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Vocational Education in India & Bhutan: A Comparative Study to See It's Viability through Contrastive Variables

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Abstract:

The study attempts to present an overview of vocational education (VE) in India & Bhutan. It specifically seeks to provide in-depth descriptions and implementation of a few VE programs, levels of programs, status in rural and urban regions, and VE programs in private and public institutes in the state of West Bengal and Bhutan. The effectiveness and accomplishments of VE to the four variables mentioned above were gauged using 't' ratio test and Chi-square test. The results were underpin the VE program's tangible outcomes, strengths, weaknesses, and challenges to suggest various measures that may contribute to enhancing the effectiveness of VE across all areas, and increase the opportunities for youth employment in the competitive global market. The comparative and descriptive study also paves the way for additional research in relevant and diverse fields in other states of India and Bhutan. It also offers guidance to policymakers and the ministry on how to guarantee that vocational education and the New Education Policy 2020 are implemented smoothly in schools in rural regions in both countries. Children will have more opportunities to realize their natural potential if alternate TVET routes are established in schools from senior primary to senior secondary levels. It made it possible for the educational institutions to equip them with the necessary abilities and information, assisting the nation in using its human capital. In the end, this would support the social and economic development of the country. Therefore, extending chances for Bhutan's most active and lively human resource, the young, may be greatly aided by an alternate TVET road to schooling. In order to produce contemporary, diverse, and job-oriented skills, the study assisted the governments of both nations in modernizing and extending the technical and vocational education and training (TVET) system.

Keywords: *New Education Policy 2020, Rural India, Vocational Education, Youth Employment.*

Introduction:

India, which has the youngest population in the world, has the capacity to make up for the chances lost and the time wasted. Today, we see vocational education (hereafter referred to as VE) as the solution to all of these issues, giving our young people the necessary skills, knowledge, and drive. Years ago, VE was embraced and put into practice, but it was occasionally disregarded and failed to produce the desired outcomes. We see it as a driving force behind technical innovation and discernible advancements in any

country's socioeconomic growth. VE may guide a country's progress, but it requires careful planning, excellent education, improved infrastructure, and experts in sustainable development. Unemployment, a shortage of qualified labor, a lack of specialists, inadequate training, and a lack of professional development chances to create employable, capable young who can contribute to their own and the country's growth are some of the major issues confronting India. Social, economic, and political situations have deteriorated globally, particularly among academics, as a result of the previously described problems and the atypical pandemic scenarios. The market's imbalance between labor supply and demand has grown as a result of the current circumstances, which is why this research was started.

Bhutan, a landlocked nation of 780,000 people, has achieved significant progress in basic education. However, in order to satisfy the economic demands for competitiveness and long-term growth, it must now speed the creation of a skilled workforce. Bhutan's Twelfth Five-Year Plan, 2018–2023, places a high priority on job-related skill development.

Since the country's health, wealth, happiness, and advancement are all dependent on the quality of its education, the Royal Government of Bhutan places the greatest focus on the education sector. The nation's ancient monastic educational system was supplemented in the early 1960s with contemporary schooling that used English as the primary language of teaching. Since then, a generation of nation builders who have contributed to the present socioeconomic growth of the nation have been produced in large part by the contemporary educational system. But while it works to improve the system's efficiency, equality, quality, and accessibility at every level, the system is now facing change's obstacles. Since 2014, the Ministry of Education has implemented changes to improve the curriculum, teacher competences, evaluation, and school system structure in order to solve these issues and provide young Bhutanese with a high-quality, holistic education (MoE, 2014). The main goal of the reform efforts is to establish an educational system that effectively imparts the necessary knowledge, abilities, and skills to Bhutan's youth while instilling in them the virtues of accountability, resourcefulness, and productivity so that they can fulfill the aspirations of the country's policies and visions. The state shall make an effort to provide education for the purpose of enhancing and expanding the knowledge, values, and skills of the entire population, with education being directed towards the full development of the human personality, according to Article 9.15 of the Constitution of the Kingdom of Bhutan. His Majesty Jigme Khesar Namgyel Wangchuck said that "education is empowering - it's a social equalizer and it facilitates self-discovery, which leads to realizing one's full potential" on the first page of the Bhutan Education Blueprint 2014–2024. 85 Taking this a step further, the National Education Framework promotes the development of "highly skilled citizens capable of responding to the emerging global challenges." The Bhutan Education Blueprint 2014–2024 places a strong emphasis on the need of giving Bhutanese students both traditional and modern knowledge so they may live fulfilling lives. Technical and Vocational Education and Training (TVET) is thus crucial to meeting the needs of the industrial sector and providing students with access to high-quality, alternative educational courses that would correlate with their learning ability. Making TVET accessible would improve students' chances of finding work and meet the need for skilled labor throughout the country (MoE, 2017). Therefore, by launching TVET education programs in mainstream schools from Primary to Class XII, the Ministry of Education has started the process of creating an alternate educational route.

The current comparative study, therefore, attempts to present an overview of rural vocational education (VE) in India and Bhutan. It specifically seeks to provide in-depth descriptions and implementation of a few VE programs, levels of programs, status in rural and urban regions, and VE programs in private and public institutes in the state of West Bengal and Bhutan. The effectiveness and accomplishments of VE to the four variables mentioned above will be gauged using 't' ratio test and Chi-square test. The results will underpin the VE program's tangible outcomes, strengths, weaknesses, and challenges to suggest various measures that may contribute to enhancing the effectiveness of VE across all areas, and increase the opportunities for

youth employment in the competitive global market. The comparative and descriptive study also paves the way for additional research in relevant and diverse fields in other states of India and Bhutan. The results pave the way for further research in related areas and provide policymakers and the ministry with advice on how to ensure that vocational education and the New Education Policy 2020 are successfully implemented in schools in rural areas in India and Bhutan. Additionally, a few suggestions also follow to enlighten and guide the experts, decision-and-policymakers, and concerned ministry to mitigate the Indian Institute of Job Training (2012) assertions, through VE, on the country's urgent need to enhance, reform, or modify the educational system.

Major Research Works Reviewed:

Examining earlier similar VE studies conducted at the national and international levels will help you fully understand the aforementioned goals. Since India has the best young people who can be taught and used in nation-building to fulfill our Prime Minister's objective of "Aatamnirbhar Bharat," there is a growing desire for the country to increase its youth power in order to create a knowledge economy. In order to equip students and young people with employable skills for socioeconomic growth and economic development, the nation may benefit from providing secondary and higher education that is integrated with VE. Flexibility between general and vocational education, especially in higher education, is suggested by the 2019 "World Development Report" on the future of work as a way to enable people to compete in shifting labor markets.

Jagannathan (2013) conducted a study on education and skills in Asia responding to Greening Economies stressing skills development and sustainable growth in developing VET.

A few select studies are taken up to better comprehend the concept, its significance, evolution, and current status studied by eminent scholars to pursue this study in the realms of VE. Lucie (2016), Maria et.al. (2015), Regine (2015), and Sabharwal (2013) have claimed skill and knowledge development through technical and vocation education is essential to build entrepreneurship capital, regional development, and to increase employability and capability.

India is a dynamic and energetic nation because of its many cultures, ethnic groups, languages, colors, castes, customs, etc. Despite widespread concern about persistent social, gender-based, and economic inequality, India's hopes of becoming a self-sufficient and rapidly expanding economy in the world have been dashed by the pre- and post-pandemic scenarios. Nevertheless, India is firmly rooted in strong integration and strong value systems, and it appears to be recovering quickly at this time. According to Oxfam's 2020 report, "Time to Care," it demonstrates how our sexist economies are contributing to the inequality problem by allowing a rich few to amass enormous fortunes at the cost of common people, especially impoverished women and girls.

India had 496 colleges and 20 universities in 1947. India now has 54 Central Universities, 422 State Universities, 122 deemed Universities, 369 Private Universities, 12641 Colleges (under sections 2(f) and 2(g)), and 314 Academic Staff Colleges, according to the University Grants Commission (UGC) website (as of January 25, 2021). In spite of this, the institutions face geographical inequalities that lead to unequal access to higher education. As a result, the higher education level has a low Gross Enrollment Ratio (GER), which was 25.2% in 2016–17, which is very concerning.

The concept of vocational education really has a long history. An advisory organization called the National Council for Vocational Training was established by the Indian government in 1956 as part of efforts to provide practical training and instruction in schools and universities. The Kothari Commission's 1964 finding that many tasks may be undertaken by well-trained upper secondary students who can get practical

training instead of requiring a university degree gave VE its real start. As a consequence, around 36% of Indians are now engaged in different training programs. The International Monetary Fund (IMF) has forecasted 11% growth in 2022, which calls for ongoing internships and training to keep up with the demands of the market. In order to establish new paradigms for the information economy, the research also searches for Daniel's (2015) insights on reforming US education policy. Furthermore, Daniele (2015) carried out a comparative analysis of entrepreneurial education in VE across two nations.

According to the World Bank's 2007 South Asia Region results, VET programs should be redesigned with the business situation in mind, including employability skills and general academic components. In order to adapt quickly to technology changes, Burke & Hutchins (2007) underlined the need of matching instructional design in vocational education to particular workplace-related learning demands. In order to create conceptual connections between classroom and work activities and to meet the expectations of the industrial workforce, Wahlgren (2009) discussed how instructional material could be matched in educational design to close the gap between academics and industry.

It gives Higher Secondary School vocational students the chance to pursue academic flexibility while meeting market demand and supply and implementing new initiatives like the establishment of new ITIs and polytechnics and the revitalization of Pt. Sunderlal Sharma Central Institute of Vocational Education, Bhopal, among others. Illeris (2009) proposed four distinct types of learning: transformational, developmental, adaptive, and mechanical.

Women in India get the least benefit from the current economic, social, and political structure since they make up fewer than two-thirds of the workforce and their potential has been underestimated. According to Oxfam's 2020 report, almost three-quarters of all unpaid care labor is performed by women. Because of their caregiving responsibilities, they often have to work fewer hours or quit their jobs. By 2030, there will likely be 2.3 billion individuals in need of care, up 200 million from 2015.

The main obstacles to sustainable development have been identified by the Indian government. Vocational education was given more weight by the Ministry of Human Resource Development (MHRD) in the National Education Policy 2020 (henceforth referred to as NEP), which was approved by the Union Cabinet on Wednesday. "At least 50% of learners" enrolled in the school and postsecondary education systems "shall have exposure to vocational education," according to the NEP. According to the policy, at least 50% of students enrolled in schools and universities will have had some experience with vocational education by 2020. It acknowledges VE's groundbreaking contribution to creating the demographic dividend in India. NEP also discusses establishing "skill labs" in partnership with regional businesses and polytechnics. Action learning by Revans (1980) is practical and provides enough exposure and experience to put ideas into practice. Additionally, the establishment of online vocational courses is being proposed. Furthermore, the notion of such study is supported by Coghlan & Brannick (2010), who encourage senior students to start creative projects in a real-time environment.

Identification of Research Gaps:

In India, vocational education is taught both theoretically and practically. According to data from the National Institute of Open Schooling (NIOS), only 2% of people between the ages of 15 and 29 have undergone official vocational training, and only 8% have obtained non-formal vocational training. Additionally, according to estimates from the 12th Five-Year Plan (2012-2017), less than 5% of Indian workers between the ages of 19 and 24 had formal vocational training. Furthermore, according to data from the 75th cycle (2017–18) of the National Sample Survey Office (NSSO), 24 percent of students from rural areas are enrolled in Industrial Training Institutes (ITIs) or other vocational training institutions. However,

just 8.3% of students in metropolitan areas—one third of rural enrollment—are enrolled in any official vocational training institutions, and only 15.3% of the population attends such institutions. The provided data show the depressing condition of VE in the real world, which is sufficient motivation to undertake this investigation. Every nation requires a strong system that is effectively implemented at the local level to train young people to enter the workforce as technicians or artisans in a skilled craft or trade. There are gaps in post-secondary and higher education, as well as in the way that system interacts with business. Additionally, there are variances in the implementation, monitoring, and evaluation processes by different stakeholders at all levels, regions, and states.

TVET's Position in the Present Educational System As of right now, Bhutan's educational system comprises six years of secondary education from grades VII–XII and seven years of primary school from PP–VI, which includes one year of pre-primary (MoE, 2014). According to the Constitution, education from pre-primary to grade X is free. After completing grade X, students can either enroll in government or private higher secondary schools run by the Ministry of Education (MoE) for grades XI and XII, or they can enroll in certificate-level technical and vocational training institutions run by the Ministry of Labour and Human Settlement (MoLHR), depending on their academic standing.

By thoroughly examining VE at schools and higher levels, institutions in rural and urban areas, stakeholder accountability, and the job status of VE achievers, the study attempts to close this gap. Numerous studies have identified a number of shortcomings and difficulties, including: a dearth of teachers with the necessary training to instruct vocational courses; fragmented and inconsistent curricula in some programmes; uninteresting and undifferentiated subjects; a lack of in-depth instruction in key concepts; and more. These issues make teaching and practical learning for students in VE difficult, ineffective, and boring. The subject study requires careful reading of prior studies, data collection from private and public institutes on the chosen variables in the state of West Bengal and Bhutan, interpretation, analysis, and findings to compare with the hypothesis and government objectives. Failure to achieve the desired objectives and to attract students from taking up vocational courses have instigated the subject study. This study aided in the seamless implementation of the National Education Policy (NEP) 2020 at all levels and areas across the nation.

Objectives of the Study:

The study aims to provide an overview of vocational education (VE) in India and Bhutan, which mostly entails practical courses to aid students in gaining knowledge and experience relevant to their careers. Additionally, it looks at the acceptance, effectiveness, and employment status of those who successfully finished VE programmes. Additionally, it examines VE programmes in private and governmental institutions in the state of West Bengal and Bhutan, as well as its presence in secondary schools and higher education institutions, ITIs, and VET. The study also examines the resources offered at the VE centres and any implementation flaws, as well as how the various stakeholders collaborate to make these programmes successful. It attempts to come to a conclusion by comparing the VE program's actual results with the set objectives, as well as by outlining its strengths, weaknesses, and challenges. It then suggests various measures that may help to improve VE's effectiveness across all areas and expand the opportunities for youth employment in the cutthroat global labour market. The goals made it easier to acquire new professional skills, enhance existing abilities, and update and reskill for new jobs.

Research Questions or Hypotheses:

In the study, investigator tried to use a research method that explores why VE outcomes couldn't be achieved when limited resources, resources and information is available. This helps increase our

understanding of VE, ascertain how or why a particular hypothesis is occurring, and predict future challenges. Furthermore, it helps us analyze the patterns, formulating hypotheses that can guide future endeavors. If you are seeking a more complete understanding of a relationship between variables, explanatory research is a great place to start. However, keep in mind that it will likely not yield conclusive results.

To accomplish its objectives, the study adheres to the provided hypotheses.

Ho1: Vocational Education programs help individual gains skills and experience directly linked to his career.

Ho2: VE programs are widely accepted with proved efficacy and helped in the employment of individuals who successfully completed the program.

Ho3: VE programs have been successful at secondary schools and higher education institutes/ITIs/VET.

Ho4: Students in rural are keen to enroll in VE programs than and urban regions to gain technical knowledge and skills to get employment.

Ho5: Both private and public institutes have adequate teachers and resources to run VE programs; however, private institutes proved better and shown exemplary results.

Ho6: The stakeholders at different levels: institute, district, region and state levels work in tandem to make these programs successful.

Ho7: VE program's desired objectives have been at par with its real outcomes.

Framework and methods proposed for research:

It is suggested that a small number of institutions in a few areas in India and Bhutan be chosen at random to participate in the research. An empirical research project's study design is a detailed strategy for gathering data. It serves as a "blueprint" for empirical research with the dual goals of testing the hypotheses and achieving the previously indicated goals. We use three procedures: the procedure for gathering data, the procedure for creating instruments, and the procedure for sampling. In order to get sufficient data for clear interpretation and analysis leading to reliable conclusions, the study also uses a mixed method approach. Both primary and secondary sources will be used to get the information. Block, district, and state government records are examples of primary sources, whereas information found in periodicals, journals, journal articles, and other publications is an example of secondary data.

A questionnaire will be prepared and administered encapsulating all intended objectives to get the first-hand information on VE and its related issues in question. The data then analysed using Chi Square and 't' ratio test to compare data to accomplish the set objectives in the study. The data obtained from institutes on the students who completed the VE program and how many have got job till date. The enrolment data showed VE's acceptance and efficacy at secondary schools and higher education institutes/ITIs/VET. The data collected through survey and field visits cover both rural and urban regions in districts of India and Bhutan. The data also cover private and public institutes for the skilled teachers and resources available to run VE programs. Besides, a brief interview with the stakeholders working at different levels: institute, district, region and state levels also be conducted to get the qualitative data to see the practical aspects and its challenges they face running these programs in their respective institutes. Finally, the data analysis and results ascertain the extent to which we have achieved the desired objectives.

Innovation/path breaking aspect of the research:

The study is distinctive in the field of VE because it uses a mixed methods approach, a survey, and field trips. The findings would allow stakeholders to apply brainstorming to current problems, revisit the current curriculum, and adopt new practices to tap into creative thinking and test concepts at the institute, regional, and state levels to help students get ready for demands of the global market. Additionally, the module chosen is creative since it aims to understand the current situation, performance, and difficulties in order to advise and look for new opportunities, curriculum, and strategic strategies and methodologies. The findings assist planners and policy makers in creating and optimising current resources and procedures, enabling the adoption of new and improved solutions to provide enough room for the implementation of NEP 2020. Its conclusions and suggestions centre on coming up with fresh concepts, examining issues, diagnosing them, and pinpointing the reasons behind VE discrepancies. The suggestions made make it easier to build innovative ideas for VE and act as a catalyst for new businesses and startups. Through consulting its findings, the institutes, schools, and ministries are able to position themselves in a different paradigm in order to find fresh chances and the most effective ways to address present issues.

Outcomes of the Study:

The process and outcomes during the course of this study have been planned to be published as research papers in the form of chapter (text/edited book), magazines, peer-reviewed journals etc. This started on completing the review of literature giving scope of the study and proposed model and later on completing the data collection and analysis covering at least two of the aforementioned objectives. Each article covered related aspects from the topic and underscore its concept, significance, needs in rural and urban level, etc. We suggest that the empirical findings from the current study be used to attempt and fully justify the time frame chosen for the investigation. The geographical scope and setting may not be entirely applicable to all schools and institutions in other Indian states, but the findings may still be worth referencing. Minor flaws in the statistical analysis employed in the study could have a slight impact on the outcomes. Although all VE-related issues may not be tested for statistical significance, the stated objectives will undoubtedly address some serious difficulties to increase the significance of the effort. We offer solutions to some of these issues, but not all of them. The results are authentic and truthful but can be amended for the future research. The findings, conclusion, and recommendations/suggestions may replicate the results of a few studies.

Relevance of the proposed study for policy-making:

A significant contribution can be expected from the study with extensive vocational output, using different approaches and analytical frameworks. We used mixed methods to systematize VE concepts, significance, knowledge transfer and strategies with a view to improving the application of novel and improved practices in VE centers. Besides, a considerable part of this intended positive approach and thinking address the problem from a more traditional perspective, which clearly regards research results as a "Consolidated product", depicts the decision-making process simplistically. Additionally, the study's module limits VE implementation methods to those that tailor present and upcoming research endeavors to demands. The complexity of policy-making and the process of producing knowledge, which are incorporated into and explained in particular in vocational education at various levels, in various areas, and in various institutional settings, are given more weight in newer paradigms. VE policy and systems research can benefit from the application of knowledge transfer concepts, but there is still a long way to go from theoretical analysis to actual implementation.

Relevance of the proposed study for society:

India and Bhutan need ongoing efforts to prepare its youth to accept jobs in the global market because it has the most youth and technical manpower in the world. To support the nation's social and economic advancement, significant improvements must be made to the current system. This VE research aims to provide people with practical and analytical skills so they may take on hard occupations and have more access to the labour market and means of subsistence. Besides, it promotes autonomy, self-reliance, and the capacity for decision-making to improve individuals' earnings, professions, and socioeconomic societal changes. Additionally, it gives marginalised groups of society access to education in rural and isolated areas and fair employment prospects. By suggesting a few measures at educational institutions to provide skills, knowledge, and attitudes necessary for effective employment in specific occupations, the study demonstrates its mettle to include urban and rural areas, all levels of institutes, and access to higher education among India's women.

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