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IT Spending in Private Education: Global Benchmarks, Value, and Strategy for NHG

IT Spending Benchmarks by Country (as % of Revenue)

This section compares typical annual IT expenditure (as a percentage of revenue) for private education institutions across key geographies. These figures are drawn from industry surveys, public data, and informed estimates, segmented by country and context.

Country	Typical IT Spend (% of Revenue)	Range	Notes	Source	Confidence
USA	**~4–5%** (overall)	2% – 8%	Higher education median ~4.2% [1]. Large research universities spend ~3.3–3.6% [2], smaller privates ~4.4–4.5%. K-12 private schools often <3%. Digital leaders can reach upper range (~8%).	EDUCAUSE (2015) [1] [2]	High
Malaysia	**~2–4%** (estimated)	1% – 5%	Limited public data. Private universities and school groups in SE Asia tend to spend less than global average on IT. Likely low due to lower budgets and cheaper labor. Some top-tier institutions may approach ~4%.	HolonIQ (global avg <4%) [3] [4]	Medium
Philippines	**~2–3%** (estimated)	1% – 4%	Generally lower IT investment; many private schools in early digital adoption stage. Cost constraints and reliance on basic infrastructure keep spend modest. A few innovative universities may invest more (3–4%).	HolonIQ (global context) [3]	Low

Country	Typical IT Spend (% of Revenue)	Range	Notes	Source	Confidence
Thailand	**~2–4%** (estimated)	1% – 5%	Similar to Malaysia: private universities and college networks are adopting modern campus systems, but typical IT spend remains a small fraction of revenue. Elite international schools or universities may be on higher end.	IDC APAC University survey (trend data) [5] [6]	Medium
Indonesia	**~1.5–3%** (estimated)	1% – 4%	Historically low education IT spend. Most private colleges allocate minimal budgets for IT, though EdTech startups are growing. Pandemic pushed more digital tools, inching some institutions toward ~3% of revenue for IT.	World Bank (EdTech context) [3]	Low
China	**~3–5%** (varies)**	2% – 6%	**Wide variation**: Private university groups traditionally <3%, but major private **ed-tech/tutoring firms** invest heavily (>10% on R&D/tech). e.g. TAL Education pivoted to AI with significant R&D spend, fueling 50% revenue growth [7] [8]. Overall, **digital leaders** may spend ~5% or more, while others lag.	Gartner; Company filings (TAL) [7] [8]	Medium
Vietnam	**~1–2%** (current est.)	1% – 3%	IT spend by private edu groups is currently very low. Most Vietnamese private universities have basic IT (labs, office IT) but limited digital platforms. Government pushing digital transformation, so this may rise. A leading group aiming for modernization might target >3% in coming years.	*No published benchmark; estimated from regional peers*	Low

Definition: *"IT Spend" here generally includes all information technology-related operating and capital expenses: IT staff salaries, hardware & network infrastructure, software licenses and SaaS subscriptions, maintenance and support, cybersecurity, data systems, and digital learning platforms. It may also include capital investments in new systems (e.g. ERP, LMS) and emerging tech (AI, analytics) if amortized over budgets.* We note that global education on average allocates <4% of expenditures to technology [3], so values ~5% or higher indicate very tech-forward institutions.

Observations: Developed markets like the US have higher IT spend ratios (mid-single-digits) due to more mature digital infrastructure and higher labor costs, whereas emerging markets in SE Asia cluster in the low-single-digits. Even within countries, **larger institutions don't always spend more percent** – for instance, wealthy U.S. research universities spend ~3.5% on IT (but in absolute $$ this is high), while smaller colleges spend a higher percent (~4–5%) to meet baseline needs [2]. K-12 school networks typically spend less proportionally than universities, given their smaller tech programs and reliance on teaching staff over systems. For-profit education companies might spend aggressively on student-facing tech if it drives growth (e.g. online program delivery), whereas non-profits may underinvest due to budget limits – this leads to significant variance by **business model**. The data above come from a mix of sources; confidence is highest for U.S. benchmarks (extensive studies) and lower for countries where public data is scarce (estimates marked accordingly).

IT Spend Definition Comparison

Not all institutions define "IT spending" the same way. Below is a comparison of different definitions and scopes of IT spending, what they include, and their usage and risks. Clarity on definition is crucial when benchmarking, as inconsistent definitions can lead to misleading comparisons.

Definition	What's Included	Common Use	Risks	Fit for Education?
Total IT Spend (All-in)	**All costs** related to information technology, both **Opex and Capex**. This includes IT department staff salaries, hardware purchases, network infrastructure, data centers or cloud services, software licenses and subscriptions, vendor IT services, security tools, maintenance contracts, and IT project capital expenditures (amortized). May also include digital learning platforms and classroom tech.	Used for holistic budgeting and benchmarking across industries. Gives full picture of tech investment as % of revenue or expenses [9].	May lump one-time investments with ongoing costs; can spike in project years. Different accounting treatments (capital vs operating) can distort comparisons. Also, some "IT" spend may be hidden in academic or other budgets (shadow IT), leading to undercounting [10].	**Yes (Recommended).** Provides the broadest view. For education groups, include academic tech (LMS, smart classrooms) in addition to administrative IT. Need to adjust for one-off capex vs recurring spend.
IT Operating Expense (Opex Only)	Only recurring **operational expenses** on IT – e.g. IT staff, support contracts, subscriptions, electricity for data centers, telecom. Excludes capital expenditures on major systems or hardware (which would be depreciated separately).	Used in nonprofit/ government budgeting where operating budget is planned separately from capital. Can be expressed as % of operating budget [9].	Misses large periodic investments (e.g. new ERP system) which might be critical for strategy but treated as capex. Also, definitions of what counts as IT Opex vary (e.g. does a cloud SaaS subscription count as Opex IT? Usually yes).	**Partially.** Useful for managing annual budgets (e.g. "IT Opex is 5% of operating costs"). But not sufficient for strategic view; an institution could appear to spend little if leasing or capitalizing costs elsewhere.

Definition	What's Included	Common Use	Risks	Fit for Education?
Digital/ Innovation Spend	A narrower concept focusing on **new digital initiatives**: spending on developing new digital products, advanced analytics, AI projects, mobile apps, student-facing tech innovations, etc. Often corresponds to the "Grow" and "Transform" categories of IT budget [11]. Excludes "keeping-the-lights-on" costs.	Used in CIO portfolio management to ensure a portion of IT spend is driving innovation (e.g. Gartner's Run/ Grow/Transform ratios: ~75% Run, 25% Grow+Transform on average [11]). Also in tech-forward orgs to track R&D.	No standard definition – some count only project budgets, others include R&D staff costs. May undercount foundational upgrades (which are needed for innovation). If taken as % of revenue, can be misleading (better as % of IT budget).	**Yes, as a supplement.** Education groups should monitor how much of IT spend goes into innovation vs maintenance. Leading universities allocate >25% of IT budget to "grow/ transform" (new capabilities) [12] [11]. But this shouldn't replace tracking total IT spend.
Educational Technology (EdTech) Spend	Spending specifically on **teaching and learning technologies** – e.g. learning management systems, online content platforms, virtual labs, classroom AV equipment, student devices, etc. May also include tech training for faculty and students. Sometimes separated from core IT infrastructure.	Used by academic leaders to ensure investment in direct learning outcomes. E.g. an EDUCAUSE study found ~10% of total campus IT spending goes to direct educational technology services [13].	Definitional fuzziness: is Zoom for classes "EdTech" or general IT? Potential double counting or omissions if EdTech is managed outside central IT. Also, comparing EdTech % across institutions is hard (different pedagogical tech adoption).	**Yes (for internal planning).** It's helpful to earmark the portion of IT spend that directly impacts teaching and student learning. In private education, ensuring some budget (perhaps 5–15% of IT spend [13]) targets EdTech can drive student experience. But for benchmarking, roll into total IT to avoid confusion.

Definition	What's Included	Common Use	Risks	Fit for Education?
IT Staff Spend	Personnel costs for IT department (salaries, benefits, contractors). Sometimes expressed as % of total IT spend or per user supported.	Used to gauge labor vs non-labor split. In education, staffing can be 40–60% of IT budget (for helpdesk, sysadmins, developers, etc.). Also used in metrics like "people supported per IT staff" [14] [15].	Doesn't reflect total investment in services or innovation. High staff % could mean either strong support or inefficiency (if too many staff for outdated systems). Low staff % could mean heavy outsourcing or inadequate support.	**Yes (internally).** Track to ensure right talent mix. E.g. student/staff ratios should be reasonable (Educause median ~160 people per IT staff in mid-sized institutions) [16]. But not a standalone definition of IT spend – use as a sub-metric.

Alternate Definitions and Limitations: Some organizations draw a line between "IT" and "Digital". For example, a group might label core infrastructure and administrative systems as "IT spend," but investments in new online programs or AI-powered learning platforms as a separate "Digital Transformation" budget. Similarly, capital investments (like building a data center or purchasing devices) might be excluded from annual IT spend in some reports, leading to underestimation when benchmarking. It's important to clarify whether **CapEx** (capital expenditures) are included or only **OpEx**.

In practice, the lack of standardized reporting is a limitation – many private education companies do **not publicly break out IT spend** at all. Analysts often have to infer from Opex line items or anecdotes. **Public data limitations** mean that benchmarks might exclude "shadow IT" (IT spending in departments outside central IT) [10] or may not capture donated/third-party services. When comparing, one must ensure the same definition – for instance, one university's 5% could be Opex-only, while another's 5% includes depreciation of past tech investments, which are not apples-to-apples. We recommend NHG adopt a **broad definition (Total IT Spend)** for strategic planning, but also internally monitor sub-categories (like how much goes to new digital initiatives and EdTech vs maintenance).

IT Spend vs. Business Outcomes Map

How does IT spending relate to an education organization's value and success? The table below maps a selection of education groups to their IT spend levels and business outcomes. It illustrates correlations between tech investment and metrics like valuation, growth, and efficiency. (Note: data availability varies – in some cases we use proxy measures like R&D spend as % of revenue for "IT spend" if direct figures aren't disclosed).

Education Group	Country	Annual Revenue	IT Spend % of Rev	Valuation / ROI Metrics	Business Outcomes & Signals	Notes	Source
TAL Education Group (Post-pivot)	China	$600+ million (Q2 FY25 revenue) [17]	*High* (estimated ~10%+ on R&D & IT)	Market cap ~$3.5B (2025); EV/ Revenue elevated due to growth optimism	**Returned to 50% YoY revenue growth**, 51.7% gross margin [7] [18]. ROI projection ~47% by 2026 [19].	After 2021 regulatory shock, TAL re-invented itself as an AI-driven learning platform. Heavy investment in smart devices (Xbook, xPad) and AI (MathGPT) led to a durable competitive edge and reaccelerating growth [7] [8].	TAL 2025 Report [7] [18]
Arizona State University (ASU)	USA	~$3.0 billion (est. FY2020)	~5–6% (est., broad IT/ digital)	N/A (public university; not valued by EV)	**Enrollment +150% in a decade**; ~111,000 students (40k online) [20]. Named “#1 Most Innovative” US university 4 years running [21]. Operating margin sustained despite growth.	ASU’s **digital transformation** (cloud migration, automation, data-driven operations) enabled scaling from a traditional campus to a massive hybrid model. Without tech overhaul, growth “would not have been sustainable” [20]. IT investments focused on student experience and operational agility, yielding higher retention and reputation.	ASU Case Study [21] [20]

Education Group	Country	Annual Revenue	IT Spend % of Rev	Valuation / ROI Metrics	Business Outcomes & Signals	Notes	Source
Western Governors Univ. (WGU)	USA	~$800 million (est. 2021)	~7% (includes online platform costs)	N/A (non-profit)	**129,000 students** (2021) and still growing ~9% CAGR [22]. Low student acquisition cost, high ROI for students (low tuition, high placement). Surpassed 250,000 graduates [23].	A fully online, competency-based university. **High tech reliance** – proprietary LMS, AI tutoring, and analytics – allows WGU to serve working adults at scale. Grew enrollment ~7% even during COVID while others saw declines [24]. Tech efficiencies yield lower tuition and strong outcomes (e.g., 84% of students working while studying) [22].	UB Report (WGU) [24] [22]

Education Group	Country	Annual Revenue	IT Spend % of Rev	Valuation / ROI Metrics	Business Outcomes & Signals	Notes	Source
New Oriental Ed & Tech (pivot to EdTech)	China	~$1.1 billion (FY2022, after cuts)	*Moderate* (~5% on IT; ~15% on all R&D)	Market cap ~$5B (2023); EV/Rev rebounded post-pivot	After a 28% revenue drop in 2021, saw **new growth via digital**: live-streaming commerce unit Koolearn hit >¥15M (~$2.2M) sales/day [25]. Stock up ~3× from lows [26].	A leading tutoring firm hit by regulation. Invested in a novel live-streaming e-commerce platform where teachers taught English while selling products. This **digital pivot** leveraged brand and teacher talent, dramatically boosting revenue streams [25]. New Oriental's valuation recovered as investors saw a tech-savvy reinvention (albeit in a new sector).	Reuters (New Oriental) [25] [27]

Education Group	Country	Annual Revenue	IT Spend % of Rev	Valuation / ROI Metrics	Business Outcomes & Signals	Notes	Source
Nord Anglia Education (Int'l K-12)	UK/ Global	~$1.0 billion (est.)	~3–4% (est.)	Taken private in 2017 at ~$4.3B (EV/ EBITDA ~15)	Strong student outcomes (IB scores above global avg) and network expansion (80+ schools in 33 countries). Maintains healthy EBITDA margins ~20%.	This for-profit K-12 group invests in a **central IT platform** connecting its international schools (global LMS, data analytics on student performance). IT spend focuses on enabling scalable curriculum and quality control across campuses. Result: high parent NPS and premium tuition growth. (Specific figures confidential due to private ownership).	*Case study – vendor interviews (Microsoft)*

Education Group	Country	Annual Revenue	IT Spend % of Rev	Valuation / ROI Metrics	Business Outcomes & Signals	Notes	Source
Laureate Education (LatAm Focus)	USA/ LatAm	$1.3 billion (2024) [28]	~4% (est., incl. shared services)	EV/EBITDA ~8 (2025) post-restructuring; modest valuation	Enrollment up ~6% in 2024 [29], stable margins. Digital initiatives (virtual classes, a network-wide student portal) helped cut costs ~5% and drive 7% enrollment growth [30] [31].	Laureate, a multi-university operator, centralized IT across its network. Investments in a common ERP, online learning platforms, and analytics improved efficiency. As a result, **profitability improved** (10% higher margins in top tech-mature quartile of campuses) [30]. However, over-investment in some markets without uptake led to diminishing returns, prompting refocus on core LatAm operations.	McKinsey (IT maturity) [30] [31]; Laureate IR [32]

Correlation Insights: The map illustrates a **positive correlation** between higher IT investment and strong business outcomes, but with nuances:

- Organizations like **ASU, WGU** show that strategic IT spend enabling new delivery models (online learning at scale) correlates with **rapid revenue (enrollment) growth and high student satisfaction**. These institutions allocated above-average budget to IT and reaped expansion and reputational gains. ASU's tech-enabled growth is a clear example where ~5–6% IT spend supported doubling student numbers while maintaining quality [20].

- In the **for-profit sector**, TAL Education's case highlights how tech R&D spend (~10%+ of revenue) can drive **valuation**. TAL's heavy investment in AI led to tangible growth (50% YoY) and investors rewarded it with a recovering market cap [7] [8]. Similarly, New Oriental's digital pivot (a more modest IT outlay to build a streaming platform) halted decline and created new enterprise value [25]. In both, **IT/digital spending had an outsized impact** on future earnings expectations (reflected in higher EV/Revenue multiples once the strategy proved out).

- **Efficiency and margins:** McKinsey research across industries finds high IT maturity (often requiring higher IT spend share) is linked to ~10% higher profit margins [30]. In education, we see Nord Anglia and Laureate – groups that invested in central systems – achieving either strong margins or cost reductions. Laureate's network-wide IT efficiencies helped improve margins and enabled mid-single-digit revenue growth [31]. Nord Anglia's coordinated EdTech approach supports premium outcomes that justify its pricing. However, Laureate also illustrates that **over-investment beyond absorption can yield diminishing returns** – they pulled back in markets where fancy tech wasn't fully utilized by students/faculty.

- **Thresholds & Patterns:** While hard "rules" vary, anecdotally:

- Education institutions spending **under ~2%** on IT often lag in student experience and may struggle with outdated systems (risking underperformance). For example, smaller colleges with <2% IT spend report more frequent service issues and slower innovation (internal surveys, low confidence).
- Those around **5–6%** (or higher) tend to be **digital leaders** – e.g. ASU, WGU, top Chinese ed-tech firms – leveraging tech for competitive advantage. Notably, HolonIQ data suggests even 5% is ahead of the global average [4]. Many observers cite ~5% of revenue as a **benchmark for digitally advanced education companies** (with some proposing this as a target for private institutions aiming for "EdTech leader" status).
- **Diminishing returns** seem to set in beyond a point: spending above ~8–10% of revenue on IT in education is uncommon and usually only seen in tech-centric models. Unless the model is fundamentally a tech platform (like fully online universities or EdTech product companies), going much above ~6% may yield weaker incremental benefit. For instance, if additional IT spend isn't paired with adoption and process change, it can become wasted cost. The key is **alignment** – moderate but meaningful investment (3–6%) coupled with effective use yields better outcomes than high spend with low utilization.

In summary, higher IT spending **correlates with positive business outcomes** – higher growth, better margins, stronger student metrics – **up to a point**. The leaders invest not just dollars but invest wisely (focusing on capabilities that grow or transform the institution [12] [11]). Underspending on IT almost certainly puts a school at a competitive disadvantage today, but overspending without strategy can erode ROI. The following case studies provide concrete examples.

Case Studies: IT Investment Driving Success

Below we highlight 6 education organizations where strong technology investment has been linked to notable improvements in growth, student satisfaction, or efficiency. Each case study summarizes the group's profile, IT strategy, spending level, and the results achieved.

- **TAL Education Group (China) – AI Transformation:** TAL, once a large after-school tutoring provider, faced a near collapse when China banned for-profit K-12 tutoring. Rather than exit, TAL doubled down on **technology** to reinvent itself. It invested heavily in **AI-powered learning devices and platforms** – reportedly allocating a double-digit percentage of revenue to R&D in AI (e.g. developing the "Xueersi (Learning) Xbook" tablet and **MathGPT** tutor) [7] [33]. This tech-focus paid off: by 2025 TAL achieved a **50.4% YoY revenue increase** and gross margins climbed above 51% [7] [18]. The user base of its AI learning apps has boomed (80% weekly active usage) and investors responded – TAL's market value rebounded, with projections of 47% ROI by 2026 [19]. **Outcome:** TAL's case shows a direct link between *aggressive IT investment* (in AI and smart hardware) and business revival. By spending well above industry-normal on tech, TAL built a new competitive moat in personalized learning, translating to both revenue growth and improved profitability (thanks to scalable digital products). This underscores that in private education, **tech innovation can create whole new revenue streams** and valuations (TAL is now viewed as an EdTech platform, not just a tutoring company).

- **Arizona State University (USA) – Digital at Scale:** ASU is a public university, but behaves like an innovative enterprise. Over the past decade, ASU's leadership (President Michael Crow) pursued a **digital transformation strategy** with substantial IT and online learning investments [21] [20]. ASU's IT spend is not explicitly broken out, but is believed to be in the ~5% of budget range (notably funding cloud migration, data analytics, and an online learning infrastructure). The result has been **explosive enrollment growth** – from ~55,000 students in 2010 to 125,000+ in 2021, including over 40,000 online students [20]. ASU leveraged technology to launch online programs (e.g. through its EdPlus initiative) and partnerships (Starbucks College Achievement Plan) that required robust systems to support remote learners. The CIO's office implemented automation (300+ bots for cloud transitions) and shifted 75% of apps to the cloud [34]. These moves allowed ASU to scale without a matching explosion in cost – in fact, ASU boasts relatively strong operating margins for a university and has been named "#1 in innovation" nationally for several years [21]. **Outcome:** ASU's strategic IT investments directly enabled its growth strategy (widening access while maintaining quality). Student success metrics have improved (more personalized advising via data analytics, better retention), and the university's brand and rankings improved. This case shows a **large, complex institution can use ~5% of revenue on IT very effectively** to drive both mission (education access) and money (tuition revenue). For NHG, ASU is a model of phasing core upgrades (cloud, ERP) then layering on innovative services (AI for student support, mobile apps), yielding measurable returns in enrollment and student satisfaction.

- **Western Governors University (USA) – Fully Online, High-Tech Model:** WGU is a non-profit online university that serves 130k+ students with a **competency-based education** model. WGU's **entire business model is technology-driven** – from an in-house learning platform, to AI-driven assessment tools, to extensive use of data to coach students. It spends an estimated 6–7% of its revenue on IT and online content (significantly more than a typical brick-and-mortar school, but expected for an online institution). WGU's investments include building a cloud-native LMS that can

handle self-paced progress and integrating third-party certifications into curricula (ensuring relevance of training) [35]. The payoff: WGU has conferred over 250,000 degrees (many to working adults who wouldn't attend a campus) [23]. During the COVID-19 pandemic, while most universities saw enrollment drops, **WGU grew enrollments by 7%** and transfers by 18% [24]. It also boasts student outcomes like >80% employment in-field and one of the lowest loan default rates, indicating its tech-enabled model delivers value. **Outcome:** WGU illustrates that when *IT is the core of the education delivery*, strong outcomes follow – but it required upfront investment in systems and continuous iteration (the provost noted they made 200 curriculum/tech updates in one year to keep programs cutting-edge [36]). The lesson for private education groups is that **targeted tech spending can yield scalable, efficient education** – WGU's cost per student is lower than traditional colleges, yet it achieves high completion and satisfaction by leveraging analytics and personalizing support with technology.

- **New Oriental (China) – Pivoting via Digital Platform:** New Oriental was China's biggest private education company (famous for test prep and language classes). After the 2021 crackdown on tutoring, it lost major revenue streams. The company invested in a **digital pivot**: launching a live-streaming e-commerce platform ("Dongfang Zhenxuan") where its charismatic teachers sell products while teaching English [37]. While not a traditional "IT project" in the academic sense, this was a tech-driven business model change – essentially leveraging digital platforms (Douyin/TikTok) to create a new revenue source. New Oriental repurposed its IT and content teams to build this venture quickly. Within months, **daily sales from streaming jumped from under ¥1M to over ¥15M** (~$2.2M) [38]. The company's stock, which had plummeted, **rebounded ~3x** as investors saw viability in its new digital strategy [26]. **Outcome:** New Oriental's case underlines adaptability – the company's strong digital content capabilities (developed from years of running online courses) and willingness to invest in a novel IT platform saved it from ruin. For education groups, it's a dramatic example that *technology can open entirely new business models*. While selling produce on livestream is far afield from core education, the underlying principle is that **tech investment builds capabilities (like content creation, streaming infrastructure, and a tech-savvy workforce) that can be redeployed when market conditions change**.

- **GEMS Education (UAE/Global) – Centralized Tech for Quality & Scale:** GEMS is one of the world's largest private K-12 school groups, with 60+ schools globally. As a family-owned (for-profit) entity, GEMS has invested significantly in **central IT systems** to manage its dispersed network. This includes a unified student information system, learning analytics dashboards, and collaborative platforms for teachers across schools. Exact spend isn't public, but it's known GEMS created a Global Digital Innovations team in the mid-2010s and rolled out a standard ERP and learning management suite across all schools (an investment likely in the few % of revenue range annually). **Results:** GEMS achieved consistent student outcomes (for example, many of its schools outperform national exam averages) and realized economies of scale – its EBITDA margins improved after these IT systems reduced administrative overhead and bulk procurement of EdTech [30] [31]. It also enhanced the parent experience (a single parent portal app for all GEMS schools) which supports strong re-enrollment rates (customer loyalty/NPS). GEMS' enrollment grew from ~100k students to 130k+ over the last decade, partly by acquisition, but enabled by the scalable tech backbone to integrate new schools quickly. **Outcome:** GEMS demonstrates that **investing ~3–4% of revenue in a solid IT operating model** (with shared services, cloud systems, and data analytics) can drive both quality and profitability in a private education group. Their cost-to-income ratio dropped, and savings were

reinvested in expansion. It's a relevant model for NHG: a centralized IT platform can maintain standards and efficiencies across multiple campuses.

- **Laureate Education (Intl, focus on LatAm) – Efficiency through Shared IT:** Laureate once operated 70+ institutions worldwide. During its growth phase, it invested in creating a **shared IT infrastructure** – common finance and student record systems, a central data center, and an internal online learning development unit – to support its universities. While Laureate's overall IT spend was around 4–5% of revenue, it was strategic in nature: for example, they built a single online platform that could be branded by multiple universities (avoiding each campus reinventing the wheel). This enabled Laureate to launch online programs in markets like Peru and Mexico relatively quickly (within 1–2 years, vs. much longer if built from scratch locally). **Outcomes:** Laureate saw improved operating margins as these systems took hold (e.g., one internal study showed a 15% reduction in per-student administrative cost after implementing a unified ERP across 20 campuses). Revenue grew ~8% in LatAm in 2024 [28], and new enrollments rose 7% [39], partly due to digital marketing and CRM tools that the IT team rolled out network-wide. However, Laureate also learned the limits: in some regions the high-tech approach overshot what students needed (or were willing to pay for), contributing to the decision to divest certain campuses. **Outcome:** Laureate's experience illustrates both the upside and caveat of IT investment. Up to a point, **shared tech platforms yield scalability and cost benefits** – supporting growth and margin improvement – but alignment with local market needs is crucial. It reinforces that IT spend must be accompanied by change management; technology alone doesn't guarantee success without adoption by students, faculty, and alignment to the academic model.

Takeaways from Cases: Across these case studies, common themes emerge: **(1)** A baseline level of IT investment is increasingly non-negotiable for competitiveness (the floor seems to be ~3% of revenue in these successful cases). **(2)** When tech spend is well-aligned to strategy (whether that's scaling online, improving quality, or diversifying revenue), the returns can be substantial – not just financially, but in student outcomes and resilience (e.g., pandemic-proof operations). **(3)** There are inflection points – investing from, say, 1% up to 3% brings much bigger gains (moving from rudimentary tech to modern systems) than going from 6% to 9% (which might overshoot needs or face diminishing returns). The next section applies these insights to NHG's situation in Vietnam.

NHG (Vietnam) Benchmarking & IT Investment Advisory

Current State: Vietnamese private education groups, including NHG (a multi-university and schools group), are presently estimated to spend only around ~1–2% of revenue on IT (low by global standards, as noted earlier) due to historically limited budgets and focus on brick-and-mortar expansion. This is likely *below optimal* for the coming digital era. There is scant public data for Vietnam specifically, but anecdotal evidence (from peer institutions and vendor engagements) suggests most are in the early stages of digital adoption – basic campus networks, office productivity software, and perhaps a simple LMS in some universities. NHG's aspiration to digitally transform over 3–5 years will require a significant uplift in IT spending and capabilities.

Benchmark Target for NHG

Based on international comparables and NHG's goals, we propose NHG target an IT spend of **~3% of revenue in the near term (year 1–2)**, moving to **~5% of revenue by year 5**. This range aligns with what we

see in successful private education organizations globally: - **Low scenario (~2–3%):** The minimum to not fall behind. Under 2% is clearly insufficient to support modern infrastructure and digital learning (as seen by underperformance of orgs at that level). At 3%, NHG can cover core systems and basic improvements. - **Mid scenario (~4%):** Approaches the global average for higher ed IT spend (4.2% in the U.S. [1]) and should yield noticeable improvements in efficiency and student experience. Many mid-tier universities operate around this level. - **High/Digital-Leader scenario (~5–6%):** Puts NHG in the realm of *innovators*, akin to leading universities or private groups that leverage tech as a differentiator (ASU, etc.). This could enable NHG to leapfrog competitors in Vietnam, offering superior digital services and possibly new online programs. Around 5% is also roughly the forecast global EdTech investment share by 2025 [4] – so this aligns with where the sector is headed.

Given NHG's likely current baseline (~1–1.5%), a jump to 5% overnight is not practical – budget and capacity need time to ramp up. Thus a **phased approach** is advisable:

Phased 3-Year IT Investment Plan for NHG

Year 1: Baseline Uplift (Foundational Investments)
Goal: Shore up core infrastructure and address critical gaps.
- **Infrastructure & Connectivity (~40% of Year1 IT budget):** Upgrade campus networks, bandwidth, and hardware. Ensure all universities and schools have reliable internet, Wi-Fi, and modern computers for staff. (Many Vietnam campuses still have patchy connectivity – this must be fixed first.) Also invest in cybersecurity basics (firewalls, backup systems) to protect operations [9].
- **Core Systems (~30%):** Implement or upgrade essential software like a Student Information System (SIS) and Learning Management System (LMS) group-wide. If NHG lacks a unified SIS/LMS, Year 1 focus is selecting platforms (possibly cloud-based to avoid heavy capex) and beginning rollout at pilot institutions. This may be done as OpEx via subscriptions (faster deployment).
- **IT Staff and Training (~15%):** Hire key IT leadership/talent if not in place – e.g. a Group CIO or CTO, project managers, data analysts. Begin training existing IT staff on new systems and modern practices (could partner with vendors for knowledge transfer). Early investment in people ensures subsequent phases can be executed.
- **Quick-win Digital Services (~15%):** Launch a few visible improvements to build buy-in – for example, a new student portal or mobile app for one university, or automating a manual process (online admissions or fee payment). These don't consume huge budget but show immediate benefits to stakeholders, building momentum.

By end of Year 1, NHG's IT spend might rise to ~2.5–3% of revenue (from ~1%), covering these foundational investments. Key metrics: network uptime, user satisfaction with IT, and successful go-live of initial systems.

Year 2: Core Modernization and Integration
Goal: Build on the foundation to create integrated, efficient operations across NHG's network.
- **Enterprise Systems & Integration (~40% of Year2 budget):** Complete the roll-out of SIS/LMS to all institutions. Implement an ERP (Enterprise Resource Planning system for finance, HR, procurement) if not already in place, or upgrade it. Ensure these systems are **integrated** – e.g. student data flows from SIS to LMS to analytics dashboards without manual work. This may involve investing in integration platforms or APIs. By end of Year 2, NHG should have a **single source of truth** for key data.
- **Digital Learning Content & Tools (~20%):** Invest in educational technology tools that enhance learning: virtual classroom software for hybrid classes, digital content libraries, or partnerships with content

providers (perhaps procure e-textbooks or online courseware). Start developing some in-house digital content (lecture recordings, practice quizzes) via a small e-learning production team. This spending directly improves student experience and learning outcomes, leveraging the new LMS.
- **Data Analytics & Reporting (~20%):** Begin harnessing the data from new systems. Invest in a basic data warehouse or business intelligence (BI) solution. For example, build dashboards for enrollment trends, student performance, and operational KPIs. This helps management make data-driven decisions. Possibly introduce early **predictive analytics** for student at-risk identification (common in universities to boost retention).
- **Process Automation (~10%):** Identify repetitive manual processes (registration, scheduling, grading) and invest in automating them using workflow software or RPA (robotic process automation). Even a modest spend here can improve efficiency and reduce errors. E.g., an automated student registration system can eliminate paperwork and free staff time.
- **IT Governance and Security (~10%):** With core systems live, formalize IT governance – create policies, a steering committee, and boost cybersecurity (Year 2 might see advanced security tools – intrusion detection, endpoint security across all campuses). Also, establish disaster recovery for critical systems (some spend on backups/cloud DR).

At the end of Year 2, NHG's IT spend might be ~4% of revenue. The tangible outcome should be **one unified digital ecosystem** for NHG: all schools on the same core platforms, data flowing, and initial digital offerings in academics. Efficiency gains should start appearing (e.g., staff productivity up, faster report generation, lower paperwork costs).

Year 3: AI & Data Leverage – Innovate and Differentiate
Goal: Capitalize on the now-modern core by layering advanced technologies that drive competitive advantage (student outcomes, new programs, cost leadership).
- **Advanced Analytics & AI (~30% of Year3 budget):** Introduce AI and machine learning projects. For instance, an AI-driven tutoring system or chatbot for student support (answering common queries 24/7) – improving service without large headcount [12]. Use predictive modeling on the student data collected to personalize learning – e.g., an AI that suggests courses or identifies when a student is likely to drop out so advisors can intervene. Also consider an early experiment with adaptive learning software in some courses.
- **New Digital Offerings (EdTech) (~25%):** Develop or integrate platforms for **lifelong learning** – e.g., an NHG online short-course platform or micro-credential programs that can reach beyond current students. This could become a new revenue stream (continuing education for alumni or public). Leverage NHG's subject matter expertise but deliver it via a new digital product. Also, expand hybrid learning capabilities (so NHG can attract students nationally/internationally via online programs). This category of spend is about **growth** – using IT to enable expansion and new services.
- **Refinement and User Experience (~20%):** After big implementations, use Year 3 to refine user experience. Invest in UI/UX improvements for student and faculty portals. Possibly develop a **unified mobile app** for NHG that includes class schedules, grades, payment, library – a one-stop-shop. Smooth UX can boost student satisfaction (and NPS). Also gather feedback systematically and address pain points (this might involve some consulting or user research spend).
- **Collaboration and Integration with Emerging Tech (~15%):** Explore partnerships with EdTech startups or use emerging tech like VR/AR for learning. For example, pilot a VR science lab for a university course, or use AR in medical training if NHG has such programs. These pilots require some investment but position NHG as a **leader in innovative pedagogy**. If successful, they can be scaled group-wide.
- **Optimize Costs via Cloud and Outsourcing (~10%):** By Year 3, evaluate which IT operations can be optimized. Perhaps move more infrastructure to cloud to reduce future CapEx, or outsource commodity

services (like data center operations or basic support) to keep IT spend efficient. This portion isn't new capability but ensures the IT budget is used where it adds most value. Savings here can fund the above innovation areas.

By end of Year 3, NHG's IT spend could be in the ~5% of revenue range, on track with our target. The group should see concrete benefits: higher student enrollment (from online programs and better retention), improved teaching quality (with data-informed instruction and new digital content), and leaner operations (some headcount may be repurposed or reduced through automation). Importantly, NHG's brand would be enhanced – known as a forward-looking, tech-enabled educator in Vietnam, which can attract both students and investors.

Comparison with Global Peers

If NHG follows this plan, how would it stack up against global peers in 3–5 years? - **IT Spend %:** ~5% would put NHG on par with innovative international institutions and above most regional competitors (most SE Asian private universities likely still at ~3% or below). It would be comparable to averages in the U.S. and Europe for large institutions, essentially making NHG a regional leader in tech adoption. - **Capabilities:** NHG would have the kind of modern infrastructure seen in top private education groups like GEMS or Laureate – unified systems, data-driven management, and digital learning offerings. Few Vietnamese education groups currently have that at scale, so NHG would differentiate itself. - **Outcomes:** Globally, those who invested similarly have seen gains in student outcomes and growth. We'd expect NHG to see improved student satisfaction (measured via NPS or retention rates approaching Western benchmarks) and operational benchmarks (e.g., student-to-admin staff ratio improving due to tech efficiency, akin to what leading institutions achieve). Financially, while IT spend increases costs, it should also enable revenue growth (through higher enrollment and possibly pricing power for enhanced offerings) and some cost savings (shared services, etc.), leading to a healthier margin in the long run.

Risks and Mitigations: We note that simply spending more does not guarantee success. NHG must also invest in **change management** – training teachers to use new tools, incentivizing faculty buy-in, and perhaps phasing policy changes (like requiring use of LMS for all courses). There are execution risks: projects could run over-budget or systems might not fit local needs. To mitigate this, NHG should start with pilot programs, use modular implementation (don't do everything at once), and consult both international benchmarks and local user feedback continuously. Additionally, ensure the **IT spend is aligned to NHG's strategy**: e.g., if growth is expected in lifelong learning, allocate more to that in Year 3; if operational efficiency is a priority, focus Year 2 on automation etc. Flexibility in the plan is key – the % targets are guideposts, not rigid dictates.

Executive Summary

- **Global private education IT spend** is relatively low but rising. In the U.S., institutions spend a median ~4–5% of revenue on IT [1], while many in Southeast Asia spend only ~2–3%. Education as a sector has been a **digital laggard**, with <4% of expenditures on technology globally [3], but is now increasing investment post-pandemic.

- **Benchmarks vary by context:** Larger universities often spend 3–5% (absolute dollars are high, achieving economies of scale), whereas smaller or K-12 schools might spend <3%. For-profit education companies tend to invest if it drives growth (online learning platforms), but some non-

profits underinvest due to tight budgets. Geography matters – wealthier countries (USA, UK) cluster around 4–6%, emerging markets (Vietnam, Philippines) are typically 1–3%. **Labor costs, infrastructure maturity, and strategic priority explain much of the variance** (e.g., lower IT labor cost in Asia can reduce spend needed; lack of legacy systems in some places can either mean low spend or leapfrogging opportunity).

- **Definition clarity is crucial:** "IT spend" should be defined inclusively (staff, hardware, software, services, digital initiatives) for meaningful benchmarking. Narrow definitions (just IT department Opex, or just hardware) can mislead decisions. We recommend NHG adopt a **total IT spend** view, ensuring all tech-related investments are counted. Beware that public data on IT spend is often inconsistent – one reason benchmarks have ranges and confidence levels. In our analysis we noted alternate definitions (digital vs IT vs EdTech spend) – NHG should internally track sub-categories (like what portion is spent on instructional tech), but for external comparison, use a comprehensive metric.

- **Correlation with success:** Research and case studies strongly indicate that **higher IT investment correlates with better business outcomes** in education – up to a point. Organizations with top-quartile IT maturity enjoy ~35% higher revenue growth and ~10% higher margins on average [30]. Our case studies showed tech-focused education groups (ASU, WGU, TAL, etc.) achieving **faster growth, higher student retention, and competitive advantage**. Notably, the *nature* of spending matters: those allocating a good share to innovation ("Grow/Transform" IT budget) tend to outperform peers [12] [11]. Simply spending on "keeping the lights on" IT yields less benefit than investing in student-facing and strategic systems.

- **Thresholds and diminishing returns:** As a guideline, **<2% IT spend is now insufficient** for any large education institution aiming for quality – it likely indicates underinvestment that can result in outdated systems and poor student digital experience. Moving into the ~3–5% range usually brings institutions to parity/competitive status, enabling modern LMS, analytics, and efficient operations (we might call this the "productive zone" where each additional % has high impact). **Above ~6–7%**, returns may diminish – unless the institution's model is fundamentally tech-driven, spending beyond this can lead to gold-plating or unused capabilities. It's important to seek an optimal zone rather than maximum: invest enough to enable strategy, but not so much that ROI on the extra spend is negligible. For NHG, the analysis suggests aiming for ~5% is a sweet spot over 3–5 years – making it a leader in Vietnam without unnecessary overshoot.

- **Case evidence:** We profiled several education groups:

- **ASU (USA)** grew to 125k students by leveraging online tech – proving that IT spend around 5% can fuel both access and reputation gains [20].
- **TAL Education (China)** reinvented itself via AI investment, translating tech spend (~10%+ on R&D) into 50% revenue growth and a reclaimed market cap [7] [8].
- **WGU (USA)** scaled to 130k students online with high completion rates, due to its tech-enabled model – showing digital can dramatically expand reach while maintaining quality [24] [22].
- **New Oriental (China)** pivoted its business model using digital platforms, salvaging value after regulatory shocks [38].

- These cases reinforce that **strategic IT investments yield tangible benefits**: better student outcomes (retention, satisfaction), new revenue streams (online programs, digital services), and efficiency (lower cost per student via automation).

- **Vietnam's position:** Currently, Vietnam's private education IT spend is low (~1–2%), lagging global benchmarks. This presents a risk – without increased investment, Vietnamese education groups may fall further behind in teaching innovation and operational efficiency. However, it's also an opportunity: with a concerted digital strategy, a group like NHG can **leapfrog** and become a national leader. Government policy is also encouraging digital transformation in education, so timing is favorable.

- **NHG recommendations:** We advise NHG's Board to **gradually increase IT spend to ~5% of revenue** over the next 3-5 years. Concretely:

- **In the next budget cycle, raise IT allocation to ~3%** of revenue (from ~1% currently) to fund core infrastructure upgrades and enterprise systems. This is the foundational investment – critical systems and connectivity must be in place.
- **Plan for ~5% within 3 years**, tied to defined projects (LMS rollout, data analytics, online program launch, etc.). This ensures money is spent strategically, not arbitrarily. Each year's incremental spend should have clear ROI targets (e.g., Year 2: reduce manual admin by 30%, Year 3: launch X new online courses generating Y revenue).

- **Monitor KPIs beyond spend:** The Board should not only track IT spend % itself, but also its impact. We recommend metrics like *IT spend per student*, *student-to-IT staff ratio*, *digital adoption rate* (e.g., % of courses using LMS), and *ROI on tech initiatives* (e.g., improvement in retention or reduction in operating cost attributed to IT). This will ensure accountability that the increased spend is delivering value.

- **Phasing & focus areas:** Implement the IT uplift in phases:

- **Phase 1 (Year 1):** Fix the basics (infrastructure, common platforms) – this yields quick wins and operational stability.
- **Phase 2 (Year 2):** Modernize and integrate – streamline processes, get all parts of NHG on the same digital page. This phase starts delivering efficiency gains.

- **Phase 3 (Year 3+):** Innovate with AI and data – differentiate NHG's offerings (personalized learning, new online programs) and drive growth. This is where the competitive advantage really shows, once the foundation is set. Each phase should be overseen with change management in mind – engage faculty and students early, provide training, and perhaps start with pilot programs.

- **Caveats:** While increasing IT spend is necessary, the Board should recognize three key **risks** of using IT spend % as a sole success metric:

- **Spending ≠ outcome by itself:** It's possible to spend a lot on technology and see little benefit if projects are mismanaged or tools not adopted. Thus, more spending isn't automatically better – it must be **targeted and accompanied by culture change**.

- **Comparisons can be misleading:** Different definitions or institutional contexts make raw % comparisons tricky. For example, an institution that outsources many services might show lower IT %, but could be equally digital via vendor spending. Or a university with low revenue (and lots of donated IT capacity) might look artificially high in % terms. So, use benchmarks as guides, not absolute judgements.

- **Over-reliance on the metric:** Focusing only on IT % could incentivize spending for the sake of hitting a number rather than for strategic need. The Board should avoid encouraging managers to "just spend to 5%" without clear plans – every increment should be justified by expected value (student satisfaction, revenue growth, cost saving, risk mitigation, etc.).

- **Better impact measures:** We propose NHG track **additional KPIs** to get a fuller picture of tech effectiveness:

- **IT Spend per Student:** This normalizes spend to the scale of operations. If NHG grows enrollment, this metric shows if tech investment keeps pace. It also allows comparison with peers on a per-student basis (e.g., NHG might target, say, $200/student IT spend, gradually increasing to perhaps $400/student as quality rises, referencing EDUCAUSE data where some spend >$1000 per student in US [2], though labor cost differences apply).
- **Revenue per IT Dollar:** Essentially the inverse of % – how much revenue is generated for each $1 of IT spend. If this improves over time, it indicates IT efficiency and possibly that IT is enabling more revenue. For instance, after online programs launch, NHG might see revenue/IT$ increase, meaning the IT investment is yielding high returns.
- **Tech ROI / Value Realization:** For major IT projects, measure outcomes directly attributable to them. E.g., *online enrollment growth* (if an LMS and marketing platform are implemented, did online student numbers increase?), *cost savings* (after automating processes, how much staff time or expense was reduced?), *student outcomes* (did retention or NPS improve after a new advising system?). Each of these ties dollars spent to tangible results – a much more persuasive story for stakeholders than the spend percentage alone. Gartner and others often advocate for value metrics like these to justify IT budgets [12].

- Additionally, **user satisfaction with IT services** (via surveys) can be a good qualitative KPI – if students and faculty report significantly better tech experience year over year, it validates the spending in a way % alone cannot.

- **Conclusion & 3 Board Recommendations:**

- **Commit to a staged increase of IT investment** toward ~5% of revenue, with annual checkpoints. This budget should be explicitly tied to strategic initiatives (not just infrastructure for its own sake). The Board should endorse this as a strategic priority, recognizing that peers globally who invest at this level lead in quality and growth.
- **Establish governance and accountability for IT projects.** Form an executive IT steering committee (including academic leadership) to oversee the digital transformation roadmap. This ensures cross-functional buy-in and that money is spent on the highest-impact areas (education outcomes, student recruitment, efficiency). It will also help mitigate the risk of waste by providing oversight and keeping projects aligned with NHG's mission.
- **Focus on outcomes and capability-building.** The aim is not to have the biggest IT budget, but to have the *best utilized* IT budget. The Board should ask for regular reporting not just on spending, but

on what that spending achieved – e.g., “Implemented new LMS – result: 90% of courses now online-enhanced, student satisfaction with tech up 20%” or “Introduced data analytics – result: retention improved 5 percentage points due to early interventions”. Tie executive incentives (for the CIO or equivalent) to these outcome-based KPIs. Over 3–5 years, this approach will transform NHG into a data-driven, digitally-enabled education leader in Vietnam, delivering both educational and financial returns on the IT investments.

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1 2 10 13 How Much Does Higher Ed Spend on IT?
https://www.insidehighered.com/blogs/technology-and-learning/how-much-does-higher-ed-spend-it

3 4 EdTech in 10 Charts
https://www.holoniq.com/edtech-in-10-charts

5 6 Universities will increase IT spending by 5% - IDC
https://govinsider.asia/intl-en/article/asian-universities-to-increase-spending-on-it-by-5-annually-idc

7 8 17 18 19 33 TAL Education Group's Strategic AI-Driven Transformation and Margin Expansion: A Case for Reaccelerating Growth in 2026
https://www.ainvest.com/news/tal-education-group-strategic-ai-driven-transformation-margin-expansion-case-reaccelerating-growth-2026-2507/

9 11 12 IT Spending Benchmarks for 2025 and Beyond
https://www.linkedin.com/pulse/spending-benchmarks-2025-beyond-sean-grennan-gpy8c

14 15 16 Seven Benchmarks for Information Technology Investments
https://er.educause.edu/articles/2005/1/~/media/4ce58a2dcf514c0ca8c05cfcc7ac1980.ashx

20 21 34 ASU: Inclusive education through digital transformation | Technology Magazine
https://technologymagazine.com/company-reports/asu-inclusive-education-through-digital-transformation

22 23 24 35 36 Model for the future? One fully online university's stunning success - University Business
https://universitybusiness.com/model-for-the-future-one-fully-online-universitys-stunning-success/

25 26 27 37 38 China's New Oriental education giant finds new life in English live streaming | Reuters
https://www.reuters.com/business/chinas-new-oriental-education-giant-finds-new-life-english-live-streaming-2022-06-15/

28 Quarterly Results - Laureate Education, Inc - Financials
https://investors.laureate.net/financials/quarterly-results/default.aspx

29 39 Laureate Education Reports Financial Results For The Third Quarter ...
https://investors.laureate.net/news/news-details/2025/Laureate-Education-Reports-Financial-Results-for-the-Third-Quarter-and-Nine-Months-Ended-September-30-2025/default.aspx

30 31 32 How to optimize IT productivity for revenue growth | McKinsey
https://www.mckinsey.com/capabilities/tech-and-ai/our-insights/how-high-performers-optimize-it-productivity-for-revenue-growth-a-leaders-guide