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Q1: Respondent details

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Q2: Country or Customs territory	- MULTILATERAL OR REGIONAL DEVELOPMENT BANK
Q3: Organization	Other (please specify) Regional Development Bank

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Q4: Title of case story

Integrated Information and Communication Technology Strategies for Competitive Higher Education in Asia and the Pacific

Q5: Case story focus	E-commerce development and efforts to bridge the "digital divide".

Q6: Case story abstract

Developing countries in Asia and the Pacific are rapidly reaching middle income economic status. Their competitive advantage is shifting from labor-intensive industries and natural resource-based economies to knowledge-based economies that innovate and create new products and services. Early adoption of information and communication technology (ICT) can allow countries to leapfrog over the traditional development pathway into production of knowledge-based products and services. Since higher education institutions (HEIs) are considered a primary engine of economic growth, adoption of ICT is imperative for securing competitive advantage. ICT is thought to be one of the fastest growing industries and is frequently heralded as a transforming influence on higher education systems globally and, consequently, is enhancing the competitive advantage of countries. It is increasingly becoming evident that an institution-wide ICT strategy covering all evolving functions of competitive HEIs is necessary. Such a system may be designed as an integrated platform but implemented in phases.

Source: https://www.adb.org/sites/default/files/publication/177730/ict-strategies-higher-education.pdf

Q7: Who provided funding?	Other (please specify) Asian Development Bank
Q8: Project/Programme type	Regional

Q9: Your text case story

In Asia and the Pacific the types of HEIs are diverse and at varying stages of development. Consequently, an integrated ICT intervention warrants a medium-term strategic approach, matched to individual institutions' demands, with options for periodic reviews to align with technology innovations and application demands. The project-based approach often adopted by HEIs for ICT creates fragmented systems with redundancies, challenges of interoperability, rapid obsolescence, and large service and maintenance costs. Much of these can be reduced by adopting a systemic approach involving unique organizational forms, ideas, and human resource development approaches into an integrated ICT system for HEIs.

When considering ICT investments, three broad areas require attention: the infrastructure, the application software and e-resource, and staff development. Often, enthusiasm is depleted after the infrastructure investments are completed; some organization-wide thinking may be applied to procurement of application software, but staff development is mostly neglected. Infrastructure investment in ICT is often driven by the ubiquity of "connectivity," which is often confused with access to the internet. There are other connectivity options, space designs, and equipment choices that can significantly help HEIs to become efficient and competitive and thus require consideration.

Perhaps the most serious issue affecting the adoption of ICT in HEIs is a lack of sufficient continuous staff development. There is an expectation that staff will somehow develop the required skills, reflective of individual user-led applications instead of institution-led ICT use. HEIs in developed economies invest a lot in human resource development for utilization of ICT, which in turn develops and retains competitive advantage in the knowledge economy.

ICT investments in contemporary HEIs have three interrelated functions; teaching, research, and community engagement. To support these functions, ICT can also enhance governance and management of HEIs through the use of enterprise software. However, since teaching is a core function of HEIs, recent innovations in online delivery of education services have inadvertently concentrated ICT investments mainly in teaching and learning to increase access and to engage in competing globally for the higher education market share. The interconnectedness of teaching and research, underpinned by the need for knowledge innovation, requires explicit links to research repositories, online journals, and research forums.

Finally, HEIs' efficiency and productivity to support national, regional, and international competitiveness can benefit significantly by adopting enterprise ICT applications to support organizational management and human resources development including staff and institutional performance.

Q10: Lessons learnt

While ICT systems can contribute significantly to the domestic and international competitiveness of HEIs, the positive impact of this contribution critically depends on the existence of a well-articulated, institution-wide ICT integration plan that takes account of all of the functions of the institution concerned. Such an approach to integrating ICT systems into an institution's functions is efficient in that it avoids redundancies and mitigates against accelerated obsolescence of ICT investments. Finally, as ever-increasing numbers of HEIs embrace integration of ICT systems into their overall operations, delay in doing so prolongs the inevitable, diminishes the overall domestic and international competitiveness of lagging institutions, and fails students who must ultimately enter an increasingly competitive labor market for which they may be poorly prepared. Regardless of the tier to which they belong, all HEIs in Asia and the Pacific can integrate ICT systems into their operations. The challenge for each institution is that of determining the most appropriate ICT investment.