4. How to improve Indian graduate employability and outcomes: Empirical comparisons with Australia

Narender Thakur, Shelley Kinash and Amy Bannatyne

Introduction

Depending on the rhetorician's perspective, university graduate employability and outcomes in India might be described as the perfect storm or the opportune reclamation. India is experiencing a youth explosion and many of these young people are pursuing degrees (Gupta, 2014). Compared to Australia, India has 18 times the annual university graduates. The total number of graduates from tertiary education[1] in India and Australia in 2014 were 7.7 million and 0.42 million respectively (UNESCO, 2017).[2] However, whereas an overall average of 70 per cent of Australian youth secure full-time discipline-related careers four-month post-graduation (Australian Government Department of Education & Training, 2016), only 33.5 per cent of Indian youth secure the same outcomes (Thakur, 2016). One commonly cited explanatory factor is degree-choice. In the contemporary knowledge economy, employability tends to be higher from degrees in the disciplinary areas of Science, Technology, Engineering and Mathematics (STEM) (Langdon, McKittrick, Beede, Khan, & Doms, 2011). Whereas 73% of Australian graduates enrol in these degrees, STEM disciplines are chosen by just over half (52%) of Indian graduates (MHRD, 2016; UNESCO, 2017). Thereby, one ameliorative active to improve employment outcomes in India would be to encourage students to enrol in STEM disciplines and then focus employability strategies and supports in these degrees.

The higher current career success rate of Australian, as compared to Indian, university graduates might also be explained in the context of the overall education systems and their relative national prioritisation. India ranks number two of countries by population size (currently over 1.3 billion) and nearly 18 per cent of the world's total population live in India (United Nations, 2015; World Health Organisation, 2017a). In comparison, Australia ranks 52 in the list of countries by population (current population is almost 24 million) and less than 1 per cent of the world's total population live in Australia (United Nations, 2015; World Health Organisation, 2017b). Whereas India and Australia start out with relatively equal ranking in primary education (gross enrolment ratio) of 108 and 106, by tertiary education, India sits at 26 whereas Australia sits at 90 (UNESCO Institute of Statistics (UIS), 2017). Australia compensates for the relatively low available youth population, thereby supplementing the available workforce, by recruiting international students. As its third highest export industry, Australia's inbound mobility of international students is over 18 per cent (OECD, 2016). In comparison, India's inbound mobility is less than a percentage point (OECD, 2016). Australia's per student government expenditure on education is much higher than in India and the student to teacher ratio is much lower in Australia (UNESCO Institute of Statistics (UIS), 2017). Intuitively, one would surmise that the higher the youth population, the greater the expenditure on education. Because India's situation reverses this balance (as compared to Australia), the quality of the respective education is called into question.

[1] Person who, during the reference educational level or academic year, has successfully completed an education programme (UNESCO Institute of Statistics (UIS), 2017).
[2] 68.3 million Graduates and above degree-holders in India during 2011 (GOI, 2013).

The broader context of Indian higher education is relevant to the consideration of employment outcomes. In India, education and three socio-economic-political trends - liberalisation, privatisation and globalisation (LPG) - have interacted with both positive and negative consequences. An increase in overall liberalisation has resulted in the deregulation of education, which also means that the government has less power to assure quality, as well as less industry planning capability. Privatisation means that education is increasingly being transferred from the public sector, resulting in an increase in the numbers of for-profit education institutions (Agarwal, 2009). While this can heighten competition, increase market-demand-and-response, and thereby create a system that must take responsibility for employment outcomes, it also means that the national education/employment plans and targets are not readily achievable (Bhushan, 2013). Finally, globalisation, in the context of education, means that curriculum and assessment must increasingly be designed to improve the cosmopolitan perspectives, skills and wide geographic employment eligibility of students and graduates (Crossman & Clarke, 2010). While globalisation has the potential to broaden Indian graduates' employability, as they are freed from national limitations and prepared to work abroad, it can also lead to brain-drain, whereby the highest achieving and most innovative graduates may emigrate rather than contributing to the growth and success of the Indian economy (Lan, Hale, & Rivers, 2015).

Since the 1990s, the heightened interactive context of LPG in India has changed - and been changed by - trends in education. LPG philosophies have seen an intentional increase in the number of graduates in Indian higher education (Bothwell, 2018; Naik, 2015). For example, the introduction of private sources of finance has made expansion possible, and simultaneously necessitated expansion, as enrolled students becomes an economic market commodity (Federation of Indian Chambers of Commerce & Industry [FICCI], 2013; Naik, 2015). In addition, the information technology boom of the late 1990s saw increasing numbers of Indian graduates with the necessary credentials and skills emigrating to the United States of America. However, when the dotcom boom became a crash, a surge of youth returned to India, some of whom exacerbated the unemployment crisis and others of whom stimulated the Indian Information Technology (IT) and Business Processing Outsourcing (BPO) Sector, which has had a lasting effect on the national economy and world status. The higher numbers of private higher education institutions in India, alongside the greater use and stimulation of Information and Communication Technology (ICT), has heightened the need to critically examine issues of quality, employability, unemployment, capability and social inequities.

This chapter examines graduate employability issues in India and Australia and is based on surveys undertaken in both countries. These surveys collected quantitative and qualitative data on four stakeholder groups' (students, graduates, educators, employers) perceptions regarding strategies and other components of graduate employability. The chapter is organised into three sections. The first section identifies the key contextual factors impacting graduate employability in India and Australia. The second section presents and discusses the quantitative survey results, focussing on the discrepant perspectives of the various stakeholders and between India and Australia. The third section presents an analysis of the qualitative survey results from a solely Indian stakeholder perspective. Finally, the results are combined and interpreted to derive conclusions, policy implications and recommendations.

Theoretical Background: Employability

The selected definition of employability applied throughout this chapter derives from one of the authors' prior Australian national research on graduate outcomes.

> Graduate employability means that higher education alumni have developed the capacity to obtain and/or create work. Furthermore, employability means that institutions and employers have supported the student knowledge, skills, attributes, reflective disposition and identity that graduates need to succeed in the workforce (Kinash et al., 2015).

At the basic level, employability is the main student motivation to enrol and study in universities and thereby to qualify for graduate-level careers (Kinash et al., 2015). As such, universities have an obligation to ensure that the curriculum and broader student experience increases their eligibility for such careers (Kinash et al., 2015). However, it is widely recognised that employability is situated within a broader socio-economic context. For example, the International Labour Organisation (ILO) identifies a number of intermediary factors:

> Employability results from several factors – a foundation of core skills, access to education, availability of training opportunities, motivation, ability and support to take advantage of opportunities for continuous learning, and recognition of acquired skills – and is critical for enabling workers to attain decent work and manage change and for enabling enterprises to adopt new technologies and enter new markets. (Brewer, 2013, p. iii)

The above quote elaborates on student factors, some of which are primarily in the students' control, such as motivation, and others of which are not, such as access and support. Furthermore, the ILO acknowledges that availability of training opportunities is a critical factor and that new technologies and new markets require change management. Similarly, UNESCO wrote about critical prerequisites of employability:

> Transferable skills that are less tangible but crucial for employability and other life outcomes, such as self-esteem, motivation and aspiration, are in part shaped outside the school environment. Yet good quality education can play a role in promoting such skills in ways that could be particularly beneficial to students who lack a supportive home environment. (UNESCO, 2012, p. 188)

This quote from UNESCO highlights employability as multi-dimensional in that there are curricular and extra-curricular components which are discipline-specific as well as cross-disciplinary and developed within and beyond educational systems and structures.

Focussing beyond the international contexts of the ILO and UNESCO, there are India-specific policies that have significant implications on employability. Since 2009, the Government of India has sought to increase the employability of students/graduates through skill-development programmes (Tara & Kumar, 2016). Such programmes are designed to further develop and/or compliment university education. They are predicated on a belief that university graduates lack skills and competencies, and have better theoretical knowledge than practical training in the field (FICCI, 2013; GOI, 2013). The National Policy for Skill Development and Entrepreneurship in India (during 2015) articulated skill development as an important driver to reduce poverty. The underlying assumption is that

poverty can be solved by improving employability of graduates and, thereby raising their productivity, which in turn determines sustainable development and inclusive growth.

Critical literature exploring labour market failures suggests that as employment opportunities decline, there is a corresponding impact on graduate employability (Patnaik, 2007). In other words, the increasing use of ICT in the LPG era has globally affected the rate of employment. Furthermore, the 2007 Global Financial Crisis also adversely affected the employment growth rate, including at a national level. It can therefore be argued that the challenges around graduate employability are not the sole responsibility of the higher education sector, in terms of supplying appropriately trained graduates for the labour market. There are also issues stemming from changes to the nature of the labour market. The LPG era has seen a highly competitive labour market emerge, which, in its drive towards ever-increasing profits, has focused its energies on increasing use of technology and automation and lower wages. In turn, this has resulted in reduced demand for graduates. Theodore (2000) has critiqued employability-based approaches to supply-side intervention in the labour market. He argues that graduate employability erroneously focuses only on the end result of the dynamic process of supply-side economics and thereby ignores demand-side economics. In the graduate labour market, the supply of labour is filled by the graduate employee and the demand for her/his skill or knowledge, which is created by the employer/firm/company (Bhushan, 2013).

In times of heightened unemployment, a substantial deterioration in overall graduate life-satisfaction is prevalent during the transition from the education sector to the labour market. This is exacerbated by insidious trends toward placing the blame, for unemployment, on the university graduates themselves (Lim, 2015). Banciu's (2012) research confirmed that overall, employers highly value university degrees, but also critique the over-emphasis on theoretical knowledge and inadequate development and training to assure practical skills. Olejniczak (2012) explained the unemployment of graduates as a mismatch between the demand and supply of labour markets, which can result in the rejection of graduates in both the education sector and labour market. A vicious circle thereby results, with deleterious implications for the life satisfaction and mental health of students and graduates, spiralling to an overall population effect.

In a nutshell, these critical economists and theorists present research and interpretations that indicate graduate employability can be increased by addressing two main challenging issues: (i) expansion of equity, capability, and quality in the higher education system, and (ii) greater employment opportunities in the labour market. In summary, in order to increase graduate employability, both the labour market and the education sector in India must be strengthened.

Employability in the broader societal context: Australia and India

Australia practices an inclusive approach to higher education. The national goal is to maximise the percentage of the population with university education (Australian Government Department of Education and Training, 2016). As such, there are a wide-range of programmes and universities strategically oriented to meeting the needs of a diverse population. While only students with top high school results are accepted for direct entry into certain programmes such as medicine, engineering and law, there are numerous other programmes and disciplines that accept secondary graduates with much lower averages in a belief that they can be supported to success in university. In recognition that there are heightened barriers for particular groups of students, there are support

initiatives and 'enabling' programmes for students from low socio-economic contexts, those who are first-in-family, people living in regional and remote areas, people with disabling conditions and citizens who are from Aboriginal or Torres-Strait Islander communities (Naylor, Baik, & James, 2013; Universities Australia, 2008). Furthermore, there are particular employment and career schemes to support students and graduates with these designations (National Centre for Student Equity in Higher Education, 2013).

In comparison with Australia, India's much higher youth population means that there is a heightened demand for university places. As a result, a *screening* process is applied (Thakur, 2016). In Indian higher education, there are two methods of admitting/selecting/screening potential students for diploma, undergraduate, postgraduate and doctoral programmes in public colleges and universities. First, only students with the highest scores in their Year 12 examinations are eligible. Second, applicants write (and must score well in) university entrance examinations. Similar to Australia, there are affirmative action targets and initiatives in India, but there are distinct differences between the identified groups. Just under half of the university and colleges places in Indian higher education system are 'reserved' with 17 per cent for 'scheduled castes', 7.5 per cent for 'scheduled tribes', 27 per cent for 'other backward classes' and 3 per cent for 'persons with disabilities'.[3] Furthermore, some institutions, often those run by religious organisations, reserve 50 per cent of available seats for members of their community. Some institutions provide additional incentives for female students, such as discretionary decisions applicable to 1-3 per cent of entry examination scores.

Despite the affirmative action targets, identified places and initiatives, elitism largely remains among Indian institutions. The significantly lower education participation rates among citizens identified through affirmative action initiatives present grave challenges for economic and social equality (GOI, 2013). Part of the challenge is that affirmative action is not universally accepted and adopted. For example, many private institutions do not implement affirmative action, claiming that the identified students reduce merit, productivity and efficiency. Although some institutions officially subscribe to affirmative action, a large number will informally screen-out identified students through insisting upon entrance interviews to make more nuanced decisions.

In summary, participation in the Indian knowledge economy (as dictated by who is accepted into university) is dominated by those who:

- achieve the highest high school scores (intellectual elite);
- are from the highest castes;
- are not from tribes;
- are not disabled; and
- are male.

A large proportion of students who do not meet these conditions and characteristics are rejected at three points. First, those who achieve lower marks in their Year 12 examinations and/or in the

[3] *Scheduled Castes* include extreme social, educational and economic background arising out of the traditional practice of untouchability ; and *Scheduled Tribes* include indications of primitive traits, distinctive culture, geographical isolation, shyness of contact with the community at large and backwardness; and Other Backward Class (OBC) are classified castes which are socially and educationally disadvantaged (UGC, 2017).

university entrance examinations and interviews are not accepted into university. Second, students who do not excel in their Bachelor degrees are not accepted into postgraduate studies. Third, numerous graduates from undergraduate and postgraduate degrees are not accepted into employment based on scores in competitive interviews and labour-force examinations.

The exclusion of graduates from the career marketplace is exacerbated by the education context. In India, the largest eligibility criterion for university entrance is high grades in Year 12 and university entry examinations (Thakur, 2016). Likewise, high grades are also necessary to continue into postgraduate studies (Thakur, 2016). Furthermore, screening applications on the basis of grades is also a common practice by Indian employers (Thakur, 2016). There is a built-in assumption that the highest achieving students in the previous levels of education will be the strongest students and then the most capable employees. The research literature contradicts this hypothesis, and particularly the assumption that graduates with the highest grades make the best employees (Bridgstock, 2009; Jackson, 2013; Jackson & Chapman, 2012, Smith & Trede, 2013). There is emerging evidence that many of the high-achieving academic students lack practical and social skills and thereby employability attributes (GOI, 2013). Learning theory does not equate to the ability to apply the theory to practical use (Jackson, 2014). Research has established that extra-curricular activity, such as sport, helps develop an individual's attributes and capabilities such as communication, problem-solving, confidence, self-direction and resilience (Allen, Bullough, Cole, Shibli, & Wilson, 2013). Students who have spent most of their time studying are unlikely to have experienced broad-based development and therefore may lack soft-skills and career networks (Bridgstock, 2009; Jackson, 2013, 2014; Thomas, Wong, & Li, 2014). In other words, the Indian practice of curtailing transitions from secondary school into university, and from university into the workforce, of only students/graduates with the highest grades, may inadvertently be limiting industry performance and success, and thus hampering overall economic growth and competition in global contexts.

University employability strategies

In order for high percentages of graduates to secure quality employment after completing degrees, universities need to do more for students than providing units of instruction (Bridgstock, 2009; Jackson, 2013, 2014; Mutwarasibo, Ruterana, & Anderson, 2014; Smith & Trede, 2013; Thomas et al., 2014). Research indicates that higher percentages of graduates achieve quality outcomes from universities who actively support and nurture employability, than do graduates from those universities who do not provide these services and/or do not embed employability initiatives in curriculum, assessment and student experience (Bennett, Richardson & MacKinnon, 2015; Brewer, Flavell, Harris, Davis & Bathgate, 2014; Jollands et. al., 2015; Kinash et. al., 2015; Oliver, 2015). A review of the empirical literature reveals the following ten strategies for which there is empirical evidence that such provision had demonstrable impact on employability and/or employment outcomes:

1. Work experience, internships and placements (Work Integrated Learning) involve universities providing services to recruit participating industry sites and personnel, matching students to these opportunities and providing some supervision and feedback on students' work. Sometimes these experiences are optional and other times they are required

components of programmes. Some universities offer credits upon completion and other universities consider work experience to be extra-to-load. Research shows four primary employability benefits to participation:

- The development of practical skills and capabilities (Gracia, 2010);
- The attainment of a greater appreciation for, and experience in, authentic work environments and contexts;
- The development of networks to assist in future job searches (Gault, Leach, & Duey, 2010; Mann, 2014); and,
- Evidence of practical work experience and thereby an element to feature in job applications and resumes (Mann, 2014).

2. Most universities have in-house career centres to provide a range of employment services to students including facilitated networking, professional development in job search and applications, and careers counselling (Kinash, Crane, Capper, Young, & Stark, 2017). Research indicates that universities who actively provide advice to students regarding career choices, where and how to apply and provide other related career guidance achieve greater overall employment outcomes (OECD, 2012).

3. Another employability strategy facilitated by some universities is the facilitation of international exchanges. The best-known international exchange programme is 'The Erasmus' which is based within the European Union.[4] Research shows that studying abroad develops and demonstrates students' inter-cultural communications skills, independence, self-reliance and problem-solving capacities (Daly & Barker, 2010; Liangmeri & Ferrari, 2009). Employers express particular esteem for international experiences when students: a) select a country with a national language that differs to that of the language the student speaks in their home-country; and b) actively seek and participate in practical work experience and/or engage employer networks while abroad (Crossman & Clarke, 2010).

4. Formal mentoring initiatives have been demonstrated to have a positive impact on employability. Discipline-based mentoring has been shown to expand student awareness of careers and opportunities (Smith-Ruig, 2013). Research has shown that engaging with an industry-based mentor aids recruitment and transition into the workforce (Scholarios et al., 2008). Postgraduates who have had access to formal mentoring programmes have been shown to heighten career outcomes (Kinash et al., 2016b).

5. Similar to mentoring, and overlapping with careers advice, networking is a proven strategy to heighten employability. Networking involves increasing opportunities to meet and communicate with prospective employers (Friend, 2010; Joyce, 2013; Parez, Silva, Harvey, & Bosco, 2013; Stanbury, Williams, & Rees, 2009). University-based career centres often facilitate networking through hosting careers fairs whereby students visit booths with personnel from various employers. Research conducted by Graduate Careers Australia

[4] Erasmus currently advertises 927 partners across 37 countries (ERASMUS, 2017).

showed that the second most efficacious job search strategy (after submitting an application in response to a posted advertisement) was networking through family or friends.[5]

6. One of the possible employability strategies where there is debate and sometimes contradictory findings is in the domain of part-time work. Some studies have shown that working part-time while studying increases students' employability through developing their networks, building their resumes and increasing their hard and soft skills (Mann, 2014, Smith, 2009). Other research shows that part-time work inhibits employability because students who study full-time and work part-time seldom have time and energy remaining for extra-curricular activities that might also enhance their employability (Smith, 2009).

7. Capstones are formal intentional units that are usually scheduled near the conclusion of a student's degree. Capstones are usually designed to pull-together the key themes taught throughout the degree through separate units. Assessment is often designed to engage students in a project and/or practical application of curricular theory. Lee (2015) defines the term capstone as 'a culminating educational experience with a focus on the consolidation of prior learning, the development of graduate capabilities and the transition to post-graduation settings' (p. iii). Lee's research demonstrated that capstones 'have the potential to provide a means of demonstrating course-level learning outcomes [and], raise the profile of courses and graduates' (p. iii).

8. Universities are increasingly embedding portfolio approaches and systems into curriculum, assessment and learning. Instead of submitted assessment being seen only by the assigning educator, many students now collect, store, moderate and write reflections on work throughout their degree. As a result, students have a collection of their best works to submit as evidence of skills, competencies and achievements. Portfolios can be used alongside applications and resumes. There is a growing body of research providing evidence that portfolios enhance employability (Oliver & Whelan, 2011). However, published literature also provides a caution against putting too much stock in portfolios when employers may not have the time or desire to peruse them (Kinash et al., 2016a).

9. Many professional associations offer substantially lower rates to students. Research has shown that joining a professional association while still a student increases employability (Kinash et al., 2016a). One of the explanatory factors is that professional associations are an efficacious avenue for networking (Friend, 2010; Stanbury et al., 2009). The published literature also shows that employers have heightened esteem for prospective employees who take themselves and their profession seriously enough that they join early (Kinash et al., 2016a).

10. The final employability strategy that appeared widely in the published literature was the use of social media. The research shows that students do well to establish and promote a professional identity and personal brand through the media (Kinash et al., 2016a). One social media that was particularly commended for enhancing employability was LinkedIn (Joyce,

[5] http://www.nagcasconference.com.au/wp-content/uploads/2016/11/Bruce-Gutherie.pdf

2013; Parez, Silva, Harvey, & Bosco, 2013). Establishing, maintaining and growing a professional LinkedIn profile can increase networking and thereby public exposure and employer awareness (Benson, Morgan & Filippaios, 2014; Kinash et al., 2016a).

Quantitative Analysis of the Four Stakeholders in Australia and India

In order to query experiences and perceived value of these employability strategies, online and printed surveys were distributed to students, those who had graduated from university, educators and employers. Overall, 440 surveys were completed in India and 705 in Australia. The breakdown by stakeholder groups is displayed in Table 1.

Table 1: Survey Responses by Stakeholder Groups

Stakeholder Groups	Number of Surveys Completed		Percentage of Surveys Completed	
	India	**Australia**	**India**	**Australia**
Students	229	442	52%	63%
Graduates	107	99	25%	14%
Educators (Convenors)	63	108	14%	15%
Employers	41	53	9%	8%
Total	440	702	100%	100%

Perceptions of employability strategies across the sample

The main survey question asked stakeholders to consider their experiences and/or perceptions, ticking the applicable employability strategies. Students were asked to tick the strategies that they planned to undertake to improve their employability. Graduates were asked to tick the strategies that they had undertaken while students. Employers were asked to tick the strategies that they believed made a difference, or in other words, increased the recruitment potential of graduates. Educators ticked the strategies that they were able to provide or support for students. Respondents were able to tick multiple responses to a total of ten. The percentage of stakeholder groups in each country who ticked each of the ten strategies is displayed in Table 2. For ease of reference, fields are bolded where 50% or more of the given stakeholder group ticked the given strategies.

Table 2: Employability Strategies Ticked by Percentage of Stakeholder Groups (%).

Strategies	Students		Graduates		Educators		Employers	
	India	**Aus**	**India**	**Aus**	**India**	**Aus**	**India**	**Aus**
Work Experience	**74**	**74**	**69**	**74**	**84**	40	**80**	**87**
Careers Advice	**56**	**59**	46	47	**67**	**64**	35	28
Int Exchange	25	16	14	10	48	30	15	23
Mentoring	31	28	38	24	38	48	15	34
Networking	23	49	18	**52**	**52**	**51**	39	40
PT Work	25	**53**	17	**53**	29	36	34	38
Capstone	12	9	14	15	32	45	15	13
Portfolios	43	40	35	40	41	41	35	25
Prof Associations	23	29	15	37	11	**54**	22	34
Social Media	32	33	27	37	43	40	20	15

Cross-cultural comparison of employability strategies

The first notable result was that only five of the ten queried employability strategies were ticked by 50 per cent or more of one or more stakeholder groups. This means that in both India and Australia, the majority of current students and graduates seem to be experiencing only a subset of possible efficacious strategies. Furthermore, educators are seemingly able to support only a subset and employers recognise/hold esteem for only one type. Further research might longitudinally probe whether additional strategies will rise in popularity over time. Equally, further research might also investigate whether students' and graduates' employment outcomes would improve with access to more strategies.

The strategy set that was ticked by the overwhelming majority of stakeholder groups was 'work experience, internships and placements.' Notably, this was the only employability strategy ticked by the majority of employers. Overall, 84 per cent of responding employers ticked this strategy versus an average of 27 per cent of employer ticks across the other nine strategies. This survey result appears to confirm the predominant position in the literature in that employers are looking to universities to ensure that students graduate with practical work-related skills and competencies (Bridgstock, 2009; Jackson, 2013, 2014; Kinash et al., 2015; Kinash et al., 2016a; Smith & Trede, 2013).

Over 50 per cent of all but one stakeholder group ticked the strategy of work experience, internships and placements (Work Integrated Learning). The only exception were Australian educators. This result is explored further in a journal paper that focusses exclusively on Australian employability

(Kinash, Crane, Judd, & Knight, 2016). In brief summary, follow-up interviews with Australian educators revealed that while they believe that work experiences are an efficacious employability strategy, they do not believe that they have sufficient staffing and other resources to comprehensively roll-out this strategy. Notably, India appears to be ahead of Australia in this regard, in that 84 per cent of Indian educators who responded to the survey ticked that they provide work experience for university students.

The next highest endorsed employability strategy was 'careers advice.' Notably, the results came out very similar between India and Australia, with respect to stakeholder group perception and the percentages of endorsement within-stakeholder groups. The responding students (56 per cent and 59 per cent within India and Australia respectively) and educators (67 per cent and 64 per cent respectively) endorsed this strategy. In other words, the majority of students indicated that they would pursue this strategy and the majority of educators said that they and their universities make this strategy available to students. Notably, the majority of graduates in both countries (although over 40 per cent of each group ticked this strategy indicating that it nearly reached majority) did not tick this strategy. This result may indicate a growing awareness amongst students that they should be taking advantage of the employability supports that are available to them, such as through in-house career services. This emerging student awareness is noted in other published literature (Bridgstock, 2009; Kinash et al., 2016a; Kuijpers & Scheerens, 2006).

Another employability strategy was networking, endorsed by three stakeholder groups. Just over the majority of educators in both India and Australia ticked this strategy (52 per cent and 51 per cent respectively). In other words, just over half of Indian and Australian responding educators indicated a belief that they are able to support their students' employability networking. The only other stakeholder group to tick this strategy was Australian graduates (52 per cent). Notably, there was a significant difference between Australian and Indian graduates in that only 18 per cent of the latter group ticked this strategy. A number of explanations are possible. First, a significantly lower percentage of Indian graduates may have ticked this strategy because there are few formalised networking services and supports available through Indian universities. Second, because Indian society appears to be more family-oriented than Australian, students and graduates tend to rely more on these connections as opposed to professional networks. Furthermore, it is less common for Indian family members (as compared to Australian) to have university-level education and they are therefore less likely to have the relevant networks to facilitate graduate level employment opportunities. Next, to be effective, networking relies upon soft-skills such as communication, comprehension and self-confidence. Because these soft-skills are infrequently developed within the Indian education context (Amandeep, 2016; FICCI; 2013; GOI, 2013), the resultant networking is less likely to occur. Finally, contemporary networking is often conducted online and many Indian graduates cannot afford the necessary internet connection, thereby inhibiting networks.

A further strategy was ticked by only two stakeholder groups, both of whom are Australian. The majority of Australian students and graduates (at 53 per cent each) ticked part-time work as an employability strategy. Notably, neither the employers in Australia or India indicated a belief that this strategy enhances employability. In comparison to India, the percentage of students and graduates to tick this strategy was significantly lower than in Australia (at 25 per cent and 17 per cent respectively). The primary reason for this discrepancy appears to be that there are fewer overall employment opportunities in India and thereby less availability of part-time jobs for wages as

compared to a developed country like Australia. The second reason is that the majority of responding students are attending university in publicly funded institutions, reducing the need/motivation to work. Notably, Indian students pay much less out-of-pocket for their university education than do Australian students (Amandeep, 2016). The third explanatory reason is that due to a predominant family-support culture, Indian parents shoulder a heavier load for student/living expenses than do Australian parents, and also have higher grade expectations, believing that part-time work would interfere with achievement (Malhotra, 2014).

The final strategy, endorsed by only one stakeholder group in one country, was membership in professional associations. Whereas 54 per cent of Australian educators ticked this strategy, only a minority of all other stakeholder groups indicated a similar belief and/or support in this strategy. There was a significant difference between Australian and Indian educators in that only 11 per cent of the latter group ticked this strategy. Informal follow-up inquiry revealed that it is likely not possible to join professional associations as a student in India and that if it is, stakeholders are not aware of this option and/or its possible value.

Reported graduate employment rates

The graduate version of the survey asked respondents to specify whether they had secured employment. Of the surveyed Indian graduates, 72 per cent indicated they were employed (56 per cent in an occupation that matched their university studies) versus 55 per cent of the Australian graduates (all of whom confirmed a match between occupation and studies). The alarming finding that 20 per cent of responding Indian graduates feel that their degree did not lead them towards a relevant career indicates that national attention is warranted on the graduate labour market. This quantitative finding was reinforced by qualitative data such as multiple comments that university study was perceived as a "waste of time" in that the graduate outcome was frequently call-centre employment. The data was further interrogated to determine whether graduates who had claimed participation in particular employability strategies or in a greater number of strategies, while students, had higher career success rates. This hypothesis was disproved in that no statistically significant differences were revealed (in either country).

Qualitative Responses of Indian Stakeholders

Overall, the sentiment expressed by students and graduates (and reinforced by educators and employers) through both the Indian and Australian versions of the surveys was one of worry. Illustrative comments from two of the students responding to the surveys in India were: "I want to have a great job when I graduate but I am very worried I won't" and "The employability rate is very low for graduates and should definitely be improved for the welfare of each and every student." Graduates expressed similar disillusion. For example, one Indian graduate wrote, "I am a Bachelor in Business administration graduate, but after doing my Bachelor I realized my job area would mostly lead to a job in a call centre which is not good after 3 years of hard work so I am back at university re-training." Students and graduates expressed a belief that changes to university emphases and employability practices could positively impact graduate outcomes. Respondents strongly

emphasised their perception that curriculum and assessment needs to shift from a mostly exclusive focus on theory to prioritization of practice, skills and work experience. For example, an Indian graduate wrote, “I wish practical life skills were also imparted along with the necessary theoretical frameworks.” A student explained that, “In India, we need to focus more on experiences in field, with the roles of companies and employers to help the students understand their inclinations and aptitude, and to work on areas they need to work on. Therefore, internships and work experience during their studies and after graduation will help them a lot.” Another Indian respondent wrote, “Students must be provided practical knowledge with the help of case studies and real time experiences so that they can develop an analytical thought process.” Throughout the surveys (and particularly from students and graduates) there was a vocal cry for increased skill-development through practical curriculum and applied work experience.

Conclusions and Policy Implications

The main conclusions drawn from the comparative graduate employability analysis across the four stakeholder groups of students, graduates, teachers/convenors (educators) and employers in India and Australia were:

1. There is a manifold increase in the quantitative numbers of graduates in Australian and Indian higher education particularly since the 1990s, which in India has been escalated by the LPG processes and Information and Communications Technologies (ICT) revolutions.
2. This type of quantitative expansion (massification) has exacerbated under-employment and unemployment of university graduates in that there are not enough appropriate vacancies to accommodate the surge in graduates.
3. There is heightened debate (particularly in India) over whether higher unemployment of graduates has resulted from poor employability skills/attributes, too-few employment opportunities in the (particularly Indian) labour market, or a combination of the two factors.
4. A comparison of employability attributes and employment opportunities in India and Australia reveals that the latter appears to assure stronger development and application of capabilities, attributes of employability and graduate potential.
5. There is widespread agreement across stakeholder groups in both India and Australia that the most productive dedication of energy and resources in higher education, to nurture graduate employability, would be in increasing opportunities for work experience, internships and other career-related placements (i.e. work integrated learning).

In acknowledgement and appreciation of student voice, this chapter closes with a survey comment written by one of the responding students in India. This student insightfully recognised that graduate employability is the shared responsibility, and can only be improved through the collaboration, of three parties – students, universities and employers / national employment leaders.

“I guess graduate employability rests on three sides - the first side is the student who has the responsibility to increase his/her employability level. The second is the education system to make sure students have opportunity to become employable (i.e., teach the correct skills). The third is employers and the government to make sure about the availability of jobs.”

Policy Implications and Recommendations

Five policy implications (emerging from the data collection and analysis) are posed to the Indian government through increased public funding:

1. The expansion of the capabilities and attributes of Indian graduates through promotion of practical knowledge and extracurricular student experiences;
2. The promotion of research and training to the teachers and administrators of Higher Education Institutions (HEIs);
3. The establishment of publicly funded quality controls and regulatory bodies for evaluating, assuring and improving consistency among private and publicly funded HEIs;
4. The strengthening of internal quality reviews and improvement processes within HEIs; and
5. Increasing employment opportunities for Indian graduates through developing internship initiatives (work integrated learning) and processing to enhance positive collaborative links between education and employment.

References

Agarwal, P. (2009). *Private Indian Higher Education .* New Delhi: Sage.

Allen, K., Bullough, S., Cole, D., Shibli, J., & Wilson, J. (2013). *The impact of engagement in sport on graduate employability: Final report*. London: British Universities & Colleges Sport.

Australian Government Department of Education and Training. (2016). *Selected Higher Education Statistics*. Retrieved from: https://www.education.gov.au/selected-higher-education-statistics-2016-student-data

Banciu, S. S. (2012). Quality of Higher Education in Romania: are Graduates Prepared for the Labour Market? *Procedia - Social and Behavioral Sciences, 69*, 821-827.

Bennett, D., Richardson, S., & MacKinnon, P. (2015). *Enacting strategies for graduate employability: How universities can best support students to develop generic skills: Final report.* Sydney: Australian Government Office for Learning and Teaching.

Benson, V., Morgan, S., & Filippaios, F. (2014). Social career management: Social media and employability skills gap. *Computers in Human Behaviour, 30*, 519-525. doi: 10.1016/j.chb.2013.06.015

Bhushan, S. (2013). *Unemployable Graduates in India*. *18-19 May.* Patna, India: Department of Economics, Patna University.

Bothwell, E. (2018). *Asia University Rankings 2018: Results Announced*. Retrieved from: http://www3.ntu.edu.sg/CorpComms2/Documents/2018/02_Feb/THE_180206_Asia%20University%20Rankings%202018_Results%20announced.pdf

Brewer, L. (2013). *Enhancing youth employability: What? why? and how? Guide to core work skills.* Geneva, Switzerland: International Labour Organization.

Brewer, M., Flavell, H., Harris, C., Davis, M., & Bathgate, K. (2014). Ensuring health graduates' employability in a changing world: Developing inter-professional practice capabilities using a framework to inform curricula. *Journal of Teaching and Learning for Graduate Employability, 5*(1), 29–46.

Bridgstock, R. (2009). The graduate attributes we've overlooked: Enhancing graduate employability through career management skills. *Higher Education Research & Development, 28*(1), 31-44. doi: 10.1080/07294360802444347

Crossman, J. E., & Clarke, M. (2010). International experience and graduate employability: Stakeholder perceptions on the connection. *Higher Education, 59*(5), 599-613. doi: 10.1007/s10734-009-9268-z

Daly, A., & Barker, M. (2010). Australian universities' strategic goals of student exchange and participation rates in outbound exchange programmes. *Journal of Higher Education Policy and Management, 32*(4), 333–342. doi:10.1080/1360080X.2010.491107

Federation of Indian Chamber of Commerce and Industry (2013). *India Risk Survey 2013.* Retrieved from: http://ficci.in/Sedocument/20228/India-Risk-Survey-2013.pdf

Friend, E. (2010). Partnering with business amplifies students' career opportunities. *Tech Directions, 70*(3), 19–21.

Gault, J., Leach, E., & Duey, M. (2010). Effects of business internships on job marketability: The employers' perspective. *Education & Training, 52*(1), 76-88. doi: 10.1108/00400911011017690

Government Of India. (2013). *Census 2011.* New Delhi: Government of India (GOI).

Government Of India. (2016). *All-India Survey of Higher Education 2014-15.* New Delhi, India: Ministry of Human Resource Development, Government of India (GOI).

Gracia, L. (2010). Accounting students' expectations and transition experiences of supervised work experience. *Accounting Education, 19*(1/2), 51-64. doi: 10.1080/09639280902886033

Gupta, R. (2014). India@2030: The future of the Indian consumer. *Futures, 56,* 81-86. doi:10.1016/j.futures.2013.10.012

Jackson, D. (2013). Business graduate employability – where are we going wrong? *Higher Education Research & Development, 32*(5), 776–790. doi:10.1080/07294360.2012.709832

Jackson, D. (2014). Factors influencing job attainment in recent bachelor graduates: Evidence from Australia. *Higher Education, 68*, 135–153. doi:10.1007.s10734-013-9696-7

Jackson, D. & Chapman, E. (2012). Empirically derived competency profiles for Australian business graduates and their implications for industry and business schools. *The International Journal of Management Education, 10*, 112–128. doi:10.1016/j.ijme.2012.04.002

Jollands, M., Clarke, B., Grando, D., Hamilton, M., Smith, J., Xenos, S., Carbone, A., Burton, L., Brodie, M., & Pocknee, C. (2015). *Developing graduate employability through partnerships with industry and professional associations: Final report.* Sydney: Australian Government Office for Learning and Teaching.

Joyce, S.P. (2013). Be visible on LinkedIn. *Career Planning & Adult Development Journal, 29*(3), 88-90.

Kinash, S., Crane, L., Bannatyne, A., Judd, M.M., Stark, A., Eckersley, B., Hamlin, G., Partridge, H., & Udas, K. (2016). *National research on the postgraduate student experience: Case presentation on career development and employability*. Sydney, NSW: Australian Government Office for Learning and Teaching.

Kinash, S., Crane, L., Capper, J., Young, M., & Stark, A. (2017). When do university students and graduates know what careers they want: A research-derived framework. *Journal of Teaching and Learning for Graduate Employability, 8*(1), 3-21. Retrieved from: https://ojs.deakin.edu.au/index.php/jtlge/article/view/584/604

Kinash, S., Crane, L., & Judd, M-M. (2016). *Good practice report: Nurturing graduate employability in higher education*. Sydney, Australia: Australian Government Office for Learning and Teaching, Australian Government.

Kinash, S., Crane, L., Judd, M.-M., & Knight, C. (2015). Discrepant stakeholder perspectives on graduate employability strategies. *Higher Education Research & Development, 35*(5), 951–967. doi:10.1080/07294360.2016.1139555

Kinash, S., Crane, L., Judd, M-M., Mitchell, K., McLean, M., Knight, C., Dowling, D., & Schulz, M. (2015). *Supporting graduate employability from generalist disciplines through employer and private institution collaboration: Final report*. Sydney: Australian Government Office for Learning and Teaching.

Kuijpers, M.A.C.T., & Scheerens, J. (2006). Career competencies for the modern career. *Journal of Career Development, 32*(4), 303-319.

Lan, F., Hale, K., & Rivers, E. (2015). *Immigrants' growing presence in the U.S. science and engineering workforce: Education and employment characteristics in 2013.* National Center for Science and Engineering Statistics. Retrieved from: https://nsf.gov/statistics/2015/nsf15328/nsf15328.pdf

Langdon, D., McKittrick, G., Beede, D., Khan, B., & Doms, M. (2011). *STEM: Good jobs now and for the future*. U.S. Department of Commerce: Economics and Statistics Administration. Retrieved from: https://files.eric.ed.gov/fulltext/ED522129.pdf

Lee, N. (2014). *Capstone curriculum across disciplines: Synthesis theory, practice and policy to provide practical tools for curriculum design*. Sydney: Australian Government Office for Learning and Teaching. Retrieved from http://www.capstonecurriculum.com.au/

Liangmei, B. & Ferrara, M.S. (2009). A case study of a successful multicultural project: CCEP and the infusion of internationalization across the university. *International Journal of Multicultural Education, 11*(1), 1–10.

Lim, H.-E. (2015). Should We Blame the Graduates for their Unemployment: A Happiness Approach. *Hitotsubashi Journal of Economics , 56*, 243-258.

Malhotra, A. (2014). What Indian Parents Want Most For Their Children. *The Wall Street Journal*.

Mann, A. (2014). Work experience: The economic case for employers. In A. Mann, J. Stanley, & L. Archer (Eds.), *Understanding employer engagement in education: Theories and evidence* (pp. 236–246). Abingdon, Oxon: Routledge.

MHRD. (2016). *All India Survey of Higher Education 2015-16.* New Delhi: Ministry of Human Resource Development (MHRD), Government of India.

Mutwarasibo, F., Ruterana, P.C., & Andersson, I. (2014). Boundary crossing between higher education and the world of work: A case study in post-1994 Rwanda*. Higher Education Research & Development, 33*, 962–977. doi:10.1080/07294360.2011.559194

Naik, P. K. (2015). Globalisation and its impact on higher education in India. *International Journal of Humanities and Management Sciences, 3*, 2320-4044.

National Centre for Student Equity in Higher Education. (2013). *Access and participation in higher education*. Bentley, WA: Curtin University.

Naylor, R., Baik, C., & James, R. (2013). *A critical interventions framework for advancing equity in Australian higher education*. Canberra, ACT: Department of Industry, Innovation, Climate Change, Science, research, and Tertiary Education.

OECD. (2012). *Assessment of Higher Education Learning Outcomes.* Paris: OECD.

Olejniczak, M. (2012). Long-term Unemployment and the Capability Approach — The Case of the German Labor Market. *Management Revue, 23*(2), 140-157.

Oliver, B. (2015). Redefining graduate employability and work-integrated learning: Proposals for effective higher education in disrupted economies. *Journal of Teaching and Learning for Graduate Employability, 6*, 56–65.

Oliver, B., & Whelan, B. (2011). Designing an e-portfolio for assurance of learning focusing on adoptability and learning analytics. *Australasian Journal of Educational Technology, 27*, 1026–1041.

Organisation for Economic Cooperation and Development. (2016). *Education at a glance 2016: OECD indicators*. Paris: OECD Publishing.

Patnaik, P. (2007). Alternative Perspectives on Higher Education. *Social Scientist, 35*(11-12), 3-14.

Parez, M., Silva, K., Harvey, D., & Bosco, S. (2013). *Linked into a job? The ethical considerations of recruiting through LinkedIn.* Proceedings for the Northeast Region Decision Sciences Institute (NEDSI), 953–960.

Ranking, T. H. (2017). *BRICS & Emerging Economies University Rankings 2017.* Retrieved from: https://www.timeshighereducation.com/world-university-rankings/university-delhi#ranking-dataset/600172

Scholarios, D., Van der Heijden, B.I.J.M., Van der Schoot, E., Bozionelos, N., Epitropaki, O., Jedrzejowicz, P., Knauth, P., . . . & Van der Heijde, C. M. (2008). Employability and the psychological contract in European ICT sector SMEs. *International Journal of Human Resource Management, 19*, 1035–1055.

Smith, E. (2009). New models of working and learning: How young people are shaping their futures differently. *Research in Post-Compulsory Education, 14*, 429–440. doi:10.1080/13596740903360984

Smith, M. & Trede, F. (2013). Reflective practice in the transition phase from university student to novice graduate: Implications for teaching reflective practice. *Higher Education Research & Development, 32*, 632–645. doi:10.1080/07294360.2012.709226

Smith-Ruig, T. (2013). Exploring the links between mentoring and work-integrated learning. *Higher Education Research & Development, 33*, 1–14. doi:10.1080/07294360.2013.863837

Stanbury, D., Williams, H., & Rees, J. (2009). *Engaging employers to enhance teaching and learning: Ideas and approaches for work-related and placement learning*. Reading, UK: Centre for Career Management Skills. Retrieved from: https://www.reading.ac.uk/web/files/ccms/B02056_Employment_Engagment_AS_V6.pdf

Tara, S. N., & Kumar, S. (2016). Skill development in India: In coversation with S. Ramadorai, Chairman, National Skill Development Agency & Skill Development Corporation; former CEO, MD and Vice Chairman, Tata Consultancy Services. *Indian Institute of Management, Management Review, 28*, 235-243.

Thakur, N. (2016, Feb 27). Defacto Privatization of Indian Public Higher Education:A Transition from FYUP to CBCS. *Economic Political Weekly, 51*(9).

Thakur, N. (2016). *Globalisation of India's Human Capital: Interlinkages between Education, Productivity and Migration.* New Delhi: unpublished PhD Thesis to Jawaharlal Nehru University.

Theodore, J. P. (2000, November). Beyond 'employability'. *Cambridge Journal of Economics, 24*(6), 729-749.

Thomas, K., Wong, K., & Li, Y. (2014). The capstone experience: Student and academic perspectives. *Higher Education Research & Development, 33*, 580–594. doi:10.1080/07294360.2013. 841646

United Nations Department of Economic and Social Affairs. (2015). *Population division: World population prospects, the 2015 revision.* Retrieved from: https://esa.un.org/unpd/wpp/

United Nations Educational, Scientific, and Cultural Organisation. (2017). *Education: Expenditure on education as a percentage of GDP*. Retrieved from: http://data.uis.unesco.org/?queryid=181

United Nations Educational, Scientific, and Cultural Organisation. (2012). Y*outh and skills: Putting education to work.* Paris, France: UNESCO.

Universities Australia. (2013). *Advancing equity and participation in Australian higher education.* Canberra: Universities Australia.

Upadhya, C. (2007, May 19). Employment, Exclusion and 'Merit' in the Indian IT Industry. *Economic and Political Weekly*, 1863-1868.

Wilton, N. (2011). Do employability skills really matter in the UK graduate labour market? The case of business and management graduates. *Work, employment and society , 25*(1), 85-100.

World Health Organisation. (2017a). *Countries: Australia*. Retrieved from: http://www.who.int/countries/aus/en/

World Health Organisation. (2017b). *Countries: India.* Retrieved from: http://www.who.int/countries/ind/en/