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The Importance of Skills Development for Youth in the Current Context of Bangladesh: A Comparative Study and Path Forward

Md. Assadekjaman

National Skills Development Authority, Bangladesh

 ORCID: <https://orcid.org/0009-0007-6640-5237>

Nasreen Afroz

National Skills Development Authority, Bangladesh

 ORCID: <https://orcid.org/0009-0005-7920-2418>

Abstract

Bangladesh is positioned to harness the demographic dividend by leveraging the potential of its substantial influx of young workers joining the labour market annually. In the context of the fourth industrial revolution (4IR), modern labour markets globally have become increasingly competitive. This is particularly true in numerous least developed countries (LDCs), including Bangladesh. The quality of Bangladesh's workforce is facing diminished acceptance in both domestic and global labour markets. The jobless rate for graduates is threefold more than that of non-graduates, highlighting a contradiction in which education seemingly complicates work opportunities. This paper explores the causes of unemployment in contemporary Bangladesh and emphasizes the necessity for skills development to mitigate this issue. Annually, almost 2.2 million individuals, predominantly youth, enter the labour market in Bangladesh. This demographic advantage may be squandered if the expanding skills gap is not rectified, particularly given the disruptive influences of the Fourth Industrial Revolution (4IR), which necessitates a workforce equipped with both advanced technical and soft skills to maintain competitiveness in the global market. The study also reveals that a substantial proportion of these youths have undergone traditional schooling and obtained numerous certificates, although they lack the requisite technical skills, leading to a disparity between the competencies of graduates and the expectations of employers. As a result, young individuals face challenges in obtaining their preferred employment, resulting in a decline in national output. The report also proposes some areas that must be emphasized to promote skills development for young people in Bangladesh.

Keywords: Bangladesh, employment, national skills development policy, training, unemployment

1. Introduction

Bangladesh is experiencing a demographic dividend, characterized by a larger proportion of the working-age population (ages 15 to 64) compared to the non-working age group, which presents significant opportunities for developing a skilled workforce. According to the Bangladesh Bureau of Statistics (2023a), more than 65% of the population presently belongs to this vital demographic sector. The demographic dividend is significant, with 34% of the population aged 15 and younger and only five percent aged 65 and older. The population is anticipated to attain 223.5 million by 2041 and 230-240 million by 2050, offering a distinct opportunity for the achievement of a demographic dividend. The anticipated demographic dividend, projected to endure for 30 to 35 years, presents an opportunity from 2045 to 2060 (Nurunnabi, 2024). The world is currently dealing with a polycrisis, which is a group of interconnected global crises that are affecting economies, businesses, and labour markets at the same time (World Economic Forum, 2023c). Climate change, geopolitical tensions, technology upheavals, and economic instability are transforming the employment landscape, particularly for the youth. Despite elevated youth unemployment, employers globally face challenges in filling essential positions, underscoring a notable skills gap (Ploeg & Ho, 2024).

Unemployment is presently the most discussed issue globally (Rana, 2024), particularly in developing nations such as Bangladesh. The Bangladesh Bureau of Statistics (BBS) Labour Force Survey 2022 reveals that the overall unemployment rate in Bangladesh is approximately 4%, which is comparatively low (Bangladesh Bureau of Statistics, 2023b). According to the World Bank (2024), the proportion of unemployed youth with tertiary education among the total unemployed population in Bangladesh rose to 27.8% in 2022, up from 9.7% in 2013. This indicates a discrepancy between skills and qualifications, resulting in unemployment.

In 2023, the Bangladesh Bureau of Statistics reported that the total number of unemployed tertiary graduates, encompassing university, college, and madrasa graduates, reached 906,000, an increase from 799,000 the previous year (Bangladesh Bureau of Statistics, 2023c). This is an alarming unemployment figure, which evidently exhibits a trend of continuous growth (Jami, 2025). A Bangladesh Institute of Development Studies (BIDS) survey, presented at the Annual BIDS Conference in December 2024, found that 28.24% of graduates from National University-affiliated colleges remained unemployed (Ahmed et al., 2024). At a recent conference arranged by the Centre for Policy Dialogue (CPD) in February 2025 regarding 'Recommendations by the Task Force on Re-Strategizing the Economy,' it was announced that the National University, the largest public university in the world with approximately 2,500 associated colleges, confers degrees on nearly 10,000 graduates annually. Approximately 62% of the highly educated unemployed individuals in the nation are graduates of National Universities, whereas 63% of all graduates possess degrees in non-technical disciplines such as history, sociology, and Islamic philosophy, which exhibit restricted demand in the current labour market (Mashroor, 2025). This study investigates the causes of graduate unemployment in Bangladesh and evaluates how targeted skills development could mitigate this issue. Utilizing secondary data from national and international sources, the paper proposes a conceptual framework tailored for Bangladesh. The research also examines global best practices and recommends strategic interventions. Findings suggest that integrating vocational training within formal education, aligning curricula with industry demands, and fostering public-private partnerships are essential to building a robust skills ecosystem.

Bangladesh stands at a pivotal demographic juncture. With over 65% of its population in the working-age group and approximately 2.2 million youth entering the labour market each year, the country faces both a powerful opportunity and a looming crisis. This "youth bulge" could fuel unprecedented economic growth—if matched with appropriate skills (Khatun & Saadat, 2020). However, the widening "skills gap" threatens to undermine this potential. A significant portion of graduates possess academic credentials but lack the technical and soft skills demanded by today's labour market. This disconnect is especially alarming in the era of the Fourth Industrial Revolution (4IR), where automation, artificial intelligence, and digital transformation are rapidly reshaping the world of work (Khatun et al., 2022). Jobs are evolving faster than traditional education systems can adapt, leading to a paradox: high graduate unemployment amid employer complaints of talent shortages. If Bangladesh fails to equip its youth with future-ready competencies, the demographic dividend may transform into a demographic burden. This paper also argues that the intersection of the youth bulge, the persistent skills mismatch, and the disruptive forces of 4IR must be addressed urgently through a coordinated, inclusive, and future-focused skills development strategy.

2. Conceptual Framework and Context of Different Countries for Skills Development

This paper proposes a conceptual framework based on five interrelated pillars: economy, education, employability, equality, and ecosystem. The framework emphasizes alignment between education and labour market demands, integration of technical and vocational education and active engagement of government, industry, and civil society. According to the International Labour Organization (2024b), worldwide youth unemployment reached 13% in 2023, with many young adults facing limited prospects for stable and dignified employment. The World Economic Forum's (WEF) Future of Jobs Report 2023 indicated that enterprises had difficulties in finding candidates with the necessary qualifications to occupy future roles (The World Economic Forum, 2023b). This growing imbalance between the supply of young job seekers and the demand for competent professionals, which, if unaddressed, will exacerbate both unemployment and talent shortages (Ploeg & Ho, 2024). To resolve this issue, global experts advocate for a comprehensive, systems-oriented strategy that highlights five interconnected components: economy, education, employability, equality, and ecosystem (Ploeg & Ho, 2024).

Economic growth is a vital catalyst for job creation; nevertheless, the quality and inclusivity of such growth are significant factors. In numerous regions globally, jobless growth has emerged as a significant issue, with economies expanding without creating sufficient formal employment opportunities for youth (Ploeg & Ho, 2024). Youth unemployment persists in increasing, even in countries experiencing good GDP development, signifying a deficiency in inclusive economic policy and investment in critical areas (ILO, 2024).

Educational systems must adapt to the evolving requirements of the labour market. The Organization for Economic Co-operation and Development (OECD) underscores the necessity of integrating skills, knowledge, attitudes, and values into educational frameworks to equip youth for lifelong learning. The collaboration between academia and industry can stimulate growth in the continuing education sector. A primary obstacle to mitigating youth unemployment is the skills mismatch — the disparity between the education young individuals get and the requirements of employers. The World Economic Forum's Future of Jobs Report

2023 forecasts that 6 in ten workers will require reskilling by 2027 (The World Economic Forum 2023a, p.7) as a result of swift technological progress. However, conventional education systems frequently fail to correspond with industry requirements, resulting in numerous young people lacking the necessary skills for high-growth areas (Ploeg & Ho, 2024). In the swiftly evolving work market, concerns are emerging over whether educational institutions are equipping youth with the skills to keep pace with technological advancements.

Governments and enterprises must cooperate to guarantee that training programs are directly aligned with market need. Public-private partnerships, including apprenticeship programs and industry-driven training efforts, can be essential in bridging the skills gap. In Switzerland, where education and training are closely aligned with the labour market, youth unemployment ranks among the lowest globally (Ploeg & Ho, 2024). Establishing a framework that consistently adjusts to evolving workforce requirements is crucial for enhancing youth employability (Ploeg & Ho, 2024).

Strategies aimed at reducing youth unemployment should prioritize equality, ensuring that opportunities are accessible to all young individuals, irrespective of their background, gender, or geographic location. Despite educational advancements, women and marginalized communities persistently encounter obstacles to entry in high-growth sectors, especially within STEM (Science, Technology, Engineering and Mathematics) disciplines. UNESCO's Global Education Monitoring (GEM) Report, published in May 2025, reveals that women represent merely 35% of STEM graduates, highlighting the persistent gender inequality in science, technology, engineering, and mathematics.

A successful job market necessitates not only a robust economy and adequately trained workers but also an integrated ecosystem in which governments, businesses, educational institutions, and civil society collaborate effectively. The Organisation for Economic Co-operation and Development (OECD) emphasizes the necessity of synergy throughout the value chain, ensuring alignment among all stakeholders in the pursuit of reducing unemployment and promoting decent work (OECD, 2021). Effective models of ecosystem collaboration, exemplified by Singapore, provide important insights for other countries. In these countries, the government is pivotal in facilitating collaboration between educational institutions and industries to ensure that youth are trained in anticipated growth sectors. These synergies create an environment that facilitates the smooth transition of young individuals from education to employment, while enabling employers to readily access the necessary talent (Ploeg & Ho, 2024). Bangladesh is evolving into a knowledge-driven economy. A strong and inclusive skills development ecosystem is therefore essential. This conceptual framework illustrates how Bangladesh can transform its large youth population into a productive workforce by aligning education, training, and employment systems. Annually, approximately 2.2 million young individuals enter the job market, resulting in an increasing disparity between academic credentials and labour market demands (International Labour Organization, 2024a).

Despite substantial enrolment in higher education, numerous graduates are deficient in the technical and interpersonal skills demanded by employers (Khatun et al., 2022). The disjointed governance of skills development, distributed over 36 ministries, exacerbates the challenges of successful implementation. The social stigma associated with Technical and Vocational Education and Training (TVET) and a pronounced preference for white-collar government employment hinder timely entry into the labour market. This paradigm highlights five

interrelated components: demographic opportunity, quality education and training, employer engagement, inclusive policy, and cultural mindset transformation. Successful national efforts such as the National Skills Portal and Skills Training Providers (STPs) under the National Skills Development Authority (NSDA) exemplify successful representations.

The incorporation of skills certification in institutions via NSDA collaboration represents a significant advancement. An integrated and inclusive strategy—endorsed by Industry Skills Councils (ISCs), public-private collaborations, and the Bangladesh National Qualifications Framework (BNQF)—is crucial for bridging the skills gap and empowering youth to succeed in a swiftly changing labour market.

A significant achievement in Bangladesh's Technical and Vocational Education and Training (TVET) sector is the Skills for Employment Investment Program (SEIP), executed by the Ministry of Finance with assistance from the Asian Development Bank. SEIP has delivered competency-based training to over 500,000 individuals, with over 70% of graduates obtaining jobs in industries such as garment manufacturing, construction, and computer technology (Asian Development Bank, 2022). Its organized collaborations with the private sectors and focus on quality assurance, gender inclusivity, and post-training employment placement have established it as a paradigm for scalable skills development programs.

To comprehend the challenges and opportunities facing Bangladesh in skills development, it is crucial to contextualize its experience within a wider global framework. Analysing foreign practices offers a comparative perspective for identifying effective models, institutional frameworks, and policy procedures. This perspective provides vital insights into the structural reforms that have effectively tackled young unemployment and skills mismatches in different contexts. This article seeks to enhance Bangladesh's strategic approach by examining case studies from nations that have successfully aligned their education and training systems with labour market requirements. Consequently, it utilizes global experiences to emphasize optimal methods pertinent to Bangladesh's skills development strategy.

TABLE 1. COMPARATIVE OVERVIEW OF SKILLS DEVELOPMENT MODELS

Country	Key Features of Skills Development System	Relevance for Bangladesh
Ethiopia	TVET with labour market integration and standards-based curriculum	Demand-based training and assessment
South Korea	Strategic TVET reform phases (GIFTS), industry linkages	Long-term strategic planning
Philippines	TESDA as central coordinating agency, strong private-public training model	Institutional consolidation and certification
India	NSDC under PPP model, sector-specific skill councils	Structured sectoral governance, industry inputs
Switzerland	Dual vocational training, low youth unemployment	Work-study balance and strong apprenticeship base

Source: Adapted from Ploeg & Ho (2024), TESDA (n.d.), NSDC (2024), and Woldehanna & Jones (2019).

A set of countries with a range of skills formation models is briefly reviewed here, from which Bangladesh can extract relevant lessons to build its own comprehensive model. Comparatively, Ethiopia—a fellow LDC—has demonstrated strong progress through its national TVET strategy, which integrates occupational standards with competency-based training curricula (Woldehanna & Jones, 2019). By aligning training programs with labour market demand and building industry-led

councils, Ethiopia has increased employment outcomes for its youth and improved the relevance of its education system (UNESCO-UNEVOC, 2018). Both cases highlight the importance of employer engagement, robust certification systems, and public-private collaboration in building a successful skills ecosystem. Bangladesh can draw on these models to strengthen its own efforts, particularly by institutionalizing industry linkages and enhancing monitoring mechanisms to ensure training outcomes translate into meaningful employment.

South Korea, once the poorest and least developed nation in the early 1960s, has undergone a remarkable transformation into one of the leading industrial countries over the past six decades (Kim & Kim, 2014). The Korean TVET System has undergone a remarkable evolution, characterized by the strategic phases of GIFTS: Growth, Innovation, Finance System, Training System, and Systematic Management. Similarly, the Technical Education and Skills Development Authority (TESDA) in the Philippines has achieved notable progress in skill development. It is mandated to integrate, coordinate, and monitor skills development programs of the country (Budhrani et al., 2018). The National Manpower and Youth Council (NMYC) of the Department of Labour and Employment (DOLE), the Bureau of Technical and Vocational Education (BTVE) of the Department of Education, Culture and Sports (DECS), and the Apprenticeship Program of the Bureau of Local Employment (BLE) of the DOLE were merged to establish TESDA in 1994 (TESDA, n.d.). Finally, the National Skills Development Corporation (NSDC) serves as the primary architect of India's talent ecosystem, having been established on July 31, 2008. This is a distinctive Public Private Partnership (PPP) initiative operating under the auspices of the Ministry of Skill Development and Entrepreneurship (MSDE), Government of India (NSDC, 2024). The NSDC has been authorized and has effectively executed various attempts to reform India's skill development structure (NSDC, 2024).

Vocational education and training (VET) enhances national income by augmenting individual capabilities and earning potential, resulting in elevated productivity and economic growth (Soproni, 2023). Vocational Education and Training (VET) has been central to the national income reform strategies in countries like the United Kingdom, Canada, New Zealand, and Australia for several years (Chhetri et al., 2014). The World Economic Forum (WEF) highlights the significance of prioritizing skills over traditional qualifications, such as degrees, work experience, or job titles (Soproni, 2023). This strategy suggests excluding higher educational institutions, but the WEF estimates that it could facilitate the recruitment of 100 million individuals in economies facing labour shortages worldwide (World Economic Forum, 2023a).

3. Research Methodology

This study adopts a qualitative research methodology, relying primarily on secondary data to explore the causes of youth unemployment in Bangladesh and the role of skills development in addressing this challenge. The aim of this research is to critically examine existing national and international strategies, frameworks, and institutional practices, and to provide actionable insights relevant to the Bangladeshi context. The paper focuses on conceptual and policy analysis, synthesizing existing knowledge to offer a review of the current frameworks rather than empirical research.

3.1 Research Design

The research follows a descriptive and exploratory design, focusing on identifying trends, patterns, and relationships through qualitative content analysis. The study does not involve primary data collection due to the scope and nature of the research; instead, it synthesizes and analyses available information from reputable sources to address the research objectives. As such, this paper is positioned as a conceptual/policy review article, emphasizing theoretical frameworks and policy discussions in lieu of empirical data.

3.2 Sources of Data

This study's data were gathered from a diverse array of reliable secondary sources, including:

- The Bangladesh Bureau of Statistics (BBS) and other national statistical institutions
- Reports and policy papers from groups including the World Bank, the International Labour Organization (ILO), the OECD, and the WEF
- Research articles published in scholarly publications, encompassing previous editions of the GILE Journal of Skills Development
- Government publications, think-tank reports (e.g., CPD, BIDS), and prominent national newspapers (e.g., The Daily Star, The Financial Express) released from 2020 to 2025.

3.3 Analysing the Data

Qualitative content analysis was used to look at the data that had been gathered and find important themes on adolescent unemployment, skills mismatch, and institutional responses. We employed comparative analysis to look at Bangladesh's current position and compare it to the best practices in other nations, like Ethiopia, South Korea, India, the Philippines, and Switzerland.

3.4 Limitations

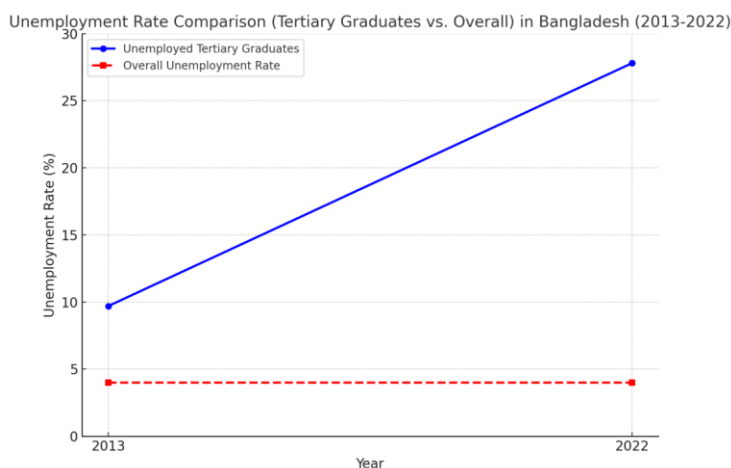
This study is constrained by its dependence on secondary data only. Although it provides a comprehensive and policy-relevant summary, subsequent study might be enhanced by the inclusion of primary data obtained through interviews, focus groups, or surveys to achieve a more profound understanding of the perspectives of students, employers, and policymakers.

4. Unemployment Reasons in Bangladesh

In developing nations, the unemployment rate for graduate and postgraduate students is the highest, indicating that the labour market adversely affects the retention of educated young adults (Bisht & Pattanaik, 2020). A survey by the International Labour Organization (ILO) in Bangladesh revealed that approximately 46.8% of unemployed youths had been seeking employment for over a year (General Economics Division [GED], 2019). According to the Bangladesh Bureau of Statistics (2023), the overall unemployment rate in Bangladesh is approximately 4%. However, the proportion of unemployed youth with tertiary education among the total unemployed population has risen significantly over the years from 9.7% in 2013 to 27.8% in 2022. In contrast, the overall unemployment rate remained relatively stable

at around 4% in 2022, emphasizing the growing skills mismatch in the labour market. (see Figure 1).

FIGURE 1. UNEMPLOYMENT RATE COMPARISON (TERTIARY VS. OVERALL) IN BANGLADESH (2013-2022)



Source: Adapted from Bangladesh Bureau of Statistics (2023).

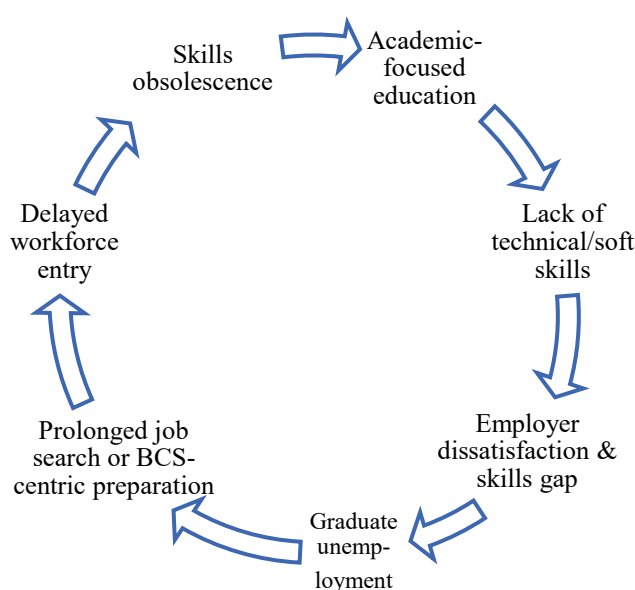
This is primarily due to three causes. Firstly, during the past 10 to 15 years, Bangladesh has generated a surplus of graduates exceeding the capacity of the employment market to accommodate them. The BBS Survey indicates that graduate involvement in the labour force increased from 3.6% in 2002 to 3.8% in 2012, a small rise consistent with the nation's economic progress. By 2022, this figure had tripled, indicating a significant and abrupt increase in the number of graduates during the past decade (Mashroor, 2025). Considering that our economy is predominantly dependent on agriculture and ready-made garments, the demand for graduates is limited. The fundamental problem of unemployment arises from an education system that is misaligned with market demands.

Secondly, a considerable proportion of recent graduates in Bangladesh aspire to secure government employment, specifically within the Bangladesh Civil Service (BCS). They undergo preparation for an extended duration of 3 to 4 years even post-graduation and deliberately remain unemployed for a specified interval. The BCS phenomenon compels individuals to await the opportunity to obtain a stable and esteemed position in the public sector, rather than engaging in any form of employment. Only a small number succeed in obtaining the job, while the majority recognize that they have erred by concentrating solely on Bangla, English, general knowledge, and current affairs for their preparation, neglecting the acquisition of essential skills. This results in their inadequate preparation for the evolving workforce, characterized by insufficient technical skills and practical experience. Consequently, they find themselves in a frustrating cycle, lacking both the ability to secure skills-related employment and the mindset to pursue opportunities beyond white-collar jobs.

Thirdly, many organizations are reluctant to employ fresh graduates, as a significant number depart within five to six months following initial training, which is a prevalent tendency. Furthermore, our apprenticeship strategy lacks sufficient strength to mandate industries to employ a minimum percentage of recent graduates. According to BDjobs, 60-70% of graduates encounter difficulties in obtaining employment within one to two years post-graduation

(Mashroor, 2025). Furthermore, a common practice in Bangladesh is for companies to hire skilled labour from foreign countries such as India, Sri Lanka, and China. This activity is driven by multiple variables, notably a shortfall in skills among local graduates, who frequently lack the specialized expertise and experience necessary for particular positions. Foreign professionals are seen to exhibit elevated professionalism and a robust work ethic. Moreover, employers need candidates who can provide rapid contributions without requiring considerable training (Islam, 2024). The cyclical relationship between education and employment reveals that this mismatch is not just a matter of inadequate skill development but is intricately linked to structural deficiencies within the education system itself (see Figure 2).

FIGURE 2. SKILLS MISMATCH AND GRADUATE UNEMPLOYMENT CYCLE IN BANGLADESH



Note: This cycle illustrates how academic-focused curricula, lacking integration with practical and market-oriented skills, fail to equip graduates for immediate employability. As a result, repeated patterns of underemployment, delayed career starts, and skill erosion persist. Without systemic reform in education policy and stronger industry-academia linkages, this cycle is likely to continue, deepening the graduate employment crisis in Bangladesh.

5. Challenges and Opportunities of Youth Employment in Bangladesh

In nations with scarce natural resources, such as Bangladesh, skilled individuals constitute the most valuable asset. In 2025, success in business and occupations will rely not only on knowledge but on the capacity to adeptly utilize abilities that promote innovation and value generation (Marr, 2024). A nation's human resources can augment its economic development via three processes (Jahan, 2024).

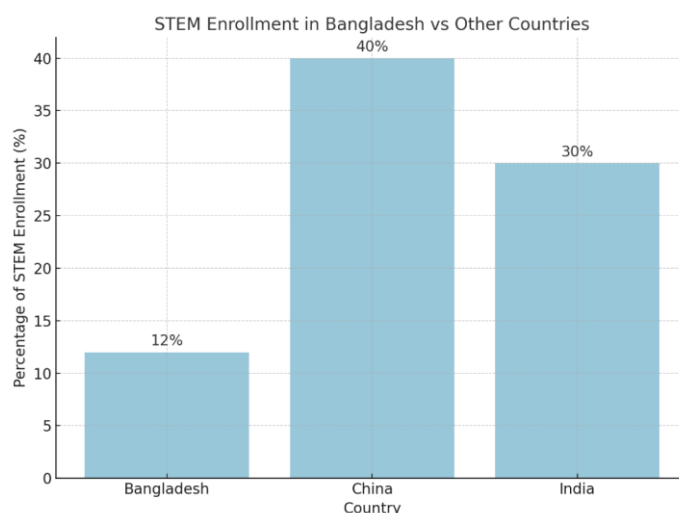
Firstly, it can proficiently and effectively employ human resources and other materials in the production process. In the absence of human resources, land, machinery, and other industrial materials possess negligible value.

Secondly, the influence and contribution of technology in the developmental process are substantial. Effective deployment of that technology necessitates suitable human resources. Modern success will be attained by persons who effectively integrate technology proficiency with distinctive human abilities (Marr, 2024). The ability to consistently obtain and assimilate new knowledge will be essential for steering enterprises through the tumultuous seas of digital transformation.

Thirdly, human ingenuity, creativity, and imagination substantially enhance the progression of civilization. By 2025, the rapid advancement of innovation will be such that any brief interruption in learning may lead to the obsolescence of one's skills (Marr, 2024). When a nation's workforce acquires these characteristics, it is transformed into relevant human resources. As a result, individuals equipped with the requisite resources and expertise to leverage modern technology are progressing rapidly inside the contemporary information and digital economy. In 2022, 130 million new high-skilled positions were established worldwide. In the same timeframe, 70 million jobs have been eliminated due to automation and developing technology (Jahan, 2024).

The deceleration of employment growth in Bangladesh may ultimately lead to social instability and a spike in criminal activity (Rahman et al., 2021). The shortage of skilled workers in Bangladesh may be contributing to the country's rising youth unemployment rate. Even though there has been significant growth in tertiary education at universities, the number of unemployed youth continues to rise rapidly. Employers in Bangladesh are increasingly hiring foreign talent, leading to an outflow of approximately USD 10 billion annually, leaving local youth without job opportunities. Research has shown a positive link between economic growth and investments in education (Khatun et al., 2022). Therefore, it is crucial for Bangladesh to implement an effective policy for education and human resource development (Rahman et al., 2021). The demand for high-skilled positions is increasing, with occupations like data scientists, e-commerce specialists, social media experts, training and development managers, and artificial intelligence professionals at the forefront. A new category of human resources will undoubtedly be required in the future workforce. Consequently, numerous nations are reforming their educational frameworks. They are enhancing educational programs, curricula, and pedagogical approaches. There is a focus on education rooted in science, technology, engineering, and mathematics. This is referred to as STEM (Science, Technology, Engineering, and Mathematics) in English. In China, 40% of university graduates with a credential are in STEM fields. In India, the figure is 30% (Jahan, 2024). In Bangladesh, only about 12 % of public university students are enrolled in STEM disciplines (University Grants Commission [UGC], 2024) (see Figure 3).

Figure 3. STEM vs. Non-STEM Enrolment in Bangladesh vs. Other Countries



Source: Adapted from (Jahan, 2024) and (University Grants Commission [UGC], 2024).

The World Economic Forum (2025) outlines ten key skills necessary for future job prospects, including analytical thinking, adaptability, leadership, creativity, self-motivation, technological proficiency, empathy, curiosity, customer orientation, and talent management. As a result, it is essential for our education system to focus on nurturing these competencies to better equip students for the workforce (Jami, 2025). Fostering a diverse set of transferable skills during university is vital for students' continuous learning and preparedness for future career success (Scheuring & Thompson, 2024). Transferable skills, often referred to as soft skills or employability skills (Scott & Willison, 2021), are a range of essential competencies that can be utilized in diverse settings and various contexts (Olesen et al., 2021). These skills encompass competencies like teamwork, leadership, critical thinking, communication, problem-solving, and cultural sensitivity (Jackson, 2025). Such skills are critical not just for academic achievement but also for professional success, significantly improving students' chances of obtaining and thriving in jobs, as employers increasingly demand these capabilities (Wahab et al., 2025).

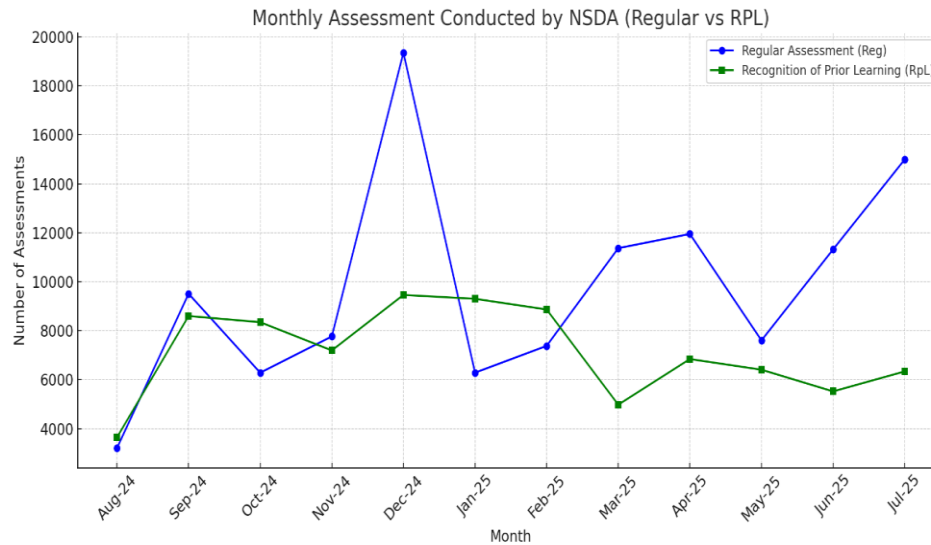
6. Skills Development Initiatives in Bangladesh and Path Forward

In Bangladesh, building a competent workforce is fundamental to achieving inclusive economic progress. Over recent years, the government has undertaken several important steps to reform the national skills landscape, including the adoption of the Bangladesh National Qualification Framework (BNQF) in 2021, the enactment of the National Skills Development Act in 2018, the establishment of the National Skills Development Authority (NSDA) in 2019, and the formulation of the National Skills Development Policy in 2022. These reforms have laid the groundwork for standardizing skills development, certification, and assessment across the country.

The NSDA, as the primary coordinating entity, is tasked with accrediting Skilled Training Providers (STPs), assessing training programs, and certifying learners via qualified assessors. The NSDA's initiative to formalize the nationwide skill development evaluation process is commendable. The NSDA ensures that evaluations are conducted fairly, efficiently, and consistently by establishing a nationwide pool of certified assessors, streamlining assessment requests through the National Skills Portal (NSP), and maintaining quality assurance protocols that adhere to both national and international standards. These initiatives have significantly enhanced the legitimacy and accessibility of skills certification for trainees.

The chart highlights the positive results of these activities by showing a noticeable rise in the number of assessments conducted during the months in both Regular and Recognition of Prior Learning (RPL) modes. Recognition of Prior Learning (RPL) denotes the process of acknowledging and certifying an individual's skills, knowledge, and competencies acquired through work experience, informal learning, or non-formal schooling. It allows employees, particularly those lacking formal degrees, to get credentials through exams that acknowledge their current competencies. The consistent rise in the statistics indicates that learners and training providers are gaining greater confidence in NSDA's robust assessment system. A distinct increasing trend is evident in both modes, particularly for Regular evaluations, which reached their zenith in December 2024 and July 2025. RPL assessments exhibited relative stability, peaking in December 2024. December 2024 exhibits a notable increase in Regular assessments, attributable to year-end events and the completion of training programs.

FIGURE 4. ASSESSMENT CONDUCTED BY NSDA IN BOTH REGULAR AND RPL MODES BETWEEN AUGUST 2024 AND JULY 2025



Source: Adapted from skillsportal.gov.bd and National Skills Development Authority (NSDA), 2025.

Although over 1,300 STPs have been registered under NSDA, the institution is still in its formative stage and faces various challenges, including fragmented governance, limited resources, and overlapping mandates among 36 ministries involved in technical and vocational training. Despite the notable policy reforms, Bangladesh continues to lag behind due to the challenges of adapting foreign models to the local context, including cultural differences, resource constraints, and institutional inefficiencies, which hinder the effective implementation of these reforms. To address these issues, it is crucial to enhance the institutional capacity of the NSDA with adequate financial, technical, and human resources so it can effectively perform its regulatory, evaluative, and promotional roles. The 16 Industry Skills Councils (ISCs), created to bridge the gap between industry and training providers, require further empowerment through increased funding and structured industry engagement to develop Competency Standards (CS), Course Accreditation Documents (CAD), curricula, and research tailored to high-demand sectors. Moreover, a more centralized and coordinated governance model is needed to resolve policy fragmentation and streamline efforts across ministries. NSDA's initiative to collaborate with universities to offer skill certification programs to students is a positive step and should be scaled up. Through targeted Memorandums of Understanding, universities can integrate practical, demand-driven training alongside academic degrees, helping to bridge the theory-practice divide.

Bangladesh must also consider increasing its public investment in education. World Bank (2024) reports that Bangladesh's public education spending was only 1.78 % of GDP in 2023-substantially below global norms. Countries like India and Vietnam invest substantially more, enabling them to shift from low-skilled to high-skilled labour markets (Jahan, 2025). Raising Bangladesh's education budget to 4–6% of GDP is vital for human capital development. At the same time, societal attitudes toward skills-based learning must be transformed. The traditional preference for general academic degrees and white-collar jobs has marginalized technical and vocational pathways. To address this, awareness campaigns and national dialogues should promote skill-based education as a respectable and viable career option, encouraging youth and guardians to embrace diverse opportunities such as caregiving, hotel management, freelancing, and entrepreneurship.

Furthermore, the presence of nearly one million foreign workers in Bangladesh, contributing to an annual outflow of roughly USD 10 billion, underlines the urgent need to create meaningful employment for the domestic workforce. Industry leaders must revise their hiring strategies and invest in building local talent pipelines through apprenticeship programs, vocational internships, and public-private partnerships. The involvement of the Bangladeshi diaspora also presents an untapped opportunity. Many skilled professionals have returned to Bangladesh and can play a strategic role in mentoring youth, advising institutions, and contributing to skills innovation. A robust system to track, engage, and integrate these returnees into the national development agenda would strengthen the overall skills ecosystem. A skills ecosystem refers to the dynamic interaction between education systems, industry, government, and community that collectively supports the development, acquisition, and application of skills. In Bangladesh, developing this ecosystem requires strong collaboration among key stakeholders to align training with market demand. Simultaneously, reforms in the general curriculum must focus on skill integration, ensuring that students graduate not only with theoretical knowledge but with practical skills aligned to labour market needs. The creation of a data-driven monitoring and evaluation framework to assess training quality, placement success, and feedback from employers would help refine and sustain this ecosystem over time.

The Fourth Industrial Revolution (4IR) is fundamentally reshaping the nature of work in Bangladesh, accelerating automation, digitalization, and the adoption of advanced technologies across sectors. Traditional low-skilled jobs—particularly in garments, manufacturing, and even services—are increasingly vulnerable to displacement. Simultaneously, new roles are emerging that demand advanced digital, cognitive, and soft skills such as data literacy, problem-solving, adaptability, and technological fluency. However, Bangladesh’s current education system remains heavily theory-oriented, with limited integration of digital skills or innovation-driven curricula. The mismatch between what graduates learn and what employers require is widening as 4IR progresses. Without urgent reforms to embed emerging technology training (e.g., AI, cloud computing, robotics) into formal and vocational education systems, Bangladesh risks producing a workforce that is underprepared for the future. Aligning skills development strategies with 4IR demands is no longer optional—it is critical for national competitiveness and youth employability.

Bridging the skills gap in Bangladesh requires a coordinated and shared responsibility across multiple stakeholders. The government must lead by creating an enabling policy environment, ensuring funding, setting national standards, and streamlining governance through bodies like the NSDA. The private sector plays a critical role in identifying skill needs, offering apprenticeships, and co-designing curricula that reflect real-world demands. Meanwhile, NGOs and development partners can act as catalysts by piloting innovative training models, supporting marginalized groups, and facilitating community-based skill initiatives. Educational institutions must also adapt their programs in line with evolving industry expectations. Ultimately, a holistic and collaborative approach—anchored in public-private partnerships—is essential to build a sustainable and inclusive skills ecosystem that equips Bangladeshi youth for the opportunities and challenges of the Fourth Industrial Revolution.

In sum, to bridge the skills gap and harness the full potential of Bangladesh’s youth, three key actions are essential. First, mainstream industry-integrated skill certification within all public universities through formal partnerships with the National Skills Development Authority (NSDA), ensuring graduates are both academically qualified and job-ready. Second, scale up

public-private apprenticeship and internship programs, especially in high-demand sectors such as ICT, renewable energy, and healthcare, to offer real-world experience and improve youth employability. Third, launch a nationwide "Skills First" awareness campaign to shift societal attitudes, reduce the stigma around TVET, and encourage youth and guardians to embrace alternative career pathways beyond traditional white-collar jobs. These initiatives, if strategically implemented, can create a more agile, inclusive, and responsive skills development ecosystem aligned with the demands of the Fourth Industrial Revolution.

7. Conclusion

The evolving global and national employment landscape presents both challenges and opportunities for Bangladesh. As demographic pressures increase and the demand for adaptable, future-ready talent grows, the country must shift from traditional education paradigms toward a more holistic approach that integrates skills, innovation, and inclusivity. Developing a robust skills ecosystem is not merely a policy option—it is a strategic necessity. It requires a change in mindset across all levels of society, from policymakers to educators, employers, and families. The Fourth Industrial Revolution (4IR) is rapidly transforming the nature of work, making digital literacy, technical expertise, and lifelong learning indispensable. Bangladesh must embrace these shifts to stay globally competitive and avoid leaving its youth behind. Skills development must be recognized not just as a response to unemployment, but as a proactive engine for social mobility, productivity, and national competitiveness.

This study highlights the urgency of investing in human capital and aligning education systems with the realities of the labour market. Bangladesh's young population is a powerful asset—but only if equipped with the right competencies and opportunities. The nation's journey toward economic resilience and inclusive growth depends on how effectively it nurtures its workforce. Looking ahead, a coordinated and visionary approach—built on trust, collaboration, and shared accountability—will be key to transforming Bangladesh's skills development landscape. By doing so, the country can harness the full potential of its people and move confidently toward a more prosperous and equitable future.

The practical implications of this research extend beyond academia into policy and industry. The findings underline the importance of integrating skills training with formal education to ensure youth are prepared for the rapidly changing labour market. For policymakers, the study advocates for increased investment in skills development infrastructure, including vocational education, to equip the youth with not only technical but also essential soft skills required in today's workforce. Through public-private partnerships, government policies should focus on creating opportunities that bridge the skills gap, particularly in emerging sectors like ICT, renewable energy, and artificial intelligence.

For practitioners, particularly employers and industries, the study suggests the need to adapt hiring practices by focusing on competencies rather than traditional qualifications. Companies should engage in more apprenticeship and internship programs to ensure young employees gain relevant work experience and practical skills. Furthermore, the findings suggest that policymakers and industry leaders should collaborate to create a skills development ecosystem that is agile and responsive to the demands of 4IR. This will not only benefit businesses by providing them with skilled workers but will also contribute to national economic growth by reducing unemployment and enhancing productivity.

Moreover, the study encourages reflexivity on the part of researchers, acknowledging that personal biases, assumptions, and backgrounds may influence research outcomes. By recognizing this, researchers can adopt more transparent and inclusive approaches, ensuring that their work has practical and broad societal relevance. This is particularly important in understanding how skills development strategies can help marginalized and underrepresented groups access better job opportunities and contribute to the country's inclusive growth.

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Corresponding Author

The corresponding author for this manuscript is Md. Assadekjaman who can be contacted by email via assadek.romy@gmail.com