU is more focused in implementing digital solutions such as the implementation of online payment platforms for local taxes and fees.
- **R3** said that the Department of Science and Technology (DOST) has helped them in the adoption of Starbooks for achieving local ordinances and other reading materials.

Policy Implications and Recommendations

Key Findings:

1. The AI Readiness Index reveals that Philippine LGUs exhibit low to moderate preparedness for AI adoption.
2. Income classification emerges as a powerful predictor of AI readiness.
3. Regional and Island-group patterns reveal persistent inequalities that align with broader development disparities.
4. The skills pillar emerges as the weakest dimension.

Policy Implications and Recommendations

Recommendations:

- Remove Regulatory Barriers to Infrastructure Deployment.
- Integrate AI and Data Literacy into Education Curricula.

Policy Implications and Recommendations

Recommendations:

- Establish Unified National AI Strategy with Clear Institutional Leadership.
- Mandate Minimum ICT Budget Allocation with Enforcement Mechanisms.

Policy Implications and Recommendations

Recommendations:

- Establish Comprehensive National Data Governance Framework Under PSA Leadership.
- Create National LGU AI Readiness Fund with Equity-Based Allocation.



Service through policy research

 pids.gov.ph

    [pidsgovph](#)

 [pidsgovtph](#)