



A CRITICAL REVIEW OF VOCATIONAL EDUCATION IN INDIA: CHALLENGES AND OPPORTUNITIES

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Abstract: National Education Policy 2020 has given meticulous attention on vocational education. According to NEP, every child has to learn at least one vocation. Skill education is more necessary in the 21st century. It is a veritable tool for sustainable economic growth. Vocational education can either be formal or non-formal. Formal vocational education is provided vocational training and work-based education through many organizations and schemes which prepare the students to participate in the labour market to adapt to the impacts of global trends. Nonformal education is where a person arranges for his/her training himself by finding a skilled person who would train them in some marketable skills. A country is a line of progress where human resources become skilled and efficient. It can also help create productive workforce which leads to economic growth and national development.

Index Terms - Vocational Education, Challenges, Opportunities

Introduction

This paper reviews the current problems and challenges and opportunities in the field of education. The Indian government has shown a major interest in skill development through formal VET (Agrawal, 2012) in order to utilise the large potential of a young and ever-growing population. The division of education and training is also envisaged in a clear separation of responsibilities within governmental authorities. At the national level, vocational education falls under the responsibility of the Ministry of Education (MoE) and subsequently the All India Council for Technical Education (AICTE) which administers the different institutions providing vocational education (British Council, 2016). The main responsibilities of the AICTE are quality assurance and development, planning and development, and regulation and maintenance of norms and standards of technical education (AICTE, 2020). The Govt. has launched several initiatives, such as the Skill India campaign and the National Skill Development Mission to promote vocational training and education in the country. But these schemes faced lot of challenges in implementation periods. In India, enormous skills gap exists between what industries demand based on the rapid economic growth and the skills

that young people acquire through education and training. It can have a serious impact, not only on the employers, but also on the economy as a whole. One of the major concerns is the loss of productivity and revenues as the many of the jobs remain vacant for significant time due to lack of skilled labour.

Background of the study

Vocational education in different forms has been provided in different periods. During Vedic Period, students learnt life skills and vocational skills. They focused not only theoretical but also realities of life like the manufacture of cotton, silken woollen cloths, agricultural implementation and arms (Chaube, 2010). Education was divided according to the vocational needs of the different four castes Brahmins, Kshatriyas, Vaishyas, the last group of the society Shudras were not provided the right to education (Commager, 2017). During the Buddhist Period, Buddhism didn't follow the caste system and anybody could accept any craft. That time many types of vocational education were carried out on the demand of the society like, Ayurveda (science of medicine), Dhanurveda (science of war), Gandharbaveda (art of music), architecture, painting, sculpture, veterinary and chemistry (Maheshwari, 2012b).

During British periods, Wood's Despatch of 1854 emphasized the importance of introducing occupational education at the secondary school stage in India. Even technical institutes and vocational colleges were more valuable in this period (Palanivel, 2001). The Indian Education Commission under the chairmanship of Sir William Hunter (1880-1882) produced a document, which provide a comprehensive study of the prevailing situation and its improvement. This commission focused on practical base in education in secondary level (Palanivel, 2001).

In the beginning of the 20th century, the demand for technical education started to emerge; there had been a realisation in the importance of technical education for development of the country. The Calcutta University Commission, 1917 which was also known as the Sadler Commission pointed out that the great majority of university students pursued purely literary courses which do not fit them for any but administrative, clerical, teaching and legal careers (Kichu, 2021).

The Hartog Committee, 1929 recommended retention of boys in the middle vernacular school intended for rural pursuits accompanied by diversification of curriculum in those schools. It also suggested diversion of boys to industrial and commercial careers by providing provision of special instruction in technical and industrial schools at the end of the middle stage (Four Authors, 1984). The Sapru Enquiry Committee, 1934 suggested 11 years of school education (5 years for primary, 3 years for lower secondary and 3 years for higher secondary) with vocational studies after 11 years of education (Palanivel, 2001).

The Abbot – wood Advisory Committee, 1936-37 recommended the establishment of Vocational Training College at Delhi and single polytechnics where training in many vocations should be given. They also recommended the establishment of Advisory Council for Vocational Educational entrusted with the entire responsibilities of organising vocational education and prescribing curricula for them in each province (Saini, 1980). The Sargent Report 1944 brought in changes and an increase in the facilities for vocational education at the secondary stage (Lalhriatpuii, 2018).

India gained independence in 1947 from Britain, and became the world's largest democracy. In 1947, there were hardly about 38 institutions offering first 6-degree courses in engineering and technology and 53 institutions offering education and training at the technician's level in some selected areas (Kichu,2021). The University Education Commission (1948-49) chaired by Dr. S. Radhakrishnan made remarkable suggestions on vocational education to reduce the hustle of students to universities in order to assign them into varied and sensible fields of training and work. The University Commission recommended establishment of Rural University for the development of agriculture and rural areas; keeping in mind, the major population depends on agriculture (Chaube, 2010).

The Secondary Education Commissions (1952-53) under the chairmanship of Dr. A.L. Mudaliar recommended a new organisational pattern with a period of duration of seven years, the break up of three years of junior secondary stage and four years of higher secondary stage. 'Multipurpose schools' and Diversification of courses was recommended at the higher secondary stage from class ix, which include both general and vocational 6 subjects (Ramasamy,2016).

The Education Commission (1964-66) also known as Kothari Commission under the chairmanship of Prof. D.S. Kothari made sincere efforts to vocationalise and specialize technical education at polytechnic level. It recommended that polytechnic institutes should be established for those students who have passed secondary school classes and the training given by ITIs should be considered as part of the plus two years of higher secondary education however, this period may vary between two and three years according to subject area (Kichu,2021). Higher Secondary Education and its Vocationalisation-(NCERT-1976) document was presented to the country setting out a model conceptual for implementation. The document proved to be a useful blue-print and a practical guide to all States in restructuring Higher Secondary Education and implementing Vocational Education (Sharma,1994). The most notable was National Policy on Education (NPE) 1986 which laid specific guidelines for the qualitative and quantitative development of Technical and Management education sectors. The Programme of Action (POA) 1986 as modified in 1992 envisage a National system of Education to bring about uniformity in education and strengthen AICTE (Kichu,2021).

The revised Vocationalisation of Higher Secondary Education has been renamed as 'Vocationalisation of Secondary and Higher Secondary Education' on 1st April, 2013. This Scheme has been subsumed under the Rastriya Madhyamik Shiksha Abhiyan scheme. The major changes in this scheme are introduction of Vocational Education from Class IX onwards (GOI, 2014a).

On 12th February, 2014 the Centrally Sponsored Scheme of Vocationalisation of Secondary Education approved by the Government in September 2011 has been revised with a view to align it with the National Skill Qualification Frame work into 11 which the NVEQF has been assimilated issued by the Ministry on 22nd Sept 2012. The Scheme covered vocational education starting from Class IX to Class XII (GOI, 2014b).

Samagra Shiksha has been given special focus the vocationalisation of school education. HRD Ministry has implemented the scheme under the umbrella of 'Samagra Shiksha – an integrated scheme for school education. Under the scheme has a provision for providing exposure to vocational education to students of classes VI to VIII with an aim to provide opportunities to the students to orient themselves with the skills

required for the various occupations in a sector and to equip them to make informed choices while selecting their subject in higher classes.

The National Education Policy (NEP 2020) is a comprehensive policy document that extensively discusses revamping of vocational education. This policy has suggested the integration of vocational education into mainstream education in all educational institution. According to NEP 2020, BY 2025, at least 50% of learners shall have vocational exposure through school and higher education. Every child is supposed to learn at least one vocation and be exposed to several more (NEP, 2020).

Review of related literature

Many studies have been conducted in the area of vocational education. These studies were carried out in India and in abroad as found by the researcher. The review of related literature focuses on the following areas It is divided into two dimensions:

- Challenges of vocational education
- Opportunities of vocational education

Challenges of vocational education

Kichu (2021) assessed the quality of technical and vocational education according to NAAC indicators. The investigator adopted a descriptive survey method and collected the data through questionnaires and interview schedules. Simple percentage was used for analysing quantitative data content analysis for qualitative data. The result shows that there is a wide gap between the demand and the facilities available of this institution like infrastructural facilities, academic facilities, teaching learning materials, curriculum and insufficient numbers of teachers. Zahoor (2016) investigate the problem of vocational education in schools at +2 level. Majority of students have replied that labs are not available according to ratio of students. Oduma, (2007) posited that most technical vocational education and training (TVET) departments in higher institutions do not have well equipped laboratories, workshops and usable infrastructures. Similarly, Nagor, Deebom & Tambari (2017) proved that inadequate funding, poor workshop organisation, inadequate instructional materials are some of the challenges of technical vocational education and training implementation. Hong et al. (2021) also supported the statement where insufficiency of curriculum adjustment and less industrial linkage cause low enrolment in community college.

Bhattacharyya, Sinha and Das (2021) discussed vocational training programs under state board secondary level schools in Kolkata. Researchers used descriptive research in this study. The questionnaire was used to collect data from students, guardians and head master of this institution. Results of the study reveal that there is a need to strengthen vocational education implementation. Most of the students strongly agree with the view that library and textbooks facilities should be provided for the quality of vocational training programmed. Most of the guardians of vocational students strongly agree with the views that there is an urgent need to make vocational education more objective based.

Lalhriatpuii (2018) discussed the problems of vocational education at higher secondary stage. The investigator used descriptive survey method in this study. The findings of the study reveal that highest percentage of students have faced the problems of insufficient equipment, congested classroom and irregular

power supply. The quality of textbooks did not available in the market. Training centre was not well equipped. The teachers faced problems due to irregular payment of salary.

Williams, Becky and Theophilus (2018) investigated challenges of women in technical and vocational education with a case study. The findings of the result shows that the challenges of women in technical and vocational education had a negative impact on their quest for vocational and technical knowledge. The major problems of female students in technical and vocational education were financial constraint, sexual harassment and inadequate educational facilities.

Khaidama (2016) discussed reality of applying total quality management in technical education and vocational training institution. The investigator used analytical descriptive method in this study. The findings of the result shows that quality of administration, curriculum and infrastructures' scores are low in technical and vocational education. The quality of teachers and students scores are average in technical and vocational training institution.

Pilz (2016) revealed that general education, and especially academic education, was considered highly valuable in Indian society, mirroring an attitude prevalent in the rest of Asia. Another side vocational education was considered a 'second choice' for those students that fulfil the requirements for further general and academic education. According to Omar et al. (2020), TVET programs are basically provided for lower grades and weak socio-economics backgrounds students. Many negative perceptions have grown and influenced student's motivation in choosing TVET education. Besides, deficient career counselling from TVET counsellor affect their interest in TVET program.

Sarimah (2015) in his paper discussed the employability skills in TVET curriculum in Nigeria federal universities of technology. This paper based on primary data. For that purpose, Questionnaire and face to face interview method were used. Analytical review on TVET curriculum showed that the curriculum gave less attention to practice-based courses that provide skill of the programme than theory-based courses. There is no such course in the programme curriculum that provide good attitudes and traits. According to the result, there is lack of incorporation of employability skills like problem solving, decision making and competencies amongst the youth.

Agrawal (2012) disclosed that there was a strong mismatch between demand and supply-side factors. The curriculum followed at the institutes has little relevance; there is lack of reciprocity between labour market needs and vocational courses.

Sharma & Nagendra (2016) conducted to know the challenges with respect to the skill development in India. The study shows that the challenges associated with unavailability of infrastructure, slow processing of bank loans seldom demoralizes the budding entrepreneurs to come up with them. There aren't many trained and highly skilled trainers available. There was a lack of industry-faculty interaction because of which the skill set doesn't suit the employer.

Biswas (2018) discussed empowerment of the Muslim women through vocational and technical education.

Researchers used descriptive methods and collected secondary data. The finding of the study shows that male literacy rate is higher than female. Almost every district of state literacy rate of Muslim female population is lower than that of general female population, vocational and technical education are not available in Madrasas. Therefore, a large number of students in Madrasas are still deprived of the opportunities of assessing vocational and technical education.

Choezin (2022) studied on empowering Tibetan youths by providing appropriate career guidance and skill training as well as promotion and support for self-managed enterprises. The investigator used the descriptive survey method in this study. This investigation was directed to a population comprising the trainers and the trainees in seven vocational training institutes in India. The results shows that enrolment is decreasing as many Tibetan students are applying for further education. Many courses are shutting down due to zero enrolment and the misconception about the work status; especially technical courses like Auto mechanic and driving, Iron fabrication, Reflexology, Mobile, Electricians, etc. Lack of priorities for vocational training courses when compared to other educational courses. Lack of awareness and advertisement of these Tibetan vocational training centres; social media could have boosted up the admission and many youths would join willingly.

Opportunities of vocational education

Chamadia, Mubarik (2021) examined the efficiency of the technical and vocational training course imparted to generate employment or enhance the productivity of participants. Researchers used a quasi-experimental approach. The finding shows that training has a positive impact on the monthly earnings of the participants of vocational education.

Yadav (2021) compare the creativity among secondary school students having high and low vocational interest. The researcher used descriptive survey method in this study. The result shows that male students having household vocational interest are less creative than female students. Other side male students having constructional vocational interest are more creative than their female counterparts.

Neroorkar (2020) studied on employability of vocational education and training graduates. The investigator used sequential explanatory mixed method in this study. The result of this studies reveals that many students have taken up a variety of job to cover the time gap between completion of their course or apprenticeship training and getting a job in their trade area leading to low employability score during this period.

Deore (2019) discussed vocational education and skill development programs in creating entrepreneurship development. Researchers used quantitative methods in this research. The results show that most of the respondents are pursuing vocational courses to get wage employment. Most of the respondents feel that instructor during on-the-job training is good and none of the respondents feels instructor during on-the-job training is poor. More than half of the respondents feel there is a need for improvement in the content

of the vocational course. Almost all of the respondents say knowledge obtained from vocational course is not sufficient to start and enterprise in future.

Gimah (2019) examined the contributions of adult vocational education programs to community development. Research design for the study was survey research design. The findings of the study reveal that vocational skills have contributed to the development of the communities, increased productivity, increase in family income and self-reliance.

Momin (2019) discussed the level of career maturity and occupational aspiration of academic and vocational students. The investigator used quantitative method in the study. The result shows that academic female students are found to have better career maturity than academic male students but career maturity of vocational male and female students is found to be alike.

Dawood (2019) studied on empowerment of Muslim women through vocational training. The researcher used descriptive survey method in this study. The finding of the result reveals that most of the Muslim women main motivation channel is their parents and they are involved in various courses like fashion designing, book binding, beauty culture, art and craft.

Kumar (2021) studied the perception of students towards vocational education. Researcher used descriptive survey method. The data were collected through personal Value Questionnaire and self-constructed Vocational Schedule. The result of the study reveals that most of the students are interested in vocational education. A majority of students have got admission in the course which was their first choice

Sibiya, Nyembezi (2018) seeks to examine factors that shape technical vocational education and training (TVET) engineering students, understanding of their future career choices. Researchers used a qualitative method. The data were collected through open ended questionnaires about students' beliefs, feelings and their experience at TVET colleges. The finding of the study reveals that some students have felt very strongly that TVET engineering qualification leads to full employment because of the demand for this skill such as positive attitude, interpersonal skill, and time management.

Ogbuanya and Oluwasola (2015) have stated that quality technical, vocational education and training is a tool for self-reliance. Researchers used survey research design for this study. TVET teachers were selected by the researcher's choice. The data were collected through structured questionnaires. The result of these studies shows that school work all responsibilities that would have strongly contributed to production of quality graduates through quality training. The quality assurance and training of teachers will give more support for achieving quality TVET through which self-reliance will be resulted.

Kumari (2014) discussed on psycho socio correlates of the vocational choices of adolescents. The researcher used quantitative method in this study. The result of this studies shows that there is no correlation between these vocational areas (subjects) and average intelligence. The upper-class students have preferences for persuasive type of jobs.

Hegiste (2012) studied the effectiveness of vocational education of girl students. The investigator used survey method in this study. The finding of the result reveals that most of the respondents feel that self-confidence and self-reliance have been increased and that vocational educational has motivated them for personal its development.

Tlapanana and Myeki(2020) discussed perceptions of students towards technical vocational education and training institutions. Primary data was collected in this study using the survey method. The questionnaire consists of close ended questions and only open-ended questions at the end. The study of the result shows that students prefer comprehensive universities over technical vocational education training (TVET) colleges. Most of the students know TVET through career exhibitions, word of mouth, radio and brochures.

Bhardwaj (2017) evaluate the effectiveness of vocational training on the psychosocial attributes chosen for the study. The experimental method was used in this study. The data were collected through questionnaires and life satisfaction scale. The data were analysed through descriptive statistics and SPSS. The result of the study shows that Vocational training with successive follow ups enhanced the level of adjustment towards positive direction. Vocational training with successive follow ups enhanced the level of life satisfaction towards positive direction.

Karten (2019) studied on empowerment of disabled members in rural India. The researcher used the ethnographic qualitative research design. The data was collected through semi- structured interviews of disabled people and their family members. The result of the studies that most of the disabled women continue to perform almost all the household chores, including fetching water from the well, cutting fodder, cooking, cleaning up, etc. each of the informants de-emphasized their limitations and focused on their family and technical abilities instead. With a socially accepted disability and with familial support and economic independence, their rural disabled informants develop a socially-abled selfhood, in which their disability is not a main factor in their quality of life or identity but rather just an aspect of their communal self and economic orientation.

Beyer, Brown, Akandi and Rapley (2010) conducted of quality-of-life outcomes for people with intellectual disabilities in supported employment, day services and employment enterprises. The researchers made three hypothesis like (a) supported employees with intellectual disabilities would score higher on objective and subjective quality of life, work environment, and community integration than similar adults with intellectual disabilities attending employment enterprises or day services, (b) non-disabled co-workers would score higher on objective quality of life, and work environment than people with intellectual disabilities, and, (c) supported employees would score higher on subjective quality of life than non-disabled co-workers. The shows that the first hypothesis can be accepted for objective but not subjective quality of life. It cannot generally be accepted for work environment, although supported employees had greater perceptions of job clarity than day service attendees. The second hypothesis was generally accepted. The final hypothesis proposed that people with intellectual disabilities in supported employment would have a more positive view of their lives than non-disabled co-workers.

Davis (2018) studied how the visually disabled perceived gaining employment or how perception affected employment seeking behaviours within this population. The researcher used the qualitative methodology with narrative design. The data was collected through discussion and interview method. Three research participants utilized vocational rehabilitation training and gained the experience to be positive. The result showed that the visually disabled perceived gaining employment as financial independence and perception affected employment seeking behaviours strongest through networking.

Ogundele, Akingbade and Akinlabi (2012) revealed that youth empowerment is influenced through acquired skills. TVET should empower the Nigerian youths with requisite employability skills that should be sustained. TVET schools should produce men and women who, at the end of their education should be able to put into use the skills they have acquired while in school. TVET should also empower the people socially and economically so that they will be able to participate in the making of decision regarding policies affecting their lives, to make the citizens and nations to be self-reliant in the production, distribution and consumption of goods and services.

Critical Analysis

Vocational education plays a paramount role in human resource development of the country by not only creating skilled human power but also improving the quality of life of the students. Many commissions and committees have given emphasis to vocational education in India. Commissions like, Hunter commission (1882), Radhakrishnan Commission (1948), Mudaliar Commission (1952), Kothari Commission (1964-66), National Policy of Education (1986), National Knowledge Commission (2005), National Education Policy (2020) and committees Hartog Committee (1929), Sapru Committee (1934), Rama Rao Committee (1995), and others recommended that vocational education should be provided at school level side by side with general education. Current scenario of vocational education enrolment ratio in India is low as compared to other developed countries USA, Germany, South Korea (NEP, 2020). The number of educated unemployed is increasing on an alarming rate. To earn a livelihood on their own, vocationalisation of education can help immensely. It may help to reduce the drop-out rate of the students (Kumar,2021).

The need and importance of vocational education at rural higher secondary education can be highlighted as: (1) Students gains skills and experience about vocation. (2) It helps in economic growth of individual as well as nation. (3) It helps to create a healthy mentality in students for both job and life.

From the aforementioned studies, most of the studies have been conducted to find out the challenges of vocational education in institution faced by teachers and students. Researchers found out that lack of infrastructural facilities and academic facilities, insufficient numbers of teachers, small numbers of laboratories, scarcity of lab instruments, insufficient numbers of practical class and workshops and lack of teaching learning materials (Kichu,2021; Zahoor,2016; Oduma,2007; Nagor, Deebom & Tambari,2017). Another studies have carried out that lack of library facilities, unavailability of text books, congested classroom and irregular power supply (Bhattacharyya, Sinha and Das,2021; Lalhriatpuii,2018, ; Khaidama,2016). Many studies say that training centre was not well equipped and placement facility was not available. There was lack of reciprocity

between labour market needs and vocational courses (Lalhriatpuii,2018; Khaidama,2016; Agrawal,2012; Sharma & Nagendra,2016). Female students faced financial constraint, sexual harassment and inadequate educational facilities (Williams, Becky and Theophilus,2018; Biswas,2018). Lack of priorities for vocational training courses when compared to other educational courses. Lack of awareness about vocational education (Pilz,2016; Choezin,2022).

Many researches have been conducted to assure the opportunities of vocational education. The researchers explored that vocational skills have contributed to the development of the communities, increased productivity, increase in family income and self-reliance. Students felt very strongly that technical vocational education and engineering qualification leads to full employment because of the demand for this skill such as positive attitude, interpersonal skill, and time management (Ogbuanya and Oluwasola,2015; Sibiya, Nyembezi,2018; Gimah,2019). Most of the women motivation channel was their parents and they are involved in various courses like fashion designing, book binding, beauty culture, art and craft. Female students found to have better career maturity than academic male students. Their self-confidence and self-reliance have been increased and that vocational educational has motivated them for personal its development (Hegiste,2012; Momin,2019; Dawood,2019). Disabled students became employed and independence through vocational education. It can provide students with the skills and knowledge needed to start their own business or pursue self-employment. It enhanced the level of life satisfaction towards positive direction (Beyer, Brown, Akandi and Rapley,2010; Bhardwaj,2017; Davis,2018; Karten,2019).

India is a developing country. Skill development is the part of developmental process. So, the Government has launched several schemes to enhance skill development in informal settings, mainly in the form of short-term courses to provide basic skills or enhance employability for those with missing or low basic education. The Govt. should allocate more funds for the maintenance of infrastructural facilities and maintaining the office. More relevant training courses will be arranged for both students and teachers and eminent guest instructors from industry and resource persons to be invited for these programmes.

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