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A REVIEW ON EMPLOYABILITY ANALYSIS OF TECHNICAL & PROFESSIONAL COURSES IN UNIVERSITIES OF UTTAR PRADESH

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ABSTRACT

India has spent a lot of money since independence in order to make the economy self-sufficient and overcome the constraints presented by the country's constantly rising population. A large portion of this money is spent on workforce training and development, which includes offering high-quality technical education. The government has created a number of Indian Institutes of Technology, National Institutes of Technology, and Indian Institutes of Information and Technology as part of this initiative, in addition to a number of reputable central institutions that the country already had. It has also resulted in the private sector founding a number of reputable technical institutes under the auspices of several state-level technical universities. As a result of all of this, the number of technical graduates has risen dramatically over the years. This paper aims to assess these technical graduates on the basis of employability, i.e., whether they are market ready, whether they require additional training to be able to work on professional assignments independently, or whether there is a gap in their knowledge.

Keywords: *Employability, Manpower, Population, Self-reliant, Skilled Graduates, Technical Universities.*

Introduction

In the previous days, Indian education meant value education, with literacy as the primary goal. People were taught to read, write, converse, and produce basic papers as a result of their education. Gurukul education was founded on the Ashram System, in which a Guru taught his followers many aspects of life. The primary courses taught in Gurukul were Vedic Mathematics, Grammar, Poetry, Medical Science, Astrology, and Health Care. After completing their education, some students used to go out and earn their bread and butter by using what they had learned. Otherwise, education was not intended to lead to work. People relied on agriculture, small business, or a decent employment to make a living.

In the first part of the 19th century, Lord Macaulay had a profound impact on education in our country. He came up with the "three E's" strategy, which stands for "Education, English, and Employment," in order to keep British control in India going for as long as possible. Education in English or with English was made mandatory so that people may find work in the government. From this point on, education was both a means of survival and a means of earning a living**.**

As a nation with such a large population, India has struggled to become a developed economy through numerous strategies and programmes since its independence. Everyone argued that India's large population was a problem rather than a benefit for a country with few natural resources. In spite of this, India opted to utilize its worst affliction as its greatest blessing. A huge number of untrained young people can be used to its advantage if they are adequately taught and educated by the government. As a result, the country increased its investment in the development of technical education infrastructure. Soon after, a slew of IITs, NITs, IIITs, and technical institutions sprouted across the country, all with the lofty goal of increasing the country's skilled technical workforce base in order to make it self-sufficient in

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every way. Though the government's initiative was effective in raising the overall number of technical graduates graduating each year from all corners of the country, it failed to address the fundamental issue, which was the lack of trained, market-ready technical graduates. The government has known for years that there is still a large gap between the market's need for technical workers and the supply of technical workers, and this is because technical graduates from various technical colleges are not employable.

The relationship between higher education and employment has existed for a long time, but it has changed through time. Employability skills are examined both theoretically and practically in this study, employing theoretical models of this dynamic relationship. Articles such as this one assist students better understand the relationship between education and job prospects. It also provides an empirical examination of the job and unemployment situation for graduates of higher education in India, as well as the rising challenges of graduate employability in India. Employers' perspectives of graduate employability abilities are then explored. An analysis of employers' expectations for higher education and its practicality in light of a sustainable employment paradigm concludes this study.

Education and Work

Today's competitive business climate necessitates the creation of a high-quality workforce. Human resource development has been an increasingly important part of the idea of development over the past few decades. This is the major reason for the dramatic transition in the welfare approach of education to the right-based approach, which establishes the foundation for the right to a dignified existence. There is enough evidence in the literature to emphasize the importance of investing in education for the development of human capital, as well as its contribution to economic development and growth (Becker, 1964; Krueger and Lindahl, 2001). The presence of highly educated and high-quality human capital facilitates a country's growth by giving it a competitive advantage in the global market.

Recent decades have seen an increase in the importance of tying "education to work" because of changes in the labour market, rising wages (higher income elasticity of higher education as compared to all other levels of education), and the emergence of higher-quality jobs due to the emergence of a "skills hierarchy" from primary through tertiary education (Chadha, 2004; Varghese, 2012; Khare, 2012). The following two movements in post-2015 MDGs/EFAs on education appear to represent this ideologya shift in the global emphasis from primary to higher and vocational education (18th CCEM), and a shift to 'Learning Achievements', post-2015. For national policy action on young employment, the United Nations has made employability one of its four top objectives. It has been advised that all nations examine, re-think, and re-orient their policies on education, vocational training, and the labour market in light of this to help students transition from school to work and to give them a head start in their working lives by the UN Youth Employment Network (UN, 2001, p. 4).

Higher Education and Labour Market Connect

Higher education has long been associated with a link between education and employment. In 1963, in the Robins Report, an influential report on higher education, the authors stated, "We begin with instruction in skills suitable for playing a part in general division of labour" and concluded, "Few would enter higher education without an eye to subsequent employment." Since time immemorial, therefore, this connection has experienced a major shift. The discourses and discussions on this connection have changed as the global economy has evolved.

Early conventional development models saw labour as a homogenous unit, and the value of labour (wages) was therefore defined by its marginal product, assuming that all man-hours of work were equal. In the shape of the Human Capital Theory, neoclassical economists introduced the notion of skill differentials across labour, thereby giving greater weightage to worker qualities as desired by and provided to the labour market. This also influenced individual employees' decisions to invest in their health, education, and training, on the one hand, and employers' decisions to recruit particular types of workers with expanded working capabilities over those with substantially lower equivalent capacities, on the other. As a consequence of the desire for such a market from both employees and employers, the neo-classical models of the link between the labour market and education emphasize the economic element of the education market. In the case of education, any mismatch between the supply of educational qualities and the demand for such traits might be caused by labour market defects or the worker's lack of information or trainability (according to the Dual Labour Market Theory). The Segmented Labour Market Theory, like the Segmented Labour Market Theory, asserts an indirect rather than direct relationship between individuals and employment through education, because education reproduces social class hierarchies that exist in society, which are then reflected in labour market structure and job

allocations based on social class positions. Prospective employees with superior socioeconomic and cultural backgrounds in terms of colour, sex, education, age, psychological testing, and past experience are therefore favoured by employers since they assist the employing business cut training expenses. As a result, the association between education and experience on the one hand, and employment on the other, does not prove that a better level of education and more experience lead to higher productivity and employment likelihood.

As a consequence, if the educated lose their employment, "the segmentation theory would focus on assessing the changing character of the positions held by secondary and university graduates rather than the nature of their education or the mismatch of education and jobs," according to the author. However, because the government (state) has a significant role to play in the education sector, which is not a free market, it has previously been argued that the government can intervene to change the pattern of investment in and organisation of schooling and training in response to changes in employment patterns and the degree of unemployment/underemployment. Additionally, the Government can take a progressive approach to education and training, removing defects in both the labour and education markets, thereby making education and training more inclusive. Since knowledge and information were always vital, they have now become a major commodity of commerce in the new global environment and will be the core of 21st century civilization, as properly stated by Carnoy (Carnoy, 2001).

Conceptualizing Graduate Employability

The concepts "employment" and "employability" are often used interchangeably by laypeople; however, they are not synonymous. Diverse authors, nations, industry organizations, and government entities have used several definitions to explain the idea of employability, and various models to grasp its multifaceted nature have been offered.

Employability and Sustainable Employability

Employability is an intermediary product that leads to employment. Employability is a wide phrase that refers to a person's readiness for the workplace. It has been described as "a combination of achievements—skills, understandings, and personal attributes—that make graduates more likely to acquire employment and be successful in their chosen jobs, benefiting themselves, the workforce, the community, and the economy" by various persons. As early as 1990, the World Bank identified them as critical for both personal and national growth. Furthermore, according to the Bank's definition of learning objectives, these include soft skills like collaboration, critical thinking and problem-solving along with particular technical or vocational skills that are relevant to an employment. UNESCO (1990) also emphasized that education needs to be more skill-oriented, pointing out that "whether or not enlarged educational opportunities will translate into consequently greater for a person or for society depends finally as to whether people actually learn as a consequence of those possibilities, i.e., as to if they integrate useful knowledge, reasoning ability, skills and values." As a result, education is influenced by a wide range of characteristics, which may be categorized into three major categories: knowledge, skills, and attitude.

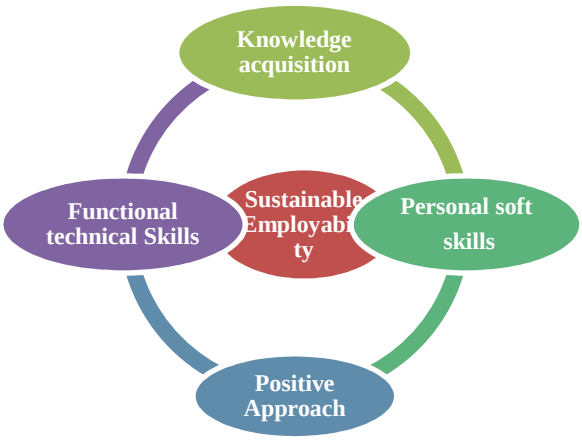

Figure 1: Self-perpetuating Model of Sustainable Employability

Source: Author's construct

Employment "does not rest after the first graduate job is attained," but has to be "constantly refreshed to be viable," according to the authors. Consequently, such definitions encompass not just the broader range of traits necessary for work success, but also the attributes required to manage one's professional growth in order to maintain one's employability. To paraphrase Watts, it's the capacity to find and keep job that you enjoy. Comprehensively, employability may be described as one's capacity to move independently within the labour market in order to reach one's full potential through long-term work. Wider engagement in lifelong learning is intended to assist people to become more conscious and knowledgeable, according to the Scottish Government. Increased levels of knowledge and abilities are the tools of generating new solutions to issues of sustainable development." As a result, skilling, upskilling, de-skilling, and re-skilling may all be considered essential elements of 'sustainable employability'.

Models of Graduate Employability

There have been a number of studies that have resulted to a variety of graduate employability models that include the features listed above. In their Heuristic model (Figure2), Fugate et al. (2004) explained that "employability incorporates a synergistic mix of vocational identity, personal flexibility, and social and human capital." As a result, an individual's employability encompasses a wide range of person-centered and psycho-social variables, or qualities that support adaptive cognition and behaviour.

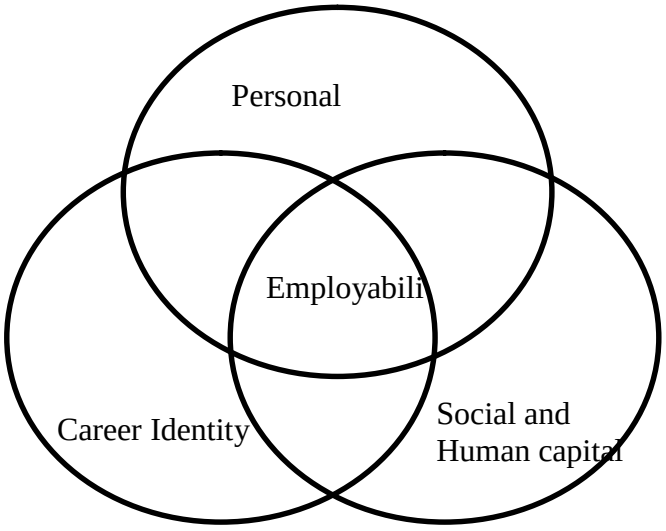

Figure 2: Heuristic Model of Employability

Source: Fugate et al (2004).

Figure 2 depicts a Heuristic model that includes the abilities needed to move the responsibility for career management and development from employers to workers. Employment skills are defined as a combination of four key factors, KSAOs: knowledge skills abilities other characteristics (KSA).

Analyzing Graduate Employability Skill Gaps

Several studies and policy papers seeking to investigate the subject of "skills gap" may be classified into one of three categories based on the research methods used:

- **Field Level Primary Data-based:** These studies contain employer surveys that use a variety of methodologies to produce employer assessments of skill shortages.
- **Empirical Secondary Data-based:** These studies use the degree of schooling as a proxy for skill levels to infer skill disparities from aggregate labour supply and demand data.
- **Hybrid Approach:** These papers integrate the methodologies employed in the previous two categories of studies, namely those that compare benchmarked skill sets recognized as in-demand by businesses with labour force skill assessment databases (National Skill Development Corporation).

Table 1: Skills Classified Under Four Factors

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

Source: Paranto and Kelker (2000)

Literature Review

While India's IT sector is one of its most important sources of employment and international investment, Aspiring Minds performed a national-level research on the employability of Indian technical graduates in 2010 in order to better understand how the country's IT sector might be improved. An exam called the AMCAT was administered to over 40,000 engineering and MCA (final year) students from all throughout the country. Researchers found that just 4.22 percent of the large group of students evaluated were ready for the demands of the IT business, and only 17.84 percent of the group was fit for employment in the IT services sector. It's important to bear in mind that potential workers are required to go through a three- to six-month training period with these organizations.

Likewise, according to data provided by the MHRD, a study conducted by the World Bank in the same year in India revealed an increase of 800 percent in the number of technical graduates from 1998 to 2008, but in 2009, the power and infrastructure sectors in India reported a sharp drop in the number of market-ready engineers who can lead the country on a path of rapid economic development.

Employer surveys have been done for graduates in several academic areas, such as business administration, education, economics, psychology, and more. Many of these surveys are aimed at determining which skills are in demand by employers and determining how the supply of talents fits labour market demand.

Lattuca, Terenzini, and Volkwein, (2006) The Accreditation Board for Engineering and Technology (ABET) created student learning objectives in the mid-1990s to analyze the impact of accreditation. As a member of the so-called Washington Accord, which accepts engineering degrees from 12 nations, ABET and the National Board of Accreditation (NBA) in India both demand equivalent student learning results.

Anbalagan (2007) has claimed that the growth of higher education in third-world nations has been accelerated by the globalization of higher education. Most students from India are travelling overseas to pursue higher education, develop their language abilities, and take advantage of career prospects. Increasing the number of high schools that teach job-related skills and information is essential. Adding to this, the author said that a comprehensive strategy is needed to improve the nation's employability abilities. Increasing worldwide marketing of curriculum and programmes, the construction of a platform for educational cooperation between academic institutions from other nations are some of the benefits of the programme. Consequently, it appears that the Indian educational system is under increasing local and international pressure to collaborate and partner in the sphere of education with other nations.

Manoj Kumar Jena (2007) in his paper on "Privatization of higher education in India" the educational system is still seen as a social service rather than a commercial enterprise, because it serves democratic expectations. As a result, the government said that it would allow private institutions to enter the education sector and promote greater private investment in education in order to fulfil the growing demand for technical employment-oriented courses. Privatization, on the other hand, would turn private culture toward a commercial motivation, which will be prohibitively expensive for those students who cannot afford the tuition. As a result, higher education will only be available to those who can afford it.

Chandra Bose (2009)has stated that educational changes such as content equity and excellence would need the inclusion of skill training as a fundamental element of the curriculum. In terms of education, one of the most essential aspects of globalization is the need to produce higher-quality

workers who can compete successfully in global marketplaces. As a result, globalization has had a multi-faceted influence on the educational system, emphasizing the need for reforms in the educational system, particularly with regard to the increased use of information technology. Finally, it has sparked debates about adopting changes in inter-sectoral goals, leading to a rash policy of shrinking secondary and higher education, as well as any rash entry into the international education market of students for future generations.

Kumaraswamy and Bhuvaneswara Chowdary (2009) have claimed that the finest and most complete use of the country's human and natural resources requires the vocationalisation of education. A person's competence or efficiency in a specific job must also be improved, and vocationalisation provides additional avenues or channels for self-employment and the vocational course should encourage employability. Last but not least it must be connected to rural rebuilding and self-employment programmes in agriculture. Career development is essential for national economic progress as well as for a quickening of the social change process. As a result, rather of having a single course, our educational system now includes several options.

Pawan Agarwal (2009)demonstrated that the shortages were followed by growing graduate unemployment and underemployment, that higher education in India is tilted 27 in favour of humanities and arts, and that nearly half of graduates lack marketable skills. As a result, it's unsurprising that the graduate unemployment rate of 19.6% is much higher than the national rate, and that more than 60% of graduates work in positions that don't need graduate skills. Addressing the challenges of unemployment and underemployment among graduates on the one hand, and skill shortages on the other, as well as more mobility between vocational and higher education, allows students more flexibility in matching their education with job possibilities as they occur.

Nilsson(2010) Employability is more important than technical or vocational skills, according to graduates' perceptions of time and effort invested in, managing, and enhancing their employability.

Manual Fernadaz and Sudheer (2010)have conducted research to determine if there are enough educational institutions delivering high-quality higher education to meet the expanding population's needs. As a result, higher education is critical to national economies, and industry need a well-educated workforce. Skills and training are sold by education corporations, some which call themselves universities, and students are awarded degrees or certificates. As colleges and universities are compelled to compete by enhancing their academic programmes and the employability of their graduates, the growing number of higher education providers should have a beneficial influence on the quality of higher education.

Jayaprakash (2010)studied the 'impact of globalization on business and management education' and found that private sector profiteering is increasing both labour and consumer exploitation at the same time. India must also endeavour to improve the quality of education it provides its citizens. Indian management education has gone worldwide, with teachers and students being able to move freely between countries and continents. Countries throughout the world are putting resources into education and training. Success stories in the next decade or two will be a result of increased spending in higher education and increasing emphasis on high-quality elementary education. It will be increasingly challenging for students to stand out amid a growing pool of qualified candidates as more and better-equipped institutions of higher learning open throughout the world. Management schools will have to help students develop the necessary abilities to stand out.

Suthan Mohideen (2010)educational institutions are expected to cultivate a culture of critical thinking as well as an ethic of service, along with the transmission of existing knowledge but also to become centres for the creation of new knowledge and a more focused vision in imparting skill-based education to meet the changing realities of the society. All Indian universities, regardless of whether they are central or state-run, should be united together. The country's universities need to be classified as teaching and efficient research universities, science and technology, humanities and social science, and professional institutions, distinct from private and other international universities. To further aid the university, it will allow it to focus more on its infrastructural requirements.

Madan Mohan (2010)has suggested that the proportion of technical education in 2006-07 has grown. It is necessary to double the number of institutions that now exist. An entirely new paradigm shift will be necessary in order to better utilize current capacity and expand enrolment in distant learning and vocational education, as well as to better utilize emerging technology. There must be a way and a mechanism to improve the financing for higher education as well. Accreditation guarantees that the quality of higher education institutions is transparent, and the development of higher education has

resulted in educational malpractices throughout time. To make the most of this demographic advantage, young people must have access to high-quality higher education that will enable them to find work. Only high-quality human resources can assure the creation of a truly knowledge society, which would boost the country's worldwide competitiveness.

Gurupandi and Amutharani (2010) There is an opinion that private educational institutions prefer to enroll students from wealthy families who are more likely to land a good job after graduation than those from less well-off households. Most of them are unemployed after completing this schooling.

Gnanasekaran and Michael (2010) The problem of education has been connected to the problem of unemployment in India. The core of the unemployment and underemployment problem rests elsewhere in the education system, and there is a negative association between education and unemployment. Furthermore, the problem of unemployment is caused by a lack of practical expertise. Furthermore, job applicants lack professional abilities. As a result, the author demonstrates that education improves skill development, allowing us to quickly eliminate unemployment difficulties.

Wickramasinghe & Perera (2010) According to the findings of a research involving Sri Lankan IT graduates, the opinions of companies, university lecturers, and graduates about employability are claimed to differ. While employability skills are thought to be primarily impacted by graduate gender, there are evident disparities in priority for male and female graduates, employers, and lecturers when it comes to their respective fields of study. For graduates, these abilities are a priority, while university faculty and companies also want their students to possess them. Problem solving, self-confidence, and cooperation were found to be the most essential factors in a person's employability by all three groups.

Finch et al., (2013) It has been established that increasing the employability of new graduates requires an emphasis on learning outcomes tied to soft-skills development. During the hiring process, graduates should also emphasize soft talents and problem-solving abilities.

Conclusion and Discussion

Increasing the employability and work preparation of graduates is unquestionably crucial for both the higher education sector and the business sector, and neither should shirk from their respective obligations in this regard. Not only has the number of students enrolled in higher education increased at an unprecedented rate in recent years, but so has the number of people looking for work in higher education. The majority of educational institutions in the country have fallen behind the times in terms of core subjects, knowledge, and technological advancements. All of these factors contribute to the growing dissatisfaction of employers with the quality of graduates coming out of higher education institutions. More crucially, these challenges are more severely felt in the general education sub-sector, which accounts for a significant proportion of India's higher education enrolments and educated job seekers. As a result, this has major consequences for the country's present and future prosperity, as the expanding number of unemployed educated young people being produced by such a system would prove to be more of a burden rather than a resource.

The prevailing tendencies in the country's unemployment and employment patterns among higher education graduates underscore the aforementioned concerns. Even as the country grapples with the problem of 'jobless growth,' two critical imbalances in the foreground must be addressed. On the supply side, many industries that are experiencing rapid development may not be in high demand by educated young since the options available to them are very limited, as a result of which talented youth may be unwilling to seek work in a large cross-section of the industry sector. Employers are reluctant to take on a large number of new graduates since the vast majority of them lack the necessary skills and credentials. One end of the problem is an increasing unemployment rate among HEGS due to the restricted employment options available; the other end is poor work preparedness due to a lack of employability skills. This is a two-pronged dilemma.Due to the latter, they are unable to fill even the few vacant positions to their full potential.

This dilemma of a mismatch between competent human resources and the demands of diverse service businesses functioning with new-age technology around the world has produced new employment opportunities, but there is a lack of understanding and awareness about these positions among both potential employees and HEIs. To put it another way, this is the root of the problem. For example, there is a widening gap between what people know about the sector and what they think it requires, as well as a widening gap between what people believe they need and what they really have. Only the third kind is clearer in the form of measurable skill gaps or the skills deficit, which is becoming a

worldwide focus for the discussion on education and youth problems. In actuality, these three gaps are connected with one another in a self-perpetuating manner, resulting in a 'vicious loop' of skill shortage. As a result, it's critical to address all three types of gaps at the same time.

Employers are relatively satisfied with the quality of fresh graduates in terms of knowledge and technical know-how, but they are more worried about the functional and human qualities. In the general and transferable skill category, the perceived disparity between the significance assigned to the types of talents valued more by employers is greater than in the academic or technical skill category. This suggests that employees as students are unsure of the relative relevance of skill sets assigned by the employer community, and hence may wind up learning less vital abilities that will prevent them from obtaining suitable employment. Equally interesting is the fact that soft skills, which are general in nature and cross-cutting across sectors and vocations, have larger skill gaps across employees. In fact, the three abilities ranked as most significant by employers, conceptualization skills, personal skills, and communication skills, which include competence in the English language, which is viewed as a "global work language," have the largest degree of skill gaps. Needless to say, an individual's early childhood grooming instils these talents, which are then enhanced via lifelong experiences and learning. As a result, the higher education sector must take on the extra responsibility of building long-term employability skills, which include knowledge and functional technical abilities, as well as personal skills and a positive attitude.

As part of their in-house training and capacity building, industrial sector employers often offer functional skills that are more industry specific. There has been a lack of attention paid to the transmission of personal and interpersonal abilities. Personal talents or intrinsic abilities, as well as an individual's aptitudes and attitudes earned through life-long experiences, are what employers are looking for from the higher education industry. Consequently, the higher education sector can no longer assume sole responsibility for imparting these skills through curricular teaching or extracurricular campus experiences but must instead share the burden with other stakeholders in the education–employment ecosystem, including the government, employers, and parents.

Uttar Pradesh's workforce is plagued by low levels of education and insufficient skill training, which have a negative impact on their employment. In the next years, it will be vital to continue to enhance skill training for the population, in particular those aged 18 to 24. Due to the state's history of underfunding technical and vocational education, there is a low percentage of technically skilled people in Uttar Pradesh.The Uttar Pradesh Skill Development Mission (UPSDM) is intensifying its skill development programmes, which will have a significant influence on tackling these issues in the years ahead. Manufacturing is seen as a key source of economic growth and job creation on the demand side. Uttar Pradesh's industrial growth has been extremely uneven, with the western area having the biggest concentration. Lack of operating capital, insufficient space to conduct the business properly, insufficient raw materials, power difficulties, and a dearth of competent labour are just some of the issues that MSMEs confront. More work is needed to rekindle the entrepreneurial spirit and stimulate commercial activity throughout the state.

To summarize, Uttar Pradesh has tremendous potential to change to a growth path marked by remunerative jobs for its growing labour population, both in the agricultural and non-agricultural sectors. This will include addressing gender and socioeconomic inequities in employment and incomes, as well as slowing the rate of distress migration. The success of Uttar Pradesh's future inclusive growth plan will be determined by its strategy of encouraging investment in high-potential industries and assuring equitable involvement of individuals from all regions, genders, and socioeconomic groups.

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