Series Editors
N. V. Varghese and C. M. Malish

2020

cphe research papers **14**

Graduate Employment and Sustainable Employability Skills in India

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December 2020

First Published – December 2020 (5 H)

Published by the Registrar, National Institute of Educational Planning and Administration
17-B, Sri Aurobindo Marg , New Delhi and Printed at M/s Archna Printers, Okhla, New Delhi-110020

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Mona Khare*

Abstract

Today, both knowledge and skills have become important ingredients to succeed in the labour market as well as to thrive in the society at large. The new terminology that has gained popularity in the world comprises a set of both cognitive and non-cognitive attributes and skills in a knowledge framework, known as the "Employability Skills". In the current dynamic economy and rapidly changing work environment, employability skills do not remain restricted to just the ones required to gain initial employment but also encompass those needed to constantly improve and upgrade oneself so as to be able to compete and thrive in the labour market. As such, skilling, up skilling, deskilling, and reskilling can be seen as the components of the concept of 'sustainable employability', which in itself has a long life-cycle and multiple stakeholders. The relationship between higher education and the labour market is getting transformed in the light of the emerging challenges of a skill deficit among graduates. This paper explores the issue with regard to higher education graduates (HEGs) in India. It identifies a twofold problem in India: rising unemployment rates among HEGs due to poor and limited employment opportunities as fallout of 'jobless growth'; and poor work readiness among HEGs emerging from three kinds of gaps between the higher education sector and the labour market. These include awareness gaps, perception gaps, and skills gaps. The paper proposes a sustainable employability framework entailing mutually flexible and coordinated efforts among all stakeholders to bridge these gaps through skilling, deskilling, and reskilling for imparting sustainable employability skills to HEGs.

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Introduction

The relationship between higher education and employment is long lasting but its form and intensity have changed with changing times. Using the theoretical models of this dynamic relationship, this paper explores the emerging concept of employability skills both theoretically and empirically. This paper attempts to facilitate an understanding of the relationship between education and work while relating it to the concept of graduate employability. It also presents an empirical analysis of the employment and unemployment scenario of higher education graduates in India and the emerging issues of graduate employability in the country. The issue of graduate employability skills is then discussed on the basis of employers' perceptions. The paper ends by identifying the employers' expectations with regard to higher education and its feasibility in the light of a sustainable employability model.

Education and Work

The importance of creating a high quality human resource base in today's highly competitive environment cannot be over-emphasised. The very concept of development has evolved in this direction in the past few decades, moving from income and income distribution to human resource development. This is the primary reason for the marked shift in the welfare approach of education to the right-based approach, which provides the foundation for the right to dignified living. There is ample evidence in literature to highlight the investment in education for developing human capital, and its contribution to economic development and growth (Becker, 1964; Krueger and Lindahl, 2001; Hanushek and Woessmann, 2007; Kingdon and Soderbom, 2007a, 2007b; Chadha, 2004; Mathur, 1990). The existence of highly educated and high-quality human capital enables a country's development by providing it an edge in the global economy.

The new wave of linking 'education to work', resulting from emerging labour market needs, evidence of higher salaries (higher income elasticity of higher education as compared to all other levels of education) and the emergence of better quality jobs due to the rise of a 'skills hierarchy' from the primary to the tertiary levels (World Bank, 2002; Chadha, 2004; Varghese, 2012; Khare, 2012), has been evident in global education debates in the past decade. The following two emerging shifts in deliberations on post-2015 MDGs/EFAs on education seem to reflect the above ideology:–a shift in the global emphasis from elementary to higher and vocational education (18th CCEM), and completion to 'Learning Achievements', post-2015. The United Nations (UN) has made employability one of its four priorities for national

policy action on youth employment. In this context, the UN's Youth Employment Network has suggested that all countries need to review, re-think, and re-orient their education, vocational training, and labour market policies to facilitate the school to work transition and to give young people . . . a head start in working life (UN, 2001, p. 4).

Higher Education and Labour Market Connect

As far back as 1963, the famous Robins Report had made the following observation on the aims of higher education, "We begin with instruction in skills suitable to play a part in the general division of labour" and went on to state that "few would enter higher education without an eye to subsequent employment", thereby emphasising an important connect between higher education and the labour market. This connect has, however, undergone a considerable change over time. The discourses and debates on this relationship too have evolved in accordance with the changing structure of the global economy.

The early traditional development models treated labour as a homogeneous unit, and the value of labour (wages) was, therefore, determined by its marginal product, assuming that all man-hours of work were the same. The neo-classical economists brought in the concept of skill differentials across labour in the form of the Human Capital Theory, thus according greater weightage to worker characteristics as demanded by and supplied to the labour market. This also fuelled individual workers' decisions to make investments in health, schooling, and training, on one hand, and employer's decisions to hire certain categories of labourers with enhanced working capacities as against others with comparably lower corresponding capacities. Thus, the neo-classical models propounding the relationship between the labour market and education point to the economic aspect of the education market because of the demand from both employees and employers for such a market. Any mismatch between this supply of educational traits and the demand for those traits may arise due to either labour market imperfections or poor information or trainability of the worker (as per the Dual Labour Market Theory) in the case of education. The Segmented Labour Market Theory too asserts an indirect rather than direct relationship between individuals and employment through education, as education reproduces social class hierarchies existing in the society, which in turn, get reflected in the labour market structure and job allocations as per social class positions. Prospective employees belonging to better socio-economic and cultural backgrounds in terms of their race, sex, education, age, psychological tests, and previous experience are thus preferred by employers as they help reduce training costs for the

employing firm. The correlation between education and experience, on one hand, and employment, on the other, therefore does not establish that a higher level of education and more experience contribute to higher productivity and employment probability (Carnoy, 1987). Therefore, if the educated are being rendered unemployed, "the segmentation theory would concentrate on analysing the changing nature of the jobs held by secondary and university graduates rather than the nature of their education or the mismatch of education and jobs." However, since the State (Government) has an important role to play in the education sector, which is not a free enterprise, it has earlier been argued that the Government can intervene to change the pattern of investment in and organisation of schooling and training in consonance with changes in employment patterns, and the degree of unemployment/under-employment. Simultaneously, the Government can also adopt a progressive approach to make education and training more inclusive while doing away with imperfections in both labour as well as education markets. Thus, as rightly put by Carnoy, "Knowledge and information' though were always important, have become a primary commodity of exchange in the new global environment and will be at the core of the 21st century society" (Carnoy, 2001).

The turn of the century further supported the above argument, as there was rising consensus on the theories of 'education for better livelihood' and shaping education to labour market needs. The experience of emerging economies of the Asian region in the early 1990s that witnessed high export-led growth rates with widening employment opportunities highlighted the 'high skill intensity of these exports' (Woods, 1994). This necessitated an increasing demand for an educated labour force to leverage a competitive advantage in exports so as to maintain growth, and also led to expansion of State-supported education systems in these economies. However, the high growth of the early 1990s could not be sustained and soon the 'happy state' of economic progress and household prosperity (Varghese, 2001) was jolted by the East Asian Economic crisis towards the end of the 1990s.

The turn of the century saw a revival of economic growth but this time it was led by an information communication technology revolution, resulting in 'knowledge-driven' growth. This development further strengthened the link between education and economic prosperity, leading to an increasing demand for not just an educated but a highly educated and multi-skilled labour force. There were corresponding shifts in the higher education sector from an 'elitist' to a 'mass' system in many emerging economies, as also a more dynamic post- industrial knowledge-driven economy that created new aspirations among those emerging from the higher education system.

Both the labour market and the higher education system have become more segmented in recent years. While the labour market has become more flexible and limited (due to jobless growth), higher education has become more specialised and expensive, thereby generating greater concern over the 'value and returns of a University degree' as against the traditional social prestige attached to it. The erstwhile conventional relationship between higher education and the labour market has thus given way to scepticism and enquiry, with new questions being posed on the "specific role of higher education in regulating skilled labour, and the overall matching of the supply of graduates leaving higher education to their actual economic demand and utility" (Bowers-Brown and Harvey, 2004). In addition, a large body of literature points to massification of education, perpetuating the very structural inequalities it was intended to alleviate. There is also evidence of increased stratification and differentiation in society arising out of "class- cultural and academic profiles of graduates from different HEIs, along with different rates of graduate return (Archer et al., 2003; Scott, 2005; Little and Archer, 2010).

Ironically, even as there is a short supply and high demand for the small number of graduates being produced by higher education institutions of repute, who thus command high wage premiums, the much larger body of highly educated graduates coming from lesser known institutions usually fall short of meeting employers' expectations, thereby being compelled to either take up jobs for which they are over-qualified or being pushed into unsuccessful entrepreneurial pursuits. This situation has created a new kind of demand–supply imbalance that may be described as "*the double knife-edged mismatch of over-skilling as well as under skilling of higher education graduates*". Emerging literature in recent years has further reiterated the multi-faceted role of higher education in shaping youth for work and society. The Dearing Report underlines the important role played by higher education in the modern globally competitive economy, which presupposes that "education and training [should] enable people in an advanced society to compete with the best in the world (NCIHE, 1997)". This is consistent with the views of Reich (1991; 2002), who argues that advanced economies need two sorts of high-level expertise: one emphasising discovery, and the other focusing on exploiting the discoveries of others through market-related intelligence and the application of inter personal skills. He describes such professionals as 'symbolic analysts', who, according to him, are "imaginative and creative, have at their fingertips relevant disciplinary understanding and skills and the 'soft' or generic skills that enable the disciplinary base to be deployed to optimal effect. Higher education's key contribution to national prosperity lies in development of graduates with such achievements at their disposal."

Today, there is a cumulative demand for knowledge and skills among both employers as well as the society at large. The new terminology that has gained popularity in the world comprises a set of both cognitive and non-cognitive attributes and skills in a knowledge framework----collectively referred to as the "Employability Skills".

The demand for employability skills has, in fact, intensified in the latter half of the last decade. It is now highly likely that "some sort of skills could be on the next development agenda" (King and Palmer, 2012). This issue has since become an important agenda for discussion and debate in both large and small countries. The major catalyst for this emerging debate was ostensibly the first thematic consultation on the post-2015 development agenda on structural change, productive capacities, and employment, organised by the ILO and UNDP. This discussion also points to a possible post-2015 goal related to 'technical, vocational and entrepreneurial skills' (UNDP-ILO, 2012), as well as a series of UNESCO documents that make a case for generating a skills revolution to enhance the quality of education. To quote UNESCO, Bangkok (2012), "a new and broadened conceptualization of learning is required, which encompasses learning of generic skills and meta-cognitive skills (including creativity, flexibility and adaptability), learning for living together, and learning for a world in which sustainability is becoming increasingly vital". This concept is rapidly gaining ground among both employers and employees in the developed as well as the developing worlds.

Conceptualising Graduate Employability

For a layman, the concepts of 'employment' and 'employability' may be used interchangeably, but the two, though related to each other, are not the same. Various authors, countries, industrial associations, and government bodies have used various definitions to describe the concept of employability, and various models have been proposed to understand its multidimensional nature.

Defining 'Employability' and 'Sustainable Employability'

Employment may be seen as the end-product while employability is an intermediate product. Employability, in fact, is a rather broad term, encompassing an individual's preparedness for the world of work. It has been viewed differently by different people; that is, as 'a set of achievements—skills, understandings and personal attributes—that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy' (York, 2004; 2006); a person's capability of gaining initial employment, maintaining this employment, and obtaining new employment,

if required (Hillage and Pollard, 1998). The World Bank had defined them to be important for the progress of both self and nation, as far back as 1990. According to the Bank, learning outcomes, refer not only to the "3 Rs", but to soft skills, such as teamwork, critical thinking, and problem-solving, among other traits, and to 'specific technical or vocational skills related to an occupation'. UNESCO (1990) too has insisted that education needs to be more skill-oriented, pointing out that "whether or not expanded educational opportunities will translate into meaningful development—-for an individual or for society— depends ultimately on whether people actually learn as a result of those opportunities, i.e., whether they incorporate useful knowledge, reasoning ability, skills and values". Education thus depends on a multitude of factors, which can be broadly classified under three heads—knowledge, skills, and attitude. Since technical skills are extremely industry-specific, there is a growing acceptance amongst the international community that for measuring comparative employability, generic employability skills should be given more weightage. The evolution of this concept can thus be attributed to various factors, including fast changing technology (Berman et al., 1998), and increasing globalisation of the economy wherein multi-tasking and cross-sectoral in- and out-migration of workers are becoming increasingly common. Employability is now largely looked upon as an "attribute", covering the spectrum from 'getting a graduate job' to becoming a 'product of skilful career planning and interview technique' (Knight and Yorke, 2004; 2006). In fact, employability skills are today seen as skills that are required by almost everyone to do almost any job—"skills that make specific knowledge and technical skills fully productive" (Watts, 2006; Conference Board of Canada, 2000; CBI, 2009). Thus, employability skills are reportedly being imbibed by graduates who are socially adept and who have the capacity to solve problems, judge merit, and make decisions (Conference Board of Canada, 1999). "Employability not only depends on whether one is able to fulfill the requirements of specific jobs, but also on how one stands relative to others within the hierarchy of job seekers" (Brown and Hesketh, 2004). Therefore, for graduates, the mantra of being employable is to be better than others and to be able to sustain that quality. It is understood as a function of two basic factors, viz., the academic qualification of an individual and the learning environment that helps him build certain generic skills (Khare, 2012).

In today's dynamic economy and rapidly changing work environment, employability skills do not remain restricted to merely those needed for securing initial employment but also cover those that need to be constantly improved and upgraded to enable workers to compete and survive in the labour market. These skills are driven by the following conditions prevailing in a global work environment:

The changing nature of public employment policy, wherein increasing emphasis is laid on skills-based solutions to economic competition, and work-based solutions to social deprivation; and

The supposed end of 'careers' and lifetime job security, which have only ever applied to a minority of the workforce, increasing uncertainty among employers regarding the levels and types of jobs they may be able to offer in the future, and the need to build new relationships with employees.

Thus, sustainable employability (Khare, 2016b) has to be viewed in the light of the following multiple dimensions:

- The **ability to secure initial employment**, and hence an interest in ensuring that 'key skills', advice about careers, and understanding about the world of work are embedded in the education system;
- The **ability to maintain employment and make 'transitions'** between jobs and roles within the same organisation in order to meet new job requirements;
- The **ability to obtain new employment,** if required, that is, to be willing and able to independently manage employment transitions between and within organisations in the labour market (Hillage and Pollard,1998);
- The **ability to remain employable throughout one's life,** that is, to sustain oneself by being gainfully employed till as long as one desires, a concept that is popularly known as 'lifelong learning' (Scottish Government); as well as the development of sustainable competencies(Watts,2006);
- The **ability to rise higher and higher in the employment ladder,** that is, career development or career management skills; and
- The **quality of such work or employment—**people may be able to obtain work but it may be below their skill levels, or the jobs obtained may be low paid, undesirable or unsustainable.

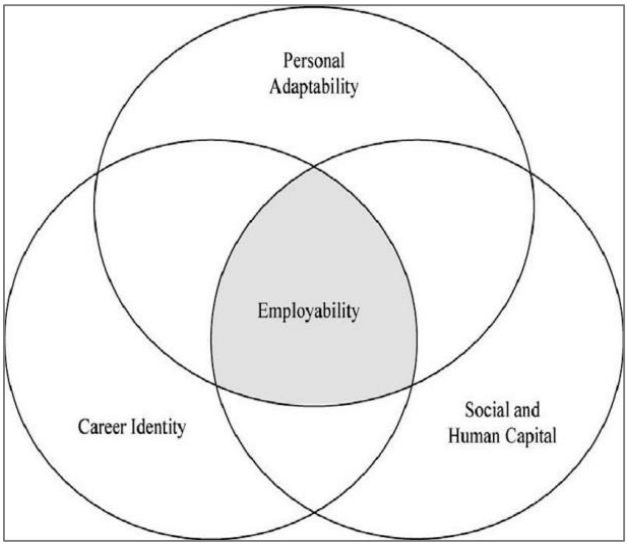
Thus, in the words of Knight and Yorke (2004, p. 46), employability 'does not rest when the first graduate job is achieved' but needs 'to be constantly renewed to be sustainable'. Accordingly, such definitions include not only the wider range of attributes that one needs for achieving success within jobs, but also include the attributes required for managing one's career development for sustaining one's employability. Watts put it a more simply, as the capability of getting and retaining fulfilling work. Employability can be defined more comprehensively as the capability to move self-sufficiently within the labour market in order to realise one's potential

through sustainable employment. According to the Government of Scotland, "Wider participation in lifelong learning is expected to enable people to become more aware and knowledgeable… they might lead to a more sustainable lifestyle … increased levels of knowledge and skills are the means of developing innovative solutions to the problems of sustainable development" (Scottish Executive, 2003). Hence, skilling, upskilling, de-skilling, and re-skilling may be seen as the fundamental components of 'sustainable employability'.

Models of Graduate Employability

Various studies have led to the development of a number of models of graduate employability that incorporate the elements discussed above. Fugate et al. (2004) describe in their Heuristic model (Figure 1) that "employability embodies a synergistic combination of career identity, personal adaptability, and social and human capital." Accordingly, an individual's employability subsumes a host of person-centred and psycho-social constructs, or characteristics that foster adaptive cognition and behaviour.

Figure 1: Heuristic Model of Employability

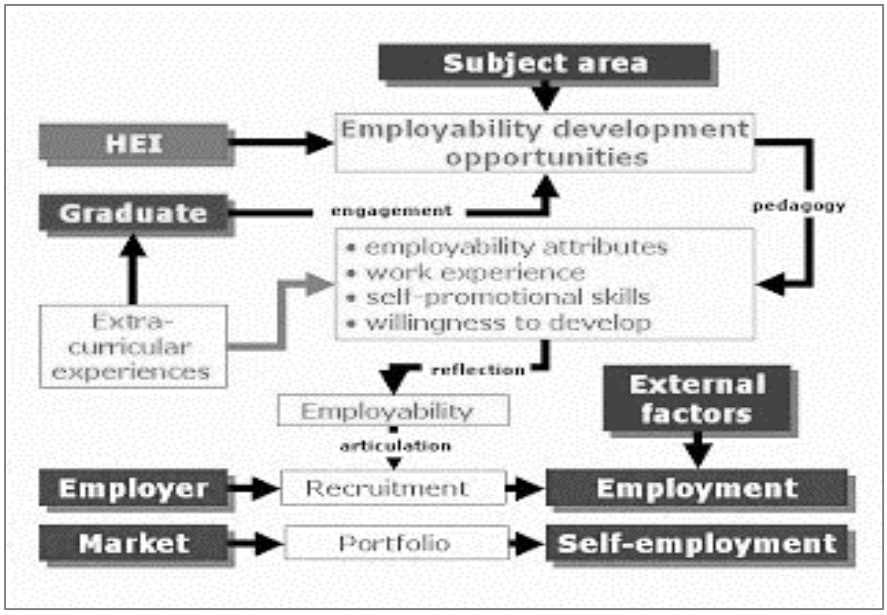


Source: Fugate et al (2004).

The Heuristic model depicted in Figure 1 entails the skills required for making a major shift in responsibility for career management and development from employers to employees. This model incorporates four dimensions, --knowledge, skills, abilities, and other characteristics (KSAOs)—as important components of employability skills.

Figure 2 shows the USEM model developed by Yorke and Knight. The USEM acronym represents the four inter-linking and inter-dependent areas of: Understanding, Skills, Efficacy beliefs (the students' own qualities) and Meta-cognition. The figure delineates the Malaysian Graduate Employability skills, drawing from the key discussion by the Pedagogy for Employability Group on the USEM account.

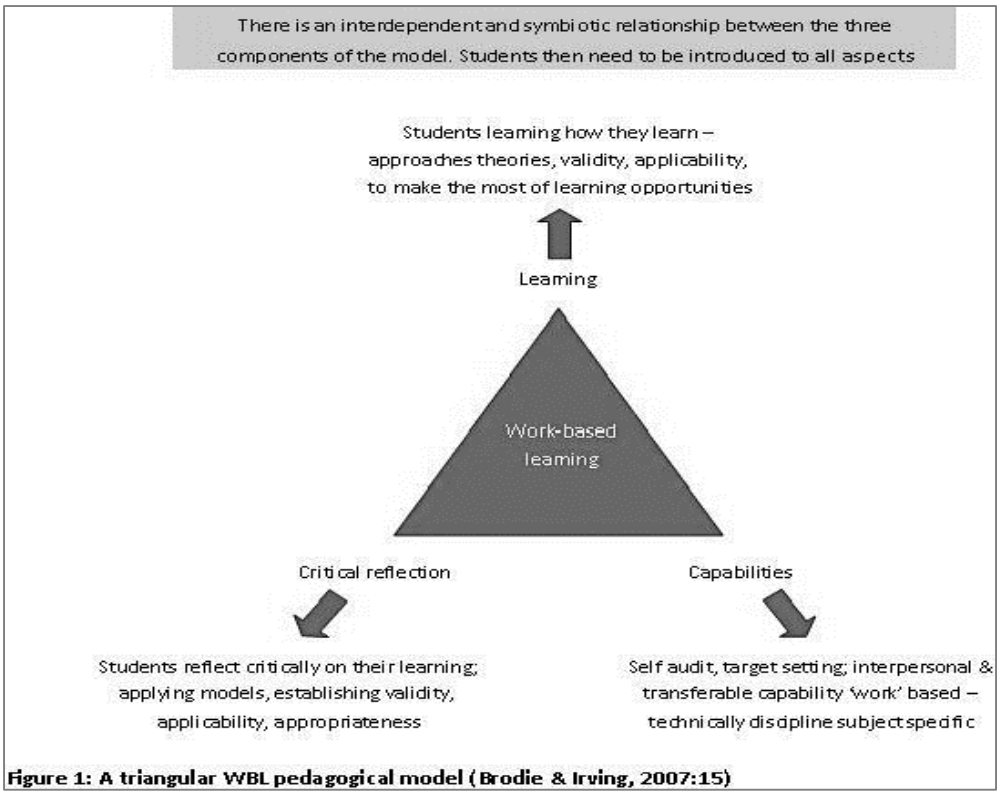
Figure 2: The USEM Account of Employability



Source: Yorke and Knight (2004).

Figure 3 depicts the triangular Work-based Learning (WBL) model developed by Brodie and Irving in 2007. The model expounds the nature of the interdependence between formal education and the practical exposure needed for acquiring such skills.

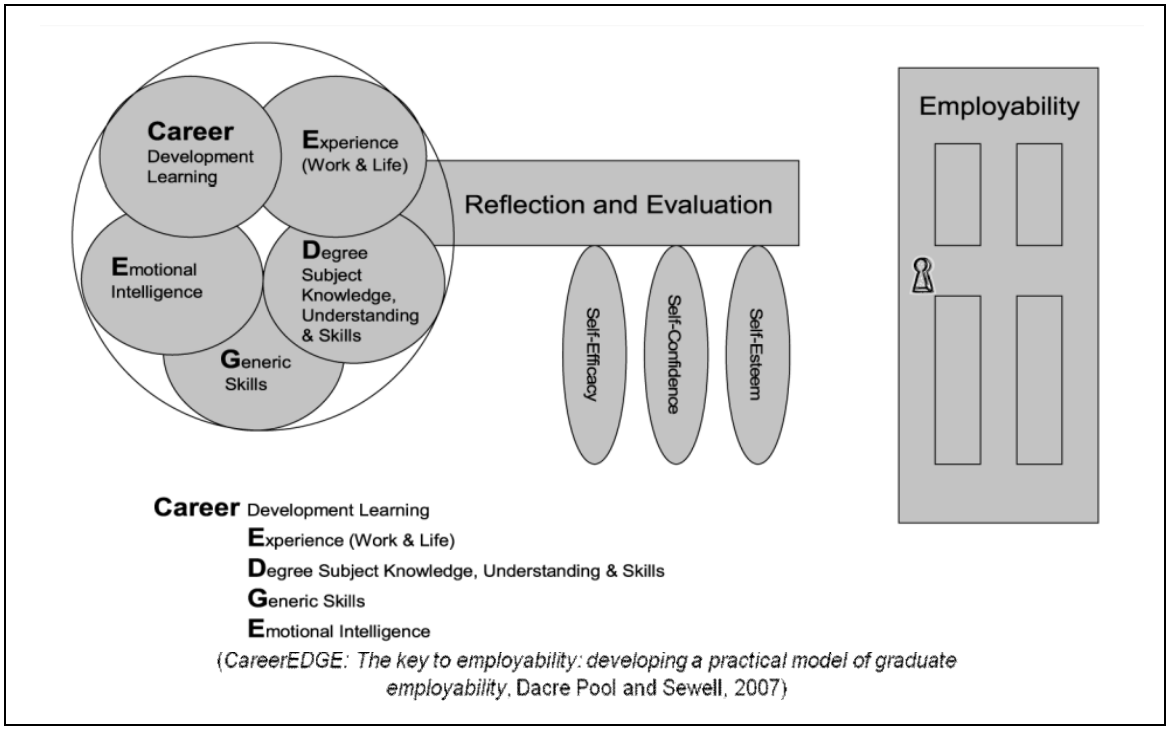
Figure 3: The WBL Triangle



Source: Brodie and Irving (2007).

In this regard Pool and Sewell (2007), in their model of Graduate Employability, outline 3S as the critical keys for graduate employability (Figure 4). These three keys draw from a mix of five factors with some overlap but a single process is not complete at graduation, though there are immense possibilities about how HEIs and businesses can contribute to graduate employability for the benefit of both parties.

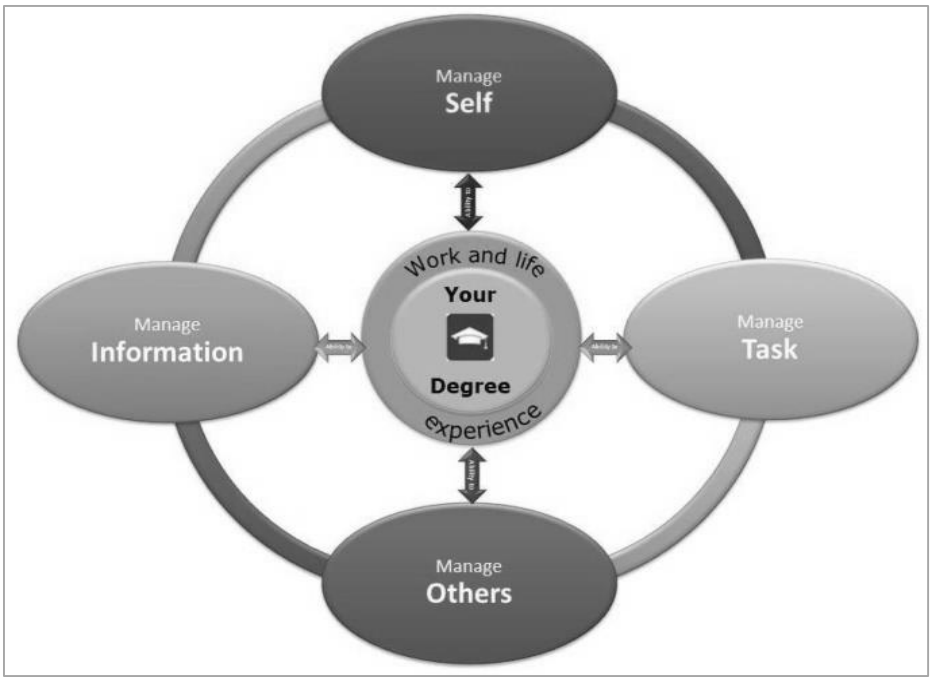
Figure 4: 3S of Graduate Employability



Source: *Pool and Sewell, 2007.*

Yet another model has been developed in the UK by the Great Graduate, based on the review of multiple models and lists of employability skills valued by employers across many professions. This model, which describes four key areas of self-development valued by most employers, is a comprehensive generic model that benefits graduates of any discipline (Figure5).

Figure 5: The Great Graduate Model of Employability



Source: www.greatgraduate.co.uk

Each of these areas of self-development entails another set of skill requirements. At the core of this model lies the assumption that one's degree and the skills that one acquires and hones during the course of one's life and work determine one's employability quotient. As has been rightly suggested by Shrivastava and Khare (2012), "Although employability skills frameworks vary in terms of the particular skills and attributes they include, all major generic skills schemes include people-related skills and conceptualising/thinking skills". While there is a consensus on the importance of generic employability skills, there is no single definitive list of such skills. These skills may, however, be classified into various categories, as listed in Box 1.

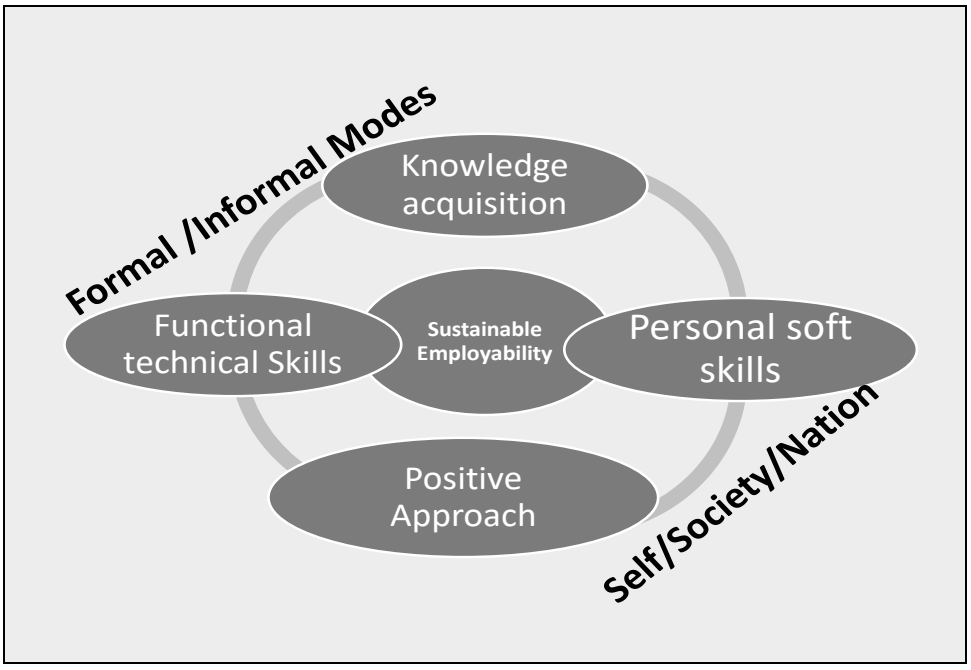
Box 1: Enlisting Generic Employability Skill Sets

- Fundamental skills, *such as literacy, using numbers, technology skills;*
- People-related skills, *such as communication skills, interpersonal skills, influencing skills, negotiation skills, team working skills, customer service skills, and leadership skills;*
- Conceptualising/thinking skills, *such as managing information, problem-solving, planning and organising skills, learning skills, thinking innovatively and creatively, and reflective skills;*
- Personal skills and attributes, *such as being enthusiastic, adaptable, motivated, reliable, responsible, honest, resourceful, committed, loyal, flexible, well-presented, sensible, able to manage own time, and deal with pressure; and*
- Skills related to the business world, *such as innovation skills, enterprise skills, commercial awareness, and business awareness.*
- Skills related to the community – *such as citizenship skills*

Source: Author's compilation.

The generic employability skills mentioned in Box 1 may also be known by several other names, including key skills, core skills, essential skills, key competencies, and transferable skills. These skills are required not only to gain employment but also to progress within an organisation, that is, to ensure sustainable employability. However, all definitions and descriptions largely converge into similar opinions. As per an ILO definition adopted by most countries, 'employability' refers to "the capacity and willingness of workers to remain attractive for the labour market (supply factors), by reacting to and anticipating changes in tasks and work environment (demand factors), facilitated by the human resource development instruments available to them (institutions)".

Chart 1: Self-perpetuating Model of Sustainable Employability



Source: Author's construct.

Thus, in this paper, employability may be understood as an amalgam of knowledge, which is a fundamental requirement for employability, supported by functional technical skills to be exercised in consonance with personal skills and a positive approach. Although at the macro level, the influence of many factors, such as household labour supply decisions, the influence of the product market on the labour market, the investment climate in a given country, growth and productivity, financial markets, and Foreign Direct Investment (FDI), maybe considered to be important determinants of employability, at the individual level, education that plays a central role. The forces inherent in a self-perpetuating model of sustainable employability can thus be seen as operating in a circular flow, signifying the acquisition of knowledge and application of functional skills through formal/informal modes of education in conjugation with a positive approach and personal soft skills that are imbibed during early childhood from the socio-cultural environment that a child grows up in and how they are used for the benefit of self/society/nation (Chart 1).

Analysing Graduate Employability Skill Gaps

Broadly, many of the studies and policy papers attempting to study the problem of "skills gap" can be categorised into the following three types as per their research approaches adopted by them:

1) Field Level Primary Data-based: These include studies based on employer surveys using various methods to generate employer perceptions of skills gaps (Holzer, 1997; Conference Board of Canada, 1999; National Association of Manufacturers, 2005; American Society for Training and Development, 2009; Business Roundtable, 2009; Shrivastava and Khare, 2012; Khare, 2012).

2) Empirical Secondary Data-based: These studies impute skills gaps from aggregate labour supply and demand data using the level of education as a proxy for skill levels (OHIO Department of Education, 1998; Peters, 2000; Dowling et al., 2010; Modestino, 2010).

3) 'Hybrid Approach': These papers combine the approaches used in the above two types of studies, that is, those that compare benchmarked skill sets identified as in-demand by employers with labour force skill assessment databases(National Skill Development Corporation - NSDC, Singh and Goodman, 2006;Schippmann et al., 2000; Agut and Grau, 2002; Siddique, 2004; Guinn, 2000; Homer, 2001).

A brief review of some of these studies in the contexts of different countries reveals very similar results. The Academy for Education Development (AED) had undertaken an employer survey in Egypt for the purpose of offering recommendations to the Ministry of Higher Education on 'Ways of Improving the Quality of Middle Technical College Graduates' (AED, 2008). Around 240 companies of varying sizes, categorised as small, medium, and large were identified for the purpose of this survey. The surveyors were sent to the companies to conduct personal interviews.

On the basis of the survey, it was found that the three main reasons why employers demand increased levels of skills are: (i) higher levels of technology, (ii) increasing competition, and (iii) increasing concerns about the quality of products. Further, soft skills, including personality, honesty, and punctuality, and basic skills, including managerial skills, problem-solving ability, and literacy were the top priority for employers in selection of employees.

Paranto and Kelker (1999) analysed the various skills that employers perceived to be important while hiring management executives. As many as 136 employers responded to the survey in the questionnaire administered to them. Factor Analysis was used to arrive at four major factors based on the findings of this survey, namely specific skills, core skills, personal characteristics, and communication skills, with further sub-categories of these skills as detailed in Table 1.

Table 1: Skills Classified Under Four Factors

Specific Skills	Core Skills	Personal Characteristics	Communication Skills
Database Knowledge	Self Confidence	Business Ethics	Listening Skills
Mathematical Skills	Critical Thinking	Professionalism	Speaking Skills
Spreadsheet Knowledge	Creative Thinking		Written Communication
Word Processing Knowledge	Interpersonal Skills		
Technical Skills	Leadership Skills		
Ability to Adapt to Changing Technology	Experience with Real World problems		

Source: Paranto and Kelker (1999)

The survey found on the basis of the t-test that the mean importance rating of the core skills is statistically significantly higher than that of the specific skills. In addition, an analysis of variance showed that there is no statistically significant difference in the importance of core skills among employers associated with organisations of different sizes and belonging to different economic sectors. Core skills emerged as the most important set of skills across all participating employers.

In a review of three studies conducted in various parts of India, Carnoy (1987) showed that students in India attend university primarily to get better jobs, and an important reason behind the choice of a particular subject at the college level is its career potential, that is, its role in ensuring future employment opportunities rather than the student's intrinsic interest in the subject. This demonstrates that students in India generally give high weightage to employability. This is also one major reason for the skewed expansion of India's higher education sector. Although there has been positive growth in enrolment in all kinds of education during the past decade, professional education has clearly outstripped the others. Within the professional education sector, management education has seen the highest growth in the number of seats amongst all other professional/technical courses in the country (Khare, 2012). In today's borderless world, two major factors can be stated to be the drivers of this rising demand—increasing job opportunities in the management sector globally and India's high share in the job market for Management of Business Administration (MBA) courses.

Crossman and Clarke (2010) attempted to study the perceptions of employers, academics, and students regarding the connection between international experience and graduate employability. This is a quantitative study based in Australia and assesses the benefits of international academic exposure in the context of increasing globalisation and internationalisation. The ability to operate in culturally diverse environments was identified as an important determinant of graduate employability. The other outcomes associated with university exchange programmes included forging of networks, opportunities for experiential learning, language acquisition, and the development of soft skills related to cultural understanding, personal characteristics, and ways of thinking. All these factors go a long way in increasing graduate employability.

Using mixed-methods research tools, Thompson et al. (2013) explored the nature and value of extracurricular activity engagement and the significance of institutional schemes that encourage extracurricular activity engagement amongst students at Lancaster University, UK, over the course of one academic year. Their findings reveal that many students are actively engaged in a variety of extracurricular activities as they recognise their value for employability. However, there is lack of strategic orientation towards career planning of their experiences on campus activities, which is assumed to be important for 'life-wide learning'.

Using longitudinal data of graduates who had obtained Master's degrees in nine European countries, Lindberg (2007) demonstrates that the understanding of graduate employability varies when the viewpoint of the analysis changes from cross-sectional to longitudinal. According to him, longitudinal indicators are useful in identifying the limitations of the higher education system as part of efforts to improve the employability of graduates.

Nannette Ripmeester, Expertise in Labour Mobility (ELM) explored the development of employability skills in the UK. The report emerging from this study is based on a primary survey of 414 career advisory staff from institutions in 25 countries. It aims to examine the selected best practice examples from UK and international HEIs. Though the Although this research demonstrates that UK practice is highly advanced in several areas like extra-curricular activities, leading to certification and work placements in specific subject areas, innovation and practice-sharing amongst UK careers advisory staff functioning as a continuum, and the provision of more central support through funding bodies than in the other surveyed countries such as the USA and Australia, yet there are things to learn from international examples of good practice. The study recommends that though 69 per

cent of the institutions surveyed in the UK follow a strategy for enhancing student employability, introducing compulsory elements of employability studies in degree programmes is still worth considering as only 10 per cent of the institutions in the UK currently do so. Further, the study highlights the need for greater involvement of the students themselves, alumni, and academic staff in promoting employability skills, and emphasises the importance of fostering closer relations between employers and the Career Advisory Staff (CAS).

Another study, titled, 'A Better Measure of Skills Gaps 2011' by ACT, Inc. (Utilising Act Skill Profile and Assessment Data for Strategic Skill Research) proposes a skills gap methodology that uses more detailed and specific measures of skills for undertaking a supply/demand analysis to identify skill gaps in selected industries, including manufacturing, healthcare, construction, and energy-related enterprises in the USA. This study found that in the target occupations that require a middle or high level of education, a majority of the students did not meet or exceed the 'Locating Information' skill requirements, and not even 50per cent met the 'Applied Mathematics' skill requirements in a majority of the jobs in the manufacturing, construction, and energy sectors. The study also flags regional variations in skill gaps, and hence recommends the development of strategies to replicate similar research at the State or local levels for facilitating better understanding.

A study undertaken by the American Society for Training and Development emphasised the growing importance of nurturing talent for promoting organisational performance and addressing the skills gap that is a source of concern for many organisations today. This study also brings to the fore the irony in America's job market as despite the existence of a large pool of unemployed workers, job openings are lying vacant due to a talent crunch reported by employers. The organisers have been complaining that skill gaps are not only of a very high order but have been increasing. An examination of skill shortages at different levels of the organisational hierarchy indicates that middle- and high-skills jobs account for the largest gaps. The results show that the major gaps are observed in the case of leadership and executive skills, managerial and supervisory skills, and profession- or industry-specific skills. Significantly, managerial and supervisory skills cause the maximum concern for a majority of the respondents. In his study covering UK agencies and bodies engaged in need assessment of employers in the strategically important and vulnerable subject relevant sectors of the UK industry, Toland (2011)reported employability gaps, particularly in the hi-tech, science and IT sectors, all of which reported difficulties in recruiting STEM graduates and predicted even more difficulty in future.

He identified the four disciplines of Chemistry, Engineering, Mathematics, and Physics as 'strategically important'. However, the study reveals the growing importance that employers assign to generic skills, asserting that "both generic and technical skills needs have emerged as part of a wider recognition of the growing importance of 'T-shaped' skill sets where the depth of the functional or disciplinary skill is enhanced by the horizontal ability to apply knowledge across various work-based situations".

Singh et al. (2000) identified the perception of employers concerning the employability skills needed in the job market and graduates' perception of the employability skills in Malaysia. Based on a review of existing literature, they identified eleven variables as constituting employability skills. Primary data was collected through two sets of questionnaires and the 11 variables were eventually reduced into seven factors through the use of factor analysis. The results of the study revealed that employers preferred to hire graduates from public universities but the both graduates and employers expressed similar perceptions regarding the importance of employability skills. However, younger employers tended to be more favourable towards graduates' employability skills.

Godwin (2006), in his descriptive correlational study, deployed the employability skills instrument to assess the self-perceived level of competence with regard to some basic skills needed for careers in the hospitality industry based on a survey of hotel and restaurant management(HRM) students from the University of Missouri-Columbia. The study indicated that students from both "program and non- program" equally developed moderate to major competence to serve as productive employees in the workplace. The study indicated that while students are doing fine with problem-solving skills, they need improvement in understanding the political implications of their decisions and interpersonal skills.

Some other studies on the hospitality sector, including those by Breiter and Clements (1996) and Pavesic (1991), have emphasised the importance of upper-level leadership skills such as human resources skills, conceptual skills, communication skills, analytical skills, problem-solving skills, and planning skills, which are more important than the technical skills usually acquired through specific organisational training at various places of employment. Other similar literatures that have encouraged the development of employability skills indicate that leadership skills, critical thinking skills, communication skills, problem-solving skills, creative and flexible thinking, and human resource management skills are necessary for achieving success in one's career (Gustin, 2001; Kay and Russette, 2000). Interestingly, most employers echo common sentiments regarding the employability of India's youth.

Indian youth are lacking more in personal skills as compared to functional skills (Khare, 2012; 2014). Functional skills are relatively more industry-specific and are generally imparted by industries during the probationary trainings they undertake for their employees. Industries that focus on soft skills and customer orientation-related attributes at the time of recruitment and impart functional as well as service-oriented trainings to their personnel at regular intervals have a more efficient workforce that exhibits skill gaps.

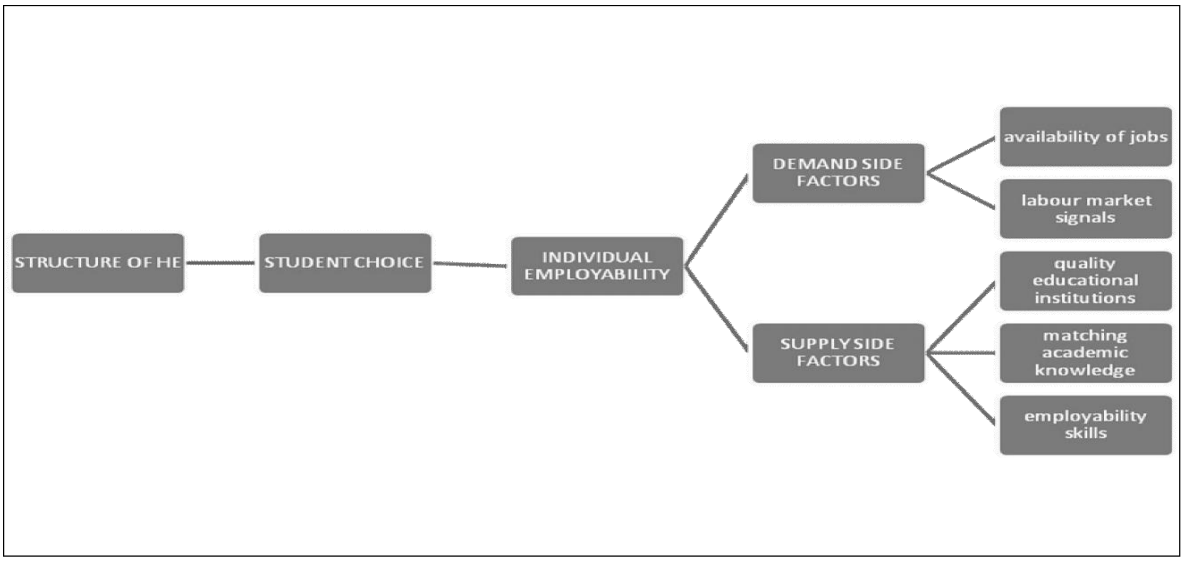
Crossman and Clarke (2010), in their findings of an Australian qualitative study, concerned with the way that employers, academics, and students perceived connections between international experience and graduate employability, argue that increasing globalisation and internationalisation have heightened the need for graduates with an ability to operate in culturally diverse contexts. Their findings suggest that all stakeholders identify clear connections between international experience and employability, given outcomes associated with the forging of networks, opportunities for experiential learning, language acquisition and the development of soft skills that are related to cultural understanding, and personal characteristics and ways of thinking.

Weligamage's (2009) study too reveals that enhancing graduate employability skills is considered as an important task within the Sri Lankan university community. This study was based on an extensive review survey of educational reports, and empirical and theoretical research papers covering Sri Lanka and other countries. The study shows that employability skills in consonance with employer expectations and requirements differ from country to country, given their contextual backgrounds.

It is thus no surprise that cross-nationally institutions concerned with labour market policy have emphasised the importance of employability and its relationship with HEIs. Several studies recommend that firstly, employers' needs and the learners' skill enhancement capabilities should be taken into account while formulating future skill assessments, and secondly, that universities should identify the requisite skill sets as per the labour market projections for the future and design their programmes accordingly.

An extensive review of literature and employers' perspectives in India indicates that employability is understood to be a function of the following two basic factors: (i) the academic qualification of an individual, and (ii) the learning environment that helps him build certain generic skills (Shrivastava and Khare, 2012).

Figure 6: Factors Impacting Individual Employability and the Higher Education Structure



Source: Khare (2014).

Khare (2014) argues that for individuals, their employability quotient is both a resultant and a determining factor of the quality of their higher education sector they were associated with. On the demand side, it is largely the availability of jobs and labour market signals, whereas on the supply side, it is the availability of high-quality educational institutions that can generate matching academic knowledge and employability skills, which, in turn, influence the students' choice of the type of higher education they wish to pursue (Figure 6). It is thus extremely important to understand the macro-economic scenario, and the employment and unemployment situation pertaining to the graduate population before trying to understand the employability skill gaps and the employers' demands for specific skills.

Growth and Employment of the Educated in India

The structural change in growth and employment has far-reaching implications for the human resource needs of any nation.

Macro-economic Snapshot

Prior to the advent of the Coronavirus pandemic, India was one of the fastest growing economies in the world, with the growth rate of its GDP ranging from 7 to 9 per cent over the last two decades (Table 2 depicts the GDP figures over the last five years).

Table 2: A Snapshot of the Indian Economy over the Last Five Years

Year/ Item	2015-16	2016-17	2017-18	2018-19	2019-20
GDP Growth (at constant prices)	8.0	8.2	7.2	6.8*	7.0**
Forex Reserves (in US $ billion)	360.2	370.0	424.5	412.9	461.2^
Fiscal Deficit (% of GDP)	3.9	3.5	3.5	3.4	3.3
Service Sector Growth (in %)	9.2	8.4	8.1	7.5	6.9**
Inflation CPI-C (in %)	4.9	4.5	3.6	3.7	4.1*
Inflation WPI (in %)	-3.7	1.7	3.0	4.7	1.5*
Agriculture, Forestry and Fishing	7.6	6.3	5.0	2.9*	2.8*
Industrial Growth	8.8	5.6	5.9	6.9*	2.0*

Source: Press Information Bureau, Economic Survey, Inflation data from Department for Promotion of Industry and Internal Trade (DPIIT), NSSO.
Note: *provisional, ** projected, ^ as on 10.01.2020.

The average annual GDP growth rate increased from 5.57 percent during 1991-2000 to 7.59 percent during 2001-10 to 8.2 per cent in 2016-17, after which it started decelerating (Figure 7). It declined to 4.8 per cent in the first half of 2019-20, amidst a weak environment for global manufacturing, trade, and demand (GoI, 2020a).

Figure 7: Macro-economic Snapshot of GDP Growth

GDP Growth Rates (Base Prices)

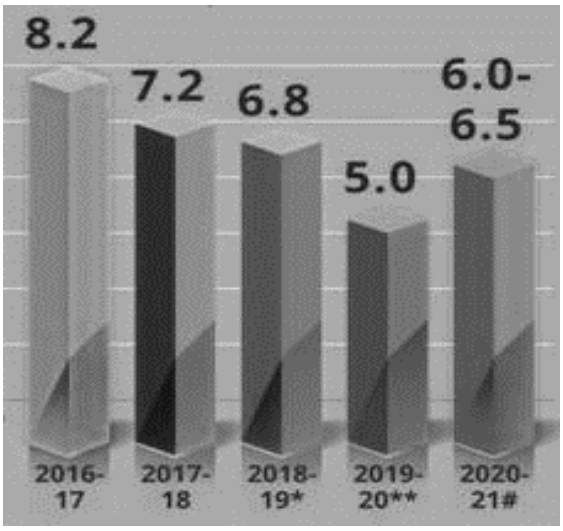
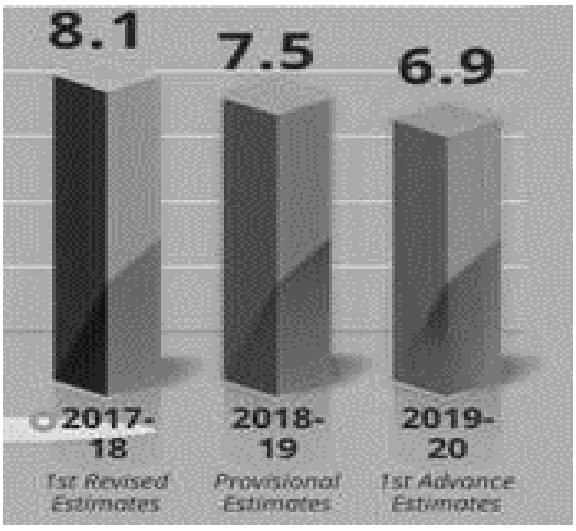


Figure 8: Growth of Services

Service Sector Growth Rate



Source: http://pibphoto.nic.in/documents/graphic/gbig619.JPG
http://pibphoto.nic.in/documents/graphic/gbig600.JPG

India's growth story is also unique in the sense that it has defied the widely-accepted model of economic development, that is, shifting from agriculture to industry, and then to services. The Indian economy has clearly bypassed the industrial sector and moved directly from agriculture to the services sector, which contributes about three-fourths of India's GDP and has been the major contributor to its growth during the past decade. The services sector grew at 8.1 per cent in 2017-18 in consonance with the GDP growth (Figure 8).

The feature of poor employment growth of the 1960s to the 1980s and the increasing number of educated job-seekers at an average annual rate of 14.6 per cent (Statistical Outline of India, 1984), is also something unique to India. On the whole, though India experienced a reasonably good economic growth post the 1990s, the country has been experiencing a situation of jobless growth and high rates of unemployment in recent years. Further, in contrast to the GDP structure, a majority of the population is occupied in agriculture and allied activities and not in the services sector, which contributes the maximum to the GDP.

Recent years have, however, seen a marked preference for service sector occupations and entrepreneurship, particularly among the educated youth. This trend is also supported by the Government's policy to turn India into a "Knowledge Superpower" in the coming years with an emphasis on technology-led innovation, entrepreneurship, research, and development. The significance of the services sector in the Indian economy has continued to rise, with the sector now accounting for around 55 per cent of the GVA and GVA growth, two-thirds of the total FDI inflows into India, and about 38 per cent of the total exports (GOI, 2020b). In fact, since the late 1990s, the services sector has emerged as a major contributor to exports. With the increasing importance of Knowledge Process Outsourcing (KPOs), it is also bound to go up the value chain. The country is now focusing on growth by specialising in network products in order to raise its export market share to about 3.5 per cent by 2025 and to 6 per cent by 2030 as well as to create 4 crore and 8 crore well-paid jobs by 2025 and 2030, respectively. In order to fulfil its aspiration to become a$5 trillion economy by 2025, as specified in the survey, India targets to increase its exports of network products by adopting a three-pronged approach: large-scale specialisation in labour-intensive sectors, especially pertaining to network products; a laser-like focus on enabling assembling operations at a mammoth scale in network products; and channelling exports primarily to markets in rich countries (GoI, 2020b).

Future projections reveal that 60 per cent of the increments in jobs would be in the services sector, and there would be a visible shift in favour of organised sector

jobs, which are projected to increase from the existing ratio of 8 percent in the organised sector vis-à-vis 92 percent in the unorganised sector to a corresponding 10: 90 percent ratio. The workforce too is projected to increase by 27 per cent to reach approximately 600 million by 2022 (India Skills Report,2019),thereby making India the youngest economy with a vast human resource base in contrast with many other aging economies of the world .

According to ILO estimates, an additional 280 million jobs need to be created to close the global employment gap by the end of this decade. Nearly half of the new entrants into the labour market will be from the Asian region. A study by the Boston Consultancy Group in 2007 had clearly indicated that by 2020, India would have a surplus of 56 million working people whereas the rest of the world would, in contrast, encounter a shortage of 47 million working people. The employment situation facing educated youth in India already points to a very worrying picture.

Graduate Employment–Unemployment in Indian States

It is a well-known fact that with economic and population growth, employment growth should rise and unemployment should decline. The productive sectors of the economy should generate enough employment to absorb job-seekers, especially the educated (more so those with degrees at the higher education level) due to the increasing demand for new high order skills arising out of technological advancements in changing job requirements. Unfortunately, a look at the unemployment trends in India across education levels shows a contrast picture (Table 3).

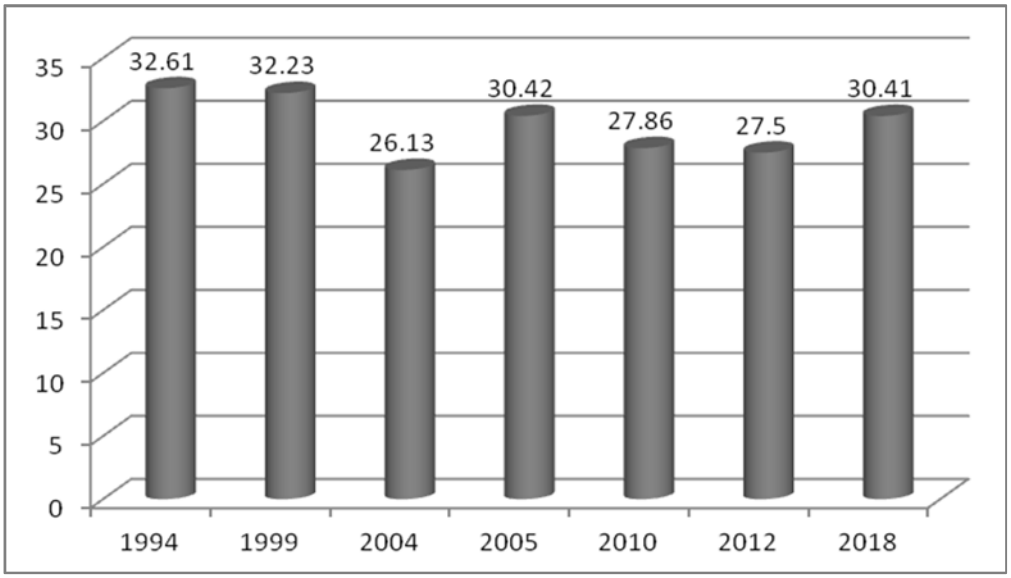
Table 3: Missing Youth Population (Age 15-29 Years)

	2004-05	**2011-12**	**2017-18**
NEET Rate by Age: 15-19 Years	23	18.1	18.1
20-24 Years	36.8	36.8	43.1
25-29 Years	33.9	39.3	43.7
15-29 Years	30.9	30.6	34.1
NLET (million)	69.5	83.7	100.2
Open Unemployment Rate (%)	5.4	6.1	17.8

Source: NSS Rounds and PLFS 2017-18.

As per the latest report of the Government of India, India has witnessed the lowest number of jobs in the last 45 years, with unemployment figures increasing to 6–7.8 per cent in urban and 5.3 per cent in rural areas in the year 2017-18. The open unemployment rate for youth population stood at a much higher rate of 17.8 per cent in 2017-18, signifying a jump of more than 10 percent from 2011--12. The number of people categorised as Not in Education, Employment or Training (NEET) too has increased, and remains highest for the age group of 20-29 years, the most desirable age group for any person to be employed or getting employment. This percentage for the youth population, as a whole, has not only remained high, at around 30 per cent, from the 1990s onwards but has, in fact, shown an increasing trend during the past one decade or so (Figure 9).

Figure 9: Share of Youth Not in Education, Employment or Training, Total (% of Youth Population)



Source: World Bank Database.

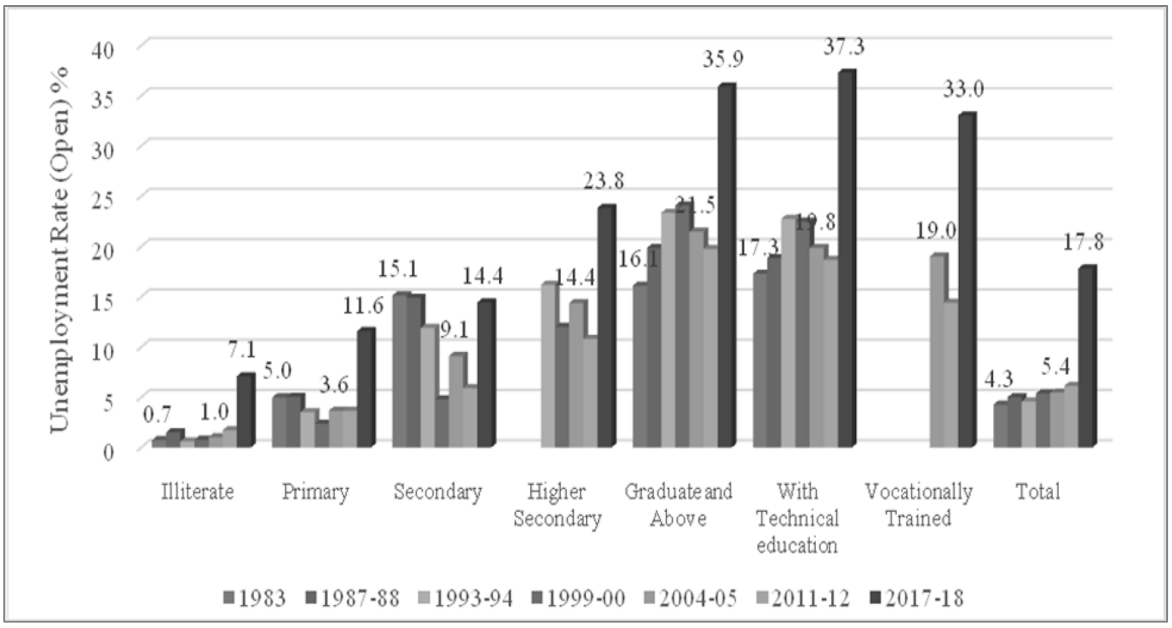
Table 4: Unemployment Rate by Education Levels

All India Level	Unemployment Rate (in %)			
	1983-84	1993-94	2004-05	2017-18
Illiterate	0.41	0.49	0.36	1.32
Literate and up to Primary	1.86	1.20	1.64	3.35
Middle	6.12	2.76	3.86	6.34
Secondary	11.09	3.50	6.15	7.32
Higher Secondary	-	5.75	7.80	12.29
Diploma/Certificate Course	-	8.66	11.41	20.63
Graduate	8.94	9.01	9.78	18.90
Post-graduate and above	-	8.78	9.06	16.70

Source: Author's estimation using various rounds of NSS unit level data.

In addition, the unemployment rate was higher among the educated and female population. In fact, the rate of unemployment increases with increasing levels of education. Further, the unemployment rates among those with diploma or certificate levels of education are also high. The unemployment rate has been consistently increasing for the graduate plus population (Table 4). The rates almost doubled for both graduate and post-graduate degree holders between 1993-94 and 2017-18. Not only has India been facing jobless growth, but it is the unemployment rate of the educated that is on the rise. The open Unemployment Rate (UR) in India rose sharply between 2011-12 and 2017-18. The scenario is worse among the youth aged 15 to 29 years (Figure 10).

Figure 10: Youth Unemployment Trend by Levels of Education (15 to 29 Years)



Source: Based on various rounds of NSS, and PLFS 2017-18.

Although the youth unemployment rate too has risen much more sharply across all education categories, the increase is the highest for those with graduate plus degrees, and technical education and vocational education categories.

A state-wise analysis of unemployment trends among higher education graduates also points to a worrisome scenario. Although the URs declined during the initial period, there was a sharp rise in unemployment from 2011-12 to 2017-18 for all the States. The rise in URs was the highest in the States of Madhya Pradesh, Tamil Nadu, Andhra Pradesh, Gujarat, and Bihar between 2004-05 and 2017-18. Amongst all the States, Gujarat was the only one that witnessed a single-digit UR during all the three periods, thereby maintaining the lowest rank whereas Kerala has been consistently standing first among all the States, exhibiting the highest UR of higher education graduates (Table5).

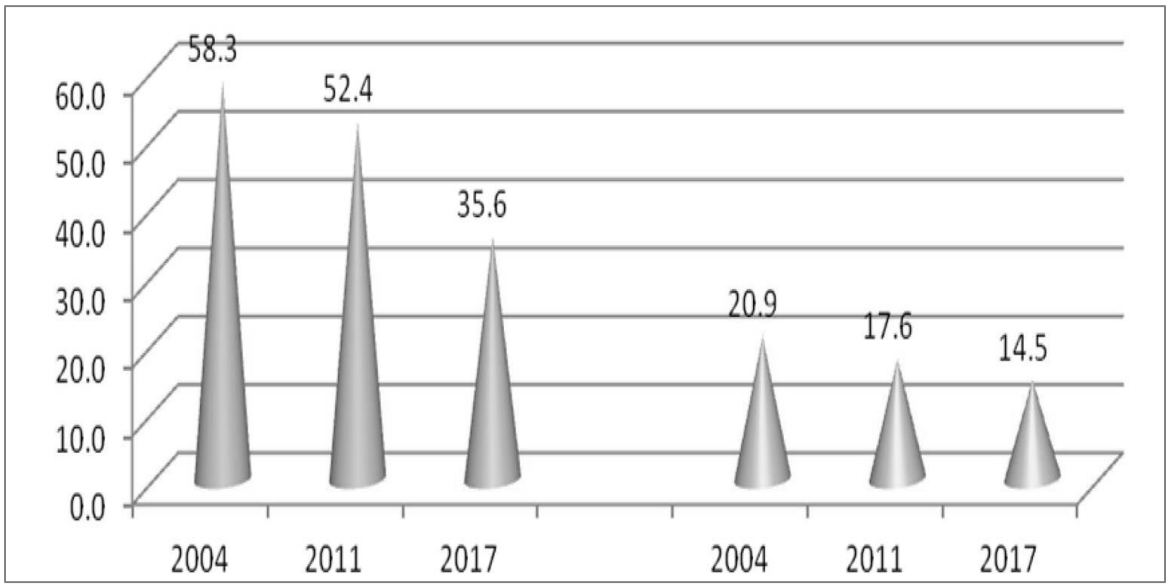
Table 5: Employment Status of Higher Education Graduates (HEGs)

States	Unemployment Rate of HEGs			Proportion of HEGs among Regular/Salaried Workers		
	2004	2011	2017	2004	2011	2017
Andhra Pradesh	11.91	11.13	26.08	37.27	41.07	33.99
Assam	15.59	12.83	19.88	40.80	41.01	38.18
Bihar	7.69	7.13	14.95	18.26	22.95	25.71
Gujarat	4.67	1.93	9.15	29.78	31.70	33.82
Haryana	12.53	5.92	13.10	30.48	31.41	30.75
Himachal Pradesh	11.65	5.83	21.73	34.92	36.26	28.21
Karnataka	8.08	5.78	13.15	34.86	39.92	36.97
Kerala	29.43	18.38	32.30	32.77	33.23	30.58
Madhya Pradesh	4.98	3.26	12.67	29.78	34.70	31.17
Maharashtra	5.36	3.74	10.41	34.68	36.38	37.22
Odisha	24.96	11.52	20.73	26.37	34.06	29.02
Punjab	10.02	6.20	16.48	31.96	31.03	29.90
Rajasthan	8.99	8.18	15.74	35.87	33.21	29.40
Tamil Nadu	9.98	9.87	24.42	42.03	40.80	36.70
Uttar Pradesh	9.28	5.83	14.35	20.01	20.85	21.67
West Bengal	10.86	11.04	15.08	26.08	29.53	28.48
All India	11.62	8.04	17.51	31.62	33.63	31.36

Source: Computed using various rounds of NSS unit level data.
Notes: (1) Higher education includes technical education. (2) Estimation is based on the principal status (ps) workers only.

Thus, factors such as growth, population size, and education status of the States do not seem to be mattering much when it comes to the UR among higher education graduates (HEGs), which has been rising for all States, and has consistently remained the highest in Kerala, one of the most educationally advanced States in the country. Ironically, the inter-State disparities in terms of the UR for HEGs in the country has declined over the years (Figure 11), not so much because of an improvement in the States ranked lower during the earlier period but due to a deterioration in the States ranked higher during the corresponding period.

Figure 11: Unemployment Rate of HEGs (CV in %) Proportion of HEGs in Regular/Salaried



Source: Author's calculations.

The proportion of HEGs among regular/salaried workers, which reflects the quality aspect of the employment, has, on the other hand, remained almost stagnant over a long period of time, with inter-State disparities being much lesser than their URs. Two inferences may be drawn from such trends: one, that the quality of employment for HEGs in India has not shown any major improvement over time; and two, that the situation has remained the same across all States of the country, as the coefficients of variation have also remained low over the years. Only one observation that may offer some hope is the fact that developed States like Tamil Nadu, Karnataka, Andhra Pradesh Assam, Kerala, and Maharashtra have consistently performed better whereas States like West Bengal, Uttar Pradesh, and Bihar have consistently ranked low on this count.

Table 6: Education Status of the Labour Force

States	Proportion of Graduate+ in the Labour force		
	2004	2011	2017
Andhra Pradesh	8.22	18.28	22.83
Assam	8.99	15.03	18.39
Bihar	12.59	20.46	24.75
Gujarat	11.87	16.90	22.32
Haryana	13.71	34.29	24.56
Himachal Pradesh	9.09	15.08	14.10
Karnataka	9.98	18.05	25.09
Kerala	13.66	26.39	27.99
Madhya Pradesh	10.57	20.39	21.51
Maharashtra	14.63	22.96	26.47
Odisha	10.70	17.81	19.38
Punjab	16.33	21.29	23.94
Rajasthan	8.80	20.64	26.68
Tamil Nadu	12.12	20.11	27.96
Uttar Pradesh	14.21	24.31	28.29
West Bengal	14.27	26.20	24.08
All India	11.86	21.14	23.65

Source: Computed using various rounds of NSS unit level data.

The labour force of HEGs has contrastingly expanded from 2004-05 to 2017-18 (Table 6). While a tremendous increase occurred in the number of HEGs in the labour force during the initial years, that is, from 2004-05 to 2011-12, the addition of workers to the employable pool was relatively lower between 2011-12 and 2017-18. Between 2004-05 and 2017-18, the States of Rajasthan, Tamil Nadu, Karnataka, Andhra Pradesh, and Kerala registered the highest rise in the HEG labour force. Notably, these States also recorded a higher growth in the labour force during the initial sub-period of 2004-05 to 2011-12 Table 6). On the other hand, the States of Haryana, Himachal Pradesh, Maharashtra, Punjab and West Bengal witnessed poor growth in the education status of their labour force, with many of these States experiencing a high rate of economic growth.

A rise in the proportion of HEGs in the labour force is a significant indicator, as it reflects an improvement in the education status of the workforce. Unfortunately, in India, while the proportion of HEGs in the labour force has been increasing, their URs are also on a rise. The above analysis thus confirms that growth does not necessarily have a positive impact in keeping the UR of HEGs low and cannot be considered as a sufficient condition for triggering the virtuous circle of economic growth leading to human development (Khare, 2019). Such trends certainly force one to delve deeper into the employers' claim that educated youth are not work-ready or fully equipped with the requisite skills to enter the labour market.

Issue of Graduate Employability: The Indian Case

It cannot be disputed that India is today one of the growing economies with a huge human resource base. It also has one of the youngest populations in the world. India's demographic bulge at the centre reflects not only a growing proportion of people in the age group of 15-59 years but also a growing force of HEGs that can become its biggest advantage, if handled properly. Thus, the biggest challenge lies in harnessing this so-called "demographic dividend". The challenges of skill development and advancement of education in countries like India are all the more complex, given its large population, vast geographical, cultural, and social diversities, and gender dynamics. These multiple challenges severely limit the chances of gainful employment, be it paid employment or self-employment. With the gradual decline of the public sector in generating new employment, and increasing privatisation and globalisation, the nature of employment in and demands from the labour market have also changed rapidly. In the light of emerging trends, including new job responsibilities, a new vocational and 'Knowledge society', and the advent of multi-tasking and job-hopping, education in India is facing a tremendous pressure of achieving an equilibrium between the job market and expansion of higher education.

The problem of distortion in this equilibrium was brought to light by Panchamukhi as early as 1987 wherein he spoke of four such imbalances, expounded below:

a) By way of greater unemployment among certain graduates, due to dualities of personal backgrounds (students from poor socio-economic and rural backgrounds); differentiated grading of universities and colleges (with such institutions in large metropolitan areas being considered superior as they have additional advantages of existence of a larger employment market and more efficient means of integrating job-seekers with the job market);

b) By way of devaluation of degrees in the job market due to over-expansion of higher education or some of its branches, with such imbalances having a greater impact on students from vulnerable backgrounds;

c) By way of lack of a connect between the labour market and some graduate employees, who may find that their education level is regarded as insufficient or absolutely useless by potential employers; and

d) By way of poor quality of education leading to a decline in educational efficiency as an after-effect of over-expansion of higher education, which in turn, may induce employers to employ persons with still higher levels of degrees and diplomas, thereby leading to further devaluation of higher education.

Unfortunately, all of the above imbalances seem to plague the Indian higher education system today.

Individuals raise their productivity by spending time and money on education and training (Becker, 1962), but productivity can also be tied to positions, that is, jobs (Thurow, 1975). Different jobs entail different skill requirements, which may mean not only that individuals with varying amounts and types of abilities and qualifications get selected for such jobs them but also that individual skills are allowed to develop more in some jobs rather than in others (Faraks, 2003; Kohn and Schooler, 1983). Hence, the perceptions, role, and support in training the youth to equip them with the needed skills are paramount.

India's global ranking in the 5th pillar of the Global Competitiveness Index pertaining to higher education and training fell from 55 in 2007-08 to 85 in 2010-11. This slide is further testimony to the challenge of promoting future human resource development being faced by India. (The fifth pillar or higher education and training in this index measures the secondary and tertiary enrolment rates, the quality of education as evaluated by the business community, and the extent of staff training for ensuring a constant upgrading of workers' skills). India also slipped down ten places to be ranked 68th in the annual Global Competitiveness Index 2019, and is ranked quite low, at 114 out of 141, in terms of skills as a future workforce indicator (The Global Competitiveness Report,2019).

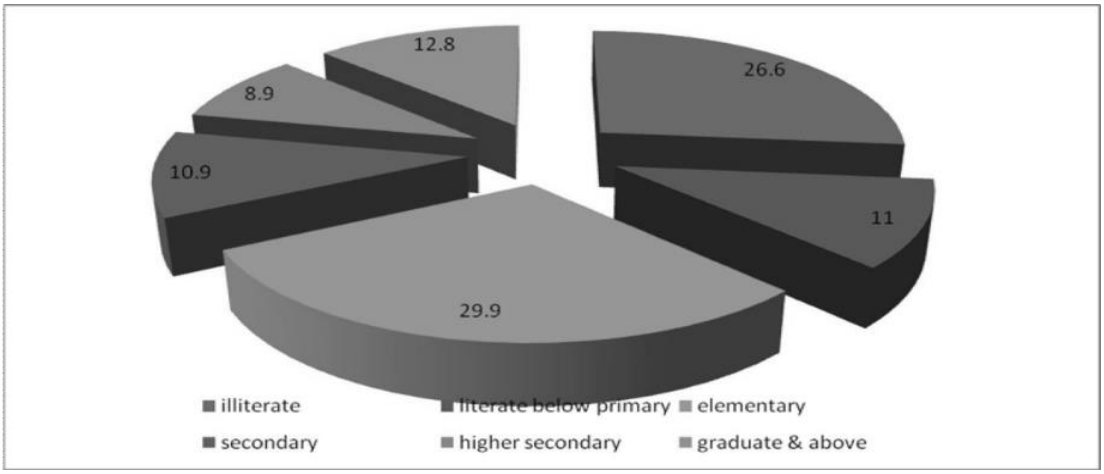
It is argued that the job market in India is beset with both demand and supply side imbalances among the HEGs in the labour force. Such imbalances, accompanied by low job growth, lead to the precarious situation of not only a lack of requisite skills and difficulty in getting jobs among the uneducated and untrained but also

consistently lower standards of education among those educated up to the college and university levels. A large body of highly educated graduates is thus forced to take up jobs that are much below the level of their educational qualifications or to enter into unsuccessful entrepreneurial pursuits. This has created a new kind of demand–supply imbalance, that is, a double knife-edged mismatch of both over-skilling as well as under-skilling among HEGs. Several reasons can be cited for this worrisome situation. These reasons, elucidated below, include a low knowledge and training base, an increasing number of graduate job-seekers, and rising numbers of both potential employees with explicit job preferences and potential employers with preferences for graduates in specific academic disciplines.

Low Knowledge and Training Base

An important element of India's employment market is the prevalence of poor education levels among its workforce. As is evident from Figure 12, only 12.8 per cent of the workers have a higher education degree, a minimum benchmark level considered important by employers offering regular formal jobs (Khare, 2012). Further, only 21.7 per cent of the workers have acquired education at higher than the secondary level (including education levels of high school, diploma, certificate, graduate, and above), which is a minimum globally accepted benchmark for work skills, showing only a marginal improvement over the corresponding figure of 17 per cent recorded during the previous year (66thRound of the NSS, 2009-10). It is for these reasons that India qualifies as a low base in terms of the globally accepted benchmark of work skills.

Figure 12: Percentage Distribution of the Labour Force in the Age Group of 15-59 Years across General Levels of Education



Source: Author's computation using the 68th round NSS unit level record, 2011-12.

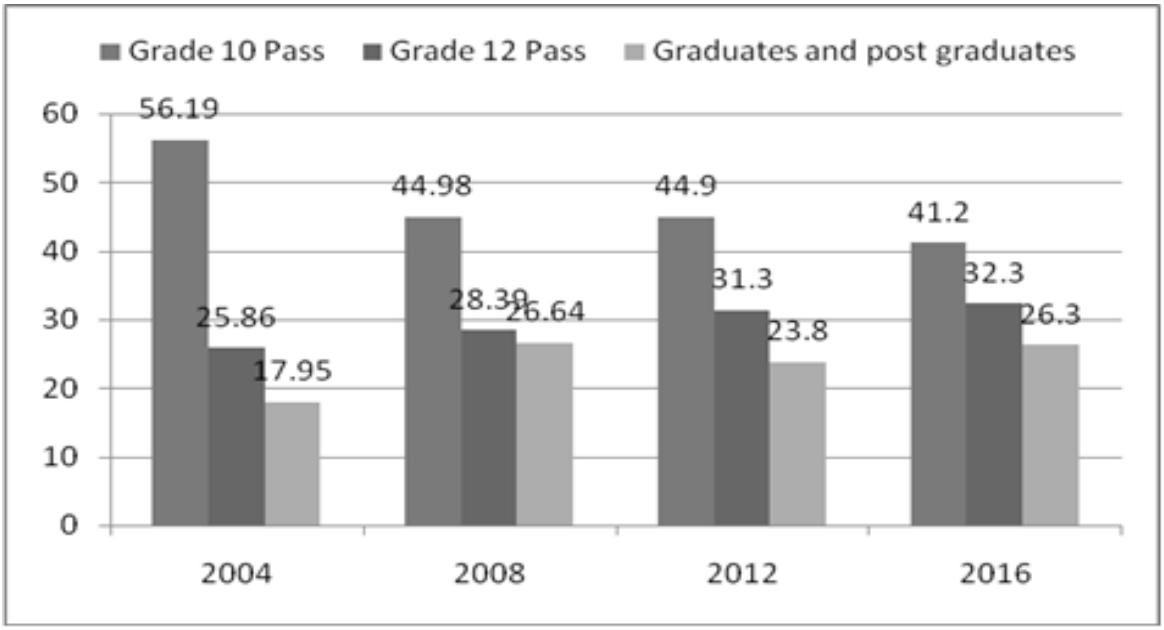
Moreover, among the higher educated category of workers, only about 8 per cent possess a formal college education with a graduation plus degree. Here, too a vast majority (83.7 per cent) have never received any kind of vocational training. The proportion of workers receiving any kind of vocational training in this age group is even lower. It was merely 10 per cent as per the 66th Round of the NSS (2009-10) and increased to 16.3 percent by 2011-12 (68th Round of the NSS). Among the vocationally trained workers too, only 1 percent have received formal vocational training. While on the one hand, there is excessive dependence on the non-formal system of vocational training, on the other hand, the demand for professional courses, though on the rise, is extremely limited in actual numbers, as revealed by the 1:3 ratio of professional to non-professional education enrolment. According to the Periodic Labor Force Survey (PLFS) 2017-18, only 13.53 per cent of the workforce in the productive age group of 15-59 years had received training (with 2.26 per cent having received formal vocational/technical training and 11.27 per cent having undergone informal training). A large section among the informally trained workers, that is, about 55.9 per cent, received this training either through self-learning (28.66 per cent) or through the hereditary route (27.24 per cent), and about 38.51 per cent received it on the job.

Increasing Share of HEG Job-seekers

Today, an increasing number of persons, comprising a major share of educated workers, are registering themselves in the employment exchanges in the country. Although not all educated job-seekers register themselves with the employment exchanges, these figures offer a fairly clairvoyant picture of educated job-seekers, given the fact that out of the total number of vacancies notified during 2010 (7.1 lakh), around 72 per cent (5.10 lakh) were filled through employment exchanges.

Figure 13 shows that the percentage of graduates has witnessed the greatest increase among the number of educated job-seekers during the past few years, with this proportion going up by 8.79 per cent, from 17.85 per cent in 2004 to 26.63 per cent in 2016. On the other hand, the share of those having passed 10th grade in school fell sharply by 14.99 percentage points between 2004 and 2016. Although those having passed the 10th grade still comprise a major chunk of educated job-seekers, their percentage has been falling with each passing year. This increase in the proportion of HEGs among job-seekers can be explained by two facts: one, the rising population of graduates in the country, and two, improvement in the quality of employment available for those having acquired higher education level degrees.

Figure 13: Educated Job-seekers by Education Level (%)



Source: Employment exchange statistics, DGET (GoI), various years.

Disciplinary Imbalances

Although the last few years, that is, 2009 to 2016, have witnessed the sharpest rise in the number of HEG job-seekers, there clearly appears to be a concentration of such job-seekers from certain disciplines. A break-up of graduate job-seekers by the streams of study reveals that a majority of them are from the general academic disciplines, with Arts graduates, who comprise about 40 per cent of the graduate job-seekers, topping the list (Khare, 2014). Further, there has hardly been any change in their percentage shares by major disciplines. Only a marginal dip has been observed in the percentage share of graduate job-seekers with degrees in the science, engineering, veterinary and education streams (Table 7).

Table 7: Graduate Job-seekers on Live Register by Streams ('000)

Education Level	2004	2006	2008	2009	2016
Total Educated	29263.2	30691.1	29253.8	29174.8	37113.8
Graduates and Post-graduates	5252.5	6745.8	7793.1	6345.9	9833.4
Arts	2124.7	2732.1	3156.3	2570.2	NA
Science	983.7	1261.4	1457.2	1186.6	NA
Commerce	769	991.6	1145.6	932.9	NA
Engineering	216	276.6	319.5	260.2	NA
Medicine	47.5	60.7	70.1	57.7	NA
Veterinary	6.9	6.7	7.8	6.3	NA
Agriculture	35.9	47.2	54.5	44.4	NA
Law	21.2	27	31.2	25.4	NA
Education	794.3	1018.7	1176.9	958.3	NA
Others	253.2	323.8	374.1	304.6	NA

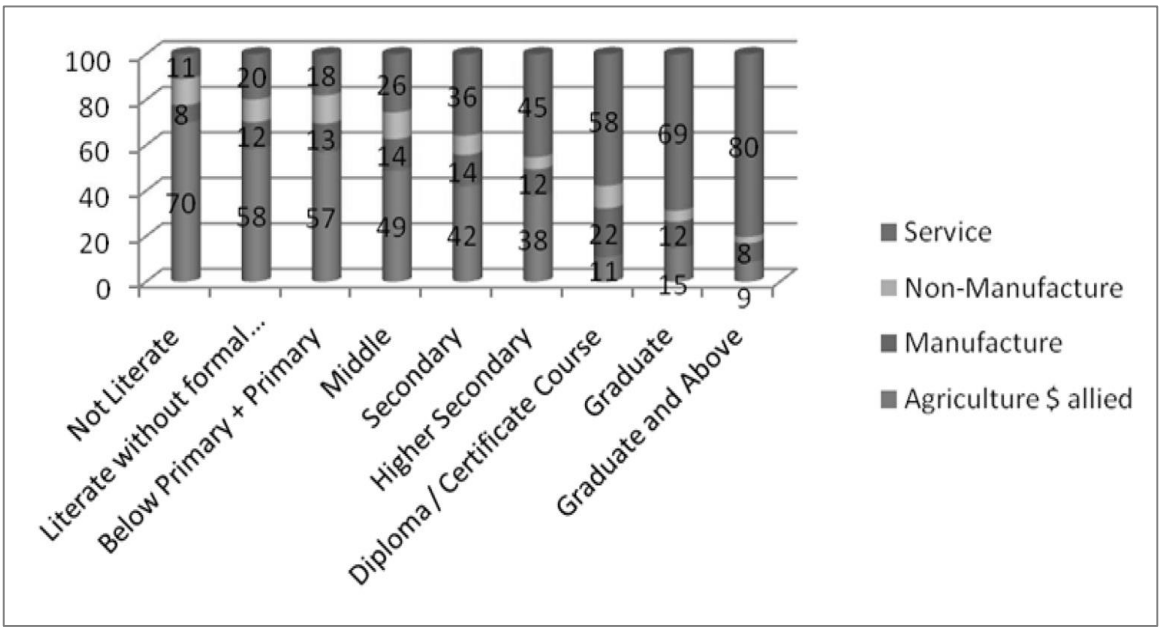
Source: Employment exchange statistics, DGET (GoI).

However, the findings reveal that on the demand side, employers are seeking professionally and technically qualified graduates even in non-technical industries and job roles.

Sectoral Bias of Educated and Trained Human Resources

Studies across the globe have shown that the income elasticity of higher education is much higher than that of all other levels of education (World Bank, 2002; Varghese, 2012). One distinguishable positive feature emerges from an analysis of the type of work that HEGs are engaged in. Almost 50 per cent of them are regular workers, closely followed by the self-employed. Only a very small proportion, at less than 5 per cent, are casual workers (India Labour Report). However, their sectoral concentration is very distinct in India. A break-up of the data by major sectors—agriculture and allied occupations, and the manufacturing, non-manufacturing, and service sectors—reveals a far more interesting picture (Figure 15).

Figure 14: Sectoral Share in the Labour Force in the Age Group of 15-59 Years by Education Level (%)

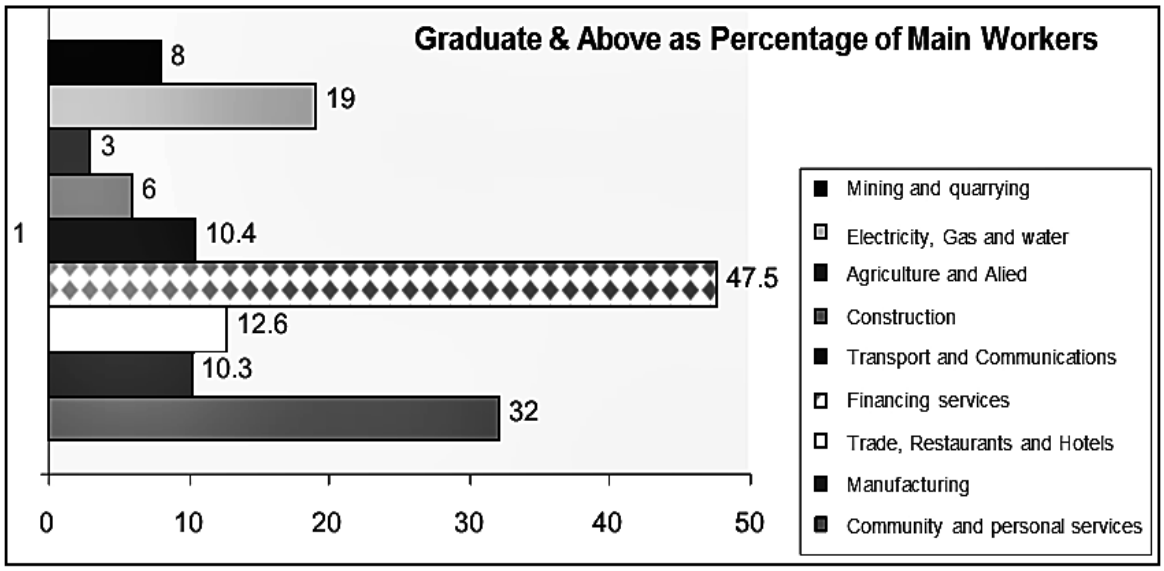


Source: NSS 66th Round, 2009-10.

A clear-cut preference can be seen for the highly educated in the services sector, with the proportion of those with higher secondary level of education engaged in the services sector showing an almost opposite trend as compared to those engaged in the agriculture sector (42 per cent of secondary graduates being occupied in the agriculture sector and 45 per cent of higher secondary graduates employed in the services sector) (Figure 14). This percentage is as high as 70 and more for those possessing a college degree. Over 72 per cent of graduate workers and 52.1 per cent of those with diplomas were employed in the tertiary sector in 2017-18 (PLSF, 2017-18).

Data reveal that among the 70 per cent of college degree-holders who are currently engaged in the services sector, their proportions are higher than 50 per cent in the Information Technology (IT)/Information Technology Enabled Services (ITES) and financial services sectors, which are leading the race for the most preferred job sectors (Figure 15). No other sector is employing a sizeable proportion of graduate workers except for community and personal services, power, trade, and hotels. The education sector, which has quite a high share of employees who are graduates and above, has been kept out of this comparison (Figure 15).

Figure 15: Sector-wise Share of Higher Education Graduate Plus Workers



Source: Khare (2012).

The low percentage of workers with graduate and higher degrees in certain sectors is self-explanatory, for these sectors may require skilled but not highly educated workers. These include the agriculture and allied, transport, and construction sectors. The low proportion of only 10 percent of workers with graduate and above level of degrees in the manufacturing sector can be explained by way of a sizeable share of Household industries (HHIs) in the Indian manufacturing sector. Out of a total of 41.6 million, 16.9 million fall in the HHI category.

Degree–Diploma Taboo

People in the country still face the Degree -Diploma taboo. The ratio of degree- to diploma-holders in India is around 2:1 as against the ideal 1:3. Although it would be desirable to have a large number of takers for skill-based diploma courses, the situation is quite the contrary. On the one hand, very few such courses are available in the public domain, with the sector being dominated by private providers charging high fees, while on the other, there is a societal perception of a degree commanding a higher premium in the job market vis-à-vis a diploma. These factors thus become big deterrents for youth opting for such courses in large numbers.

Equity Challenges

To top it all, disparities in graduate employability skills also have regional, socio-economic, and gender connotations (Khare, 2016; 2018). Multiple factors, such

as family and cultural background, place of residence, quality and type of earlier education, capability and ability to access additional learning sources, all become causes of a differential employability quotient across groups and individuals. The problem of lack of adequate skills among the workforce is far graver in rural and semi-urban centres as compared to urban areas. Studies point to a gap of almost 50 per cent between the employability of technical graduates in Tier I and Tier II cities, and a much higher gap for graduates from other streams. Girls and those belonging to the socially and economically underprivileged segments face a dual disadvantage stemming from disciplinary and quality distortions described in the above sections and the compulsion to supplement their skill-based trainings from private providers who charge high fees and are primarily available in urban locations.

Employers' Perceptions and Needs

The above discussion highlights the numerous connotations in the demand–supply gap pertaining to HEGs who fulfil all the criteria of employability. A large section of the graduate workforce has been finding it difficult to secure jobs due to labour markets of different sizes for liberal versus professional graduates. There may be two explanations for this phenomenon. Firstly, industries and occupations related to engineering and science have been amongst the top five on the employment index across major regions of the world during the period under study, and secondly, graduates belonging to this group are comparatively better equipped than others with 21st- century skills because of their socio-cultural, economic, and academic backgrounds. There is a heavy congregation of industries in the IT/ITES, health and community services, environment, architecture, biotechnology, life sciences, pharmacy, and -agro-based and allied sectors in the high-growth group across all major regions of the world, all of which draw from the graduate pool of science and technology. In addition, these graduates are employed in large numbers even in the occupations and industries other than engineering (Khare, 2014). An industry-wise break-up of the incremental human resource requirement till 2022 in India ICRA Management Consulting Services Ltd (IMaCS), National Skill Development Corporation (NSDC)] shows that the auto and auto component, building and construction, textiles and clothing, transport and logistics, organised retail, real estate, and healthcare industries would be at the higher end of the spectrum, adding upto a total of 15,59,00,000 additional jobs. Most of these sectors currently employ a very low percentage of graduates as main workers. However, as per a recent report on the hiring intentions for graduates in India, (Graduate Development Service Newsletter, 2012), while the manufacturing, insurance, and chemical segments will

have the strongest hiring intentions, the technical and engineering functions will have the greatest headcount increase. The most sought-after jobs are predicted to be in the sales, engineering, and research and development functions at the junior management level. The Planning Commission has identified twenty high-growth sectors that are expected to provide employment to the burgeoning labour force in the coming years. These sectors include auto and auto components, building and construction materials, real estate services, electronics and IT hardware, education and skill development services, food processing, gems and jewellery, healthcare, textiles, leather and leather goods, organised retail, tourism and hospitality, transportation and logistics, media and entertainment, telecom ,banking, financial services and insurance (BFSI), chemicals and pharmaceuticals, furniture and furnishings, and IT and ITES, beauty and wellness.

Of the 500 million workers slated to be skilled by end of 2020 in India, 25 per cent or 125 million have been educated up to or beyond the college level. Thus, educating and skilling this huge workforce by imparting new knowledge and skills is a daunting task. While the needs of the industry are rapidly shifting from basic to specialised ones due to the advent of greater automation and sophistication, a majority of the HEIs have been incapable of responding to these changes. They are, therefore, confronted with a twofold challenge-firstly, motivating and training the youth to work in sectors promising growth, and secondly, the need for frequent upgrading and updating of skill delivery in the highly dynamic and volatile IT and ITES and financial services industries, which employ a vast majority of the skilled workforce. It is also a matter of great concern that the largest pool of workers graduating from the non-technical, general, and social science programmes are generalists with broad socio-economic knowledge, but without any specific technical skills suited to any particular employment segment. The key question that needs to be addressed is thus as follows: What are the skills that the labour market finds lacking in this potential pool of graduate employees and how can the HEIs bridge this gap while training a skilled work force?

Employability Gaps

Based on an extensive survey of employers (senior level executives) and newly hired employees in select IT/ITES and finance companies across different cities in India (CPRHE Study on Employment and Employability of Higher Education graduates

in India*), threefold gaps have been identified that may provide some explanation for the poor employability of educated youth in the country. These are discussed in detail below.

Awareness Gap

The awareness regarding the new trades and sectors emerging in India and outside has been found to be extremely poor among the prospective employees (students) and their teachers. While employers contend that the job market is likely to grow with an increase in the demand for professionally and technically qualified personnel at the graduate plus level and the need for higher qualifications for all jobs across occupational categories, they find that the prospective employees possess quite a pessimistic view. Employers are also of the opinion that the competition in coming years would be tougher for the right kind of skill acquisition as the "jobs would be there" but it is only the "nature of jobs that will change". There is likely to be greater need for workers at high-end technically skilled jobs which the prospective employees are currently not aware about nor teachers competent enough to deliver them to students. Their idea about competition in the future job market too is rather simplistic— "as there would be more HEGs, and fewer jobs, and hence greater competition." The choice of disciplines available to students are thus guided more by past trends rather than future projections on the job front due to lack of requisite knowledge about future changes in the job market. Further, entrepreneurial instinct too is poor with a mere 6 per cent showing interest in self-employment and entrepreneurship. With privatisation on the rise and the Government withdrawing from many sectors, there is every likelihood that Government jobs would be on a slower growth trajectory than in the past. It is imperative to create awareness about this fact and about new forms and types of trades and jobs that are likely to grow in the future. Further, the skills gap can be bridged through promotion of the right aptitude and attitude-building, hand-holding and mentoring that would enable job-seeker to become a job creator instead.

* CPRHE implemented a large-scale study on "Employment and employability of Higher education graduates in India". Through a primary level field survey, the perceptions of the major stakeholders, including employers, senior level executives, employees (with less than five years of work experience), students as well as faculty in higher education institutions were collected on the issue. The primary data was collected from 12 higher education institutions across six cities of different size classes, with the potential for high job growth as per published sources and 12 companies in the same cities from the IT/ITES and financial sectors, which have been projected to provide the highest number of jobs to HEGs (McKinsey report, Assocham Study, Khare, 2014).

Perception Gap

Similarly, the traits that are perceived as more important by employers may not be perceived as being equally important by other stakeholders, including the newly recruited graduates. A set of thirteen skill sets were identified from an extensive review of literature and a pilot survey. The senior employers as well as new recruits (neo-employees) were asked to assign relative importance to them on a five-point Likert scale. The relative importance assigned to the skill sets by the employers revealed that personal skills, followed by communication skills, topped the chart, with 95 per cent and 92 per cent of the employers rating them to be the most important. Foreign language skills were rated as the least important as not even a quarter of the employers considered them to be an important skill set. This possibly reflects the limited vision of the employers to see into the future, wherein multi-lingualism, multi-culturalism, and foreign language expertise and foreign cultural experience are likely to acquire great importance as labour markets are characterised by open borders and technological connectivity. Already cross-border job experience is considered as important in advanced countries and for recruitment in senior positions in multinational corporations. It is worth noting here that English is no longer considered as a foreign language by the corporate world. Infact, it is perceived as a 'global work language', and they presume that graduates would be well-versed in both spoken and written English language skills as these are more a part of communication skills in the labour market. However, regional language and familiarity with the regional and local culture, among other things, are particularly valued during selection of junior level employees for field-based and customer interface jobs. Thus, the importance of a foreign language may not be a fundamental requirement at the time of recruitment of fresh graduates as it may not be of much use in the first few years of the job cycle in most occupations, but it is likely to be helpful in sustained career advancement.

Table 8: Gaps in Employer–Employee Perceptions on Importance of Skills

Gaps in Employer–Employee Perceptions on Specific Skills		Rank
Communication skills	0.09	6
Conceptualisation skills	-0.03	10
Technical skills	0.11	5
Numeric skills	0.76	3
Computer skills	0.08	7
Sector-specific skills	0.84	2
Personal skills	-0.08	13
Managerial skills	-0.07	12
People-related skills	-0.02	9
Foreign language Skills	1.13	1
Academic excellence	0.03	8
Citizenship skills	0.63	4
Ability to adapt	-0.06	11

Source: Author's own computations: mean score gaps from employers based on survey.
Note: The closer the value is to zero, the lesser is the perception gap with regard to the importance assigned by employers.

In contrast to employers, employees assign greater importance to foreign language skills, as a result of which the employer–employee perception gap on the importance of this skill is the highest (Table 8). Similarly, sector-specific skills, numeric skills, citizenship skills, and technical skills are assigned much higher values by employees than employers in the respective order in which they are listed. Although the perception gap with respect to academic excellence is not very high, it does exist as employers attach only moderate importance to it but employees consider it as a basic requirement. Many employees opined that obtaining reasonably high marks in degree examinations offer them a gateway to the first round of selections in job recruitment. Other factors and skills come into consideration only if they score marks above the minimum threshold level. To quote an employee, "We are not even allowed to appear in campus placements if we do not have a high CGPA [Cumulative Grade Point Average]". Interestingly, there is a very high satisfaction level among employers in terms of the academic knowledge of their employees. The major areas reflecting negative perception gaps are personal skills, managerial skills, and adaptability skills (Table 8). Negative values reveal that the value assigned by employees to the particular skill is less important than that assigned by employers, and therefore, these skills represent problem areas. This entire group of skills is generic in nature and not

technical or academic. Such gaps in perception call for a critical understanding of the importance assigned by the industry sector to skills. In this context, centralized mapping of sector-/industry-specific as well as transferable skills to ensure that they are easily available to HEIs and potential employees can go a long way in bridging such a gap. The creation of an e-portal of mapping of such skills may not be a difficult proposition in today's age of low-cost e-technology.

Skills Gap

The third gap that is more explicit and often measured is the skills gap or the skills deficit that is becoming a global agenda of dialogue on education dialogue and concern among youth. Two ways were adopted to map these gaps. At the first step, employers' rating on the relative importance they attach to the identified skill sets as well as how satisfied they are with the performance of their employees on these skill sets were sought. In the second step, a skill gap index was constructed by measuring the difference in the mean scores of importance attached by employers to the identified skill sets and the satisfaction they derive from their employees who are new entrants into the job market. The extent to which employers are satisfied with their neo employees on the skill sets is clearly evident from Table 9. The table reveals a high incidence of skill gaps among the employees. Although the perception gap regarding the importance attached to these skills is not very high, with only five skills emerging as problem areas, their numbers have increased in terms of the skill gaps. This means that though employees are aware about the kind of skills that are considered important they are not able to acquire them.

Table 9: Skills Importance of Skill Sets and Satisfaction Levels of Employers

Skill sets	Importance		Satisfaction	
	Mean Score	Rank	Mean Score	Rank
Academic excellence	1.7	9	1.87	1
Technical skills	1.64	6	2.06	5
communication skills	1.54	3	2.14	8
Computer skills	1.64	7	1.95	3
People-related skills	1.62	5	1.98	4
Managerial skills	1.65	8	2.13	7
Conceptualisation skills	1.5	2	2.29	10
Personal skills	1.45	1	2.21	9
Citizenship skills	2.68	11	2.91	13
Numeric skills	2.62	10	2.3	11
Foreign language skills	3.39	13	2.11	6
Rate skill sector-specific skills	2.73	12	2.43	12
Ability to adapt to and act in new situations	1.6	4	1.93	2

Source: Author's computations based on CPRHE study/survey of employers.
Note: Likert scale for importance of a skill: 1. Extremely Important,2. Important, 3.Neutral, 4. Less Important, 5. Not Important. The closer the mean difference value is to zero the lesser is the skill gap. Negative values reveal a skill gap.

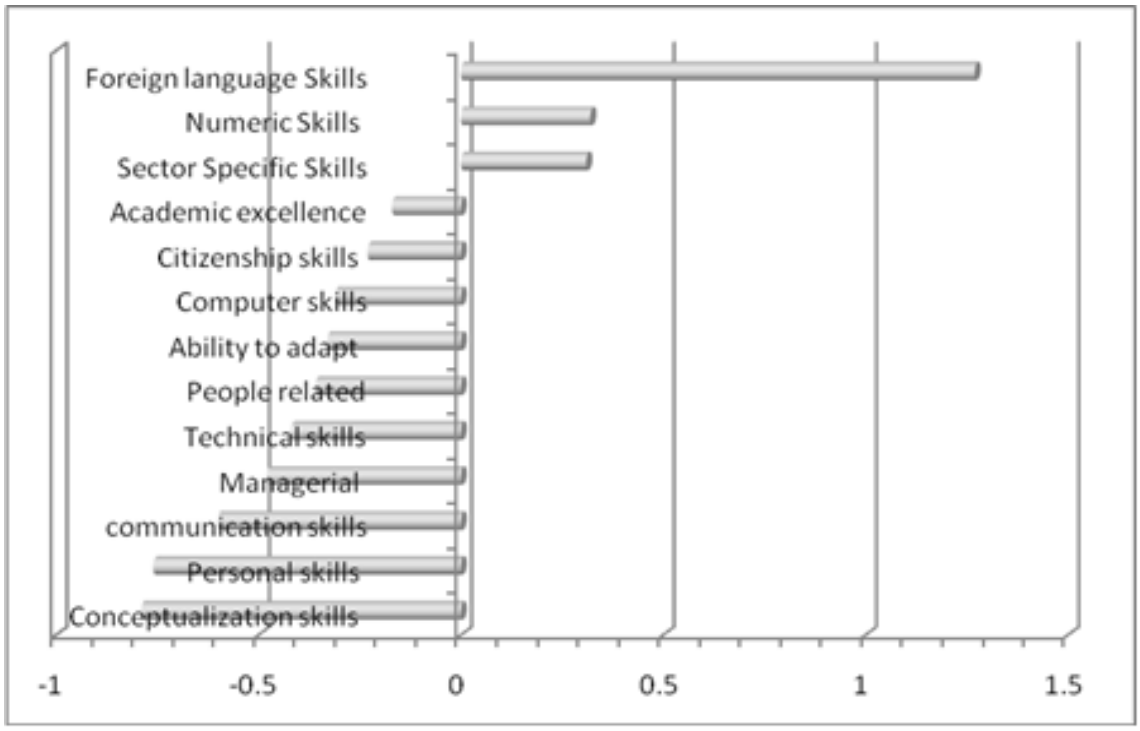
It can be seen that the skills that are ranked topmost in importance rank very low in terms of satisfaction levels of employers who find that employees fall far short of expectations in terms of their skill sets. The top three skills in importance, that is, personal skills, conceptualisation skills, and communication skills, are ranked very low at positions 9, 10, and 8, respectively, when it comes to satisfaction levels among employers.

Interestingly, computer skills and academic skills are ranked relatively low in importance by employers because they presume that graduates with degrees would at least fulfil the minimum threshold requirements for these skills. This finding is substantiated by the survey results, as in terms of the satisfaction derived by employers from employees, these skills figure among the top three.

On the other hand, the highest skill gaps have been observed in the case of the three most important skills, that is, conceptualisation skills, personal skills, and communication skills. The difference between the mean scores on importance and

satisfaction is not only negative but also the highest among the thirteen skillsets (Figure 16).

Figure 16: Skill Gap Index: Employers' Perceptions



Source: Author's computations based on CPRHE study /survey of employers.

The three major inferences that may be drawn from the above findings and the concomitant questions that need to be addressed are as follows:

1) The perception gap regarding the importance attached to the kind of skills valued more by the employers is higher in the generic and transferable skill category than in the academic or technical skill category. This indicates that employees as students are confused about the relative importance attached to skill sets by the employer community, and hence may end up acquiring the less important skills.

2) The degree of skill gaps is higher for skills that are considered as more important by the employers. These are neither academic nor technical skills but skills of a more generic nature and common across sectors / industries. Personal skills are the ones that are inherent in an individual, acquired by birth or through early age experience so that they become part and parcel of the individual. Does this in anyway indicate that HEIs have been able to play their part in imparting knowledge in a reasonably satisfying way, as per the traditional norms? Is better grooming needed both at home and in schools to build a skills continuum?

3) If so, then can HEIs shy away from responding to the demand for 'work-ready graduates' being churned out on campus or should they admit to the need imparting skills training to their prospective employees in both theory and practice?

No one can remain blind to the fact that there is a growing desire among prospective employees to seek real work-life exposure, through multiple ways, including long/short duration study courses, internships, and summer trainings, among other avenues, which are also highly recommended by employers.

Employers' Role and Expectations from Higher Education

Although a majority of the employers (80 per cent) feel that communication and cooperation with HEIs is important and also beneficial for them, the frequency of such interactions by them is limited to some campus placement activities, and seminar conference participation, among others. While campus placement activities may be more structured by way of regular and systematic interaction and mutually agreeable guidelines with the HEIs other modes of interaction may be irregular based on personal interest or networks of individual employers, as was distinctly highlighted in our interactions with a majority of the senior level company executives. The following were some of the refrains by these executives: "I go sometimes to deliver lectures on weekends"; "they invite me to chair sessions in their seminars". Such interactions are not systematically embedded in the companies' charters of activities except for a few multinational corporations in the IT/ITES sector. Further, their participation in curriculum development and design is not very frequent, an area that has been identified as a major lacuna in campus learning by the employees. It is, therefore, extremely important to assess how systematic arrangements can be embedded to ensure effective employer participation in curriculum development and design. Some of the ways that employers have listed as important in improving interaction with the HEIs include participation in advocacy events like conferences, debates or seminars; personal discussions with study programme directors or teachers; and internship programmes; but their expectations from HEIs are much more intensive and broad-based. Table 10 lists a few such expectations in the order identified by the employers.

Table 10: Employers' Prescriptions /Expectations from HEIs

Rank	Employers' Prescriptions/Expectations
1	Include practical experience in courses
2	Include sector-specific work placements as an integral part of the study programme
3	Provide industry experience to teaching faculty
4	Make courses more relevant to the needs of employers
5	Make industry personnel as part-time/adjunct faculty
6	Facilitate a variety of relations between graduates and companies
7	Increase duration of internships

Source: Based on survey results of employers.

It can clearly be seen that including practical experience in courses and industry-specific exposure are the two top ranking expectations of employers from HEIs. It is observed that some fragmented efforts in this direction are already being made by HEIs but they find it extremely challenging to induce the industry sector to welcome and implement these requests. As has already been highlighted earlier in this discussion, making courses more relevant to industry needs requires greater participation of employers in the process. Since the provisions for such interactions already exist and are under implementation by HEIs, these propositions need to be strengthened through greater willingness and commitment to their execution by both parties.

Other important expectations relating to the issues of the need for providing industry experience to faculty and making industry personnel part-time or adjunct faculty may require policy level changes for both the industry and the higher education sector as this entails shorter or longer duration transfer of personnel from the two sectors, which may have financial, legal, and administrative dimensions that need to be carefully weighed by both parties.

The last but not the least expectation/prescription coming from the industry sector relates to the duration of the internship programmes that have increasingly become important components of the college curricula. Employers have vociferously recommended that the minimum duration of such internships should be 4–6 months, spanning across one full semester, otherwise such exercises are not able to have any impact on student learning and remain merely ornamental arrangements, as just orienting the students to the industry environment, sector/company profile, and work culture alone takes more than a month or two. By the time the interns get

acclimatized to the companies' work culture and norms, it is time for them to leave. Hence, internships of 4–6 weeks that are currently in practice do not prove to be of much value to an intern who leaves the company without acquiring any proper hands-on experience. On the other side, short-duration internships also do not add not much value for industry personnel who, in turn, have to devote a lot of effort and time in training the interns, who hardly ever come back to them or learn enough to be preferred as prospective employees. A few senior executives opine that industry employees are not offered any incentives for such academic interaction/grooming efforts, as a result of which there is a great degree of reluctance on their part to engage with the interns or the academia at large. There are a few good practices wherein at least employees who have volunteered to be part of the company's industry–academia initiatives and activities are commemorated and may be given small awards/prizes/badges as a mark of recognition of their efforts, but no financial or career growth incentives are directly attached to these activities. While the latter may not be very practical, the former can easily be included in company practices. As a junior level company employee suggested, "A 'feel good' factor from such non-monetary recognitions adds to a lot of self-satisfaction and is indirectly likely to impact both productivity and employee loyalty".

Conclusion and Policy Implications

Enhancing the employability and job preparedness of graduates is certainly important for both the higher education sector and the industry sector, and neither of them should shy away from their responsibilities to that effect. Not only have the enrolments in higher education grown at an unprecedented rate in the past few years but the percentage of HEG jobseekers has witnessed an increase. Most of the institutions in the country have failed to keep pace with the latest developments in basic disciplines, knowledge, and technology. All these may be held responsible in some way or the other for the rising discontent among the employer community with the quality of graduates passing out of HEIs. More importantly, these problems more acutely plague the general education sub-sector, which accounts for a major share in India's higher education enrolments and educated job-seekers. This has serious ramifications not only for the current but also for the future growth of the country as the rising number of unemployable educated youth being churned out by such a system would prove to be more of a burden than a resource.

The prevalent trends reflected in the unemployment and employment patterns among higher education graduates in the country reinforce the above fears. Even as the country is facing the conundrum of 'jobless growth', two important mismatches in

the foreground also need to be corrected. On the supply side, many sectors that may be achieving high growth may not be in demand by the educated youth as the choices being offered by them may be highly restrictive as a result of which skilled youth may not be willing to seek employment in a broad cross-section of the industry sector. On the demand side, employers are not willing to absorb the huge mass of graduates in the available jobs as a majority of these graduates lack the requisite skills and qualifications. The problem is thus twofold: a rising unemployment rate among HEGS due to the availability of only poor and limited employment opportunities, at one end, and their poor work readiness due to a deficit of employability skills, at the other end. The latter constrains them from being able to fully fill even the limited job vacancies available.

To add to the above-mentioned crisis of a mismatch of skilled human resources, the sectoral shifts towards various service industries operating with new age technology across the world have created new job needs, but there is dearth of knowledge and awareness about these jobs among both prospective employees and HEIs. This is the basic cause of the employability skill gaps. These gaps are of three kinds: one, in terms of awareness regarding the industry and future skill needs; two, in terms of perceptions regarding the relative importance assigned to the skill needs; and three, in terms of the actual realised/imbibed skill sets. Of these, it is only the third kind that is more explicit in the form of measurable skill gaps or the skills deficit that is becoming a global agenda for the dialogue on education and concerns about youth. In reality, all the three gaps are intertwined with each other in a self-perpetuating fashion, thereby propagating a 'vicious circle' of skills deficit. It is, therefore, important to address all the three kinds of gaps concurrently.

As far as the explicit skill gaps are concerned, it can be seen that as regards knowledge and technical know-how, employers are reasonably satisfied with the quality of fresh graduates but it is the functional and personal skills that are more worrisome for them. The perceived gap regarding the importance attached to the kind of skills valued more by employers is higher in the generic and transferable skill category rather than in the academic or technical skill category. This indicates that employees as students are confused about the relative importance attached to skill sets by the employer community and hence may end up acquiring the less important skills that may not allow them to gain appropriate employment. Equally interesting is the fact that the gaps in skills among employees are higher for soft skills that are generic in nature and cross-cutting across industries and occupations. In fact, the highest degree of skill gaps has been found for the three skills rated as most

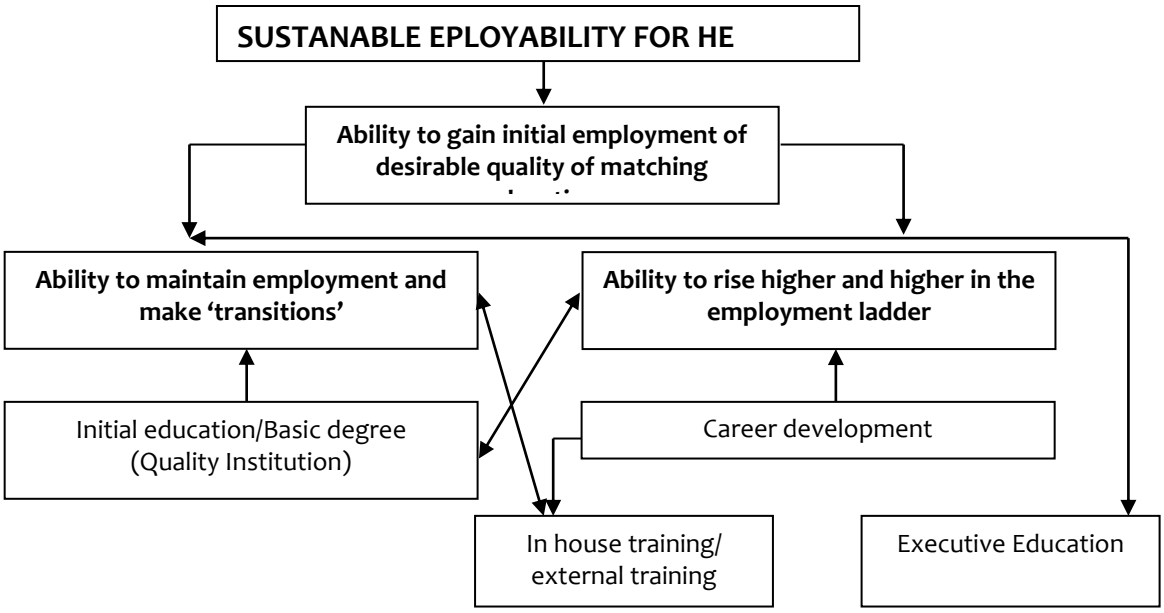
important by employers, that is, conceptualisation skills, personal skills, and communication skills that include proficiency in the English language, which is seen as a 'global work language'. Needless to reiterate, all such skills are imbibed by an individual through early childhood grooming and continue to be sharpened through lifelong experiences and learning. Hence, the higher education sector needs to exhibit the additional responsibility of developing sustainable employability skills, comprising knowledge, and functional technical skills that need to be exercised in tandem with personal skills and a positive approach.

Functional skills that are relatively more industry-specific are often imparted by employers in the industry sector as part of their in-house training and capacity building. However, it is the transmission of personal and soft skills that remains unaddressed. Employers' expectations from the higher education sector thus focus on imparting personal skills or innate skills or the aptitudes and attitudes of an individual acquired through life-long experiences. Hence, the task of imparting these skills through curricular teaching or extra-curricular campus experiences cannot be solely left to the higher education sector, and is instead the responsibility of major stakeholders within the education–employment ecosystem, including the Government, employers, parents, and society at large.

The role of a responsive as well as dynamic higher education sector in harnessing the above skills cannot be undermined. This has also been rightly enshrined in the New Education Policy (NEP, 2020), which posits, "Given the 21st-century requirements, the quality of higher education must aim to develop good, thoughtful, well-rounded, and creative individuals. It must prepare students for more meaningful and satisfying lives and work roles and enable economic independence." The NEP further avers the need to incorporate an identified set of skills and values at each stage of learning, from pre-school to higher education in order to prepare holistic individuals. However, the issue is rather complex as it involves not only multiple stakeholders' active engagement and pro-active initiatives but also factors that are external and not within the direct control of either the higher education sector or the industry sector, such as overall economic growth, job market conditions, and societal perceptions, among other things. These external factors go a long way in impacting the issue of graduate employment and employability. Hence, it is important for all major stakeholders to actively and collaboratively engage with the student community and equip them with the right kind of skills. Although the higher education sector cannot be solely held responsible for imparting these skills, it is important for them to ensure that students benefit from their overall campus experience to

facilitate a smoother transition from education to work. It is thus imperative for the higher education sector to identify new and innovative means of engaging with external stakeholders and promote the enriched holistic development of prospective employees.

Figure 17: Framework for Sustainable Employability of HEGs



Source: Prepared by the Author

The framework for the emerging sustainable graduate employability (Figure 17) is a maze of activities and institutional involvements providing mutual flexibility and the entry, exit, and re-entry of students, teachers, and industry personnel between multiple stakeholders/agencies, including HEIs, industries, training institutes, and avenues of community participation. While higher education needs to play a pivotal role in establishing and strengthening this four-pronged connectivity at the local, national, and global levels, it is the shared responsibility of all stakeholders and likely beneficiaries. It is equally the responsibility of the external stakeholders to be proactive and not just reactive in supporting the HEIs in the effective delivery of learning as per the evolving demands of the global economy. Although several modes of such transmission of learning already exist, they currently operate in an adhoc fashion and need to be made more effective. In this context, the higher education sector can make certain changes within the existing provisions itself, such as in the focus on skill transition in curricular and extra-curricular activities, faculty development, and the stipulation of longer and compulsory field/industry internships

for students, among other things. However, a more systematic, planned, and rigorous engagement may require policy level changes for both the industry and the higher education sector, as this entails drawing up of formal contracts of short or long-term durations, and transfer of personnel from the two sectors, which may have financial, legal, and administrative dimensions that need to be carefully weighed by both parties with the Government playing a lead role in creating channels for institutionalising such changes.

The three major areas of policy intervention that emerge are: connecting skill mapping agencies and HEIs; supporting HEIs for formalising sustained industry–academia linkages, and incentivising industry for its mandatory involvement in the higher education sector. These steps would help in plugging the three types of gaps, that is, awareness gaps, perception gaps, and skills gaps. Only a concerted effort to simultaneously address all the three gaps can help address the existing deficit dearth of employability skills and ensure the creation of pathways for the sustainable employment and employability of higher education graduates.

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About the paper

The various challenges emanating from the deficit of skilled graduates across nations is transforming the relationship between higher education and the labour market. On the demand side, it is largely the availability of jobs and labour market signals whereas on the supply side, it is the availability of high-quality educational institutions that can ensure a viable match between academic knowledge and employability skills. It is thus imperative to understand the macro-economic scenario, the employment and unemployment situation in relation to the graduate population before trying to understand these gaps. This paper explores the issue with regard to higher education graduates (HEGs) in India. It analyses the perils of jobless growth in India and identifies a twofold problem of rising unemployment rates aggravated by employability deficit. The triple gaps between higher education sector and labour market must be plugged within the sustainable employability framework through a concerted, planned, and coordinated effort by industry, academia, and the Government.

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