NVIDIA's Execution of its APAC Expansion Strategy

Content Table:

NVIDIA: Pioneering the Future of Graphics and AI Technologies

NVIDIA Corporation, founded in 1993 by Jensen Huang, Chris Malachowsky, and Curtis Priem, has been at the forefront of graphics processing technology. The company's significant breakthrough came in 1999 with the invention of the GPU, a pivotal moment that transformed the realm of graphics processing. Over the years, NVIDIA has evolved to become a central figure in the AI revolution, with its GPUs proving to be more efficient than traditional CPUs for AI tasks.

The Impact of NVIDIA GPUs in Various Industries

NVIDIA's GPUs are renowned for their rapid processing of complex graphical tasks, making them indispensable in the video gaming industry for rendering high-quality graphics in real-time. These GPUs are equally vital in the film and creative industries, where they facilitate the generation of detailed 3D animations and visual effects, thereby streamlining the creative process from conception to production.

In the burgeoning field of artificial intelligence, NVIDIA’s GPUs are instrumental for processing the extensive datasets required for training and running AI models. This has led to significant advancements in machine learning and deep learning. The automotive industry also reaps the benefits of NVIDIA's technologies, with GPUs and related platforms powering advanced driver-assistance systems (ADAS) and contributing to the development of autonomous driving technologies.

NVIDIA's Expansion into Data Centers

Recognizing the need for robust computing infrastructure, NVIDIA has expanded into the data center sector. In data centers, NVIDIA's technology underpins complex computations and data processing on a grand scale, crucial for cloud computing and large-scale internet services. NVIDIA enhances data center efficiency through GPUs and advanced networking equipment, optimizing data flow and reducing bottlenecks.

NVIDIA's Operational Model and Commitment to Innovation

NVIDIA operates on a comprehensive model that spans from chip architecture design to the final sale and integration into technological ecosystems. Employing a fabless model, NVIDIA focuses on its core competencies in GPU development and system design, while specialized manufacturers handle production. The company's emphasis on research and development (R&D) ensures continuous innovation to meet the evolving demands of technology markets.

NVIDIA maintains close partnerships with manufacturing giants and tech firms, ensuring that its innovations are timely and effective. The company also supports developers and companies utilizing its products by providing robust developer tools, software libraries, and training programs, enabling customers to fully leverage the power of its GPUs.

Industry Trends and NVIDIA's Strategic Positioning

The semiconductor industry is characterized by continual advancements in chip miniaturization and efficiency, with a growing demand for AI-facilitating chips. Supply chain disruptions have highlighted the need for resilient supply chains and domestic chip production. In the data center industry, the expansion of cloud computing and the rise of IoT have propelled the demand for data center capabilities and edge computing.

NVIDIA is adeptly navigating these industry dynamics, leveraging trends like AI and cloud computing to maintain its leadership and drive innovation in both semiconductor and data center sectors.

NVIDIA's Strategic Moves in Asia-Pacific

Vietnam is enhancing its semiconductor industry by offering incentives to attract overseas investors and tech know-how. NVIDIA could benefit from Vietnam's improving semiconductor production and assembly capabilities, potentially reducing costs and strengthening its supply chain.

Malaysia is emerging as a leader in data centers, with the government promoting the digital economy and focusing on enhancing data center capabilities. NVIDIA's involvement in Malaysia's data center expansion, through supplying advanced GPUs and networking solutions, positions the company as a key player in advancing Malaysia's technological landscape.

NVIDIA's strategic engagements in Malaysia and Vietnam align with broader industry trends, underscoring the Asia-Pacific region's dynamic market potential and opportunities for innovation in high-tech manufacturing and deployment.

NVIDIA Partner Network: Empowering Partnerships for Accelerated Growth

NVIDIA’s visual computing for over a quarter of a century has delivered innovative solutions to complex challenges that standard computers cannot address. The NVIDIA Partner Network (NPN) is an integral part of this journey, designed to foster strong partnerships and drive mutual success in the ever-evolving tech landscape.

Program Overview

The NPN Partner Program is a comprehensive, multi-tiered initiative that enriches partners who deepen their expertise in NVIDIA GPU-accelerated computing. It caters to a diverse range of business models, including value-added reselling, solutions integration, system design and manufacturing, hosted services, consulting, and servicing of NVIDIA products and solutions.

Program Competencies

NPN Competencies are specialized areas that partners can align with to distinguish their expertise and deliver advanced NVIDIA solutions effectively. These competencies are tailored to meet various market needs and include:

1. Compute
2. Compute with DGX

3. Virtualization
4. Visualization
5. Embedded Edge.

By aligning with these competencies, partners can differentiate their offerings and maximize the benefits of the NPN, regardless of their size or market focus.

Business Partnership

NVIDIA is committed to nurturing strong relationships with its partners, believing that a solid partnership is the cornerstone of shared success. The program provides:

1. A dedicated partner management team
2. Business planning and review meetings
3. Access to the NPN Partner ecosystem to broaden capabilities and solution offerings.

Marketing and Sales Support

NVIDIA collaborates with partners to execute effective marketing campaigns and drive awareness. Partners have access to:

1. Marketing resources and campaign assets
2. Marketing development funds
3. Sales leads from NVIDIA campaigns and events
4. Incentives, promotions, and rebates
5. Discounts on demonstration products.

Training and Enablement

To ensure partners are well-equipped with the latest technologies, NVIDIA offers:

1. Self-paced online sales and technical training curriculums
2. Access to the NVIDIA Deep Learning Institute (DLI)
3. Industry-specific vertical training and tools
4. Enablement tools through the NPN Partner Portal.

Service and Support

NVIDIA is dedicated to ensuring customer satisfaction with its solutions and provides comprehensive support to partners, including:

1. Partner technical resources
2. Online support tools
3. Priority technical support.

Recognition and Growth

NPN partners are recognized for their achievements and contributions to driving business success through accelerated computing and software. Insight Enterprises, for instance, was named the 2024 NVIDIA Partner Network Americas Software Partner of the Year for integrating AI into business systems and services.

The NVIDIA Partner Network is a robust platform that empowers partners to excel in the competitive tech industry. By offering a wealth of resources, training, and support, NVIDIA ensures that its partners are well-positioned to meet the demands of today's most challenging machine learning and AI workloads, driving innovation and growth across the entire ecosystem.

NVIDIA Situational Analysis

The execution issue at NVIDIA seems related to the challenges of navigating a rapidly evolving technological landscape, particularly in AI, and the impact of regulatory changes on its business operations. The timing of these issues is influenced by several factors:

1. ***Rapid Technological Advancements and Market Dynamics:*** NVIDIA's shift towards AI and deep learning, as evidenced by the launch of the NVIDIA Blackwell platform, represents a significant technological leap. The company's success in AI has attracted new competitors, including large tech companies and startups, aiming to challenge NVIDIA's dominance. The rapid pace of innovation in AI and GPU technology requires continuous research and development, which can strain execution capabilities as the company must integrate recent technologies into existing systems and ensure these innovations reach the market effectively.
2. ***Intensified Competition:*** NVIDIA's competitive landscape is intensifying, with companies like Intel and AMD (Advanced Micro Devices) advancing their AI and GPU capabilities. This competitive pressure forces NVIDIA to accelerate its product development cycles, potentially straining its execution capabilities. Additionally, the company faces competition from new market entrants and alliances among competitors that could erode its market share.
3. ***Regulatory Challenges:*** The U.S. government's changes to export controls have impacted NVIDIA's ability to export certain AI and GPU products to key markets like China. These regulatory changes have come at a time when NVIDIA is pushing for global expansion, particularly in AI and data center markets. The sudden imposition of export restrictions creates execution challenges related to global sales strategies and impacts revenue streams. (Appendix 2)
4. ***Supply Chain and Manufacturing Concentration:*** NVIDIA's supply chain is concentrated in the Asia-Pacific region, and the company relies on a few key suppliers for wafer fabrication, assembly, testing, and packaging. This concentration can lead to vulnerabilities in the supply chain, affecting the company's ability to execute its manufacturing and distribution plans effectively.
5. ***Intellectual Property and Licensing:*** NVIDIA's business model includes licensing its technology to other companies. Changes in IP (intellectual properties) laws and

enforcement, particularly in foreign authorities, can affect the company's ability to protect its products and IP rights, leading to execution issues related to licensing agreements and potential IP infringements.

6. ***Global Economic Conditions:*** The execution challenges may also be influenced by broader economic conditions, such as market demand fluctuations and the impact of geopolitical tensions on trade and technology partnerships. These external factors can disrupt NVIDIA's strategic plans and require the company to adapt quickly, which can be an execution challenge.

Overall, NVIDIA's execution issues are a confluence of internal strategic shifts towards AI, increased competition, regulatory changes, supply chain concentration, IP management, and external economic conditions. The "why now" aspect is due to the rapid pace of technological change in AI, the recent regulatory actions by the U.S. government, and the ongoing global economic uncertainties that affect trade and market dynamics.

Primary Drivers of Execution Challenge(s)

The execution challenges NVIDIA faces are multifaceted, stemming from both internal strategic shifts and external market pressures. Here are the primary drivers:

1. ***Technological Complexity and Rapid Innovation:*** NVIDIA's strategic pivot towards AI and deep learning, exemplified by the launch of the NVIDIA Blackwell platform, has introduced significant technological complexity. The Blackwell GPU architecture features six transformative technologies for accelerated computing, which are critical for breakthroughs in various fields such as data processing and quantum computing. This rapid pace of innovation requires continuous research and development investment, which was over $45.3 billion since NVIDIA's inception.
2. ***Intense Market Competition:*** NVIDIA's market position is challenged by competitors like Intel and AMD, who are also advancing their AI and GPU capabilities. For instance, NVIDIA's data center business grew by 217% to $47.5 billion in fiscal year 2024, driven by high GPU demand for generative AI and large language models. However, Intel's acquisition of Habana Labs and its development of Gaudi deep learning processors indicate a strengthening competitive landscape.
3. ***Regulatory and Export Control Changes:*** The U.S. government's changes to export controls have affected NVIDIA's ability to export certain AI and GPU products to key markets like China. These regulatory changes, effective immediately for shipments of products like A100, A800, H100, H800, and L40S, could limit NVIDIA's market access and impact revenue streams.
4. ***Supply Chain Concentration:*** NVIDIA's supply chain is concentrated in the Asia-Pacific region, relying on a few key suppliers for wafer fabrication, assembly, testing, and packaging. This concentration can lead to vulnerabilities in the supply chain, affecting the company's ability to execute its manufacturing and distribution plans effectively.

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Situational Context

NVIDIA's situational context is multifaceted, encompassing entrepreneurial initiatives, multi-business operations, strategic restructuring, mergers, and acquisitions (M&A), alliances, global expansion, growth strategies, and multi-level decision-making processes. The company's approach and strategic decisions in these areas are supported by its financial performance, technological advancements, and partnerships.

1. ***Entrepreneurial Initiatives:*** NVIDIA's entrepreneurial spirit is evident in its continuous pursuit of innovation, particularly in AI and deep learning. The company's success in AI was catalyzed by the AlexNet neural network, which marked the "Big Bang" moment of AI in 2012. NVIDIA's entrepreneurial initiatives are further demonstrated by its investment in research and development, totaling over $45.3 billion since inception, leading to the creation of groundbreaking technologies like the GPU, CUDA, and AI-specific processors.
2. ***Multi-Business Operations:*** NVIDIA operates across several business segments, including Data Center, Gaming, Professional Visualization, and Automotive. (Appendix 4) Each segment leverages NVIDIA's GPU technology and software platforms to deliver specialized products and services. For instance, the Data Center segment focuses on AI, data analytics, and scientific computing, while the Gaming segment caters to PC gaming and cloud gaming services.
3. ***Restructuring and M&A:*** NVIDIA's strategic restructuring and M&A activities are aimed at enhancing its technological capabilities and market reach. A notable example is the acquisition of Mellanox in 2020, which expanded NVIDIA's innovation to include networking and led to the introduction of the data processing unit (DPU). This acquisition allowed NVIDIA to power over 50% of the world's 500 biggest computers and cover every computer producer and major cloud service provider.
4. ***Alliances:*** NVIDIA has formed alliances with major cloud providers, server makers, and leading AI companies, such as Amazon Web Services, Dell Technologies, Google, Meta, Microsoft, OpenAI, Oracle, and Tesla. These partnerships are crucial for the adoption and integration of NVIDIA's technologies, including the Blackwell GPU architecture, into various industries and applications.
5. ***Global Expansion:*** NVIDIA's global expansion is facilitated by its partnerships with cloud service providers and its network of Blackwell partners, which include companies like

AWS (Amazon Web Services), Google Cloud, Microsoft Azure, and Oracle Cloud Infrastructure. The company's products and services are available worldwide, supporting sovereign AI clouds and a wide range of servers based on Blackwell products.

6. ***Growth Strategies:*** NVIDIA's growth is driven by its full-stack computing strategy, which includes chips, systems, software, and services. The company's data center business grew by 217% to $47.5 billion in fiscal year 2024, representing 78% of total revenue. (Appendix 2) This growth is supported by the development of generative AI and large language models, which have been trained and developed using NVIDIA GPUs.
7. ***Multi-Level Decision Context:*** NVIDIA's decision-making context involves multiple levels of strategy, from ground-level technology development to high-level strategic mergers and market expansions. The company must navigate complex technological landscapes and global market dynamics to maintain its leadership position in AI and computing.

In summary, NVIDIA's situational context is characterized by its entrepreneurial drive for innovation, diversified business operations, strategic restructuring through M&A, alliances with key industry players, global expansion efforts, aggressive growth strategies, and multi-level decision-making processes. These factors, supported by the company's financial strength and technological leadership, position NVIDIA to continue thriving in the AI revolution and beyond.

NVIDIA's Strategic Expansion in Southeast Asia: Fostering Growth and Innovation

NVIDIA, a global leader in graphics processing and artificial intelligence technologies, is strategically expanding its presence in the Southeast Asia region. This expansion is driven by the unique macroeconomic conditions and technological advancements in countries like Singapore, Thailand, Indonesia, and Malaysia. Each of these nations offers distinct opportunities and challenges that NVIDIA is leveraging to enhance its market position and operational efficiency.

Singapore: A Hub for Data Centers and Cloud Services

Singapore has recently lifted a moratorium on new data center building, presenting significant opportunities for growth in conventional cloud services. The country's stable environment, robust infrastructure, and favorable business policies make it an attractive location for tech investments. NVIDIA has capitalized on this by generating 15% of its revenue from Singapore in the third quarter of 3023 (Appendix 3), highlighting the strategic importance of this market. The collaboration with Singtel to bring NVIDIA AI platforms to businesses further underscores the pivotal role Singapore plays in NVIDIA's APAC strategy.

Thailand: Attracting Semiconductor Investments

Thailand's government is actively courting semiconductor firms through tax incentives and economic development initiatives. The country's participation in forums like the APEC CEO Summit demonstrates its openness to partnerships, making it an appealing destination for

investment. NVIDIA can leverage these conditions to expand its semiconductor activities and strengthen its presence in the region.

Indonesia: Advancing in AI and Technological Development

Indonesia aims to achieve sovereign AI capabilities and has initiated significant projects to establish AI centers. The growing digital economy and increasing data demand enhance Indonesia's attractiveness for tech investments. NVIDIA's partnership with Indosat Ooredoo Hutchison to improve local telecommunications infrastructure and the establishment of a $200 million AI Center in Solo are pivotal steps towards deepening NVIDIA's technological imprint in Indonesia.

Malaysia: Leading in AI and Data Center Operations

Malaysia's proactive stance on AI, highlighted by the Malaysia AI Roadmap, positions the country as a promising landscape for NVIDIA's AI industry expansion. The collaboration with YTL's power unit to develop a $4.3 billion AI cloud and supercomputer infrastructure exemplifies NVIDIA's commitment to enhancing Malaysia's AI capabilities. Additionally, Malaysia's proximity to Singapore allows NVIDIA to utilize it as an extended hub, maximizing data center potential and leveraging local manufacturing expertise.

NVIDIA's Executed Strategy in APAC

NVIDIA's growth strategy in the APAC region is multifaceted:

1. ***Development of Talent Pool:*** Through the NVIDIA Developer Program, the company provides resources to over 2 million developers in APEC economies, fostering a skilled talent pool that can innovate using NVIDIA technologies.
2. ***Collaboration Strategy:***
    a. In Singapore, collaborations with the National Supercomputing Centre and the Ministry of Education are aimed at enhancing AI capabilities in sectors like healthcare and climate science.
    b. In Indonesia, the partnership with Indosat Ooredoo Hutchison and the AI Center initiative are set to boost AI development and digital infrastructure.
    c. In Japan, NVIDIA supports AI advancements through significant R&D initiatives and partnerships aimed at enhancing AI education and capabilities.

Strategic Importance of Other APAC Markets

While Singapore serves as a significant hub, the need to focus on other APAC markets like Malaysia and Vietnam is driven by several factors:

1. ***Singapore's Constraints:*** Limited land and power resources in Singapore necessitate the exploration of other markets with more expansive opportunities.
2. ***Vietnam's Potential:*** Amid US-China trade tensions, Vietnam offers a geopolitically favorable environment for semiconductor manufacturing and design. NVIDIA's

investment in R&D and manufacturing facilities in Vietnam is aimed at tapping into the local skilled workforce and strengthening the semiconductor supply chain.

Conclusion

NVIDIA's strategic initiatives across Southeast Asia are not only enhancing its market presence but are also pivotal in advancing the region's technological landscape. By aligning its strategies with the macroeconomic conditions and technological ambitions of each country, NVIDIA is poised to remain at the forefront of the global tech industry, driving innovation and growth in the APAC region.

NVIDIA Southeast Asia Strategy Map (Appendix 1)

Vision and Strategic Objectives

NVIDIA's vision for the Southeast Asia market is to establish itself as the market leader in artificial intelligence (AI) and semiconductor chip design and manufacturing. The company's strategic plan involves initially focusing on Singapore and then replicating its success in Malaysia, Vietnam, Indonesia, and Japan. NVIDIA aims to be the driving force behind AI, revolutionize modern graphics, bridge the physical and digital worlds, fuel automotive growth, transform healthcare, and pioneer accelerated computing to enhance the socio-economic progress of Southeast Asia.

Leveraging Macroeconomic Conditions

The strategy map underscores how NVIDIA can capitalize on the favorable macroeconomic conditions in Southeast Asia. These include government incentives, a growing digital economy, and an increasing demand for AI and data center services. However, these opportunities are accompanied by risks such as the need for a skilled workforce, energy and raw material requirements, and geopolitical factors.

Organizational Capacity and Workforce Development

NVIDIA has demonstrated its commitment to building organizational capacity by supporting over 5,000 startups in APEC economies and training more than 115,000 individuals through its Deep Learning Institute (DLI). Investments in supercomputers in Malaysia and Vietnam, along with partnerships with telecom giants, have been crucial in making NVIDIA's data center services accessible to customers. Government support in the form of tax reductions and subsidies has also been instrumental in NVIDIA's operations.

Risk Mitigation and KPI Monitoring

To mitigate risks associated with scaling operations, NVIDIA must closely monitor key performance indicators (KPIs) such as employee development plans, technology deployment, training indices, and partner satisfaction. The company must also navigate challenges related to the learning curve for new technologies, the availability of skilled labor, and the reliance on government and local partners.

Process Efficiency and Product Development

NVIDIA's internal processes lead to the creation of foundational models like Selene, which incorporates Southeast Asia's diverse cultural and linguistic elements. This enables startups to build generative AIs more efficiently. NVIDIA's focus on cost improvements through economies of scale and government assistance is critical, but it must be cautious not to overextend its product offerings. Monitoring brand awareness, cost efficiency, and new product sales will be essential.

Customer Value and Market Penetration

The development of products like Selene positions NVIDIA to offer significant value to its B2B customers, increasing the switching costs and fostering customer loyalty. NVIDIA must ensure that the introduction of new products does not overwhelm customers and should keep track of customer satisfaction, net promoter score (NPS), and customer churn rate to gauge market sentiment.

Revenue Growth and Market Expansion

NVIDIA's strategy has already yielded impressive results, with 15% of its revenue, amounting to $2.7 billion, coming from Singapore. This represents a 404% year-over-year growth, surpassing NVIDIA's overall growth rate. The company must be cautious in assuming that this success can be directly replicated in other countries, as the revenue processed in Singapore may not solely represent the local market. (Appendix 2) (Appendix 3)

Conclusion

NVIDIA's strategy map for Southeast Asia outlines a clear vision and strategic objectives to become a market leader in AI and semiconductor technologies. By leveraging regional macroeconomic conditions, developing organizational capacity, and focusing on process efficiency, NVIDIA aims to deliver products that add value to customers and drive significant revenue growth. The company's ability to adapt and monitor KPIs will be crucial in replicating its success across the region.

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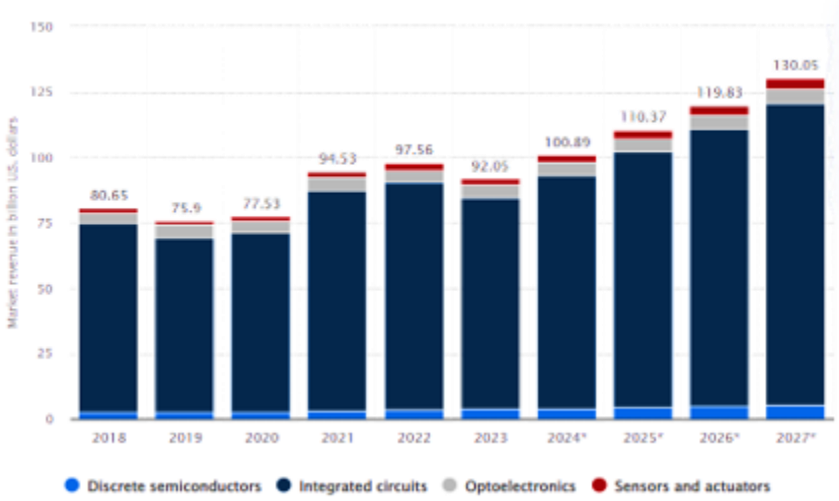
NVIDIA Southeast Asia Data Center Market Overview

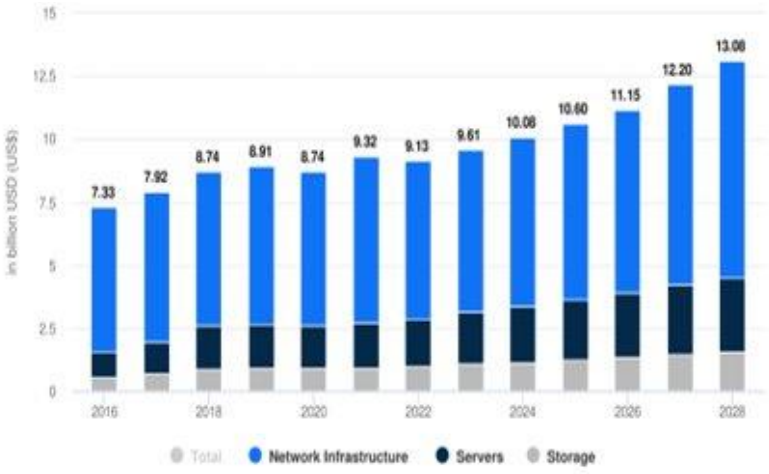
Southeast Asia Data Center Market Forecast

The data center market in Southeast Asia is experiencing significant growth, driven by the increasing demand for cloud services and the expansion of digital data. Factors such as the rise of e-commerce, digital banking, and an overall increase in digital activities contribute to this growth. The region's strategic location also makes it an attractive hub for data center investments by global and local companies alike.



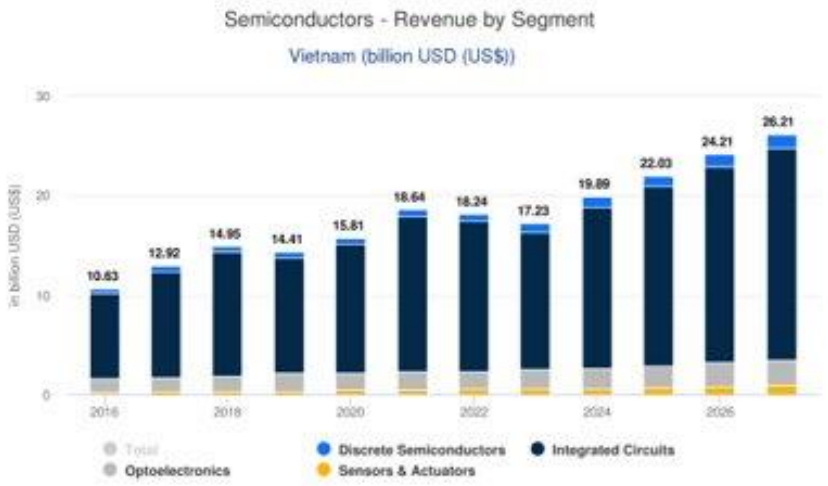
Singapore Data Center Market

Singapore stands out in the Southeast Asia region with its highly developed infrastructure and favorable business environment, making it a key player in the data center market. The country's robust connectivity, reliable power supply, and strong government support for technology initiatives have attracted major data center operators. Singapore's market is characterized by the presence of leading global data center providers, which underscores its strategic importance as a data hub in Asia.



Vietnam Semiconductor Market

The semiconductor market in Vietnam is showing promising growth, with increasing investments from foreign and domestic players. The government's supportive policies, including tax incentives and investment in tech parks, are significant factors driving this growth. The market's revenue projections are optimistic, reflecting the potential for Vietnam to become a significant player in the global semiconductor industry.



Malaysia Data Center Market

Malaysia is emerging as a significant player in the data center market within Southeast Asia, thanks to its strategic geographic location, political stability, and government initiatives aimed at boosting the digital economy. The country is focusing on enhancing its data center capabilities through investments in high-speed internet infrastructure and sustainable energy resources. This commitment is positioning Malaysia as a regional hub for data centers, attracting investments from major technology firms.

Key Data Points and Market Trends

1. ***Southeast Asia:*** The region is becoming a focal point for data center investments due to its strategic location and growing digital economy.
2. ***Singapore:*** Known for its advanced infrastructure, Singapore attracts major data center operators, playing a crucial role in the region's data management and cloud services.

3. ***Vietnam:*** With supportive government policies and growing foreign investment, Vietnam's semiconductor market is set to expand, contributing to the global supply chain.
4. ***Malaysia:*** Malaysia's focus on sustainable and high-speed data center operations is making it a preferred destination for regional data center hubs.

Conclusion

The data center and semiconductor markets in Southeast Asia are on a trajectory of rapid growth and development. Singapore's established market, Vietnam's emerging semiconductor industry, and Malaysia's strategic initiatives in data center expansion collectively highlight the region's increasing importance in the global tech landscape. These developments present substantial opportunities for investors and companies looking to capitalize on the region's technological advancements and favorable business climates.

Balanced Scorecard for NVIDIA's APAC Expansion Strategy

Perspective	Objective	Measure	Target	Initiative
Financial	Increase revenue and market share in the APAC region	Revenue growth rate	Achieve a 20% annual growth rate in the APAC region	Expand data center operations and partnerships in key markets like Singapore, Malaysia, and Vietnam
		Market share	Increase market share by 15% in the next 5 years	Introduce tailored AI solutions and GPU products for the APAC market
Customer	Enhance customer engagement and satisfaction	Customer Satisfaction Score (CSAT)	CSAT of 85%	Implement customer feedback loops and enhance support services
	Increase market penetration	Number of new contracts/customers in the APAC region	Increase customer base by 25% annually	Develop strategic partnerships and collaborations with local businesses and governments
Internal Process	Improve operational efficiency and innovation	Product development cycle time	Reduce cycle time by 30%	Streamline R&D processes and adopt agile methodologies
	Enhance supply chain resilience	Supply chain uptime	Maintain 99% uptime	Diversify suppliers and increase local sourcing options
Learning and Growth	Develop skills and knowledge of	Training completion rates	90% completion rate for training programs	Expand the NVIDIA Deep Learning Institute

	the APAC workforce			(DLI) and increase training programs
	Foster a culture of innovation and continuous improvement	Number of innovation-driven projects initiated	Initiate 10 new projects each year	Encourage employee-driven innovation projects and provide resources for experimentatio

Alignment Model (Mckinsey's 7s)

McKinsey's 7S model, which includes Shared Values, Strategy, Structure, Systems, Style, Staff, and Skills.

Governance & Culture: NVIDIA's governance and culture are centered around innovation, technological leadership, and a commitment to fostering growth in the APAC region. The company's vision to be the market leader in AI and semiconductor technologies is a core value that drives its strategic decisions and actions.

Strategy: NVIDIA's strategy in the APAC region is to leverage macroeconomic conditions, such as government incentives and a growing digital economy, to establish a strong market presence. The company focuses on developing talent, collaborating with local partners, and investing in infrastructure to support its data center and AI initiatives.

Organizational Structure: NVIDIA operates with a multi-business organizational structure that spans across various segments including Data Center, Gaming, Professional Visualization, and Automotive (Appendix 4). This structure allows the company to leverage its GPU technology and software platforms to deliver specialized products and services tailored to each segment.

Systems & Processes: NVIDIA has implemented systems for risk mitigation and KPI monitoring to ensure the effective execution of its strategies. The company also relies on its efficient internal processes for product development, such as the creation of foundational models that incorporate Southeast Asia's diverse cultural and linguistic elements.

Metrices: NVIDIA's metrices are characterized by its entrepreneurial spirit and collaborative approach. The company maintains strong partnerships with manufacturing giants, tech firms, and cloud service providers, which is crucial for the adoption and integration of its technologies into various industries and applications.

Leadership & People: NVIDIA is committed to workforce development, supporting over 5,000 startups and training more than 115,000 individuals through its Deep Learning Institute (DLI). The company's focus on building a skilled talent pool is essential for driving innovation using NVIDIA technologies.

Capabilities: NVIDIA's skills are evident in its technological advancements and ability to navigate complex global market dynamics. The company's expertise in AI, GPU technology, and data center operations positions it to maintain leadership in the tech industry and drive growth in the APAC region.

McKinsey's 7S Model Application

When applying the conclusion to McKinsey's 7S model, it becomes clear that NVIDIA's strategic expansion in Southeast Asia is a well-coordinated effort that aligns with the company's core values and leverages its strengths across all seven areas. NVIDIA's shared values of innovation and leadership underpin its strategy to capitalize on regional opportunities, supported by a structure that enables diversified operations. The systems in place for risk management and efficiency, along with the collaborative style of operation, ensure that the company can effectively execute its plans. The staff development initiatives and the skills possessed by NVIDIA are critical for sustaining its competitive edge and achieving its strategic objectives in the APAC region. All the above factors are supported by the growth that Nvidia has observed in Singapore where there grew two times year on year compared to the overall growth of Nvidia. The success of Singapore market motivates Nvidia to pursue the entire southeast Asia market and in turn capturing both western and southeastern fronts.

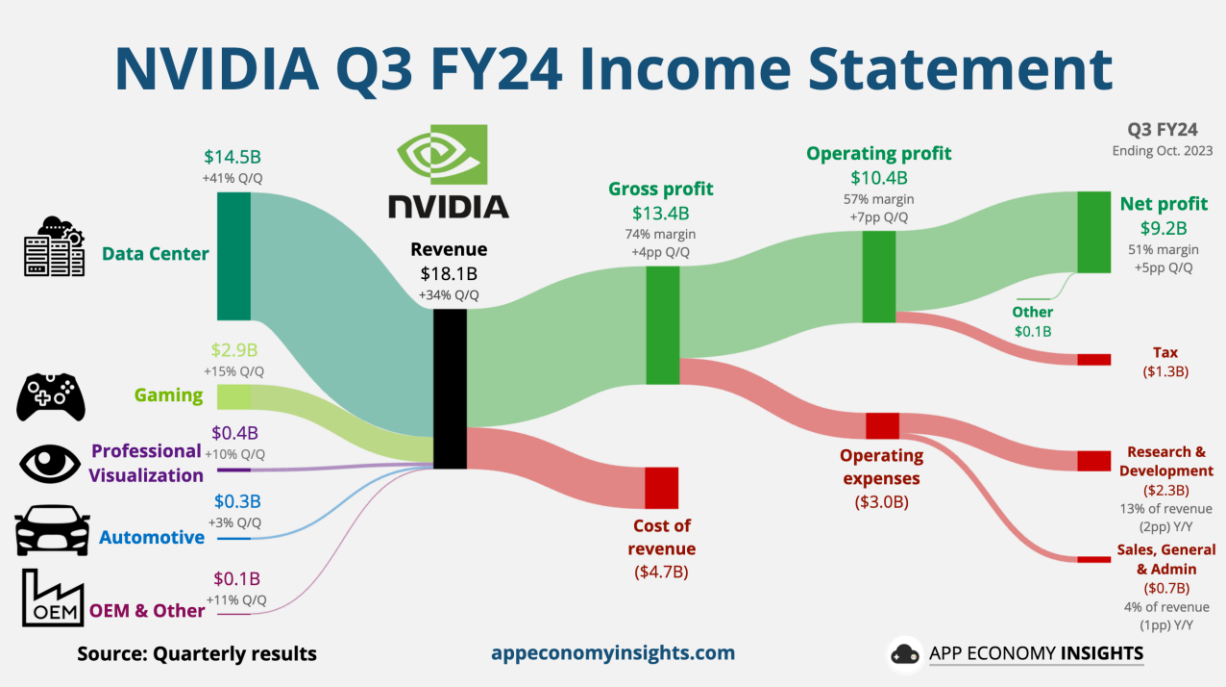
Appendix:

[I] Strategy Map for Southeast Asia

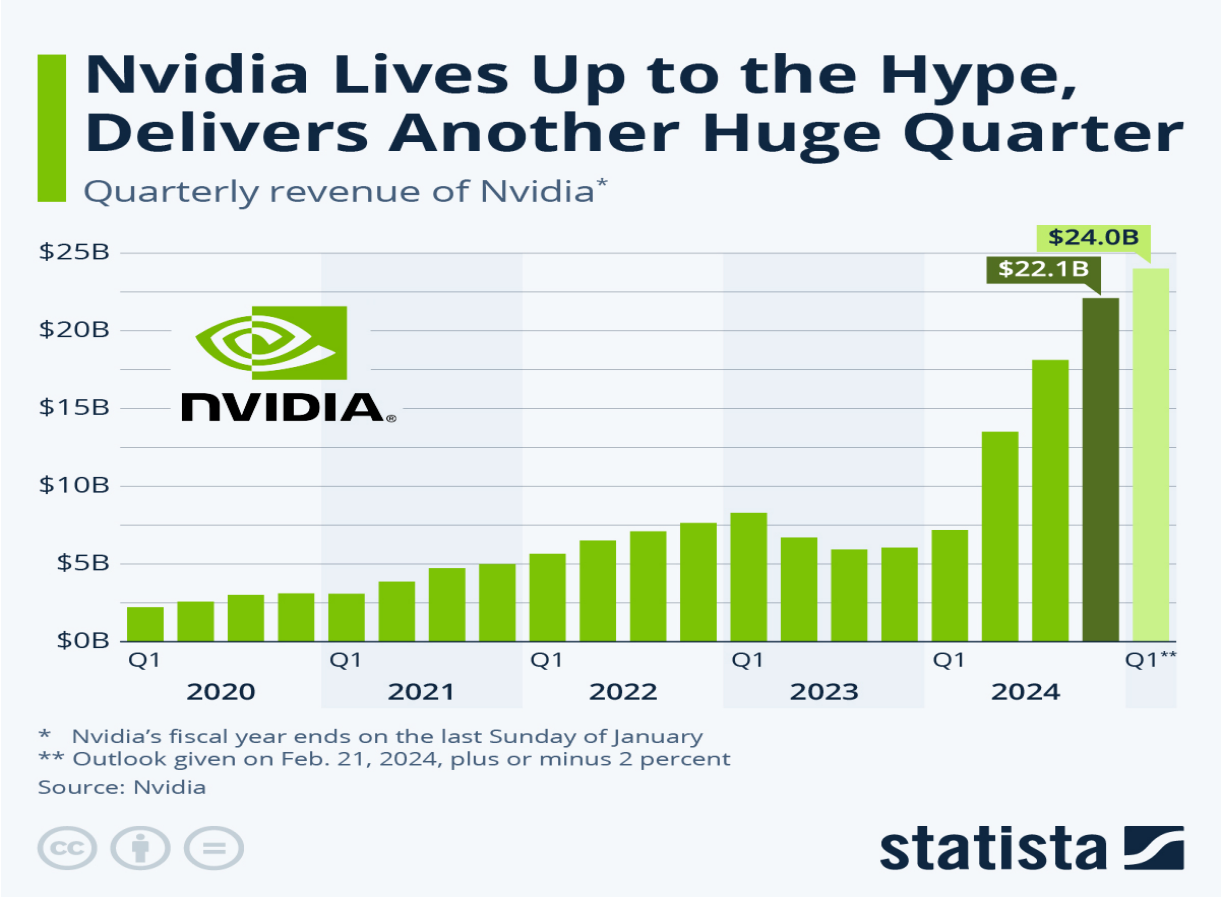
Vision	Market Leader for artificial intelligence (AI) and semiconductor chips design and manufacturing		
Purpose	Be the Engine of AI, Reinvent modern Graphics, Connect Physical & Digital Worlds, Drive Automotive growth, Supercharge healthcare and Be Pioneer in Accelerated Computing that enhances socio-economic progress, of Southeast Asia.		
Strategic Priorities	Build Data Centers & Supercomputers	Provide Compute Resources & ML Frameworks	Build Network Capabilities & Innovation
Strategic Results	Enhance the access to Big Data to enable secure, efficient and reliable real time processing with reduced training time.	Provide a Base Model (Selene) for SEA region (11 languages) for generative AI startups to enhance the ecosystem.	Fast connectivity through 5G options for enabling access to data centers resulting in more Innovation and Research,

Strategic Objectives	SINGAPORE (In- Progress)	VIETNAM & MALAYSIA (Future)	KPIs	Risks
Financial Performance	Increase Revenue $2.7 Bn in Q3 2023-24 Increase Profitability $600 per chip Decrease Operating Costs	Decrease in operating costs Market Share Capture Higher customer referrals	In-Progress • Net profit • Operating costs • Revenue in target markets Future • Return on assets • Market share capture	• A lot of expectation on the replicating the Singapore market, which could backfire because Singapore is where most of the companies are headquartered. • Dependency on historical data
Product/ Customer Perspective	Help build generative AIs Rollout of Mass-produced GPUs & TPUs Improve B2B Customer Satisfaction	Help build better trained ML models Improve NVIDIA's Market Perception Improve B2B Customer Satisfaction	In-Progress • % Market share index • % Customer satisfaction index • Customer Churn Rate Future • Net Promoter Score (NPS) • Conversion Rate	• Initial rollout in nascent market if not done with caution could result in degradation of brand value. • Learning curve of businesses that use the services of Nvidia. • Overwhelming the market with too many products.
Internal Processes	Build & Optimize the base model (Selene) Improve Offering Selection Establish partnerships(Cloud services) Improve Cost Control (Secure government grants or subsidies)	Rollout base model Selene Improve Information Services Establish partnerships (Telecom) Improve Cost Control (tax incentives)	In-Progress • New products as % of sales • Brand awareness score • Cost efficiency index Future • New products deployed as % of sales • Partner Satisfaction Index	• Quality and Source of the data used for training. • Government could change regulations at any point • A lot rides on the success of the base model Selene. • Partners holding true to their word.
Organisational Capacity (People)	Improve Knowledge and Skills (Nvidia tools access to developers) Improve Technology (Supercomputers,Tele Commu.) Improve Value Chain with government support	Highly skilled cheap labour Build data Centers & Supercomputers Improve Supply Chain (chip designing & chip-making)	In-Progress • Employee development plans • Technology training index Future • Employee development plans • Technology deployment index	• The ecosystem lacks skilled workforce and these workforce need a lot of training. • Energy requirements and semiconductor resources required are huge. • Natural calamities like the series of earthquakes in Taiwan.

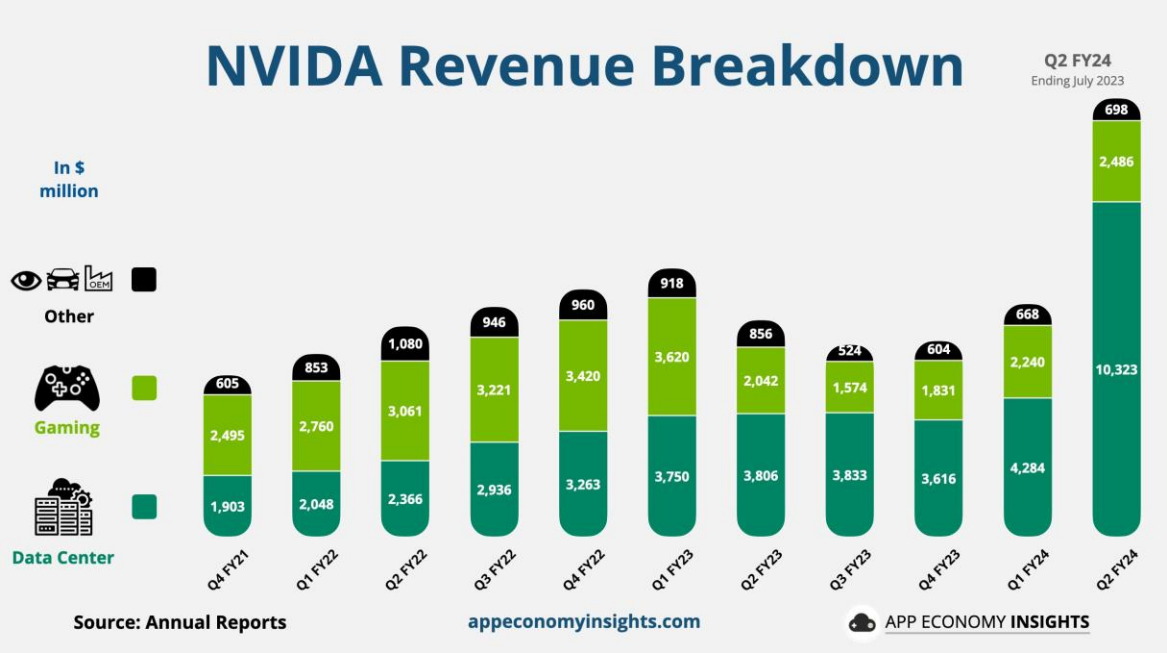
[II] Quarter 3 Income Statement



[III] Quarterly revenue 2020-2024



[IV] Revenue Breakdown



References:

- https://nvidianews.nvidia.com/news/nvidias-new-ampere-data-center-gpu-in-full-production
- https://insightssuccess.com/nvidias-evolution-from-gaming-powerhouse-to-ai-leader/
- https://kpmg.com/sg/en/home/insights/2023/02/global-semiconductor-industry-outlook-for-2023.html
- https://www.deloitte.com/na/en/Industries/tmt/perspectives/semiconductor-industry-outlook.html
- https://www.mckinsey.com/industries/semiconductors/our-insights/generative-ai-the-next-s-curve-for-the-semiconductor-industry
- https://fia.mpi.gov.vn/en/Single/MenuID/30ed8984-6d18-48b5-af2a-757cc6c65d90
- https://asemconnectvietnam.gov.vn/default.aspx?ZID1=8&ID8=135063&ID1=2
- https://www.datacenterdynamics.com/en/marketwatch/mdec-and-microsoft-fast-track-malaysias-aspirations-as-the-digital-hub-of-asean/
- https://opengovasia.com/2021/07/19/mdec-announces-new-digital-strategy-for-malaysia/
- https://blogs.nvidia.com/blog/apec-summit/
- https://www.nasdaq.com/articles/silicon-valley-2.0-nvidias-revenue-share-from-this-tiny-asian-island-nation-rocketed
  400#:~:text=One%20peculiarity%20about%20the%20company's,filing%20by%20the%20chipmaker%20revealed.
- https://finance.yahoo.com/news/nvidia-expands-global-reach-collaborates-204601582.html
- https://www.marketwatch.com/story/nvidia-ceo-suggests-malaysia-could-be-ai-manufacturing-hub-as-southeast-asia-expands-data-centers-d3fef81a
- https://tuoitrenews.vn/news/education/20240301/first-university-in-vietnam-owns-nvidia-dgx-a100-ai-supercomputer/78524.html#:~:text=The%20University%20of%20Information%20Technology%20(UIT)%20under%20the%20Vietnam%20National,seven%2Dnanometer%20chip%20ever%20built.

- https://www.businessinsider.com/nvidia-ai-chip-semiconductors-tsmc-intel-jobs-arizona-2024-2
- https://www.reuters.com/technology/nvidia-ceo-plans-expand-partnership-with-vietnam-support-vietnam-ai-development-2023-12-11/
- https://www.siliconexpert.com/blog/latest-updates-taiwan-earthquake-impact-on-semiconductor-supply-chain/#:~:text=The%20quake%20struck%20at%20around,evacuated%20plants%20after%20the%20quake
- https://www.crn.com/news/components-peripherals/2024/analysis-how-nvidia-surpassed-intel-in-annual-revenue-and-won-the-ai-crown
- https://nvidianews.nvidia.com/news/nvidia-blackwell-platform-arrives-to-power-a-new-era-of-computing
- https://www.tomshardware.com/tech-industry/artificial-intelligence/elon-musk-says-the-next-generation-grok-3-model-will-require-100000-nvidia-h100-gpus-to-train
- https://s201.q4cdn.com/141608511/files/doc_financials/2024/q4/1cbe8fe7-e08a-46e3-8dcc-b429fc06c1a4.pdf