Abstract

The Council for Technical Education and Vocational Training (CTEVT) stands as an apex body in Nepali technical educational landscape, dedicated to cultivating practical skills and expertise. This article explores CTEVT historical evolution, founding principles, and its multifaceted role in enhancing technical and vocational education. The main objectives encompassing curriculum development, program accreditation, skills assessment, and industry linkage, showcasing how these functions sustain the quality and relevance of its programs. CTEVT offers a diverse range of technical and vocational programs spanning fields such as engineering, health, agriculture, hospitality and hotel management. These programs equip students with practical skills aligned with job market demands, preparing them for meaningful contributions to the workforce. A fundamental focus is its collaborative engagement with industries and employers through industry advisory boards, curriculum updates, internships, and industry visits. CTEVT ensures that its programs remain attuned to current trends, market demands and enhancing graduates' employability. The article underscores its vital initiatives in rural and underserved areas. These efforts empower marginalized groups through accessible education and income-generating skills, catalyzing economic growth and sustainable development within communities. CTEVT emerges as a hub in workforce development, economic growth and skill enhancement. Its proactive approach to curriculum innovation, industry integration and equitable education highlights its commitment to nurturing a capable and empowered workforce thereby contributing to societal advancement.

Keywords: CTEVT, technical and vocational education, curriculum development, industry linkage, rural empowerment

Introduction

In the pursuit of a well skilled workforce, national and international market have recognized the top significance of technical and vocational education. In Nepal, a key institution stands at the forefront of this effort widely known as CTEVT. It plays a pivotal role in shaping the national human resource capital through its insistent commitment to fostering excellence in technical and vocational education. As Nepal steps forward on the path of economic growth and development, the demand for a skilled workforce has never been more pronounced (Lama, 2016). Engineering, healthcare, agriculture and hospitality the diverse sectors of Nepali economy rely on a proficient workforce equipped with specialized skills. It is in this context that CTEVT emerges as a dynamic force, orchestrating the harmonious integration of education and industry demands. Beyond its operational scope, it stands as an example of opportunity, providing a gateway to empowerment for individuals from all walks of life. By offering a range of specialized programs and courses, CTEVT empowers students with practical skills that directly translate into meaningful employment opportunities. Moreover, its initiatives extend beyond urban centers, reaching remote and underserved areas, thus bridging the gap between skills and livelihoods, and contributing to the socio-economic upliftment of communities.
By exploring its objectives, functions, industry linkage and impact, we unravel the layers of its contribution to the national technical and vocational education. From its inception to its aspirations for the future, CTEVT remains an instrumental driving force, fostering skills, knowledge, attitude and innovation to shape a promising and skilled workforce that forces Nepal towards a prosperous future.

**Background and Ideologies**

The Council for Technical Education and Vocational Training (CTEVT) traces its origins back to a pivotal moment in Nepali pursuit of technical and vocational excellence. Established in 1989 under the CTEVT Act, the council emerged as a visionary response to the pressing need for a specialized institution dedicated to cultivating practical skills and expertise in a rapidly changing economic landscape.

It was established with a profound understanding that traditional academic education alone was insufficient to cater to the intricate and diverse demands of Nepal emerging industries (Lama, 2016). The institution inception was rooted in a visionary aspiration to bridge the gap between theoretical classroom learning and practical real-world applications.

The four pillars of TVET are the TVET governance, permeability, quality and relevance of the TVET and industry institute linkage. The institution envisioned offering programs that directly responded to the specific requirements of industries (Bhattarai, 2020). This strategic alignment aimed to equip graduates with the precise skills and knowledge needed to make meaningful and effective contributions to Nepal evolving workforce (Baral et al., 2019). "Accessibility" emerged as a key principle, underscoring its commitment to breaking down barriers to quality technical and vocational education (Kanel, 2015). The council dedicated itself to making education accessible to a wide spectrum of individuals, irrespective of their geographical location or socio-economic background.

Equity remained a core tenet of its principles. The institution passionately championed equal opportunities for all, with a particular emphasis on addressing the needs of marginalized communities (Parajuli, 2013). This commitment aimed to ensure that the benefits of technical education reached every corner of Nepali society, fostering inclusivity and empowerment. Innovation was a driving force behind its principles. As a dynamic entity, the institution embraced a culture of continuous innovation (Caves & Renold, 2017). This extended beyond curriculum development to encompass teaching methodologies, assessment processes and technological integration. Its dedication to innovation allowed it to remain at the forefront of industry trends and technology changed.

It embraced a comprehensive array of industries including engineering, health, agriculture, information technology, tourism and entrepreneurship. This expansion reflected its commitment to catering to the diverse needs of a modern workforce (Parajuli, 2013).

In view of quality enhancement, it had established standardized curricula, rigorous training standards and assessment mechanisms that ensured graduates possessed not only theoretical knowledge but also practical skills required by industries (Caves & Renold, 2017). The institution fostered partnerships with private enterprises, public organizations and international entities. These collaborations facilitated practical training, internships and job placements for students, significantly enhancing their employability and providing a direct link between education and industry.

CTEVT extended its reach through "Regional and Rural Outreach," recognizing the importance of equitable access. The institution established a network of affiliated institutions that reached remote and rural areas, addressing regional disparities and uplifting local communities by providing...
opportunities for technical education. The institution embraced "Internationalization," engaging with global best practices through knowledge exchange programs, workshops and partnerships with foreign institutions like CPSC (Colombo Plan Staff College). This international outlook enriched the quality of education and broadened teacher, students' horizons, preparing them for a globalized workforce (Baral et al., 2019). In adapting to the digital era, CTEVT embarked on "Technological Integration." The institution seamlessly incorporated digital learning tools and modern teaching methods into its programs, ensuring graduates were well-equipped with skills relevant to the digital age, enhancing their competitiveness (Lamsal, 2012). Its journey from its founding principles to its present-day impact embodies an unyielding dedication to equipping individuals with the skills and knowledge necessary for meaningful contributions to Nepal development and prosperity.

Innovation and Functions

The Council for Technical Education and Vocational Training (CTEVT) operates with a comprehensive set of objectives and functions that collectively contribute to the enhancement of technical and vocational education in Nepal. These objectives and functions encompass various aspects of curriculum development, program accreditation, skills assessment and industry institute linkage, all aimed at creating a skilled and employable workforce. In line of objectives the major functions of CTEVT are policy formulation, coordination, quality assurance, service and facilitations.

It is commitment to designing and updating relevant curricula in presence of private sectors as the demand of industries and global market is a focus of CTEVT to prepare competent workforce for the employability. The council collaboration with industry experts and educators ensures that curricula reflect current industry needs and technological advancements. By integrating theoretical knowledge with practical skills and real-world applications, CTEVT empowers students to excel in their chosen fields, preparing them to meet industry demands head-on.

Ensuring the quality and standardization of technical and vocational programs is a cornerstone of its operations. Through meticulous evaluations and established criteria, the council does accreditation to institutions and programs that meet defined standards. This accreditation process provides institutions, students, parents and employers with the assurance of program credibility and quality, fostering trust in CTEVT programs (Lamsal, 2012). Its commitment to assessing and validating student skills is its dedication to producing competent graduates. The development of standardized assessment tools and practical evaluations ensures that students acquire the necessary proficiencies. These assessments not only certify students' capabilities but also contribute to maintaining the relevance and excellence of technical and vocational education.

Recognizing the transformative impact of institute industry linkage, CTEVT actively engages with businesses industries or employers. Through strategic partnerships, students gain exposure to real-world work environments, practical training and internships. This hands-on experience enhances their skills and prepares them for the demands of the job market bridging the gap between education and industry seamlessly (Adhikari et al., 2023). Its dedication to research and innovation serves as a forward-looking pillar of its mission. By conducting research to identify emerging trends and industry needs, the council remains at the forefront of educational evolution (Bhattarai, 2020). These insights inform curriculum enhancements, teaching methodologies, and program updates, ensuring that education remains agile and responsive to the ever-changing dynamics of the professional world.

Its commitment to promoting the value of technical and vocational education plays a vital role in shaping societal perceptions (Kanel, 2015). Through
advocacy campaigns, workshops, seminars, and outreach programs, the council emphasizes the potential for career advancement and economic prosperity through technical education. By showcasing success stories and highlighting the achievements of graduates, CTEVT inspires a greater embrace of technical and vocational pathways.

**Programs and Progressions**

The Council for Technical Education and Vocational Training (CTEVT) stands as a beacon of diverse educational opportunities, offering an extensive array of technical and vocational programs that encompass an impressive spectrum of fields. These meticulously crafted programs are strategically designed to furnish students with specialized skills, practical knowledge, and invaluable hands-on experience, ensuring their preparedness for the multifaceted demands of various industries (CTEVT, 2022).

Engineering. CTEVT extends a comprehensive canvas of engineering disciplines, ranging from Civil Engineering, Electrical Engineering, Mechanical Engineering, Electronics Engineering, Computer Engineering, Architecture Engineering, Mechatronics Engineering and Bio-medical Engineering etc. These programs equip students with the theoretical knowledge and practical exposures demanded by modern engineering landscapes.

Health. CTEVT offers a diverse spectrum spanning from Nursing, Pharmacy, Medical Lab Technology, Radiography, Dental hygiene, General Medicine and Physiotherapy etc. These programs not only nurture medical proficiency but also inculcate a profound sense of service and compassion.

Agriculture and Forestry. CTEVT delves into the vibrant world of Agriculture and Forestry, presenting programs in Agriculture, Forestry, Veterinary Science. These courses cultivate expertise in sustainable practices, resource management, and agribusiness acumen.

Hospitality and Tourism. The Hospitality and Tourism sector finds its essence in its offerings, encompassing Hotel Management, Culinary Arts, Front Office Management and Food and Beverage Service. These programs sculpt professionals attuned to the art of hospitality and the dynamics of tourism.

Information Technology and Computer Science. The realm of Information Technology and Computer Science thrives within its curriculum, encompassing Information Technology, Computer Science, Software Development and Networking and Cybersecurity. These programs unravel the realm of technology, equipping students with digital dexterity and problem-solving prowess.

These glimpses into its diverse offerings merely scratch the surface of its comprehensive portfolio. The council dedication to catering to an extensive spectrum of industries and sectors underscores its pivotal role in sculpting a versatile and proficient workforce. By orchestrating a harmonious blend of theoretical understanding and practical skills, CTEVT fuels the engines of Nepali growth and development through the cultivation of skilled professionals who are ready to thrive in an ever-evolving professional landscape.

**Industry Relevance and Job Market**

CTEVT places a resounding emphasis on the synergy between academia and industry, recognizing the paramount significance of collaboration with industries and employers in shaping a workforce that is truly equipped for the contemporary professional landscape. This strategic alliance allows CTEVT to orchestrate a dynamic educational environment that remains agile and relevant amidst the ceaseless evolution of job market demands. The symbiotic relationship between CTEVT and industries manifests through several proactive mechanisms.

A cornerstone of its collaborative ethos is the establishment of industry advisory boards, where luminaries from various sectors convene to provide astute insights (Caves & Renold, 2017). This
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Convocation of expertise is a veritable compass guiding the alignment of curricula with the pulsating heartbeat of industry trends, technological advancements, and emergent skill prerequisites. Industry engagement transmutes into tangible curriculum transformation. CTEVT enlists the acumen of industry experts to coalesce theoretical erudition with practical prowess (Lamsal, 2021). The result is curricula that mirror real-world scenarios, arming students with competencies poised for immediate application in the professional arena. The tapestry of collaboration is interwoven with interactive workshops, seminars, and conferences that congregate educators, students, and industry mavens. This intellectual forum propels knowledge exchange, catalyzes discourse on industry metamorphoses, and seeds innovation through shared insights (Bhattarai, 2020).

CTEVT traverses beyond the classroom, paving experiential avenues via internships and apprenticeships. Industry-immersed opportunities enable students to paint a canvas of practical applications, synthesize theoretical foundations, and cement networks that augur well for future employability (Adhikari et al., 2023). CTEVT orchestrates specialized training ventures in tandem with industries, adorning students with tailored skills and knowledge. These focused initiatives, be they short courses, workshops, or certifications, fortify graduates with competencies germane to specific industry requisites. A symphony of collaboration resonates even within assessment realms. Industry stakeholders partake in evaluating students' practical proficiencies, shaping an educational landscape that is a true microcosm of industry requirements.

The bridges forged with industries culminate in direct avenues for job placements. The alliance between CTEVT and industries endows graduates with a commendable edge, rendering them highly sought-after candidates due to their industry-relevant education and hands-on skills (Ghimire, 2011). Collaborative research ventures burgeon, serving as crucibles of innovation that tackle industry conundrums and fertilize technological evolution. These projects ensure students remain abreast of the cresting waves of industry progression. In integrating academia with the industry pulse, CTEVT expands a pioneering narrative that forges a paradigm of job-ready graduates composed for success (Bhandari, 2023). This harmonious interplay not only amplifies the efficacy of its programs but also underscores its unwavering commitment to nurturing a workforce that is not merely educated, but profoundly attuned to the rhythm of industry, ushering in a harmonious synchrony between learning and livelihood.

Quality Assurance of technical and vocational education in Nepal

The Council for Technical Education and Vocational Training (CTEVT) plays a crucial role in upholding and enhancing the quality of technical and vocational education in Nepal through a multifaceted approach that encompasses curriculum updates, faculty training, and assessment mechanisms. This concerted effort ensures that students receive education that is relevant, up-to-date, and aligned with industry demands.

Curriculum Updates

Its commitment to relevance is exemplified through its systematic approach to curriculum updates periodically in every five years. The council diligently monitors and aligns its curricula with dynamic industry trends, demand of market and technological progress may compel to update or prepare new curricula. This iterative process encompasses regular needs assessments that decipher evolving industry requisites (Adhikari et al., 2023). In a harmonious collaboration, industry experts weave their insights into curriculum content, nurturing a seamless blend of theoretical foundations and real-world practicality (Bajracharya & Paudel, 2021). This fusion serves to bridge the chasm between classroom learning and the ever-evolving tapestry of industry applications.
Institute and Industry Linkage
The symbiotic relations between CTEVT and industries pulsates with linkage, where a harmonious symphony of curriculum content and industry needs resonates. This partnership encompasses a spectrum of initiatives to establish EICC (Employers Information and Counselling Committee), employer focused work-based program, equipment and facilities upgrading, upgrade instructors’ industry skills, entrepreneurship development, career advice and guidance and employability skills and leadership development. Curriculum content harmoniously set up a synergic status of industry present and future. Practical skills enhanced through internships, apprenticeships and industry exposure to the graduates.

Accreditation and Quality Assurance
Accreditation standards are not mere words but a guiding tool for affiliated institutions to set up given standards. Regular evaluations and rigorous inspections are undertaken to ensure that institutions uphold the quality of these standards. Accreditation, the hallmark of quality technical and vocational education, is a testament to its firmly commitment to consistently nurturing excellence across its affiliated institutions. One of the main responsibilities of CTEVT is quality assurance of TVET graduates. For this, CTEVT applies monitoring and supervision and examination as major steps although there are number of measures to be taken in addition.

Monitoring and Supervision
It is provisioned in CTEVT that monitoring and supervision is done at least once a year or as per the requirement. A team of monitoring and supervision is prepared with subject related expert from CTEVT and an expert from professional councils to monitor and supervise constituent schools, TECS (Technical Education in Community School), affiliated institutes and partnership schools. The team provides feedback and suggestions to the institute or schools and CTEVT management for further improvement or taking action for reward and punishment.

Skill Testing and National Vocational Qualification Framework (NVQF)
Skill testing activities was initiated in Nepal in 1983 through an autonomous body called Skill Testing Authority. Nowadays, a National Skill Testing Board (NSTB) which is under CTEVT has responsible to carry out the skill testing activities. NSTB has developed more than 311 national occupational skill standards to skill test of individuals who wants to obtain “National Skill Certificate”. NVQF has approved from Gorverment of Nepal on May, 03 2020. NSTB has introduced a system of occupational classification, development of skill standards and certifications to the examinees. Skill testing certificate holders can have better access in job market. The skill test certification system offers an opportunity to formalize traditionally and informally learned skills.

The National Vocational Qualification Framework (NVQF) would set common principles and guidelines for a nationally recognized qualification system, vocational education institutes and institutes of higher education with qualifications ranging from secondary to doctorate level, leading to international recognition of national standards. Students would have the scope for vertical and horizontal mobility with multiple entry and exits (Karki, 2010). This would be especially useful to promote the creative genius of every child including children with special needs (Bhattarai, 2017). The corner stone of NVQF would be the close partnership and collaboration with the industries, potential employers at all stages starting from identification of course, content development, training, and provision of resource persons, assessment, accreditation, certification and placement.

It is expected from NVQF that key contributions to systemic change in the technical and vocational education and training (TVET) system enabling women and men, including disadvantaged groups, to
get access to increased employment and performing at higher productivity levels. This will ultimately lead to higher income, enhanced livelihood and resilience, whereby combating and promoting inclusive growth. The learners and workers especially from disadvantaged groups will benefit from an improved vocational training qualification and skills certification system thus increasing their chances for sustainable employment within and outside Nepal.

**Training Institute for Technical Instruction (TITI)**

Training Institute for Technical Instruction (TITI) was established in 1991 as a national institute with the mission to improve the quality of vocational training of Nepal. The aim of TITI is to cover the nationwide training needs of the technical school management and administrative staff at various levels in technical schools and other vocational training programs (Koirala & Dhungana, 2015). The clints of TITI are staff working in technical schools, training centers and polytechnics operating under CTEVT, Universities, government departments and agencies, private technical and vocational training institutes, NGOs and INGOs with TVET focus and other interested individuals meeting the requirements.

**Challenges and Future Direction**

The budget allocation to CTEVT from government is not as per the requirement to operate its functions steadily. Internal revenue generation is declining since few years back. Nurturing an ecosystem of curriculum updates, preparation of NOSS (National Occupational Skill Standards), Skill testing as per demand, well establish and enhance provincial offices, fulfillment of required personals and make a harmonious relation to provincial government and local government are some perpetual challenges. Curriculum updates, faculty training, infrastructure development and outreach programs demands sustained resources, making the quest for funding a perpetual voyage (Dahal, 2020).

The promulgation of National Medical Commission act 2018 which contradict to CTEVT act 1989 making more confusion to perform its functions in a way to achieve expected results. MEC has been enforcing to impose their keen interest to defunct CTEVT in its pulsating rhythms of run. Politics remains intra and inter spectrum of society creating hurdle to deliver services as an array of time.

The CTEVT focuses the technical education must harmonize with the industries, an endeavor as intricate as it is imperative (Dahal, 2020). Technical curricula update in effective engagement of employer with pursue industry insights, global standards and timeless wisdom. The challenge is to imbue remote and rural landscapes with the same quality of education as urban centers, navigating infrastructural hurdles and connectivity conundrums. In the tapestry of education, threads of perception often tangle with stigma. The challenge for CTEVT lies in altering perceptions, erasing stigma, and crafting a narrative that casts vocational education in the spotlight it rightfully deserves.

**Future Directions and Innovations**

The virtual realm beckons as an avenue of accessibility, beckoning CTEVT to unravel the tapestry of online and blended learning. However, this journey necessitates not just digital infrastructure but also the empowerment of educators and learners in the nuances of this realm. The path of education needn't be linear – it can be a mosaic of micro-credentials and modular certifications. The challenge lies in crafting a framework where learners can assemble their educational jigsaw, acquiring skills incrementally while aligning with industry mosaic (Bhandari, 2023). Sustainability scripts a narrative that resonates globally (Baral et al., 2019). The challenge for CTEVT is to interlace programs with the essence of green technologies and sustainable practices, nurturing graduates who are not just skilled but also stewards of a greener tomorrow.
The symphony of education knows no boundaries. Collaborations with global counterparts orchestrate a harmonious exchange of knowledge, the challenge being to weave a tapestry of faculty exchanges, research collaborations and student mobility that enriches the educational experience. The bridge between education and industry is forged through apprenticeships and partnerships. The challenge lies in nurturing these bridges, aligning education with the rhythm of industry and ensuring that graduates are poised to dance seamlessly into the workforce (Bhattarai, 2020; Karki, 2012).

Innovation births progress and entrepreneurship scripts narratives of economic growth. The challenge for ITS lies in nurturing a garden of entrepreneurial skills, catalyzing the emergence of startups and small businesses that burgeon as local beacons of prosperity (Caves & Renold, 2017). The symphony of education must resonate with the cadence of industry trends and technological melodies. The challenge for CTEVT is to conduct research that harmonizes pedagogical innovations with the pulsating rhythms of industry demands (Baral et al., 2019).

The recognition of its role can be amplified through harmonious collaborations. Government bodies, industry associations and international allies can compose a crescendo that elevates its impact and resources. The challenge lies in nurturing a lifelong learning ecosystem, an endeavor that doesn't conclude at graduation but harmonizes with the trajectories of graduates' careers. Alumni engagement and continuous skill development compose a tapestry of enduring relevance.

In this symphony of challenges and innovations, CTEVT stands poised at the crossroads of evolution. By charting a course that navigates challenges, embraces innovation and resonates with the demands of an ever-evolving job market, CTEVT etches a narrative that is not just transformative but also timeless.

**Conclusion**

The article explores into the significant role played by the Council for Technical Education and Vocational Training (CTEVT) in Nepali education landscape. It highlights the organization historical evolution, founding principles and its unwavering commitment to enhancing technical and vocational education. Its main objectives and functions, including curriculum development, program accreditation, skills assessment and institute-industry linkage, are discussed as crucial components in maintaining the quality and relevance of its offerings. The article underscores the diversity of technical and vocational programs provided by CTEVT, spanning engineering, health, agriculture, hospitality and tourism. These programs equip students with practical knowledge, skill and attitude that directly align with job market demands, fostering a skilled and employable workforce. The article highlights its initiatives in rural and underserved areas, emphasizing the positive impact on individuals and communities. These efforts empower marginalized groups, foster economic growth and contribute to sustainable development by providing accessible education, employability and income-generating skills.

**References**


