

An Analytical Framework for Examining AI Investment Trends in the Philippines, India, and Indonesia

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Abstract: Similar to how electricity transformed the world a century ago, artificial intelligence (AI) has emerged as a revolutionary technology that is transforming the current digital landscape. Adoption of AI has advanced slowly despite its enormous promise and disparities in national readiness. However, worldwide investment in AI has increased at a never-before-seen pace in recent years. The flow of AI investments in the Philippines, India, and Indonesia—three quickly growing Asian economies aiming to create competitive AI ecosystems—is examined in this paper. The study emphasises government efforts to incorporate AI into domestic systems, which are bolstered by increasing business involvement and private sector interest. Statistical analysis shows that annual investment levels vary a lot, and trend analysis shows that the AI market in these countries is growing quickly and steadily. The report emphasizes that in order to enable AI-driven growth; these rising sectors require increased government backing, increased research capacity, and increased cooperation on novel concepts.

Keywords:Deep Learning, Artificial Intelligence, Market, Investment, and Budget

I. INTRODUCTION

The methodical effort to replicate and enhance human cognitive capacities using computational and neural-inspired models is known as artificial intelligence (AI). According to Pamela McCorduck, AI stems from "an ancient wish to forge the gods," demonstrating that the desire to create autonomous machines has existed for a very long time. Early researchers foresaw that machines might eventually surpass humans in intelligence at the Dartmouth Conference in 1956, which established the official foundation for AI research. However, due to inadequate technical organization and limited therapeutic skill, expansion was sluggish during this period.

Due to improved algorithms, simple access to vast amounts of data, and high-routine computation, the resurgence of AI in the twenty-first century was widely regarded as a significant turning point. This recovery, which involved substantial business and systematic investment, allowed AI to move from imaginary research to practical submission across a wide variety of industries. Globally, a lot more money is being spent on AI. National AI platforms have been thrown by governments worldwide in a power to build sustainable AI systems. To establish their promise to state-led action, the US, China, France, Japan, and the UK all established inclusive AI policy frameworks between 2021 and 2024.

Since the 1950s, the United States has been a primary location for AI research owing to consistent backing from the public and private sectors, comprising an important amount from groups like DARPA. But developing countries like Indonesia, the Philippines, and India are becoming more important in the global AI scene. India made AI a part of its national development plan by giving more than ₹551.75 crore to AI projects in the Union Budget of 2023. The Philippines and Indonesia are also seeing more and more how AI can help their budgets grow, modernize their workforces, and make the switch to digital. This is thanks to growing start-up economies and foreign direct investment.

TABLE I
OVERSIGHT PROJECTS FOR ADVANCEMENTS IN ARTIFICIAL INTELLIGENCE
(PHILIPPINES, INDIA, AND INDONESIA)

Country	Type of Initiative	Scheme / Program	Focus Area	Government Funding (USD in Millions)	Time Frame
Philippines	AI Start-ups & Innovation	National AI Roadmap (DOST-DICT)	AI start-ups, smart governance, digital transformation	Around 46M USD commitment for AI projects until 2028	2025 – 2028
	AI Hub	Center for AI Research (Proposed)	Research collaboration, skills development	Around 6.5 M USD (approximately 350.5 million Philippine Pesos initial budget allocation)	2024 initial funding
India	AI Start-ups	AI-based emerging ventures under N-AIM	AI entrepreneurship, innovation, skill development	Approximately 1,250 million US dollars ₹11,38 Crore (approx. Indian Rupees)	2024–2029 (5-years implementation period)
	AI Hub	Karnataka Government AI Initiative	AI research, smart city applications	about 6 million US dollars (50 Crore Indian Rupees)	2025 – 2030 (5-year implementation period)
	AI Hub	Telangana Government AI Program	Public-sector AI deployment	100 million US dollars (₹910 Crore (approx.))	2025 – 2028 (3-year roadmap)
Indonesia	AI Startups & Policy	National AI Strategy (Stranas KA)	Industry 4.0, healthcare, education, governance	736 million US dollars	2020 – 2045
	AI Hub	National Research and Innovation Agency (BRIN)	AI research, innovation ecosystem	Between \$392 million and \$713 million (or possibly more).	2021 – ongoing

(Source: <https://ai-innovation.id/strategi>)

Table No. 1 indicates that India has put a small amount of funds directly into expanding AI, about INR ₹12,345 Crore (approx.). On the other hand, the Philippines and Indonesia have mostly worked on making national AI strategies and policy frameworks instead of giving a lot of money. This shows that the three nations are at various phases in their efforts to invest in AI.

TABLE II

BUSINESS PROVISION FOR ARTIFICIAL INTELLIGENCE INVESTIGATION AND EXPANSION RESEARCH PARTNERSHIPS
FOR ARTIFICIAL INTELLIGENCE DEVELOPMENT

Country	University / Institution	Industry & Government Research Collaboration
Philippines	University of the Philippines (UP System)	Working together for data analytics and smart governance with the Department of Science and Technology (DOST), Department of Information and Communications Technology (DICT), and regional AI start-ups.
	De La Salle University	Industry partnerships with multinational IT firms for AI research in fintech, robotics, and intelligent systems.
India	Indian Institute of Science (IISc)	Research collaboration with Mindtree, IBM, and government-supported AI initiatives.
	IIT-Madras, the Indian Institute of Technology	Partnership with The Tamil Nadu e-Government Agency (TNeGA) for AI-based public service applications.
	Indian Institute of Technology (IIT-Delhi)	Member of IBM's <i>AI Horizon Network</i> with collaborations in AI research and skill development.
Indonesia	Institute Technological Bandung (ITB)	Collaboration with National Research and Innovation Agency (BRIN) and private technology firms for Industry 4.0 and AI innovation.
	University Indonesia	Joint AI research programs with government agencies and multinational corporations.
	GadjahMada University	Industry-linked AI research focusing on healthcare analytics, smart cities, and education technologies.

Source: Press search (<https://nsstc.niar.org.tw/>)

II. ANALYSIS OF WORK

Sunday AyoolaOke [1] stated that both the manufacturing and service sectors did well over the last 20 years since more and more people were using smart and digital devices. The study highlighted the growing need for comprehensive academic reviews that offer a global review of literature and theoretical frameworks. Ananya Bhattacharya and SubratKa[2] said that by 2021, AI had become a big part of India's plan for national development. Through NITI Aayog, the Indian government proceeded carrying out a coordinated national strategy centered on AI research, new ideas, and skill development. In the words of Marianne L'Aquila [3], the world has made major advances in supporting artificial intelligence and cognitive computing. It indicates how quickly the AI market is expanding. In 2022, businesses spent a lot more on AI technologies than they had in recent years. According to Kai-Fu Lee [4, 5], AI can improve society, but it can also make issues more difficult.

The research proved that AI has significantly aided individuals due to the advancements in search engine technology. The research is important because the field of intelligent technology (AI) is growing quickly and will alter the world and society in the years to come. AI is likely to change how businesses work, how markets work, how people work, how money flows, how stores work, and how supply chains work in the next ten years. To stay profitable and relevant, governments and businesses need to change how they run their businesses and manage their employees as technology gets better [6]. The only things that can bring about this change are solid research and progress platforms, developed skills, and long-term strategic planning. Nations like the Philippines, Indonesia, and India are taking their time realizing the significance of AI for technological advancement. By establishing new regulations, university platforms, and revolution hubs, the governments of these nations are beginning to encourage the use of AI [7].

People are asking institutions to provide AI courses, and public as well as private institutions are looking into ways to work with one another to improve learning and build a workforce with the right skills. In contrast to places with more refined AI systems, investigation and industry partnerships are still relatively innovative in these nations. The lack of collaboration on research, the lack of funding, and the gap between academia and industry remain major issues [8]. To create a robust and sustainable AI system in the Philippines, India, and Indonesia, we must do extensive research, inaugurate sound funding mechanisms, and successfully manage human resources [9]. This study is important since it demonstrates how significant it is for governments,

corporations, and learning institutions to collaborate in order to fully utilize AI for the long-term advance of the economy and society [10, 11].

III. OBJECTIVES OF THE STUDY

- To examine the ways in which institutions and the government in the selected countries finance AI start-ups, research facilities, and innovation.
- To assess how investments in AI are circulated throughout various businesses, including research, innovation hubs, start-ups, and the application of AI in the public sector.
- To assess the ways in which national AI policy outlines and strategies impact funding patterns for AI.

IV. METHODOLOGY OF THE STUDY

With an importance on secondary data, this study combines descriptive and systematic research methodologies. Government reports, national AI plan documents, budget allocations, market intelligence studies, policy briefs, research publications, and official media releases were the sources of information regarding AI investment in the Philippines, India, and Indonesia. To observe the data and make applicable deductions, we used numerical procedures like design analysis, correlation, average, and standard deviation. The report examines and contrasts AI investment patterns in Indonesia, the Philippines, and India across a range of industries.

V. ANALYSIS AND INTERPRETATION OF DATA

This section presents the study's key findings and recommended policies. Table 3 displays the total investment in AI together with the corresponding annual growth rate from 2021 to 2025. The data shows that funding for AI is rising significantly in India, the Philippines, and Indonesia. This consistent increase indicates a rising institutional and governmental commitment to the development of AI. The selected nations' increased strategic emphasis on digital transformation initiatives, AI-driven innovation, and research ecosystem expansion is another factor contributing to the rising growth rates.

TABLE III
AI INVESTMENT TRENDS IN INDONESIA, THE PHILIPPINES, AND INDIA

Country	Type of Initiative	Scheme / Program	Focus Area	AI investment by Google , big companies (USD in Millions)	Time Frame
Philippines	Google	Google Cloud & AI Support	Cloud & AI services	46 USD in Millions	2021-2025
	Big Companies	Startup VC Funding	AI & tech startups	120 (USD in Millions)	2021–2025
India	Google	Google AI & Data Center Expansion	AI hub, cloud & digital infrastructure	15 Billion USD	2021-2025
	Big Companies	AI Startup Funding	AI startups, GenAI, deep tech	1.2 Billion USD	2021-2025
Indonesia	Google	Google Cloud Expansion	Cloud & AI support	1.7 Billion USD	2021-2025
	Big Companies	Startup VC Investments	Tech & AI startups	1.95 Billion USD	2021-2025

Source: Press search (<https://nsstc.niar.org.tw/>)

Table 3 lists Google's and key private companies' funds in artificial intelligence in the Philippines, India, and Indonesia from 2021 to 2025. According to the study, there are notable changes in the three countries' levels of AI investment. In the Philippines, Google Cloud and AI Support subsidized USD 46 million, and big dealings contributed USD 120 million in start-up venture capital funding. Google committed about USD 15 billion to AI centres and digital infrastructure, while large corporations invested over USD 1.2 billion in AI start-ups in India, where AI investment was far greater. Good investment action was also seen in Indonesia, where Google invested over USD 1.7 billion in cloud and AI expansion and private start-up venture capital investments came to around USD 1.95 billion. Overall, the data shows that India is the most popular country amongst the three for AI investments. The Philippines exhibits growth but comparatively smaller investment levels between 2021 and 2025, while Indonesia ranks second. When it comes to AI security volume, India performs substantially better than Indonesia and the Philippines, mostly because to the massive infrastructure commitments made by multinational technology businesses.

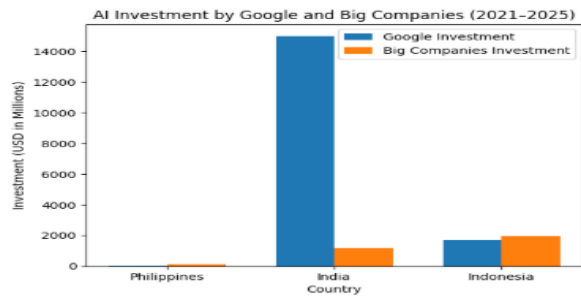


Fig. 1. AI Investment Trends in Indonesia, the Philippines, and India Funding (2021-2025)

The amount of cash allotted to artificial intelligence in the Philippines, India, and Indonesia varies noticeably between 2021 and 2025. Google devoted USD 46 million in cloud and AI services, while big companies gave USD 120 million in start-up funding for AI and technology. This recommends that AI investment in the Philippines has continued relatively low. In contrast, substantially more money was invested in India; Google spent over USD 15 billion on digital infrastructure and AI hubs, and major private firms financed AI start-ups with roughly USD 1.2 billion. Significant investment activity was also observed in Indonesia, where Google invested over USD 1.7 billion in cloud and AI growth and major businesses participated about USD 1.95 billion in start-up ventures. Overall, the data indicates that India makes the largest investments in AI among the three countries. followed by Indonesia. The Philippines, on the other hand, exhibits increasing but relatively smaller investment volumes during the 2021–2025 period.

TABLE IV
OVERALL STATISTICS FOR COMBINED AI INVESTMENT (INDONESIA, THE PHILIPPINES, AND INDIA)

Statistics for One Sample Mean				
	Observation (N)	Mean (USD Millions)	Std. Deviation	Std. Error Mean
AI Investment	6	3336.00	5826.67	2379.45
Percentage	-	28.9%	50.5%	20.6%

Based on six observations, the average AI investment from 2021 to 2025 was USD 3,336.00 million, as shown in Table 3.1. The comparatively high USD 5,826.67 million standard deviation indicates significant variation in AI investment levels among the chosen nations and projects. Dispersion in the sample estimates is further indicated by the USD 2,379.45 million standard error mean. The figure shows the overall idea.

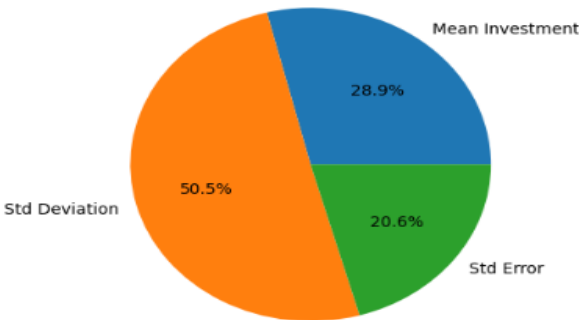


Fig. 2.AI Investment Statistics Breakdown (USD Millions)

Emerging Southeast Asian markets like the Philippines and Indonesia, as well as major nations like India, have shown differing degrees of financial commitment to the development of artificial intelligence.

VI. BUDGET ALLOCATION – PHILIPPINES, INDIA, AND INDONESIA

The below table shows the percentage of government spending on AI research and development in the Philippines, India, and Indonesia compared to total public spending for the years 2021 to 2025.

TABLE VI
GOVERNMENT BUDGET FOR ARTIFICIAL INTELLIGENCE R&D DEVELOPMENT (2021–2026)

Country	Financial Year	Amount of Budget (USD in Millions)	percentage of overall spending
Philippines	2021–22	approximately 650 (USD million)	~0.05
	2022–23	approximately 720 (USD million)	~0.06
	2023–24	797 (USD million)	~0.06
	2024–25	303.3 (USD million)	0.07
	2025–26	approximately 350 (projected growth)	~0.08
India	2021–22	approximately 1,500 (USD million)	~0.06
	2022–23	approximately 1,700	~0.06
	2023–24	3,307.9 (USD million)	~0.08
	2024–25	approximately 660 (USD million)	~0.07
	2025–26	approximately 900 (AI mission expansion)	~0.08
Indonesia	2021–22	approximately 900 (AI mission expansion)	~0.05
	2022–23	approximately 1,000 (AI mission expansion)	~0.05
	2023–24	1,133.9 (AI mission expansion)	~0.06
	2024–25	~1,200	~0.07
	2025–26	~1,350 (growth projection)	~0.08

Source: Press search (<https://nsstc.niar.org.tw/>)

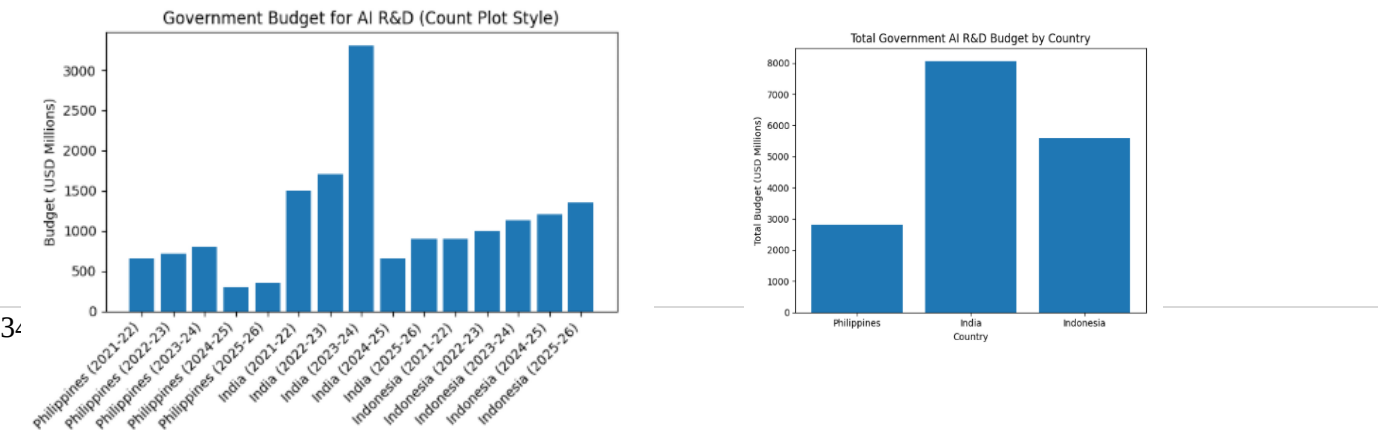


Fig. 3. Government Budget for AI R&D data(2021–2026)

When it comes to government funding for AI research and development between 2021 and 2026, the Philippines, India, and Indonesia differ greatly from one another. Of the three countries, India has the largest level of investment, with allocations increasing from over 1,500 million USD in 2021–2022 to a peak of 3,307.9 million USD in 2023–2024. Ongoing assistance through national AI mission projects comes next. However, changes in following years suggest a shift from wide development to more targeted program-based investments. Between 2021–2022, Indonesia's government invested over 900 million USD on AI; by 2025–2026, that amount had risen to approximately 1,350 million USD. This trend demonstrates an incessant commitment to digital transformation and AI integration, as evidenced by the steadily increasing percentage of overall government spending allotted to AI.

However, investment levels in the Philippines are comparatively smaller and more volatile. The likelihood of budget reallocation or a shift toward more focused AI initiatives is raised by the significant decline to 303.3 million USD in 2024–25, even if funding increased from approximately 650 million USD in 2021–22 to 797 million USD in 2023–24. A slight recovery is expected in 2025–2026. Despite these oscillations, the percentage of overall spending on AI shows a consistent upward trend, indicating that policymakers are becoming more aware of the technology's development. Overall, the data indicates that India leads in absolute investment, Indonesia keeps up its steady growth, and the Philippines is still in its infancy with a varying but constantly increasing strategic focus on funding AI.

VII. CONCLUSION

The analysis, which looks at AI investment trends in the Philippines, India, and Indonesia between 2021 and 2026, reveals notable differences in government funding. India leads with significant investments and strong strategy sponsorship, while Indonesia shows steady and consistent growth. However, the Philippines has less investment and more diversity, which points to the development of an AI ecosystem. Increased use of AI across sectors is associated with more steady and higher investments.

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