



## The impact of technical and vocational education and training programmes on youth employment in Lesotho

Fusi Talasi, Matšelis Mokilane

Department of Business Management and Development, Institute of Extra Mural Studies, Lesotho

### Abstract

Technical and Vocational Education and Training has been widely acknowledged as a key strategy for improving employability by bridging skills gaps and refining employment prospects within specific labour markets. In Lesotho, the government has made significant efforts to expand access to TVET programmes aimed at increasing youth employability, however youth unemployment remains a persistent challenge. This study evaluates the impact of TVET participation on youth employment outcomes in Lesotho. Using survey data from 714 respondents, including both TVET participants and non-participants. The study assesses whether participation in TVET influences youth's likelihood of being employed, employing Propensity Score Matching. The results indicate that youth who participated in TVET are 12.3 percent more likely to be employed compared to those who did not participate. These findings underscore the positive impact of TVET on youth employment opportunities and highlight the need for continued investment in TVET infrastructure and resources to further improve its effectiveness in addressing youth employment crisis.

**Keywords:** TVET (technical and vocational education and training), youth employment, lesotho, propensity score matching (PSM), youth employability

### Introduction

Youth unemployment is remains a major challenge globally, especially in developing countries where young people make up a significant portion of the population. In Lesotho, youth unemployment is particularly high, with many young individuals meeting obstacles to entering the workforce due to mismatch between their skills and those demanded by employers. United Nations Lesotho (2023) reported 45 percent of individuals aged 15-24 are neither in education nor employment, attributed to lack of support or weak systems for the youth. Technical and Vocational Education and Training (TVET) presents a viable solution to employment crisis by overcoming skills mismatch that impede transition to employment (Shefiu & Ayika, 2019) [22]. TVET equipping individuals with practical skills necessary for specific careers and industries.

TVET is widely acknowledged as a vital factor in enhancing employability, especially among young people, by providing practical, job-oriented training that improves readiness for the labour market (Edokpolor & Owenybiugie, 2017). While traditional educational systems often accentuate more on theoretical knowledge rather than practical skills, which results in many graduates being inadequately equipped for employment and leading to high levels of unemployed or underemployed credentialed youth (Damba, 2024; Khoabane & du Plessis, 2023) [7, 14]. However, Shefiu and Ayika (2019) [22] argue that the effectiveness TVET in promoting youth employment is impacted by several factors; funding, infrastructure, curriculum design, industrial collaboration, and the quality of training. It is crucial to address these factors to fully leverage the potential of TVET in decreasing unemployment and promoting sustainable economic development.

Lesotho has made significant advancements in its Technical and Vocational Education and Training programmes over the past years. The country has expanded the variety of

courses available at its institutions and implemented measures to ensure quality control. Additionally, there has been an increase in investment towards infrastructure and resources essential for practical training and skill development, aimed to enhance the efficiency of TVET initiatives in providing individuals with competencies relevant to the industry. Despite the exerted effort to improve youth employability through increased government support, youth unemployment continues to persistent issue.

Which prompt questions; What is the effect of Technical and Vocational Education and Training (TVET) on youth employment outcomes in Lesotho? Does TVET reduce or improve the chances of youth finding employment? This study aims to evaluate the impact of TVET on youth employment outcomes in Lesotho. Specifically, it seeks to determine whether participation in TVET programmes increase or decrease the likelihood of youth employed. Through a multifaceted analysis, this study seeks to contribute to the discourse on technical and vocational education and training and youth employment in Lesotho's context.

### Technical and Vocational Education and Training and Youth Employment

Several studies have examined the impact of Technical and Vocational Education and Training (TVET) on youth employment outcomes, providing valuable insights into the role of TVET in enhancing employability, particularly in developing countries.

Numerous studies have shown that TVET positively impacts employability. For instance, Aiman (2023) indicates a correlation between partaking in TVET and enhanced employability. However, the study also points out challenges related to data comparability and availability, underlining the need for more reliable and comprehensive data. In South Africa, Manase *et al.* (2017) found that

individuals who participated in TVET programmes had a notably higher employment rate compared to those who did not complete such programmes. James *et al.* (2018) confirmed these findings within the Nelson Mandela Bay Metropolitan Municipality, demonstrating that enrolment in TVET programmes significantly boosts the employment rate among participants.

In the Gauteng province of South Africa, Quaye *et al.* (2020) found youth employability improved by 15 percent, especially among male participants. This finding is consistent with observations from Ghana, where Asante *et al.* (2017) indicated that Technical and Vocational Education and Training positively influenced male employment, while similar benefits were not observed for female participants. This underscores a significant gender gap in the results of TVET programmes. Equally, Chakravarty *et al.* (2019) discovered that vocational training programmes significantly and positively impacted female employment, accent the ability of TVET to enhance women's empowerment in the workforce.

However, not all studies support the notion that TVET leads to positive results. A study by Akhemonkhan and Raimi (2013) in Nigeria revealed that TVET had a limited effect on enhancing youth employment outcomes. They ascribed lack of success to diverse challenges; inadequate infrastructure, weak connections with industry, and insufficient investment, which collectively impede the effectiveness of TVET programmes in improving youth employability. In similar vein, Khoabane and du Plessis (2023) <sup>[14]</sup> investigated the obstacles faced by TVET in Lesotho, identifying issues such as a shortage of resources and societal stigma associated with vocational education as barriers preventing these programmes from effectively tackling youth unemployment. These findings highlight the core of contextual factors in determining the success of TVET initiatives, demonstrating that local conditions play a significant role in influencing the effectiveness of such programmes.

### **Theoretical Framework: Human Capital Theory**

Human capital theory posits that individuals can increase their employability through investments in activities that enhance individual's capabilities, making them more valuable in the labour market. Individuals can improve their human capital through various educational pathways, such as training, migration, and health (Becker, 1964) <sup>[3]</sup>. Schultz (1961) <sup>[21]</sup> state human capital as skill, knowledge, and similar attributes that affect particular human capabilities to do productive work. Chejchayanon (2005) regard human capital as a valuable asset that needs to be cultivated and developed. The accumulation of human capital significantly influences individuals' earning potential in the labour market (Ishikawa & Ryan, 2002) <sup>[12]</sup>.

The theory suggests that individuals should invest in their own human capital to achieve better economic outcomes. According to Becker (1964) <sup>[3]</sup>, investing in human capital means all activities that influence future real income through the embedding of resources in people. These investments initially incur costs in order to gain returns on this investment in the future, which can be manifested later through enhanced earnings in the labour market, improved access to employment opportunities, a higher likelihood of being employed, and better health outcomes. Through investment in schooling or training, individuals would

anticipate that the knowledge and skills acquired will facilitate their career advancement (Wuttaphan, 2017) <sup>[26]</sup>.

Participation in TVET programmes equips individuals with skills and knowledge that significantly improve their employability in specific job markets. According to Abing and Conchada (2023) <sup>[11]</sup>, those who complete these training programmes have better employability skills compared to those without TVET trainings, thereby greatly increasing their likelihood of being employed. However, Rephann (2002) mention that the return derived from this investment are depend on several factors, including the quality of the TVET programmess offered and availability of employment opportunities after completing their education.

### **Methodology**

The study employed a quantitative approach, which provides a systematic and empirical method for exploring the relationship between TVET participation and youth employment outcomes in Lesotho. A quasi-experimental design was chosen for this study. This design relied on naturally occurring groups; those who participated in TVET programmes and those who did not. The treatment status was obtained from the observational data, which was used to create both treatment and control groups. Additionally, to assess the impact of TVET on youth employment outcomes, assuming that the groups were similar in all relevant aspects except for their exposure to treatment or TVET programmes.

### **Study Population and Sample**

The target population for this study encompassed a diverse group of individuals who have either participated TVET programmes or have not between 2005/6 – 2023/24 across the country. Specifically, the study population includes graduates from various TVET institutions aged between 18 and 35 years. From the targeted population, a sample size of 357 individuals per group was chosen using Yamane's (1967) formula at a 95 percent confidence level with a 5 percent margin of error, ensuring statistical reliability and generalizability of the findings. The study participants were selected using stratified random sampling method based on their region, gender, age and TVET programme. This sampling strategy ensured a balanced and representative sample.

### **Data Collection**

The study used primary data collected through structured survey questionnaire designed to elicit quantifiable and reliable pertinent to the study. The survey questionnaire comprised of 10 questions, each targeting a specific domain of inquiry and participants were required to respond to binary and categorical questions designed to produce data on specific variable. A total of 714 questionnaires were physically shared with potential respondents and only 678 were returned and processed. The additional questionnaires were distributed to account for questionnaires that were not returned or damaged and responds rate improved to 100 percent. The collected questionnaires were categorised into two groups: treatment group, consisted of individuals enrolled in various TVET programmes, and control group, which included individuals from other institutions (signified by zero in table 1). This facilitated an effective comparison of employment outcomes between the two groups.

**Data Analysis**

Initially, quantitative data was recorded in Excel. This was imported into the STATA software for further analysis. Descriptive statistics, including frequency counts, were utilized to summarise primary trends within the dataset. To establish comparable groups, Propensity Score Matching (PSM) was employed to align TVET participants with non-participants who exhibited similar characteristics. This approach aided in reducing selection bias, ensuring that the groups under comparison were similar in observed covariates except exposure to TVET. A logistic regression analysis was conducted to assess the likelihood of being employed among TVET participants in comparison to non-participants. Logistic regression was essential to measure the association between participation in TVET and youth employment while controlling for other potentially confounding variables.

**Model Specifications**

A logistics regression model was used to analyse the association between participation in TVET programmes and youth employment outcomes. This model was used to estimate the probability of an individual being employed after completing a programme, compared to non-TVET participants. Additionally, the model aims to evaluate how other factors, such as age, gender, education level and social capital, interact with TVET participation to shape employment chances. The general regression model was specified as follows:

$$\begin{aligned} \text{logit}(P(Y = 1)) &= \beta_0 + \beta_1 \text{tvtp}_i + \beta_2 \text{age}_i + \beta_3 \text{Gnd}_i + \beta_4 \text{EduL}_i + \beta_5 \text{ResA}_i + \beta_6 \text{Soc}_i + \beta_7 \text{AccsFin}_i \\ &+ \beta_8 (\text{TVET}_i * \text{age}_i) + \beta_9 (\text{TVET}_i * \text{Gnd}_i) + \beta_{10} (\text{TVET}_i * \text{ResA}_i) + \beta_{11} (\text{TVET}_i * \text{Soc}_i) \\ &+ \epsilon_i \end{aligned}$$

Where:

$P(Y=1)$  denoted the probability that individual  $i$  being employed or not.  $B_0$  is the intercept and  $\text{tvtp}_i$  represented the binary variable indicating whether individual  $i$  participated in TVET programmes. Taking value (1) if individual  $i$ , participated and zero otherwise.  $B_1$  represented the impact of completing the TVET programme on the likelihood of being employed, holding another factors constant.

$(\text{TVET}_i * \text{age}_i)$ ,  $(\text{TVET}_i * \text{Gnd}_i)$ ,  $(\text{TVET}_i * \text{ResA}_i)$  and  $(\text{TVET}_i * \text{Soc}_i)$

interaction terms that assess how the effect of TVET participation on employment outcomes may vary across different demographic and socio-economic groups:

The study hypothesised that involvement in Technical and Vocational Education and Training programmes was positively linked with employment rates. Specifically, as young individuals who took part in TVET programmes, their chances of obtaining a job increased. Additionally, young individuals with high social capital residing in urban areas engaged in TVET have higher probability of being employed compared to their counterparts in rural regions. This indicated that demographic and socio-economic factors, especially played a role in how TVET participation influenced job opportunities, with urban youth potentially gaining more advantages from these programmes than those from rural backgrounds.

**Limitations and ethical consideration**

Like any study, the present study is subject to certain limitations. The use of self-reported survey data for TVET participation and employment status may result in recall bias or social desirability bias, which could affect the accuracy of the responses. Additionally, the study sample’s geographic dispersion, coupled with Lesotho’s challenging terrain, may influence the selection process, potentially leading to an underrepresentation of certain regions or demographic groups.

Ethical considerations are essential to the research methodology, adhering to principles such as informed consent, confidentiality, transparency, and respect for participants’ rights and dignity. Participants were provided with comprehensive information about the study’s objectives, procedures, and their rights, ensuring that their participation was both voluntary and informed. Steps were taken to ensure confidentiality, keeping personal data anonymous and secure throughout. These ethical practices helped uphold the credibility and integrity of the study, while also protecting the participants’ well-being.

**Results**

**Summary Statistics of the sample**

The study covered a broad range of technical fields, including engineering and skilled trades. Table 1 below provides a detailed breakdown of the programmes considered from TVET and the proportion of non-TVET programmes. As shown, the majority of participants were graduates of skilled trades programmes for example automotive and tailoring each represented 5.32 percent of the sample, while Panel Beating and Spray Painting represented 3.92 percent. Other trades also contributed notable proportions. Conversely, only 7.7 percent were graduates from engineering. This disparity reflects the higher enrolment rates in skilled trades programmes compared to engineering.

In total 714 individuals participated in the study, with 50 percent being from non-TVET, which served as a similar baseline. The inclusion of non-TVET programmes was essential in evaluating of the employment outcomes for TVET participants against those from alternative educational pathways.

**Table 1:** The Distribution of Participants Across Various TVET Programmes

Programmes	Freq.	Percent	Cum.
Automotive	38	5.32	5.32
B-Eng Tech - Computer Engineering	7	0.98	6.30
B-Eng Tech - Electronics & Telecommunications Engineering	5	0.70	7.00
B-Eng Tech - Power Systems Engineering	7	0.98	7.98
Bricklaying and Plastering	29	4.06	12.04
Carpentry and Joinery	28	3.92	15.97
Civil Engineering	12	1.68	17.65
Dressmaking	35	4.90	22.55
Electrical Installation	36	5.04	27.59
Fitting and Machining	33	4.62	32.21
Mechanical Engineering	24	3.36	35.57
Panel Beating and Spray Painting	28	3.92	39.50
Plumbing and Sheet Metal Work	37	5.18	44.68
Tailoring	38	5.32	50.00
Other	357	50.00	100.00
Total	714	100.00	

**Source:** Authors computation

**The Descriptive Statistics**

Following the distribution of participants across various TVET programmes (Table 1), the descriptive statistics reveal several notable findings about the study sample. The summary of the descriptive statistics of individuals who participated in TVET programmes and those who did not participate in TVET programmes are provided in Table 2 (a) and (b). The descriptive statistics show that 27.2 percent of individuals who participated in TVET were employed compared to 21 percent of non-TVET. The difference in employment outcomes underscore the tangible impact of TVET on employment outcomes in Lesotho. The average age of the individuals in the dataset was 35 years old, with high social capital in both groups, which could play a role in facilitating employment.

Females constituted 42 percent in the TVET programmes and 48 percent in non-TVET programmes. This reflected a relatively balanced gender representation across both groups, with a slightly higher proportion of females in the non-TVET group. Participants in both groups had vocational education and academic certificate at level 4 as the highest education or 12 years of education in the Lesotho education system. In terms of residence, almost 62 percent of TVET participants resided in urban areas, slightly higher than the 59 percent of non-TVET participants. The latter had 39.5 percent and 54.6 percent access to finance and technology. And while TVET participants had 42 percent and 53.8 percent. The slight balanced means suggest that participants were better equipped with resources that enhance their employment opportunities.

**Table 2 (a)** Descriptive statistics of main variables of TVET participants (n = 357)

Variable	Mean	Std. dev	Min	Max
TVET = 1				
Employed	0.272	0.445	0	1
Age	26.429	3.689	22	35
Female = 1	0.420	0.494	0	1
Education Level	4.367	1.080	3	7
Urban = 1	0.619	0.486	0	1
Finance	0.420	0.494	0	1
Technology	0.538	0.499	0	1
Social Capital	0.563	0.497	0	1

Source: Authors computation

**Table 2 (b)** Descriptive statistics of main variables of non-TVET participants (n = 357)

Variable	Mean	Std. dev	Min	Max
TVET = 0				
Employed	0.210	0.408	0	1
Age	26.465	3.709	22	35
Female = 1	0.482	0.500	0	1
Education Level	4.373	1.085	3	7
Urban = 1	0.591	0.492	0	1
Finance	0.395	0.490	0	1
Technology	0.546	0.499	0	1
Social Capital	0.585	0.493	0	1

Source: Authors computation

**Estimating TVET impact on employment status**

The findings presented in Table 3 indicate that Technical and Vocational Education and Training (TVET) programmes enhance youth employment outcomes. Specifically, the results show that participation in TVET programmes increases individuals' employability, with a

notable 12.3 percent higher likelihood of being employed among those who engaged in these programs. Consequently, TVET has demonstrated its effectiveness as a valuable resource for equipping individuals with the essential skills and competencies required for employment. Moreover, further analysis suggests that if the entire population were to participate in TVET programmes, their likelihood of being employed would increase by 13.6 percent.

**Table 4:** Treatment-effects estimation

Estimators	Coefficients
ATET	0.123*** (0.0402)
ATE	0.136*** (0.0346)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: Authors computation

**Balance diagnostics**

The study applied balance check to evaluate covariate balance before and after matching. Achieving balance in observable characteristics between the TVET participants and non-participants is crucial to ensure that the distributions of the covariates were comparable across the groups. Table 5, compared the baseline characteristics between TVET participants and non-participants in the propensity-score matched sample. The standardized difference was used to assess the comparability of TVET participants and non-participants in matched samples. The results revealed moderate imbalance between the covariates in the groups. The standardised differences for all covariates were between 0.1 and 0.25 in a matched sample in which the means and prevalences of baseline covariates were moderately dissimilar between treated and untreated subjects. However, this level of imbalance had a minimal impact on the validity of treatment effect estimates.

**Table 5:** Comparison of baseline characteristics between TVET participants and non TVET participants in the propensity-score matched sample

	Standardized	Differences	Variance	Ratio
	Raw	Matched	Raw	Matched
Age	-0.028	-0.084	0.938	0.893
Female	-0.124	-0.017	0.976	0.995
Education Level	-0.005	0.110	0.989	1.130
Urban	0.057	-0.006	0.976	1.003
Finance	0.051	-0.051	1.020	0.986
Technology	-0.017	-0.017	1.003	1.003
Social Capital	-0.045	-0.028	1.014	1.008

Source: Authors computation

**Discussion**

The results of this study provide strong evidence that Technical and Vocational Education and Training (TVET) significantly enhances youth employment prospects in Lesotho. In particular, participation in TVET increases the chances of being employed by 12.3 percent. This underlines the vital role of practical, job-focused training in addressing the high youth unemployment rates that persist in the country. These results align with existing literature that emphasises the effectiveness of TVET in improving youth employability. Studies by Adhikari *et al.* (2023) [2], Musigwa and Andala (2020) [18], Edokpolor and Owenbiugie (2017) [9], as well as Shefiu and Ayika (2019)

[22], have all demonstrated the significant benefit of TVET programmes on youth employment by increasing job opportunities for young individuals.

TVET institutions equip youth with industry-specific skills that enhance their ability to secure employment and even create their own job opportunities, contributing to a reduction in unemployment. By bridging the skills gap, TVET programmes provide practical abilities aligned with the demands of various industries. This contrasts with the views of Khoabane and du Plessis (2023) [14] and Chang (2021) [5], who argue that TVET graduates often face difficulties finding employment due to a mismatch between their skills and market needs. However, the findings suggest that TVET programmes in Lesotho are increasingly tailored to meet market demands, improving their relevance. This alignment between TVET curricula and industry requirements enhances the employability of graduates, ensuring their training is in line with the current economic landscape.

Despite the overall positive impact of TVET on youth employment, certain barriers remain. Khoabane and du Plessis (2023) [14] noted that the TVET sector in Lesotho faces obstacles regarding the required resources such as financial, physical, technological, research and innovation to support a successful TVET strategy. The lack of these resources can hinder the full potential of TVET in addressing youth unemployment. Ensuring that TVET institutions have access to up-to-date resources, as well as fostering stronger partnerships with industries, will be key to sustaining the positive effects of TVET on youth employment outcomes.

### Conclusion

This study has explored the impact of Technical and Vocational Education and Training (TVET) programmes on youth employment outcomes in Lesotho. The findings confirm that TVET programmes significantly enhances the likelihood of being employed. Specifically, participation in these programmes increases youth's chances of being employed compared to non-participants by 12.3 percent. These programmes play an important role in reducing the probability of unemployment by equipping participants with industry-specific skills that help them secure or create their own employment opportunities.

The positive impact of TVET programmes presents a viable and effective pathway to reducing the high unemployment rates among youth in Lesotho. However, to fully leverage TVET potential, it is essential for policymakers and stakeholders to focus on improving and expanding the TVET system. Increased investment in resources and industry partnerships will be key to addressing the youth employment crisis in Lesotho. By ensuring that TVET programmes are adequately funded and aligned with the labour market demands, Lesotho can significantly enhance employability of its youth and foster sustainable economic development.

### References

1. Abing JJ, Conchada PI. The influence of Vocational Education and Training on Employment Prospect of the ALS graduates: An Impact Evaluation Study. *Fostering a Humane and Green Future: Pathways to Inclusive Societies and Sustainable Development*. Manila, Philippines: DLSU Research Congress, 2023, 5-7.
2. Adhikari R, Adhikari RS, Upreti RD, Adhikari P. Effectiveness of TVET in Nepal. *Journal of Technical and Vocational Education and Training (TVET)*,2023;17(1):35-48.
3. Becker GS. *Human Capital: A Theoretical and Empirical Analysis with Special Reference to education*. New York: Columbia University Press, 1964.
4. Bishop JH, Mane F. Economic Returns to Vocational Courses in U.S. High Schools. In: Jon L, Rupert M, editors. *Vocationalisation of Secondary Education Revisited*. Netherlands: Springer, 2005, 329-62.
5. Chang Y. *The Impact of TVET (Technical and Vocational Education and Training) on Income Growth and Employment of Trainees*. KDI School of Public Policy and Management, 2021.
6. Damane M, Sekantsi L. The Sources of Unemployment in Lesotho. *Morden Economy*,2018;937-65.
7. Damba EK. The Contribution of Vocational Education to Reducing Unemployment in Nigeria. *Research Invention of Law, Communication Languages*,2024;3(2):68-73.
8. Deming JD. Multidimensional Human Capital and The Wage Structure. *Handbook of the Economics of Education*,2023;7:469-504.
9. Edokpolor EJ, Owenvbiugie OR. Technical and Vocational Education and training Skills: An Antidote for Job Creation and Sustainable Development of Nigerian Economy. *Problems of Education in The 21st Century*, 2017, 75(6).
10. Generalao IN. The Impact of Technical and Vocational Education and Training on Youth Employment Outcomes in the Philippines. *Philippine Statistics*, 2021, 1-12.
11. Hanushek EA, Schwerdt G, Woessmann L, Zhang L. General Education, Vocational Education, and Labor-Market Outcomes over the Lifecycle. *Journal of Human Resource*,2017;52(1):48-78.
12. Ishikawa M, Ryan D. Schooling, Basic Skills and Economic Outcomes. *Economics of Education Review*,2002;21(3):231-43.
13. Kanyenze G, Mhone G, Sparreboom T. *Strategies to Combat Youth Unemployment and Marginalisation in Anglophone Africa*. Geneva: International Labour Office, Southern Africa Multidisciplinary Advisory Team, 2000.
14. Khoabane PM, du Plessis ML. The importance of strategic management resources for successful Technical and Vocational Education and Training Governance in Lesotho. *Administratio Publica*,2023;31(4):1-27.
15. Ministry of Education and Training. *Lesotho inclusive education policy*. Maseru: Government of Lesotho, 2019. [cited 2025 Jun 19]. Available from: <https://www.gov.ls/education/>
16. Ministry of Education and Training. *Lesotho Technical and Vocational Training and Education (LTVET) Policy*. Maseru: Kingdom of Lesotho (Ministry of Education and Training), 2019.
17. Motala S. *Aligning South Africa technical and vocational education and training (TVET) for inclusive*

- labour market development. International Labour Organisation, 2015.
18. Musigwa R, Andala OH. Technical and Vocational Education Training skills and youth Employment in Rwanda. A case study of Tumba College of Technology. *IOSR Journal of Research & Method in Education (IOSR-JRME)*,2020:10(2):48-58.
  19. Raja AY. The Impact of Technical Vocational Education and Training (TVET) on Employment among Youth in Pakistan: A counterfactual analysis. Islamabad: Pakistan Institute of Development Economics, 2020.
  20. Sarder S, Mainuddin M, Sarder RA. Bridging the divide: TVET's Transformative Role in Youth Unemployment and Skill Development in Bangladesh. *International Journal of Multidisciplinary Education and Research*,2023:8(3):48-54.
  21. Schultz T. Investment in Human Capital. *The American Economic Review*,1961:51(1):1-17.
  22. Shefiu R, Ayika S. Technical Vocational Education and Training (TVET) as A Panacea to Solving Negeria's Youths' Problem of Unemployment. *Continental J. Social Science*,2019:11(1):1-16.
  23. TVET Journal. The Benefits of TVET: Why Thechincal and Vocational Education and Training is a Smart Choice. *TVET Journal*, 2023.
  24. UNESCO. Participation in formal technical and vocational education and training programme worldwide: An initial statistical study. Bonn: UNESCO\_UNEVOC, 2006.
  25. UNESCO. Youth and skills: Putting education to work Education for All Global Monitoring. United Nations Educational Scientific and Cultural Organisation, 2012.
  26. Wuttaphan N. Human Capital Theory: The Theory of Human Resource Development, Implications, and Future. *Humanit.Sco. Sci*,2017:18(2):240-53.