

Do Tuition Fees Matter for Students' Enrolment? An Analysis of Academic Programs Implemented by Council for Technical Education and Vocational Training in Nepal

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Abstract

The amount of knowledge and skills of a country's citizens has a direct impact on its wealth and progress. The goal of the country is to increase human capital by offering technical education and vocational training to citizens. The Nepalese government prioritizes the advancement of technical education and vocational training, as evidenced by budget allocations. This increasing tendency indicates a positive commitment to developing a skilled workforce. However, the challenges are in integrating the institution's increased capability with actual enrolment levels. Policymakers are faced with the challenge of resolving the gap between enrolment capacity and actual enrolment. Underutilization of the institution's capacity shows a misallocation of resources. Understanding why enrolment is low necessitates a closer examination of the hurdles. The goal of this study is to investigate the factors that influence student enrolment. Tuition fees may be the key factor determining poor enrolment in both programmes, including pre-diploma and diploma. CTEVT has paid effort to provide TVET opportunity to low income and marginalized groups. Therefore, Policymakers have dramatically expanded both constituent and private institutions throughout with increasing enrolment capacity to enhance student accessibility. Despite these excellent efforts, a significant difficulty arises for the tuition fee payment. There is considerable disparity in tuition fees among private institutions. This disparity has significant ramifications for kids and families considering enrolment. To address this issue, the research uses an economic model to determine if tuition fees influence enrolment. The findings indisputably show that tuition fees influence enrolment patterns. Higher tuition prices lead to decrease enrolment rates, whereas reduced tuition fees serve as a positive catalyst, driving higher enrolment rates. This difference has serious implication on decision making behaviour of the students and households anticipating enrolment. Understanding this issue, the paper utilizes econometrics models to ascertain whether tuition fees serve as a determinant factor in enrolment. Higher tuition fees are associated with lower enrolment rates, while lower tuition fees act as a positive catalyst, encouraging higher rates of enrolment. The result for both pre-diploma and diploma programs unequivocally reveal that tuition fees play a key role in shaping enrolment patterns.

Keywords: Enrolment, Tuition fees, Decision making, Econometrics model

1. Introduction

The prosperity and development are directly related to the level of knowledge and skills of the citizen of the country. The aim of the country is to raise the human capital through providing technical education and vocational training to the citizen (NPC, 2020). Technical education and vocational training, therefore, are an essential component of national development. The workforces with technical and vocational skills are required for national development. The human capital plays the key role to the socio-economic transformation of the country. Investment in technical and commercial education and training plays an important role in meeting socio-economic challenges and enriching the

country. Technical and vocational skills are required to increase the productivity of the economy. Education without skills is not sufficient to improve the productivity. Technical education and vocational training play a key role to improve the productivity of the economy. All level of governments including central, provincial and local government, therefore, are paying the priority to provide the technical and vocational training to the citizens.

The Council for Technical Education and Vocational Training (CTEVT) was established in 1988 and managed to organize technical education and vocational training in a planned manner, as well as to set skill standards and certify them to produce basic, middle, and advanced level technical human resources. The CTEVT is responsible to make, to implement, and to evaluate the policy and programme related to technical education and vocational training. In addition to these, as indicated in the act of CTEVT, it has many functions including curriculum development, skill development, accreditation, industry collaboration among others. The CTEVT contributes significantly to the development of a skill and competitive workforce.

The relationship between CTEVT and sustainable development goals (SDGs) is crucial. Five out of 17 SDGs are directly and indirectly are related to technical and vocational education training (TVET). The Government of Nepal has crafted the Sustainable Development Goals (SDGs) to the Nepalese context and has made institutional arrangements for its effective implementation. The Fourteenth Plan (2016/17–2018/19) and SDGs were implemented same fiscal year. The year 2015, before implementing the SDGs, was decided as base year to monitoring the SDGs progress. The Fourteenth plan was consistent and integrated with SDGs. The major sectoral plans and policies aligned and mainstreamed with SDGs. Nepal has completed most of the preparatory works for implementing the SDGs. TVET plays key role in advancing education related goals. The SDG 4 indicates to ensuring inclusive and equitable quality education for all. We need to provide lifelong learning opportunity for all. Education plays a vital role across all SDGs as it is a standalone goal itself as well as the enabler to achieving other goals. The SDG 4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities to all. The government intervention on the technical education program is important to provide the technical and vocational training for youth and to enable them to get decent jobs. The government program particularly related to SDG ensure equal access for males and female to affordable and quality technical and vocational training.

Decent work and economic growth-related goals (SDG 8) also get benefit from TVET. TVET provides skill human resources that enhance employability, foster entrepreneurship, and contribute to creation of decent jobs. By investing in TVET, countries can strengthen their industrial based, infrastructure and industrial practices. These all are related to SDGs 9. Similarly, TVET can reduce inequality (SDG 10) through improving the access to quality education and training opportunities to marginalized groups, persons with disabilities and low-income groups. TVET contributes to the development of sustainable cities and communities (SDG 11) by training professionals in urban planning, renewable energy, environmental management, construction and among others. TVET is instrumental in advancing multiple SDGs (NPC, 2018).

CTEVT is implementing TVET programmes to produce basic and mid-level technical (with certificate or diploma degree) human resources in the country since its establishment in 1989 (2045 BS). Among others the council has given emphasis to production and supply of technical human resources in four thematic areas of economy viz. 1) agriculture; 2) engineering/construction; 3) health/medical sciences and 4) hospitality and others. But a market-based study on the demand side of production of such technical human resources is largely lacking in the country to strengthen TVET need by sector of economy.

The government of Nepal is paying high priority for expansion of technical education and vocational training and this priority can be seen in the allocation of budget. In nominal term, it has increasing trend over the years. An increasing trend in total enrolment capacity is closely related with the trend in the total budget allocated for CTEVT as indicated in figure 1. This increasing trend shows the positive indication of the commitment to fostering a skill workforce. However, the challenges are found in aligning the increase capacity of the institution and with actual enrolment numbers.

The figure shows the trend lines of total budget for CTEVT and total enrolment capacity for the given programmes. It shows the complex relationship or interdependence between financial resources and technical education and vocational training accessibility. Fluctuating trendline of the budget indicates the budgetary challenges in the first year of implementing federal system. However, it did not influence the overall progress of the education.

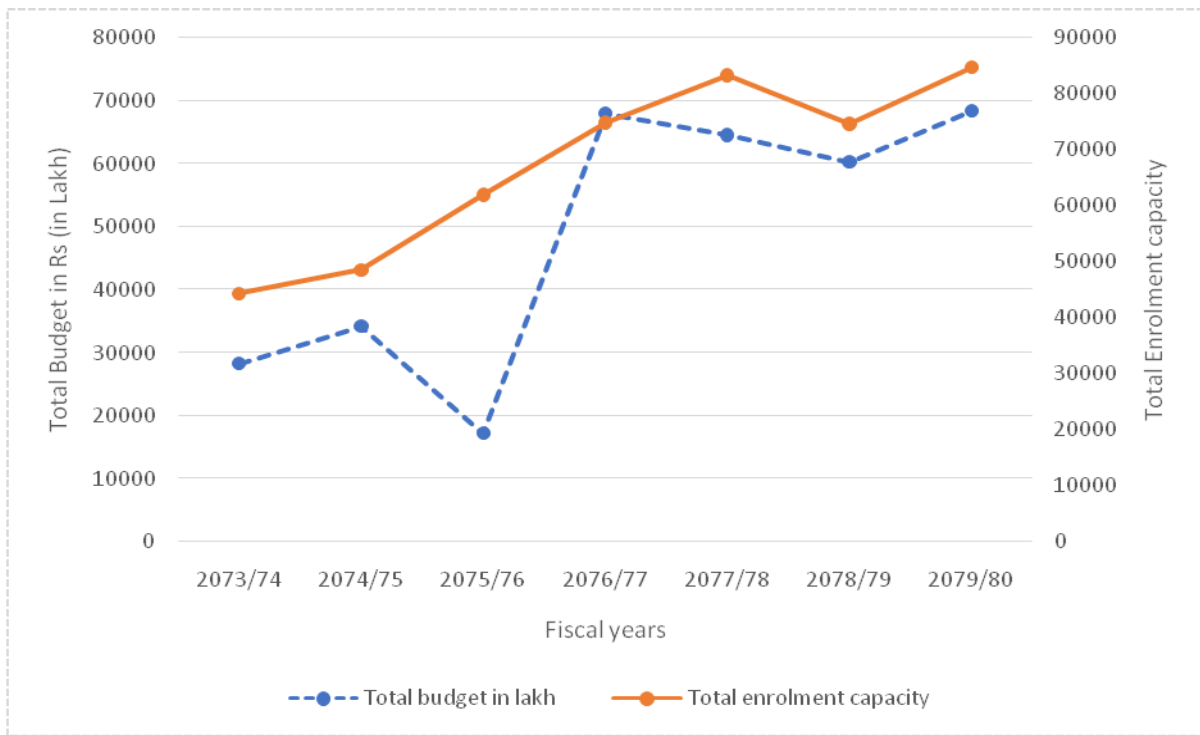


Figure: 1 Trends of total budget and total enrolment capacity

Source: CTEVT, 2079/80

We need to evaluate existing policy and programmes. The evaluation provides insights into the strengths and weaknesses of the programs. It helps to assesses the whether the institution is utilizing it resources optimally in relation to its capacity and enrolment of the students. The potential gap between capacity and enrolment can impact on quality of education, allocation of resources. The assessment can identify the problems and uncover the barriers preventing eligible students from enrolling. At the same time, it helps to understand on how resources are utilized and whether desired outcomes are achieved or not. The figure 2 indicates relationship between total institutions and pre-diploma and diploma program, all of them have a positive association. However, for the pre-diploma program, it has been decreased during the last two years. The trend of no. of institutions is going upward over the years. If we look at the both figures, 1 and 2, they have seen a harmonious alignment among the budget, total institutions and total enrolment capacity for the program.

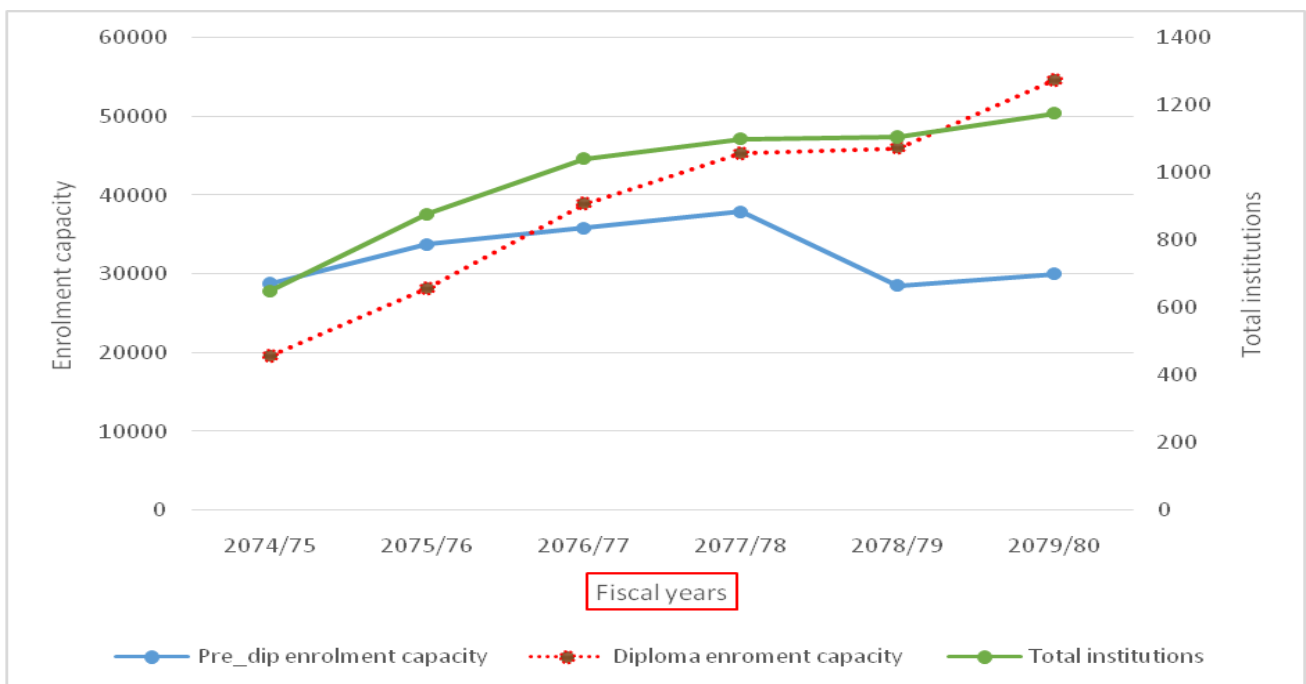


Figure 2: Trend of institutions and enrolment capacity

Sources: CTEVT, 2079/80

2. Statement of Problem and Objectives

Various documents such as (CTEVT, 2020, CTEVT, 2016) published by CTEVT including annual reports and research report indicate that there is huge gap between institution capacity and enrolments of the students. Now questions come into the mind why this gap is happening and what are factors to determine the enrolment of the students. The gap between enrolment capacity actual enrolment indicates challenges for the institution. Underutilization of the capacity of the institution indicates the misallocation of resources. Determining the most effective policy requires a comprehensive understanding of the factors influencing student enrolment. As suggested by the existing literature, such as (Tarimo, 2013; Wamichwe, 2017; Matsolo et al. 2018), several factors affect the actual enrolment despite the increase in the capacity. Understanding why enrolment remains low requires a closer examination of obstacles. There may be demand and supply side barriers for enrolment of the students. Supply side barriers include curriculum, admission policy, condition of infrastructure such as classroom, laboratories, library, quality of faculties, training program relevance to industry need and among others (Muhonja, 2012;). The documents published by the CTEVT and research reports indicated the factors that affect the educational achievement, but no systematically analysed reports were found to identify the supply side barriers to increase the enrolment of the students. On the hand, increasing trend of institution capacity over the year as mentioned above indicates that there may be noticeable problem in the supply side. If there are many problems or barriers in supply side, institutional capacity may not have an increasing trend.

Socio-economic status of the students, distance and accessibility are main demand side barriers to enrolment (Njogu, 2019; Muriithi, 2013). The institutions, schools and programs are expanded throughout the country. It exhibits that distance and accessibility may not be the barriers because it may not be possible to establish the community schools and programs in each and all villages and cities. It may cover majority of local governments.

Economic status or affordable capacity of the household for the training program may be the key barrier. To identify the socio-economic characteristics of the households may be out of the scope of this paper. The CTEVT has set the tuition fee for all programs by institutions. In general, behaviour of the people based on the demand theory is that higher price may affect the demand for goods and services. Similarly, higher tuition fee may affect the choices whether to enrol the program or not. Affordability capacity may be different among the households. However, not only high tuition fee but also high difference in tuition fee among the institution may discourage to enrol the program. The curium and programs are same but tuition fees are different by different institutions may create the psychological impact or barrier to the households. Differences in tuition fees among the institutions offering the same programs intensify the difficulties that students or household encounter. This may lead to difficulties in choosing the certain program or schools. At the same time, each political parties and all the citizens are discussing about the education is fundamental right as mentioned in the constitution. If there are choices to enrol the schools, difference in prices or tuition fees matters. In this case tuition fee and difference in tuition fees have become a significant concern while enrolling the program Enrolling the program indicates the demand for program. The demand theory in economics suggested that prices or tuition fees are major factor to determine the enrolment for the program.

The objective of the paper is to identify the factors to determine the enrolment of the students. Above mentioned arguments inform that tuition fee may be the primary factor to determine low enrolment for both programs including pre-diploma and diploma. The bahavioural relationships between enrolment of total and female students for both pre-diploma and diploma program are estimated using appropriate economic model. Estimated results suggest the tuition fees determine the number of students enrolment for CTEVT program.

The structures of the remaining part of the paper are as follows. The next section offers research method and materials used for this paper including, data sources, model specifications. The third section presents the results and interpretation. The last section offers conclusions.

3. Research Method and Materials

Research Design

This paper utilized the descriptive as well econometrics methods to meet the objective. Program-wise tuition fees, no. of enrolments, tuitions fees differences among the private and other than private institution, characteristics of the households are important variables to develop the models to determine the enrolments for the programs. The paper used the reported data published by the CTEVT for this analysis. It is better to use the household survey-based data, if available for this model. Based on available data as reported by CTEVT, the paper produces indicative results.

Data Sources

The reported data that are published in various annual reports (CTEVT, 2020, 2018) are used to identify the determinants of low enrolment of the students. Reported data may have some limitations, for example, all the data may not be captured and all of them are collected for reporting purpose. However, these data have some strengthen as well. They are collected during the process of implementation and can be used as proxy indicators of problem of implementation. Therefore, all the data that are available in the annual reports (CTEVT, 2020) and useful for the paper are utilized into the econometrics model. As mentioned in the annual reports, all together 33 academic programs under diploma program and 23 academic programs under pre-diploma. Institution capacity for enrolments, actual enrolments, tuition fees by the academic programs are available in the annual report published by CTEVT. The unit of analysis for this paper is academic program. From the perspective economics, enrolments of students for the academic program indicate demand for the academic programs. In this paper, tuition fees treated as price of the academic programs. It, therefore, allows us to apply the demand model. The paper adopts a descriptive and econometrics research design to meet the objective of the paper.

Tables 1 and 2 exhibit the data collected from annual reports. Table 1 provides the distribution of programs by province. In other words, it indicates the geographical access of institutions of community school and programs. The wider distribution of institutions of community school and programs suggests accessibility for the households. Geographical access, therefore, may not be the problem. Table 2 provides the tuition fees for the program. Tuition fees are the variable of interest for this paper. The tuition fees for some of the programs are found in the annual report. Therefore, observations for pre-diploma and diploma are 23 and 33 respectively.

Table 1: Distribution of institutions of community school and programs by provinces

S.N.	Provinces	Total technical education in community Schools (TECS)	Pre-diploma program	Diploma Program	Total programs
1	Koshi	46	33	36	69
2	Madhesh	96	35	85	120
3	Bagmati	119	68	89	157
4	Gandaki	60	40	37	77
5	Lumbini	86	59	83	142
6	Karnali	110	69	80	149
7	Sudur-Pashchim	129	103	75	178
		646	407	485	892

Source: CTEVT, 2020

Table 2: Tuition fee for the programs by institutions (in Nepali Rupees)

	Programs	Constituents	TECS	Partnership institutions
Pre-diploma program				
1	Agriculture and forestry science	15000	55000	55000
2	Engineering	22000	65000	65000
3	Management and others	18000	55000	55000
4	Hospitality and hotel management	15000	55000	55000
Diploma program				
1	Agriculture and forest science	85000	175000	175000
2	Engineering	98000	190000	205000
3	Health	16000	-	-
4	Hospitality	99000	175000	175000
	Management and others	99000	175000	175000

Source: CTEVT, 2020

Model Specification

Model specification involves outlining the structure of the econometric model. based on law of demand, it is assumed that there is a negative relationship between enrolment and tuition fees set by CTEVT. the statement suggested that an inverse relationship between tuition fees and student enrolment, indicating that higher tuition fees are associated with lower levels of student enrolment.

$$Y = f(X_1; X_2) \dots\dots\dots(1)$$

$$f_{x1} < 0;$$

While developing the structure of the model, the dependent variable of the model is student enrolment for different program, Y and tuition fees and difference in tuition fees are independent variable and control variable such as x1 and x2 respectively. It indicates the linear regression model that is estimated through ordinary least squared (OLS) method. There are four models: total enrolment of students for pre-diploma and diploma programs and female enrolment for pre-diploma and diploma programs.

Model for pre-diploma program:

$$T = \beta_0 + \beta_1 F_1 + \beta_2 D_2 + \epsilon_i \dots\dots\dots(2)$$

T is the dependent variable. It indicates total enrolment of students for pre-diploma program. F₁ is independent variable and indicates tuition fees for pre-diploma program. D₂ is control variable and it indicates differences in tuition fees charged by the different institutions. β₀ is the intercept. β₁ and β₂ are coefficients for F₁ and D₂ respectively, F₁ is expected to have negative sign. ε_i represent the error terms. Female are facing different types of problems than male while enrolling the academic program or getting achievement from the programs (Paudel, 2019) Female are also price sensitive (Muhanja, 2012). Therefore, female enrolments-based model is also appropriate to analyse the factor in the paper.

$$G = \alpha_0 + \alpha_1 F_1 + \alpha_2 D_2 + \epsilon_i \dots\dots\dots(3)$$

G is the dependent variable. It indicates total enrolment of female students for pre-diploma program. F₁ is independent variable and indicates tuition fees for pre-diploma program. D₂ is control variable and it indicates differences in tuition fees charged by the different institutions. α₀ is the intercept. α₁ and α₂ are coefficients for F₁ and D₂ respectively, F₁ is expected to have negative sign. ε_i represent the error terms.

Model for diploma program:

$$E = \alpha_0 + \alpha_1 P_1 + \alpha_2 V_2 + \epsilon_i \dots\dots\dots(4)$$

E is the dependent variable. It indicates total enrolment of students for diploma program. P₁ is independent variable and indicates tuition fee payment for diploma program. V₂ is control variable and it indicates differences or variation in tuition fees charged by the different institutions. α₀ is the intercept. α₁ and α₂ are coefficients for P₁ and V₂ respectively, P₁ is expected to have negative sign. V₂ is treated as a control variable. ε_i represent the error terms

$$M = \alpha_0 + \alpha_1 P_1 + \alpha_2 V_2 + \epsilon_i \dots\dots\dots(5)$$

M is the dependent variable. It indicates total enrolment of female students for diploma program. P₁ is independent variable and indicates tuition fee payment for diploma program. V₂ is control variable and it indicates differences or variation in tuition fees charged by the different institutions. α₀ is the intercept. α₁ and α₂ are coefficients for P₁ and V₂ respectively, P₁ is expected to have negative sign. V₂ is treated as a control variable. ε_i represents the error terms.

STATA v.17 was used to perform OLS regression and derive significant insights from the data. The OLS regression is a popular statistical technique that seeks to represent the relationship between dependent and independent variables by minimizing the sum of squared differences between observed and expected values. In this work, regression analysis was used on four independent equations, each representing a different component of the dataset. STATA v.17 was chosen as the statistical programme due to its strong econometric analysis capabilities and user-friendly interface. The OLS regression results were then examined and analysed to provide a thorough knowledge of the data's linkages, casting light on crucial patterns and associations.

4. Results

Skills and knowledge of the citizen of a nation help to strengthen its economy and development. We must focus on strengthening the skills of their populations in order to development of a country. Skill development is vital for the economic development of Nepal and should be prioritised, which has a growing youth population with formal education but lacks the practical skills required for the job market. The policy of the government aims for quick,

sustainable, and employment-oriented economic growth. To meet this aim, we need to provide employment-oriented skill, and practical education to all young people. Education, which comprises the transfer, acquisition, creation, and application of information, is a key driver of sustainable development because it involves the transfer, acquisition, creation, and application of information, knowledge, skills, and values.

CTEVT was established as the premier institution to foster the expansion of Nepal's TVET sector. The CTEVT strives to develop all levels of technical human resources in accordance with labour market demands by coordinating with and among various TVET-providing bodies around the country, as well as certifying workers' informally/unofficially acquired skills. Since its beginning, CTEVT has provided 140 1696-hour short-term vocational training programmes, such as 24-month apprenticeship programmes, 18-month pre-diploma programmes, and three-year diploma programmes. There are currently 1106 institutes in Nepal offering CTEVT courses, comprising 63 component institutions, 429 related private institutes, 572 community schools offering TECS programmes, and 42 partnering institutes. Similarly, CTEVT now provides 260 short-term training curricula, 49 diploma-level curricula, 33 pre-diploma level curricula (including apprenticeship), and 9 professional curricula in disciplines such as engineering, agriculture, health, hospitality, and among others.

Pre-diploma program

Table 3: Summary results of enrolments and tuition fees for pre-diploma program

Variables	Observations	Mean	Std. dev.	Min	Max
Total enrolment	23	433.00	602.46	12	2336
Total Female Enrolment	23	204.22	374.93	0	1651
Tuition fee for private institutions	23	61521.74	4869.85	55000	65000
Tuition fee for constituent institutions	23	20217.39	2645.01	15000	22000
Differences in tuition fee	23	41304.35	2530.45	37000	43000

Source: Calculated by Author

Table 3 provides the summary results of all variables of interest. Total observations based on reported data are 23. In an average total enrolment for pre-diploma program are 433; however, minimum number of enrolments is 12. An average enrolment female student is 204; however, none of the female students are for the programs. Tuition fees for private institutions are Rs 61521 that is three times higher than tuition fees for constituent institutions.

A total of four models are estimated to identify the relationship between enrolment and tuition fee set by the CTEVT for both constituent institution and private institution. The results of the first model are presented in table 4. It exhibits that there is a negative relationship with 0.2536 coefficient between total enrolment of the student for pre-diploma program and tuition fee for private institutions. It indicates that due to high tuition fee, total enrolment for pre-diploma program tend to decrease. Statistically significant at 1 percent level indicates that the estimated relationship is unlikely to have occurred by chance. The relationship is significance at 1 percent level and the model has bet fitting with 50% R squared.

Similarly, the table 4 presents the relationship between female enrolment for pre-diploma program and tuition fee for private institutions. To know this relationship is important because the policy and programs encouraged the female participation in the labour market. On the other hand, female students are more price sensitive. The results suggest that there is inverse relationship between female enrolment for pre-diploma program and tuition fee for private institutions with statistically significance at 1 percent level. The given model is best fitted. It shows that 54 percent of the variability in the female enrolment can be explained by the model.

Table 4: Total enrolment for pre-diploma and tuition fee for private institution

Source	SS	df	MS	Number of obs		23
Model	4067896.53	2.00	2033948.27	F(2,20)		10.38
Residual	3917159.47	20.00	195857.97	Prob>F		0.0008
total	7985056.00	22.00	362957.09	R-squared		0.5094
				Adjusted R-squared		0.4604
				Root MSE		442.56
Total Enrolment	Coefficient	Std. err.	t	Prob> t	[95% conf.interval]	
Tuition fee private	-0.2536	0.0556	-4.53	0.0000	-3704	-1368
Difference in fee structure	0.4764	0.1077	4.42	0.0000	0.2516	0.7011
Constant	-3639.822	1707.23	-2.13	0.0460	-7201.06	-78.5891

Source: Estimated by Author

Table 5: Female enrolment for pre-diploma and tuition fee for private institution

Source	SS	df	MS	Number of obs		23
Model	1683242.05	2.00	841621.02	F(2,20)		11.94
Residual	1409407.87	20.00	70470.39	Prob>F		0.0004
total	3092649.91	22.00	140574.99	R-squared		0.5443
				Adjusted R-squared		0.4987
				Root MSE		265.46
Total Enrolment	Coefficient	Std. err.	t	Prob> t	[95% conf.interval]	
Tuition fee private	-0.1639	0.03357	-4.88	0.0000	-0.2339	-0.09383
Difference in fee structure	0.29	0.06462	4.49	0.0000	0.1552	0.4248
Constant	-1693.189	1024.062	-1.65	0.1140	-3829.35	442.9679

Source: Estimated by Author

Diploma program

Table 6 provides the summary results of all variables of interest that are related to diploma program. Total observations based on reported data are 33. In an average total enrolment for pre-diploma program are 805; however, minimum number of enrolments is 4. An average enrolment female student is 393; however, none of the female students are for the programs. Tuition fees for private institutions are Rs 185909 that is slightly higher than tuition fees for constituent institutions. The main reasons behind this issue is that some of costly programs such as nursing education

Table 6: Summary results of enrolments and tuition fees for diploma program

Variables	Obs.	Mean	Std. dev.	Min	Max
Total enrolment	33	805.15	1237.27	4	5379
total Female Enrolment	33	393.12	612.53	0	2051
Tuition fee for constituent institutions	33	117151.50	31053.50	85000	160000
Tuition fee for private institutions	22	185909.10	6837.64	175000	190000
Differences in tuition fee	33	113454.50	33635.07	76000	160000

Source: Calculated by Author

For the case of diploma program, the result indicates the negative relationship between total enrolment and tuition fee for private institution; however, they are not significant at 5 percent level. It doesn't ensure the negative association. It may be the problem of data limitations because all the data are from reported data. It may be better fit for household survey data. However, table 7 confirms the inverse association between female enrolment for diploma program and tuition fee. All the results and R squared are significant at 5 percent level.

Some data limitations are found because this model is based on reported data. Household survey data are better to use to estimate the determinants of enrolment. Household characteristics can be used as control variables while estimating model. Therefore, this model provides indicative results. It conforms that tuition fee is one of the determinants for enrolment for both programs.

Table 7: Total enrolment for diploma and tuition fee for private institution

Source	SS	df	MS	Number of obs		22
Model	2243441.90	2.00	1121720.95	F(2,20)		0.71
Residual	30075173.20	19.00	1582903.85	Prob>F		0.5049
total	32318615.10	21.00	1538981.67	R-squared		0.0694
				Adjusted R-squared		-0.0285
				Root MSE		1258.1
Total Enrolment	Coefficient	Std. err.	t	Prob> t	[95% conf.interval]	
Tuition fee private	-0.0586696	0.052997	-1.11	0.2820	-0.16959	-5225
Difference in fee structure	0.08205	0.07782	1.05	0.3050	-0.08084	0.24494
Constant	4205.116	7492.628	0.56	0.5810	-11477.1	19887.37

Source: Estimated by Author

Table 8: Female enrolment for diploma and tuition fee for private institution

Source	SS	df	MS	Number of obs		22
Model	1015836.82	2.00	507918.41	F(2,19)		2.89
Residual	3334091.00	19.00	175478.47	Prob>F		0.0799
total	4349927.82	21.00	297139.42	R-squared		0.2335
				Adjusted R-squared		0.1528
				Root MSE		418.9
Total Enrolment	Coefficient	Std. err.	t	Prob> t	[95% conf.interval]	
Tuition fee private	-0.042147	0.017646	-2.39	0.0270	-0.07907	-0.00521
Difference in fee structure	0.046125	0.025913	1.78	0.0910	-0.00811	0.100361
Constant	3919.792	2494.703	1.57	0.1330	-1301.68	9141.265

Source: Estimated by Author

5. Discussion

The CTEVT provides training opportunity for young people. Vocational education and training provide accredited training in self-employment, job related and technical skills. Vocational education and training lays focus more on practical skill and being able to perform task related to working in the particular health, agriculture, construction, industry, tourism sectors. It supports to enhance skills development for increased productivity in order to stimulate socio-economic growth and development as well as employment creation for the youth. TVET is an important tool to improve the employability of individuals, increase productivity in business and industry and reduce poverty.

Many papers are found in the literature that measures the association between enrolment or demand for education and tuition fee. Havranek et al. (2018) estimated the association using meta-analysis using 43 publications. They produced similar results as suggested in this paper with indicating that an inverse relationship between enrolment and tuition fee.

Insufficient publicity led to an insufficient understanding of the benefits of TVET education and its courses. This has resulted in fewer female students enrolling in TVET programmes. TVET schools have been determined to be expensive, despite the lack of financial help and tuition rate reductions. This negatively impacts girls' enrolment in technical education (Umulia, 2020). Similarly, this study also explored to see the impact of reduction of tuition fees on no. of girls in TVET. Almost 93 % female respondents agreed that no. of girls would be increased after reduction of tuition fees (Umulisa, 2020).

Declercq and Verboven (2015) employed the cost sensitivity channel to model the effects of tuition fee hikes. They found that a uniform tuition fee increase has a very minor influence on total enrolment, but it significantly affects enrolment of socially disadvantaged students. This result is also consistent with the results produced by this paper. No uniform tuition fees set by CTEVT for both constituent and private institutions are found. Tuition fees for private institution are at least two times higher than constituent institutions. Similarly, female students are more tuition fee sensitive in Nepal too. Removing primary and secondary school fees has affected all school-age children, with bigger effects on children from low-income households. School fees and other hidden costs of education is one of the major barriers of dropout and non-enrolment for children from low-income households.

We can conclude with validation from similar findings that tuition fees matter the student enrolment for both pre-diploma and diploma program implemented by CTEVT. It should be careful to make the interpretation of the results because the results are based on the reported data produced by CTEVT. The analysis of household survey data will give more robust results. This paper also produces indicative results and the policy makers should rethink about the tuition fees for pre-diploma and diploma programs.

6. Conclusion

CTEVT has paid effort to provide TVET opportunity to low income and marginalized groups. Therefore, Policymakers have dramatically expanded both constituent and private institutions throughout with increasing enrolment capacity to enhance student accessibility. Despite these excellent efforts, a significant difficulty arises for the tuition fee payment. There is considerable disparity in tuition fees among private institutions. This disparity has significant ramifications for kids and families considering enrolment. To address this issue, the research uses an

economic model to determine if tuition fees influence enrolment. The findings indisputably show that tuition fees influence enrolment patterns. Higher tuition prices lead to decrease enrolment rates, whereas reduced tuition fees serve as a positive catalyst, driving higher enrolment rates. This difference has serious implication on decision making behaviour of the students and households anticipating enrolment. Understanding this issue, the paper utilizes econometrics models to ascertain whether tuition fees serve as a determinant factor in enrolment. Higher tuition fees are associated with lower enrolment rates, while lower tuition fees act as a positive catalyst, encouraging higher rates of enrolment. The result for both pre-diploma and diploma programs unequivocally reveal that tuition fees play a key role in shaping enrolment patterns.

It indicates some trade-off in policy designing. Targeting to marginalized and low-income group with high tuition fee may not be right policy designing. Geographical access to the institution may be important, but it is not sufficient instrument to encourage the enrolment for the marginalized and low-income group. They are highly tuition fee sensitive because they may face the hand to mouth problem. Education may be still luxury good for them. On the other hand, they may estimate the returns from TVET. Returns may be lower than the costs. We need to carry out the survey-based study to understand these issues.

References

- CTEVT (2016). *Technical and Vocational Education and Training: A Glimpse year 7, No. 1*. Bhaktapur: Council for Technical Education and Vocational Training.
- CTEVT (2018). *Annual report*. Bhaktapur: Council for Technical Education and Vocational Training.
- CTEVT (2020). *Technical and Vocational Education and Training : A Glimpse year 8, No. 1*. Bhaktapur: Council for Technical Education and Vocational Training.
- Declercq, K., & Verboven, F. (2015). Socio-economic status and enrollment in higher education: do costs matter?. *Education Economics*, 23(5), 532-556.
- Havranek, T., Irsova, Z., & Zeynalova, O. (2018). Tuition fees and university enrolment: a meta-regression analysis. *Oxford Bulletin of Economics and Statistics*, 80(6), 1145-1184.
- Mote, N. I. (2015). Socio-economic factors influencing the performance of women in small and micro enterprises in Nyeri town, Kenya (Doctoral dissertation, University of Nairobi).
- Muhonja, E. (2012). *Factors influencing low female students enrolment in science based courses in tertiary institutions in Western Province, Kenya*. (Doctoral dissertation, University of Nairobi, Kenya).
- Muriithi, M. H. (2013). *Factors influencing demand for technical and vocational education and training in Nyeri County, Kenya* (Unpublished doctoral dissertation). Nairobi: University of Nairobi.
- Ndile, L. M. (2018). The Influence of competency based technical training on youth employability: a study of technical training institutions in Nairobi County (Unpublished doctoral dissertation). Nairobi: Strathmore University.
- Njeri, A. W., & Senelwa, A. (2019). Influence of training on youth access to public procurement opportunities in youth based organizations in Nyeri County, Kenya. *International Journal of Social Sciences and Information Technology*, 4(12), 19-28.
- Njogu, S. W. (2019). Analysis of factors influencing career choice among public secondary schools students in Meru County, Kenya. *International Journal of Education and Research*, 7(8), 13-24.
- NPC (2018). *Sustainable Development Goals, Status and Roadmap: 2016-2030*. Kathmandu: National Planning Commission, Government of Nepal.
- Theuri, E. W. (1997). The relevance of education to the socioeconomic development needs of rural people: the case of Kenya. University of Missouri-Columbia.
- Umulisa, F. (2020). *A Study on Factors Influencing Low Enrolment of Girls in TVET in Rwanda* (Unpublished thesis). Seoul, South Korea: Ewha Womans University.