



EDUCATION SECTOR



CHAPTER THREE

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SUMMARY

- There is no sector with greater promise for Australia in India than education.
- Australia's future growth and prosperity will be driven by our ability to generate and attract the 'best and brightest'.
- Getting education right is also critical for India to maximise the potential of its demographic dividend.
- India cannot meet the demand for education on its own.
- As a world-class education provider, Australia is well placed to partner with India across secondary, university and vocational sectors.
- Australia should look to increase the number of high calibre Indian students at its universities and deepen two way research links while continuing to welcome Indian students who seek an Australian education primarily for a migration outcome.
- Australia's vocational system is highly regarded in India and providers can benefit from this reputation if they can adjust their business model to reflect India's low-cost, high-volume environment.
- Online education will be crucial if India is to meet its massive education needs and Australia should work more closely with India in this area.
- Increasing the recognition in India of Australian qualifications will give a significant boost to the education relationship and should be a priority for the Australian Government.
- India is big enough to accommodate all Australian education providers, which need to collaborate more and place increased emphasis on the quality of an Australian education in their marketing.

1.0 THE MACRO STORY

KEY JUDGEMENT

Getting education right is critical for India to maximise the potential of its demographic dividend by ensuring its millions of young people are equipped to enter the workforce and able to adjust to rapid technological change. India's young population is increasingly willing to pay for education if there is a clear path to more and better jobs. India will not have the capacity to meet this demand on its own. Its institutions cannot currently service the number of prospective students and quality remains patchy. As a world-class provider of education and training across secondary, university and vocational sectors, Australia is well positioned to partner with India.

Education as the flagship sector

A strong and productive Australia-India education relationship should be seen as the flagship of the bilateral relationship. The Australian Government has four key roles to play in realising this vision.

First, it should seek to expand the Indian student base beyond those who come to Australia for an education and stay to add skills to our economy. This cohort should be augmented with an increase in Indian students who value an Australian education for its high quality and who will return to India to lift its human capital, and also create bridges between our societies. Second, the Government should deepen the research and innovation relationship. Third, it should position Australia as the foreign provider of choice for India's technical and vocational education and training (TVET) system. Fourth, it should create platforms to enable collaboration on the online delivery of education in India.

Boosting our education links with India is also a hedging strategy against an over reliance on the Chinese market, which accounts for roughly 30 per cent of our education exports. China is investing heavily in its domestic education institutions, is moving up the quality curve quickly and has adopted aggressive targets as a provider of international education. China will remain the largest source of international students in Australia for the foreseeable future but there will be less need in the future for Chinese students to seek an Australian education.

1.1 The scale and key structural drivers of the sector

INDIAN DEMAND

The increasing willingness of Indian parents to pay for their children's education, strong demographic tailwinds and the changing nature of the economy and employment, will drive demand for quality education and training.

Rising incomes have created a willingness and ability among large swathes of Indian families to pay for a quality overseas education for their children

- a recent HSBC report found the number of Indian parents wanting their children to study abroad had jumped from 47 per cent in 2016 to 62 per cent in 2017 ²⁹
- other surveys have found that over 70 per cent of Indian parents were willing to take on debt to fund education, higher than the global average of 60 per cent.³⁰

India's demographic profile will also be a key driver of demand

- India's tertiary-age (18–22) population is the largest in the world and is projected to peak at 126 million in 2026 before stabilising at 118 million by 2035
- Indian enrolment in higher education (27 per cent) lags far behind peers like China (43 per cent) and Brazil (51 per cent)

- by 2030, India aims to lift the enrolment rate to 50 per cent, which would mean that one in four graduates in the world would be a product of the Indian higher education system.

India created additional capacity for over 40 million students in the last two decades, but requires a further 200,000 secondary schools, 35,000 colleges and 700 universities to meet growing demand.³¹

India's growth model will not mimic the East Asian experience of the 1970s, 80s and 90s

- manufacturing as a proportion of GDP is likely to remain lower in India than its East Asian peers
- which means India's workers will not have access to the same proportion of unskilled and lightly skilled export-oriented manufacturing jobs.

The expected increase in the urbanisation^{xi} of India's population and formalisation of India's labour market will likely lead India's growing economy to create the bulk of its new domestic jobs in services and capital-intensive manufacturing

- without plentiful low-skilled manufacturing jobs, India will need to equip its population with high quality education and training so that new entrants into the labour market have the required skills
- services will also be an important source of jobs for Indians wishing to seek opportunities in international markets.

Indian Government estimates suggest an additional 120 million skilled workers will be required by 2022, fuelling demand for vocational training

- only 2 per cent of India's workforce has received any skills training
- India has an estimated 7 million people a year enrolled in vocational training³² (compared to 90 million in China and 11 million in the United States³³)
- surveys of employers find that half of new hires and graduates are not adequately prepared for their job

- poor assessment and certification systems make it difficult for employers to distinguish the quality of institutions and graduates.

INDIAN SUPPLY

Despite much effort and some improvements over the past decade, India's education sector suffers from limited international collaborations, low focus on research, outdated curricula and a lack of job-relevant courses

- this is reflected in global university rankings, where India has no entrant in the top 100
 - in contrast, six of Australia's 39 universities are ranked in the top 100³⁴
- an inadequate emphasis on curriculum design limits the industry relevance of some courses
- cultural attitudes and remnants of the caste system also constrain efforts to skill more young Indians in vocational trades, as some young Indians maintain a traditional outlook that may constrain their willingness to undertake manual or physical labour.

Public spending on education in India remains low, both in absolute terms and as a proportion of government expenditure, even compared with other emerging economies

- measures are needed to improve the effectiveness of spending, including better incentivising teachers and more efficiently allocating higher education funding.

Technology will be important in delivering scalable solutions to India's university and vocational needs.

India will also need to turn to foreign education and training providers to bridge the gap between demand and supply.

AUSTRALIA'S COMPETITIVE ADVANTAGE

India is already Australia's second biggest education market and Australia is the second most popular destination for Indian students after the United States

- Australia's competitive advantage resides in our capacity to provide a high quality tertiary

^{xi} The United Nations projects that India's urbanisation rate will rise to 42 per cent by 2035, lifting the urban population from 410 million in 2014 to 640 million in 2035.

education taught in English, with attractive work and migration options for Indian students, alongside a world-class vocational system

- if Australia maintains its growth in international students and can recapture its share of Indian students from its 2009–10 peak, direct revenue from Australian education exports to India could exceed \$12 billion by 2035.^{xii}

1.2 How the sector will likely evolve out to 2035

India is unlikely in the medium term to loosen restrictions that prevent foreign universities operating standalone campuses in India

- even if regulations are eventually relaxed, foreign universities face a historical reluctance from Indian parents to pay large sums of money for their child's education in India
 - tuition at public universities and colleges in India is virtually free
 - undergraduate study at elite Indian Institutes of Technology (IITs) costs roughly \$4,000 per annum.

In contrast to the university sector, vocational education is relatively less regulated

- foreign companies are already allowed to establish for-profit enterprises in India to provide training, assessment services and content.

The gradual formalisation of the Indian workforce out to 2035 will increase standards for skilled labour and stimulate demand for quality vocational training

- for example, Indian Government departments may soon require mandatory certification for employees – the Skill Development and Entrepreneurship Ministry wants to make skill certification mandatory for public sector jobs by 2020.^{xiii}

As simple and repeatable tasks become automated, the skills required for employment will shift, increasing demand for quality vocational training

- existing workers and new entrants alike will need to upskill more regularly throughout their career.

Technology will increasingly change the way education services are delivered and consumed in India over this period

- despite reluctance to accept higher education courses that incorporate online teaching, India has become the second largest market for e-learning after the United States, currently worth USD2 billion and expected to reach USD5.7 billion by 2020³¹
- traditional education suppliers will be forced to compete with low-cost online and virtual options, from both Indian and international players.

Within 10 years, digital learning content could entirely replace printed books

- mobile education applications like Byju, which helps hundreds of thousands of Indian K–12 students study for competitive exams, are on the verge of billion dollar valuations^{xiv}
- augmented, blended and virtual learning environments are being taken up by some Indian schools.

^{xii} To reach this figure the following assumptions are made: 1) the growth rate of total international student numbers to Australia from 2002–2016 (roughly 6 per cent) continues out to 2035; 2) India consists of 18 per cent of total inbound students to Australia in 2035 (which it reached in 2009); 3) the total number of Indian students will therefore be 192,000 by 2035; 4) each Indian student contributes approximately \$39,000 in direct revenue – this is calculated by dividing FY2016/17 revenue (\$2.3 billion) by the number of Indian students in 2016 (60,000). These assumptions produce a revenue figure of \$12.7 billion. Modelling commissioned for the India Economic Strategy using rates of growth of outbound Indian students globally and Australia's market share of Indian students produced a figure of \$9.4 billion by 2035.

^{xiii} To secure a job in government, applicants will need to have National Skill Qualification Framework certification. The proposed competency-based framework will measure skills and accomplishments on a scale from one to 10 from entry to doctoral levels.

^{xiv} The Chinese tech company Tencent made an investment in mid-2017 in Byju which reportedly valued the company at USD800 million. Other investors in Byju include the Chan Zuckerberg Initiative and Sequoia Capital.

CASE STUDY: ACER: AUSTRALIA INVOLVED IN DEVELOPING INDIAN SECONDARY SCHOOL STANDARDS

With a large and growing young population, demand in India for quality education is increasing exponentially. Improving standards in secondary schools across the country will be vitally important if India is to make the most of its demographic dividend.

An Australian not-for-profit organisation has the technical expertise to play a role. Australian Council for Educational Research (ACER) has decades of experience developing tools to assess educational standards. For many years, it coordinated the assessment of reading, mathematics and science across 60 OECD countries to enable international comparison.

ACER has been involved in developing India's first national benchmark for secondary school students. *The National Achievement Survey* for Year 10 students gives Indian policy makers information on student outcomes with results broken down by gender, socio-economic status and school location.

The survey assessed students in five subjects; mathematics, science, social science, English and Modern Indian Language. It tested 275,000 students in more than seven thousand schools, across 33 Indian states and in 12 different languages.

ACER collaborated with India's National Council for Educational Research and Training (NCERT) and educational consultants Cambridge Education, from 2014 to 2016, providing technical support and capacity building for NCERT to design and implement the survey. It also developed an online tool for data to be reported by jurisdiction and manuals for future surveys.

This was complex and challenging work, involving many geographical regions, governing boards and languages. Through careful planning and applying already well-established procedures, ACER has been able to contribute to a rigorous and successfully implemented new Indian benchmark.

2.0 OPPORTUNITIES FOR PARTNERSHIP

KEY JUDGEMENT

India will look to other countries for three things: to provide on-shore training; to provide offshore education; and to offer pathways for Indian workers to take up jobs overseas. Australia is well placed to partner with India across all three. Australia and India are also natural partners in online education and should deepen research links.

2.1 Export opportunities

HIGHER EDUCATION (MIGRATION PLUS)

Australia offers a high quality student experience in a safe, multilingual and multicultural society with a temperate climate

- the 2017 International Student Survey, which sought views of international students from all countries, ranked Australia: the most welcoming country for international students; the 'safest' country for international students; and the country offering the 'best lifestyle' for international students
- the familiarity that comes with a growing diaspora community provides an additional boost to prospective Indian students.

Work rights associated with student visas are welcomed by Indian students³⁵, even though Australian regulations do not guarantee international graduates post-study work rights

- changes made in 2013, including the lifting of restrictions on the kind of work graduates can do, mean post-study work rights in Australia compare favourably with those in other major host countries
 - graduates who apply for and obtain a Temporary Graduate visa can now work in any role for which an employer is willing to hire them.

For as long as Australia maintains a large immigration program, Australia's interests are served by attracting Indian students whose primary goal is migration, thereby adding to our skills base

- there is considerable capacity, particularly outside the east coast, to cater to more Indian students
 - Indian student numbers are growing at a slower rate and off a lower base than students from China.

That said, we need to ensure we are attracting the science, technology, engineering, mathematics and medicine (STEMM) talent that will drive Australia's future growth

- the most popular field of study for Indian students is management and commerce (45.6 per cent of university enrolments and 45.4 per cent of vocational education and training [VET] enrolments).

Indian higher education students overwhelmingly choose to pursue their Australian education through a Masters by coursework degree (70 per cent)

- pathways should be expanded for Indian undergraduate, postgraduate and doctoral students who target Australian universities for specific, world leading qualifications, and then return to India to continue their career.

Attracting the best international students helps to maintain the quality of Australia's higher education system

- it also builds links with the next generation of Indian leaders in business, government and academia.

However there is a mismatch between the quality of Australian institutions and Indian perceptions of their quality and prestige

- Indian students and parents place Australian universities on a rung below universities in the United States and United Kingdom
- like Indian students, hundreds of thousands of Chinese attend university in the United States and United Kingdom
 - but unlike India, 52 per cent of Chinese students who choose to study in Australia do so at a Group of Eight university, compared to less than 10 per cent of Indian students.

Changing long-standing perceptions about the quality of Australian higher education in India will require new approaches and take time

- this opportunity is enhanced in the short term by political developments in the United States and United Kingdom, which have a negative effect on Indian perceptions of these markets.

These perceptions can also be improved by having Australian students undertake exchange programs and internships in India

- the New Colombo Plan, in conjunction with Endeavour Scholarships and Fellowships, play a vital role in this area by connecting young Australians with Indian universities and businesses
 - in particular, Australian students completing internships in India with Indian companies help raise awareness among Indian managers of the quality and value of Australian education
- likewise, the formation in 2017 of the Australia India Institute's New Generation Network fosters early-career researchers in Australia to conduct policy relevant research on India.

ONLINE AND DISTANCE EDUCATION

Online education will play an important role in India's education future, particularly in reaching students in rural and regional areas who may have previously lacked access to the same opportunity as their peers in urban centres

- once Australian providers have developed strong brand recognition – perhaps through the provision of massive open online courses (MOOCs) – delivery of fee-for-service courses can follow.

By 2025 India is projected to have 850 million online users, many of whom will have moved from lower-generation network connectivity (2G) to higher-generation (3G, 4G and 5G)

- half of India's internet users will be rural (up from 17 per cent) and 40 per cent will be women
- currently only 20 per cent of Indians enrolled in MOOCs are women, suggesting latent potential but also challenges in reaching more women through online delivery.

As a result of rising digital connectivity, users of online education in India are expected to reach 9.6 million by 2021, up from 1.6 million in 2016

- this includes vocational training, secondary school tutoring and exam preparation, and university courses and degrees delivered online

Australia has world-leading distance education platforms which offer flexible study options that are scalable and can reach isolated students

- our competitive advantage in online education is enhanced by Australia's favourable time zone compared to competitors in the United States and Canada
 - Western Australia, for example, is only two hours ahead of India.

There is also opportunity for Australian digital educational providers to partner with India's large multinational conglomerates to pilot new education technology, using Australian content, and scaled up in India as a pathway to global markets.

CURRICULUM DEVELOPMENT

India's education quality challenge is widespread.

At the tertiary level, 91 per cent of accredited colleges are rated average or below average by India's National Assessment and Accreditation Council; at the primary school level, only 37 per cent of Year 4 students can read at Year 2 level.

Australian providers can contribute to the work that India is doing to lift standards by packaging courses, curricula and school programs to Australian/international standards, and where

relevant benchmarking to Indian requirements and occupation standards.

Courses could also be developed to consider requirements for other international markets, especially the Gulf states

- for example, the Australian Council for Educational Research (ACER) worked with India's National Council of Education and Training (NCERT) to design, implement and report a new National Achievement Survey for students in Year 10.

2.2 Collaboration

TECHNICAL VOCATIONAL EDUCATION AND TRAINING

There are immense opportunities for Australian vocational providers in India, where Australia's TVET system is held in high regard for the global employability of its skills training.

These opportunities will occur across three distinct parts of India's TVET system: working with the Indian Government; partnering with Indian training providers to offer courses for both onshore and offshore employment; and working directly with large Indian corporates to meet their skills needs.

Australia's strength in vocational training is aligned with the Skill India campaign, a flagship reform effort of the Modi Government, which originally announced its plan to upskill 400 million workers by 2022, although formal targets have since been abandoned

- quality trainers and assessors are the cornerstone of a modern, industry-relevant vocational education system, and demand for high quality vocational trainers and assessors will grow as demand for Indian skill levels rise
- Australian TVET providers can help India develop a large pool of qualified trainers and assessors capable of imparting industry relevant skills and knowledge.

Technical vocational education and training for jobs both in the Indian market and in third countries will need to be delivered in India through a partnership model

- Australian providers need to spend time to understand the labour market requirements and not produce a high-end training product that may unnecessarily increase the cost and time commitment of workers
- Australian providers will need to be selective in deciding which partners to take on and should develop courses across two tiers that differentiate between employers in India and employers in third countries
 - accreditation requirements for the Indian domestic labour market may be lower than the requirements of employers in third countries, such as the Gulf states, where qualifications will need to be developed to international standards
 - Australian providers should adjust their products to reflect this reality, which would allow them to reduce their costs and become more price competitive in the Indian market, without diluting the value of Australian qualifications in the sector.

Employers and employees in India's private sector both recognise the need to upskill and invest in training

- 88 per cent of India's top 50 companies invest in skill development³⁶
- a survey of over 5,000 job seekers and employers found nearly two-thirds of graduates aged 18–34 felt underprepared in their first job³⁷
- many Indian companies would prefer tailored courses focused on being 'job ready' rather than longer, more generic accreditation programs
 - Australian providers can respond to this need by including fast-tracked courses for professionals that recognise existing experience.

CASE STUDY: DEAKIN UNIVERSITY: INNOVATIVE MARKETING STRATEGIES APPEAL TO INDIAN STUDENTS

One Australian university making its mark in India is Deakin. In 1994, Deakin was the first Australian university to set up an office in India. Since then, the university has continually expanded its engagement with Indian students, business, research institutions and government.

Deakin has found success by connecting with Indian students through media and popular culture, and investing in collaboration with industry and research partners to address India's development needs.

Deakin takes a novel approach to attracting enrolments and interest in its courses. The NDTV Deakin Scholarships Competition is an annual televised contest broadcast across India for four students to win 100 per cent tuition-free enrolment at Deakin. This showcases the potential of the Australian education experience to the largest tertiary age population in the world.

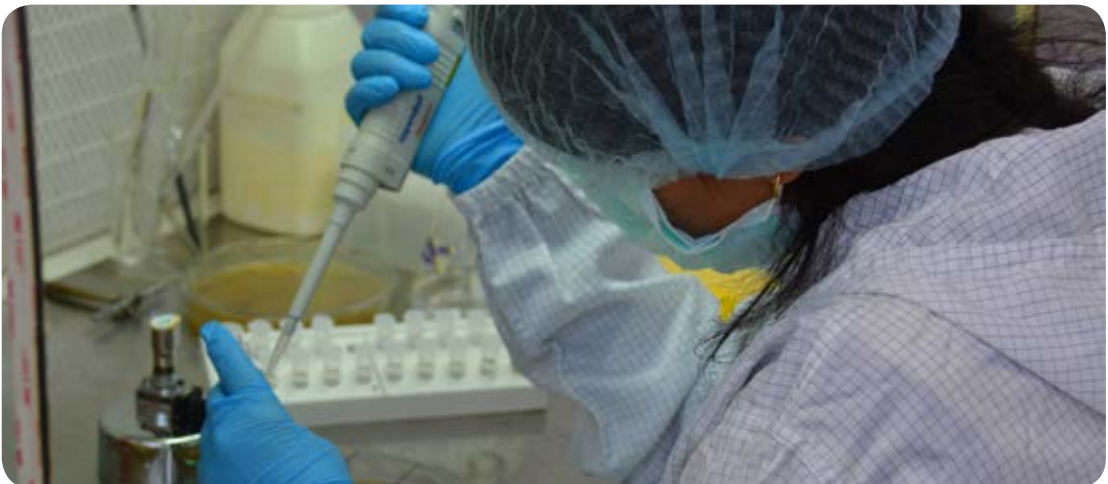
This approach is bearing fruit. The latest annual commencement figures at Deakin for

Indian students have grown almost seven-fold since 2012.

Deakin's innovative approach to engaging students is complemented by an ambitious program of partnership development, with research investments exceeding \$10 million.

Deakin's work with Indian corporations aims to develop new commercial technologies in the industries of the future: material science and advanced manufacturing; data analytics for health; and biotech applications in pharmacology, health (diabetes and obesity), agriculture and the environment.

A centrepiece of Deakin's engagement with India is the TERI-Deakin Nano-Biotechnology Centre. Established in 2010, near Delhi, the Centre brings together up to 100 researchers and PhD students to solve some of the world's biggest problems, from developing biofuels to early detection of crop diseases. These practical solutions create commercial prospects for both Australia and India, furthering our economic partnership.



JOINT PROGRAMS AND TWINNING

Opportunities for Australian universities to establish their brand in India for the foreseeable future will continue to be through joint partnerships and twinning programs of the sort pioneered by Deakin University and Monash University.

Even if India loosens regulations on foreign universities, Australian universities may find it more difficult to successfully establish a standalone physical presence in the Indian higher education market compared to recent expansion into Southeast Asia

- our universities may need to adjust their business models to adjust to the price sensitivities of the Indian consumer and constraints on faculty availability and research capability.

PHD AND RESEARCH COLLABORATION

India is determined to lift both the quantity and quality of PhD students its universities generate

- this is partly a matter of pride for India, which currently does not have any universities in the top 200 of world rankings, but it also wants its graduates to be recognised as being job-ready at home and abroad.³⁴

The Indian higher education system on its own does not have the capacity to expand the annual cohort of PhD graduates to meet demand

- in relative terms, India produces a tenth of the number of PhD students that Australia does^{xv}
- in the critical field of STEM, which has historically drawn considerable numbers of Indian students, India graduates less than a third of the number of PhDs compared to the United States.

Although the proportion of Indian PhD students who go overseas for their doctoral training has decreased, competition for limited places in PhD programs at India's top universities forces a significant number of talented students to look for opportunities overseas

- however, Australia attracts relatively few PhD students from India
 - the ratio of Indian PhD to Indian undergraduate enrolments is lower than the ratio at United States universities
 - Australia also attracts significantly more Chinese PhD students than we do from India.

Attracting high quality students in advanced courses helps build our reputation as a premium education destination, establishes important people to people links, improves the visibility of Australia's academic expertise, and can be a precursor for a more established partnership between universities.

Research collaboration is a pathway to commercialisation and technological advancement; twinning programs; student exchanges; and the establishment of a pipeline from undergraduate to postgraduate and doctoral studies

- the effect works in reverse too – student exchanges, particularly at the higher degree research level, are a pathway to research collaboration.

While collaborative research between Australian and Indian researchers has increased significantly in the last two decades, and is up 40 per cent since 2015, there is considerable scope for further improvement

- India consistently ranks outside the top 15 countries for Australian collaborative research projects funded by the Australian Research Council.

^{xv} The proportion of PhD students to total student enrolments in India is 0.4 per cent; in Australia it is 4.1 per cent.

3.0 CONSTRAINTS AND CHALLENGES

KEY JUDGEMENT

The Indian university education system is heavily regulated but the vocational sector has a more welcoming regulatory environment.

3.1 The policy and regulatory environment

SLOW PACE OF REFORM

Government reforms in the university sector will continue to be slow and difficult

- particularly in the online education sector, where Indian regulators hold outdated views on curriculum delivery and are reluctant to acknowledge or accredit higher education courses that include an online component.

While Central Government ministries have a mandate from the Prime Minister to prioritise reform in the sector, and are working on online learning regulations, bureaucratic capacity constraints and underfunding mean it is unlikely to see transformational reform in the next 15 years.

AUSTRALIAN QUALIFICATION RECOGNITION IN INDIA

Foreign qualifications must be formally recognised by the Association of Indian Universities (AIU) for the purposes of further study and for some employment opportunities in India, including the public service

- the AIU will not recognise degrees that include a pathway course (such as a diploma or foundation course) or any degree wholly or partially taught online or through distance study
- these restrictions are applied uniformly to foreign countries

- the restrictions which most affect Australia include a lack of recognition of: three-year bachelor degrees, higher education qualifications obtained through a TVET pathway and master's degrees of less than two years.

Australia would benefit from having its qualifications 'validated' and the resulting fillip to the perceived quality of its qualifications, while India would gain from the qualifications that alumni bring home if those qualifications were recognised without impediment.

Incremental change has occurred regarding qualification recognition

- intensive courses that count units of study rather than length of time have been recognised, allowing, for example, degrees undertaken on a trimester basis to be counted
 - but this stops well short of what Australia would like to see.

INDIAN FOREIGN PROVIDERS BILL

The most recent Foreign Universities Bill was introduced in 2010 but faced significant opposition and lapsed in 2014. Previous bills floundered in 1995 and 2005

- the 2010 Bill would have allowed foreign institutions to establish campuses in India
- support for the Bill has been stymied by the many vested interests, including Indian politicians and local business owners, who have a business stake in Indian universities and do not want to see foreign competition enter the market.

In 2015, Prime Minister Modi commissioned a report by NITI Aayog which found that allowing foreign universities into India could help meet the demand for higher education in India, increase competition and improve standards of higher education

- opportunities could be made available to ‘reputed’ institutions or ‘institutions of excellence’ – understood to be top 200 global universities – to operate in India.

Even if these mooted changes to the Bill do take place, government monitoring and regulation of the fees which foreign providers charge may deter Australian providers from establishing a presence in India.

CHANGES TO VISA SETTINGS

International students from most major source countries, including India, consistently identify post-study work rights as an important factor that influences their choice of where to study. This is particularly relevant for graduate students

- changes to our visa settings are closely followed in India
- reforms to our visa processes currently under consideration would have a beneficial effect on the speed and simplicity of visa processing
- any changes in the opposite direction have the potential to affect the broader bilateral relationship.

3.2 Skills, infrastructure and other constraints

REPUTATION

Despite Australia’s strong international reputation in the education sector and a high quality education ‘system’ as a whole, Indian students perceive Australian education to lack gravitas

- this is partly explained by history – when India’s nascent professional middle class first studied abroad in the 1970s and 1980s they tended to go to the United States or United Kingdom

- Australia also has fewer very highly ranked institutions (only one university in the top 40) and lacks an education powerhouse brand such as Harvard, MIT or Oxford.

Australia’s education reputation can also be affected by the significant variability in the quality of education agents in India

- Indian students, over half of whom will use an agent at some stage, can find it difficult to discern the credibility of the many international universities competing for their attention, and often rely on unregulated agents to navigate the complex process for studying at a foreign institution
 - students still prefer human contact with their agents although the use of virtual advice is increasing
 - unscrupulous agents representing Australian private institutions can do great harm to Australia’s education reputation
- initiatives to improve transparency of agent performance are an important response
 - including Australia’s Department of Education and Training’s ‘Education Agents Data Project’, which gives registered education providers access to reports about the education agents they engage to recruit overseas students
- significant disintermediation of the agents market in India will likely occur within the next five years
 - this will affect the smaller end of the agent market disproportionately, thereby addressing some of the concerns around agent quality.

DIASPORA CONCENTRATION IN VICTORIA AND NEW SOUTH WALES

Australian universities outside Victoria and New South Wales report difficulties in attracting Indian students.

The presence of large diaspora communities on the east coast produces a network effect

- as the diaspora in those states grows, word of mouth and the presence of family, friends and familiar communities increases the desirability for Indians to choose to study there.

AUSTRALIAN UNIVERSITIES ARE PERCEIVED TO LACK CLOSE CONNECTIONS TO BUSINESS

Employability is a major consideration for Indian students when choosing university options.

Many Indian students perceive Australian universities to lack close connections to industry, especially compared to competitor countries like Canada that have highly evolved cooperation projects for students to gain business experience as part of their coursework

- Indian students in Australia feel they miss out on practical opportunities that would enhance their job prospects
- Australian businesses are wary of engaging with international students because they may not understand relevant visa settings.

This also causes Australian businesses to miss out on a significant talent pool of international students due to a lack of exposure, even though visa arrangements allow international students to work while they study.

LIMITED DOCTORAL FUNDING

Compared to the United States and United Kingdom, Australian universities offer limited funding for doctoral research, lowering demand for Australian education at postgraduate level

- we have a comparative lack of scholarships and an inability to match the suite of United States price points
- the prevalence of United States scholarships means less than 10 per cent of Indian PhD students pay the sticker price for their degree.

MISALIGNMENT OF BUSINESS MODEL FOR AUSTRALIAN VOCATIONAL PROVIDERS

The high volume, low cost model needed for India does not stack up economically for most Australian providers, who operate on a low volume, high cost structure

- providing a quality product is central to Australia's competitive position in vocational training
- Australian providers are wary of diluting the quality of Australian qualifications to meet the cost needs of Indian consumers.

COMPETITION IN ONLINE EDUCATION

Competition from domestic local low-cost providers will hinder the rate of adoption of online distance education from international suppliers.

Existing brick and mortar education companies with a strong understanding of local conditions are able to quickly and efficiently scale up their online presence

- for example, EduComp – the largest education company in India – runs over 200 pre-schools, 94 test preparation centres, 50 K-12 schools, six colleges and one higher education campus
 - it also has an online user base of 5.5 million customers.

4.0 WHERE TO FOCUS

Australian education providers should focus on Indian states with high literacy rates, a demonstrated commitment by the state to spending money on education, and states with good English language skills. The states highlighted below reflect a judgement on both current demand and future demand. Despite being among the poorer Indian states, Chhattisgarh and Himachal Pradesh fit the latter category because state spending on education is far above the national average. While literacy rates and the proportion of state budgets directed at education are not the determining factors, they point to the size and sophistication of the education markets in these states into the future.

4.1 The Centre and the states

Expansion and reform of the higher education system will be driven by the states.

Higher education in India is witnessing a rapid move towards greater state autonomy

- responsibility for higher education budgets and governance is being devolved from Central to state governments, where state institutions and their affiliated colleges account for 97 per cent of higher education enrolment in India.

Within states, school and tertiary education providers should focus on high income urban clusters such as Ahmedabad, Chandigarh, Chennai, New Delhi and Mumbai

- these will provide a customer base of students who demand and are willing to pay for an international education.

For deepening research links, Australian universities should connect with Indian counterparts that are serious about increasing their global rankings, have good governance structures and faculties that align with Australian expertise

- up and coming private universities are most prospective in this regard
- leading Indian public universities are sometimes seen to be hard to deal with
- utilising the Indian academic diaspora in Australia to navigate some of the complexities of the Indian research system might help [see *Chapter 18: The Role of the Diaspora*].

For vocational providers, the choice of sector will drive decisions on which states to target

- for example, skilling in health care could be focused on Kerala and Karnataka, given their history of exporting health care personnel and the presence of a developed health care market respectively
- hospitality providers could consider Kolkata in West Bengal because of its status as a hospitality training hub for students from the north-east, who comprise a substantial proportion of the Indian hospitality industry nationwide.

CASE STUDY: IDP: ENABLING INDIAN STUDENTS TO ACHIEVE THEIR EDUCATION GOALS IN AUSTRALIA

International education is Australia's third largest export industry. India's growing population, expanding middle class, rising disposable incomes and the perceived value of an international higher education means increasing educational demand that Australia is well positioned to meet.

IDP, an ASX listed company 50 per cent owned by Australian universities, is a global leader in international education services and has become a key player in supporting the industry's growth.

Since opening its first office in Delhi in 1995, IDP's Indian operations has grown to 32 student offices, 49 International English Language Testing System (IELTS) centres and more than 900 staff. In the financial year of 2017, close to one in five Indian students who arrived in Australia used IDP's services.

IDP's Indian growth strategy has been built on its long term investment and understanding of market conditions. The international education market shifts quickly and education providers need to make sure they understand and, where possible, anticipate the needs and behaviours of students.

This was tested in 2009, when Australia's international education sector faced challenges. The combination of negative media attention, a rising Australian dollar, closure of some colleges, student safety concerns and tightened visa rules led to perceptions that Australia was no longer a welcoming destination for students. As a result international student numbers from India to Australia declined significantly.

IDP remained committed to its students and clients during this challenging time, which held it in good stead as market conditions improved and growth returned.

The company's growth in India relies on teams maintaining absolute passion for improving the experience of students and test takers. IDP has six Australian offices providing education and support services that help students feel connected, engaged and empowered throughout their studies, including after students arrive in Australia.

IDP's success also comes from its investment in training staff to be experts in the education systems of key English-speaking countries' and its commitment to connect students with the right course that will help them achieve their global education and career aspirations.



4.2 Key states

KERALA

- Literacy rate: 94 per cent – highest in India
- Education spend as proportion of state budget: 15.3 per cent

Skill development has good potential given Kerala's demand for skilled labour exports as well as the state's practical approaches, including the Additional Skills Acquisition Programme, Kerala Academy for Skills Excellence and Asian Development Bank-funded Community Skills Parks.

TAMIL NADU

- Literacy rate: 80 per cent – one of the few large states in India with a literacy rate above 80 per cent
- Education spend: 14.7 per cent
- Highest Gross Enrolment Ratio of Indian states: 44.3 per cent

There are 83 active Memorandum of Understandings (MoU) between Australian Universities and educational Institutions in Tamil Nadu. Tamil Nadu was one of the early states to open its higher education sector for private participation.

MAHARASHTRA

- Literacy rate: 82 per cent
- Education spend: 18.2 per cent – one of the highest spend rates on education in India

Maharashtra had the highest number of students trained by National Skill Development Corporation partners in 2015–16.

CHHATTISGARH

- Literacy rate: 70 per cent
- Education spend: 19.7 per cent

Despite literacy rates slightly below the national average, Chhattisgarh stands out for spending nearly 20 per cent of its state budget on education.

HIMACHAL PRADESH

- Literacy rate: 83 per cent
- Education spend: 19.1 per cent

Himachal Pradesh's recent performance on educational outcomes is exceptional by north Indian standards. In 2015–16, there were 993 schools per 100,000 people in the state compared to the national average of 475. The average student-classroom ratio for upper primary school (11–12 years old) in Himachal Pradesh was 10 compared to the national average of 17.

Much of this is as a result of government investment in public service delivery, enabled by the greater fiscal space that the state has enjoyed from its special category status (this status entitles states to greater assistance from the federal government). These investments culminated in a 15–30 per cent increase in the learning outcomes of primary students in 2016–17.

CASE STUDY: KANGAN INSTITUTE: AUSTRALIAN INSTITUTE TEAMS UP WITH CAR-MAKING GIANT TO TEACH AUTOMOTIVE SKILLS IN INDIA

As a nation with a young, growing population, India is focused on growing the skills of its youth to prepare its workforce for the future.

The Kangan Institute, an Australian technical education provider, is using its track record in innovative training solutions to be part of India's transformation. Partnering with the Government of Gujarat and Maruti Suzuki, a major Indian car manufacturer, the Kangan Institute is India's knowledge partner in delivering the first International Automobile Centre of Excellence (i-ACE) in India. The Centre in Gujarat will be based on its own centre in Melbourne, recognised as a cutting-edge facility at the forefront of automotive training.

The significance of this project lies in its status as an industry initiative. The involvement of Maruti Suzuki puts the centre at the nexus of industry and education, focusing on the job-ready skills which business needs. With India's automotive sector forecast to quadruple in size to US\$300 billion by 2026, the venture is a strategic investment in India's industry training.

A major project of this nature takes time. Kangan Institute teamed up with enthusiastic and committed partners, and hosted these partners to visit its Melbourne centre numerous times, to share experiences.

This project is the first of its kind in India, and a great opportunity for the Kangan Institute to showcase its facilities internationally.

RECOMMENDATIONS

6. Consistent and deliberate branding to unite fragmentary approach to education marketing in India

- 6.1 Reposition 'Brand Australia' to improve the perception in India of the quality of Australian education.
- 6.1.1 Make India a priority market as part of the global refresh of Australia's education brand in line with the National Strategy for International Education 2025 and Austrade's 'Australia International Education 2025' initiatives.
- 6.1.2 A 'Study in Australia' education hub should be established in New Delhi based in commercial offices rather than in our diplomatic mission
- India is big enough to accommodate all Australian providers, which need to stop seeing each other as competition and instead to collaborate in a coordinated manner
 - this hub would be responsible for the international marketing and promotion of Australian education and training, and be led by an upgraded Austrade presence with on the ground support from the Department of Education and Training and Universities Australia
 - the hub would work directly with industry, peak bodies, and local providers to build a 'Study in Australia' brand which highlights the quality of Australian education
 - universities that have a presence in India could consider co-locating in the hub.
- 6.1.3 Develop annual visits and roadshows to target prospective students, as well as specific schools and universities
- including matching Indian students with Australian universities
 - attention should be given to encourage Indian students to explore options beyond Victoria and New South Wales, including by working with Australian states to identify areas of competitive advantage they can promote in India.
- 6.1.4 A united Australian approach to education in India should emphasise the quality of Australian education and could also address the problems with agent quality by increasing trust and confidence in Australian education institutions
- bringing together providers with government and industry groups would strengthen information dissemination channels so that prospective Indian students can rely less on agents, including by helping students enrol directly with their institution of choice.

- 6.1.5 The emphasis on quality should be a commitment shared by all Australian institutions marketing in India
- if this commitment is weakened by even one or two institutions it tarnishes the reputation of all.
- 6.1.6 The Australian Government should monitor visa rejection rates, and urge those institutions with high rejection rates to review their approach to selecting quality students.

- 6.2 In line with Austrade's global Digital Engagement Review, deliver cohesive, consistent and fit-for-purpose information for Indian students across all online channels, including information available in significant Indian languages.
- Austrade's 'Study in Australia' website and any future digital channels should have pages in major Indian languages, including Hindi, Tamil and Punjabi
 - Austrade's current portal for international students can be viewed in 11 languages, including Russian and Italian, but there are no Indian languages available
 - Indian language content is particularly important for the parents and grandparents of prospective students, who will usually be responsible for paying their child's tuition fees.
 - Austrade should also consider a digital platform that is capable of leading students from initial inquiries and research through to course and institution selection, scholarship applications, enrolment, and visa information using a single account
 - this account should allow students to repeatedly return to the site to check their progress against the various steps required to realising their Australian education ambitions.

- 6.3 Expand this collective effort to attract Indian secondary school students to attend Australian schools
- Australian secondary schools – particularly those with boarding facilities – as well as relevant industry groups should consider joining this upgraded marketing effort to attract affluent Indian students to attend Australian secondary schools for Years 11 and 12.

- 6.4 Given the priority assigned to education by Australian state governments, consider establishing a forum for Australian states to discuss with each other their approach to education in India.

A state to state forum can provide an opportunity for different state and territory governments to learn from each other, avoid duplication and, where appropriate, leverage current activity to spread the benefits of engagement more broadly

- information is being gathered by individual states, territories and the federal government but not being shared in a regular and coordinated manner

- this should be a new forum, held twice yearly, separate from the Australia India Education Council (AIEC), for representatives from the states and territories to share information on their work on education in India
 - but this forum should feed into the AIEC, which has little visibility of state and territory activity
- representatives from the Department of Education and Training should be present as this would allow the states to plug into government discussions with India
 - it would provide a conduit for the states to raise education issues with Indian officials, via Australia's education representatives who are based in our High Commission in New Delhi
- by pooling resources, states can learn from each other's experience in India
 - this would be particularly valuable for those states and territories that have historically been less active in education in India
 - education providers should be invited to parts of the meeting to raise concerns or lessons learned from being on the ground in India.

7. Increase Australian involvement in the development of Indian curricula

Collaboration on the setting of education standards, syllabuses and assessments will associate Australian education with high quality in the minds of Indian parents and students

- the payoff for this approach may not be immediate
- in the long term, promoting the quality of Australian education will entice some of these students to consider postgraduate education in Australia.

The successful approach undertaken by ACER, which helped India's NCERT to design, implement and report a new National Achievement Survey for students in Year 10, could be a template for deeper engagement in curriculum development

- in particular, Australian providers should target affluent Indian secondary schools to offer accreditation for higher classes in school education (Year 10–12).

8. States and territories should develop exchange programs for secondary school students

Secondary schools should introduce exchange programs for students and teachers

- these programs should aim for two way engagement so as to encourage Indian students to consider attending Australian secondary schools for their last years of secondary education
- a model for this engagement is the Victorian Government pilot program, which will see up to 200 Victorian Year 7–9 students and 25 teachers travel to India and complete two to four-week immersion programs.

9. Attract top Indian students by introducing an ‘Alfred Deakin Scholarship’^{xvi} for India

Akin to a Rhodes or Fulbright, the Australian Government should establish a fund to provide for a select number of annual, merit-based scholarships that range across disciplines and level of study

- the overarching goal would be twofold
 - to attract the best and brightest Indian students
 - to generate marketing momentum
- to achieve this, the scholarship should be prestigious and generously funded, with notable brand ambassadors and political attention to attract the best talent
- at least half of the available scholarships in any given year should be set aside for women
- to help generate momentum and attention, the final round of the application process could be made into a television event in India, with the winners announced on television
- initially six scholarships should be offered.

10. Improve peer to peer marketing

Australia should make better use of Alumni networks, as well as the Indian diaspora, to serve as advocates for Australia’s education system

- beyond DFAT’s Global Alumni Ambassadors, we should identify Alumni Ambassadors from targeted universities, disciplines and states
- we should also draw on the growing pool of successful Indian-origin Australians to act as brand ambassadors in target disciplines
- and encourage the establishment of alumni associations from Indian IITs and Indian Institutes of Management (IIMs) in Australia, allowing feedback from those in Australia into the IITs and IIMs.

11. New Colombo Plan funding for India should be maintained

Since its inception in 2014 the NCP has enabled 3,350 young Australians to study and intern in India, enhancing mutual understanding between our two countries and helping to raise the profile among Indian universities and businesses of the quality of Australian education

- funding for NCP scholars and interns to select India should be maintained at current levels.

^{xvi} Named after Alfred Deakin, Australia’s second Prime Minister. Deakin was Australia’s most India literate political leader and author of two books on India.

12. Coordinate with other countries to advocate for increased recognition of non-standard qualifications in India

The AIU does not recognise the standard three-year Australian undergraduate degree because Indian degrees are four years in length

- Australia should pursue joint advocacy on this issue with other countries, including the United States and United Kingdom, which face similar problems in getting India to recognise qualifications that do not identically match Indian standards
- emphasis should be placed on convincing India to recognise qualifications partially or wholly delivered online.

13. Industry associations in both countries should work together to recognise qualifications

Our advocacy efforts should focus on professions and universities that would make the biggest difference to Australian industry

- for example, given the common law system in India, if the Bar Council of India recognised more Australian law qualifications or allowed foreign lawyers to practice in India, many business links would follow
- this could be encouraged through pilot programs where the Bar Council of India and the Law Council of Australia agree to recognise law degrees from a select number of Australian and Indian universities, respectively
 - this could build on precedent; in 2017, the Law Council of Australia for the first time recognised a law degree from an Indian university – OP Jindal Global Law School – provided the applicant pass at least four compulsory Australian law subjects.

14. Encourage India to join the Tokyo Convention

The Australian Government should encourage India to sign and ratify the Tokyo Convention, a dedicated forum for cooperation in ensuring qualifications are recognised as fully and widely as possible, as a way to improve the recognition of Australian qualifications in India as well as the recognition of Indian qualifications throughout the Indo-Pacific

- the Convention lays down basic principles for recognition of higher education qualifications, including increased information and transparency, in order to smooth cross-border mobility of students, academics and professionals within the region
- efforts to pursue Indian ratification could also be undertaken in conjunction with Japan (along with Australia, one of the five original countries to ratify the Convention) through established trilateral forums.

15. Increase number of twinning programs

Although India currently prohibits joint degrees, Australian universities should make the most of Indian regulations that allow for the establishment of joint study/twinning programs between local and foreign institutions. Expanding the number of these programs would help improve any inaccurate quality perceptions of Australian universities and could in turn help to accelerate the recognition of Australian qualifications.

15.1 Increase research links by introducing jointly-badged PhD programs with Indian universities

- in addition to increased financing, more Australian universities should consider jointly-badged PhD programs with Indian universities
 - this would expand access to PhD training to more Indian students for whom the costs of studying and living in Australia for the duration of a PhD are prohibitive.

15.2 Introduce short term research intensives

- universities should jointly develop formal programs with Indian universities to allow Indian undergraduate students to undertake short term research internships during the Australian summer break as a way of introducing prospective PhD students to possible supervisors.

15.3 Universities Australia should explore options for a consortium of Australian universities to partner in the establishment of one of India's six new proposed IITs.

- In 1959, a consortium of 10 United States universities assisted in the development of IIT-Kanpur. Each consortium member participated in three components of the program: consortium faculty taught at IIT-Kanpur; IIT-Kanpur faculty received on-the-job experience in consortium institutions; and planning and procuring equipment and materials for research infrastructure at IIT-Kanpur.
- The close relationship and academic exchanges between Consortium universities and IIT-Kanpur established the foundation for attracting bright engineering and technology graduates to pursue postgraduate and doctoral degrees at these institutions.
- The Modi Government plans to open six new IITs by 2020.^{xvii} An Australian consortium should partner with one of these six, along the lines of the United States effort half a century earlier in Kanpur
 - Andhra Pradesh and Karnataka would be a potential location for this consortium because they are among the priority states identified in this Strategy [see *Chapter 17 – A Collection of States*]
 - this consortium could also consider joining with universities from third countries to deliver a new IIT.

^{xvii} The IITs will be opened in: Kerala, Jammu and Kashmir, Andhra Pradesh, Karnataka, Chhattisgarh and Goa.

16. Increase financial support for Indian and Australian doctoral students by introducing a Joint Research Fund

The availability of financial support is a major 'pull' factor for Indian students considering undertaking PhD programs overseas.

Australia should increase the availability of funding for Indian and Australian PhD students by establishing a Joint Research Fund with strong links between industry and academia

- the inclusion of PhD students from both countries would be a compulsory requirement of some or all applications for funding
- short term mobility for PhD students from both countries should be a subset of this Fund.

A Joint Research Fund would be separate from and broader than the Australia-India Strategic Research Fund because the AISRF does not fund doctoral students at present. This Fund would also not be limited to research in the sciences.

17. Collect reliable data on state of origin from Indian education visa applicants and where they go following study in Australia

The Australian Government does not collect reliable data on the state of origin from Indian education visa applicants or where they go following Australian study

- improving this data collection would help Australian education institutions and government efforts to improve their marketing and outreach to Indian students
- current data is unreliable as it relies on self-reporting by the applicant
- having Indian visa applicants provide a copy of their Aadhaar card will improve the quality of the data.

18. Australian universities should partner with business to promote India literacy in Australia through the expansion of Indian studies, including language studies, in Australian universities

Large Australian and Indian corporates with commercial interests in both countries should sponsor new faculties and courses on Indian studies in Australian universities

- a small number of Chairs of Indian studies in major universities should be established
- the study of Indian languages should be expanded
 - six universities in Australia taught an Indian language in 1996, now only two do, while over a dozen universities offer courses in Mandarin and Japanese.

Another way to increase the credibility of Australian education in India is for Australian universities to boost research and teaching on issues of high priority to India

- we need to make our education offerings more relevant to Indian students as well as increase the India literacy of Australian students.

19. Set aside places in Australia Awards for Indian students

Indian students currently lack access to scholarships from the Indian Government for overseas study and have received a disproportionately low share of scholarships from the Australia Awards – the Australian Government’s access scholarship program for countries in the Indo-Pacific

- these scholarships are merit based and predominantly go to master’s and PhD students
- from 2007–2017, 32 students from India were offered Australia Awards scholarships, out of 2,484 offered to students from other countries in South and West Asia (Bangladesh, Nepal, Bhutan, Maldives, Afghanistan, Sri Lanka, Pakistan)
 - no Australia Awards scholarships have been granted to Indian students since 2014
- DFAT should set aside a number of scholarships for Indian students.

20. Universities, particularly those without a campus in Melbourne or Sydney, should better integrate opportunities for employment for Indian students during their degree

Universities should nurture links with businesses and develop co-operative programs that facilitate work experience for their international students that is relevant to their degree

- it helps students earn money while they are studying and improves their employment prospects once they have graduated
- this is one way that regional universities in particular can provide value to Indian students without needing to establish a satellite campus in a major city.

21. Expand the Indian courses under the International Skills Training program

A suite of three international training and assessment courses has been developed by the Australian Government under the International Skills Training (IST) program. The courses allow Australian training providers to access Indian Government funding for training delivery

- these have been mapped to Australian training and assessment qualifications and benchmarked against Indian national occupational standards for trainers and assessors
- the Department of Education and Training manages the program, granting licences to approved Australian Registered Training Organisations (RTO) wishing to deliver the IST courses for trainers and assessors
- the IST courses could become a catalyst to unlock Australia’s potential to offer skills training at a price point which India’s skills ecosystem will pay, while maintaining Australian credibility for delivering high quality skills training at scale.

Preliminary discussions indicate strong Indian interest in working with Australia as a partner of choice to build India's skills capacity

- the strong preference of India's National Skill Development Corporation is to outsource its training to Australia
- a critical factor to realising this opportunity in timeframes palatable to India is a coordinated, nationally driven approach.

However, only 10 Australian RTOs are currently licensed to deliver the IST courses in India

- these RTOs are operating independently of each other, making it more difficult to capitalise on economies of scale
- options to incentivise a consortium approach should begin by funding, for three years, two or three locally engaged Business Development Managers to hold the consortium together and present a credible front to Indian partners.

22. Australian providers should partner directly with Indian corporates to tailor qualifications based on industry requirements

The variability in education quality from Indian institutions means Indian companies can struggle to hire suitable employees, even if their credentials appear strong on paper

- as a result, some private Indian TVET providers have demonstrated that formal government recognition of degrees and courses is not critical for success in the Indian market – as long as industry (and therefore job seekers) appreciate the quality of training being provided
- Australian providers should consider working directly with large Indian businesses to develop programs and assessments that meet the needs of individual businesses
 - the scale of India's biggest corporates would provide sufficient revenue for Australian providers.

23. The Australian Government should advocate for Indian authorities to recognise online courses in both the higher education and vocational sectors

Courses delivered online are not recognised by the University Grants Commission, the statutory body responsible for regulating Indian institutions.

- For India to meet its education and skills needs, its regulations will need to change to recognise online learning.
- Advocacy should focus on how online courses will help Indian providers reach a bigger pool of students.
- Recognition of online learning would also encourage Australian providers to deliver courses from Australia to students in India while providing on the ground support in India.

24. DFAT's Innovation Exchange should promote an 'ideas challenge' to develop online courses that target the skilling of women

The challenge^{xviii} should identify ways to boost the enrolment of women in MOOCs by suggesting how to overcome barriers to reaching women in the online delivery of education courses, particularly in rural areas.

^{xviii} An 'Ideas Challenge' is a platform to source new ideas which can be discussed and refined and, where they show great potential, supported to implementation.