

An Assessment of Implementation of the Technical and Vocational Education and Training Strategy in Addis Ababa: The Case of Selected Public TVET Colleges

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ABSTRACT

This study's main goals were to evaluate the variables that influenced the TVET strategy's implementation in public TVET colleges and offer remedial solutions for issues pertaining to the strategy's successful and efficient execution in Addis Ababa. A sample of three TVET colleges—Entoto, Misrak, and Tegbareid TVET colleges—was employed. To collect data, the study used questionnaires, interviews, and document examination. 210 respondents received questionnaires, and three deans and vice deans who were specifically chosen from the aforementioned TVET colleges were interviewed. The results of the study show that there was a lack of sufficient knowledge about vocational education, a lack of goodwill between teachers and students, and a poor understanding of the value of TVET education. In addition, there was a paucity of equipment, reference books, learning resources, and functional workshop equipment, and there was dissatisfaction with the salary and other advantages. Additionally, the implementation of the TVET policy has been hampered by budgetary restrictions, poor measurement and feedback provision, and a lack of strong leadership in Addis Ababa's public TVET colleges. Additionally, the study offers suggestions for how the Addis Ababa City Administration should address the variables influencing the TVET strategy's implementation in public TVET colleges.

Keywords: - Technical and vocational education and training; Quality training; Public training institution, Training; Trainee and Training institution.

1. Introduction

Technical and vocational education and training (TVET) has no widely agreed-upon definition. According to Maclean and Wilson (2009), the field is always evolving, typically in reaction to demands placed on it. TVET, in its broadest sense, is concerned with acquiring the knowledge and skills necessary for the workplace. Here, we adhere to UNESCO's definition of Technical and Vocational Education and Training (TVET), which is "a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding, and knowledge relating to occupants in various sectors of economic and social life" (UNESCO, 2010:5).

There is a vast variety of TVET models across the world. The various components of the field that are presently thought to make up TVET are referred to by a variety of names, many of which are regionally unique. For instance, the phrase "career and technical education" is currently used in the United States. Additionally, there are significant differences in how TVET is organized within and between nations. Lacking a set of globally recognized definitions for the various categories that can be identified.

The acquisition of knowledge and skills for the workplace is the focus of Technical and Vocational Education and Training (TVET), according to UNESCO. These terms include Apprenticeship Training, Vocational Education (VE), Technical Education, Technical-Vocational Education (TVE), Occupational Education (OE), Vocational Education and Training (VET), Professional and Vocational Education (PVE), Career and Technical Education (CTE), Workforce Education (WE), Workplace Education (WE), Career and Vocational Education (CTE), and others.

In contrast to vocation education, which focuses on the actual achievement of proficiency in manual skills, technical education emphasizes the understanding of basic principles of science and mathematics and their practical applications. Technical education is theoretical vocational preparation for jobs involving applied science and modern technology. It is typically offered at the upper-secondary and lower-tertiary levels to prepare students for occupations that are classified above skilled crafts but below the scientific or engineering professions (though diploma- and degree-level courses are also available).

Traditionally non-theoretical and centred on the actual achievement of proficiency in manual skills, vocational education is defined as organized activities intended to bring about learning as preparation for jobs in designated (manual or practical) trades or occupations. Since it is typically regarded as a component of the formal education system, it falls under the purview of the Ministry or Department of Education.

While vocational training trains students for occupations connected to a particular trade or occupation, it is typically within the Ministry's purview because it is more closely associated with the labour market and employment development system than vocational education.

Only 98,427 (43.5%) of the 226,105 TVET trainees who took the occupational competency exam were able to pass it and receive an occupational competency certificate, according to the Addis Ababa City administration's Occupational Competency Assessment and Certification Centre.

Each trainee, instructor, training facility, society at large, and the government may face obvious, severe economic and social issues if effective action is not taken. As a result, this study was designed to look into the aspects influencing the TVET strategy's implementation process in Addis Ababa, as has been mentioned.

The study attempted to address the following fundamental research questions in order to direct the investigation within the designated parameters and achieve the desired goals. 1. What aspects of the TVET strategy's execution do instructors and students perceive and experience in Addis Ababa TVET Colleges? 2. Do management and leadership practices have an impact on Addis Ababa TVET College's TVET strategy implementation? 3. What remedial actions could be made to address issues with the strategy's execution in public universities in Addis Ababa?

1.1. Rationale

According to Henry, Jack, and Getrud (2014), the TVET sector in Sub-Saharan Africa has the following major challenges: large numbers of young people who lack formal education, skills, and jobs, making it challenging to properly plan for TVET; Inadequate national economies, rapid population expansion, and an expanding labour force; declining or stagnant pay employment prospects, particularly in the industrial sector; and subpar TVET program implementation.

Since TVET lacks a clearly defined curriculum, its delivery mechanisms are often poorly organized and do not adhere to the appropriate rules; Many times, the skills provided are of poor quality, making them unsuitable for the competitive global market and real socioeconomic circumstances and manufacturing demands; Poor management, inadequate funding, inadequate organizational structures, and weak monitoring and evaluation systems. Negative public opinion of TVET; The public and even parents believe that vocational education is only appropriate for those who are less academically gifted; they ignore the labour market and the high rate of unemployment among graduates; the cost of training is high; and different types of training, such as cooking, hairdressing, and dressmaking, are linked to girls regardless of their academic prowess (Henry, Jack, and Getrud, 2014).

According to Haimanot (2011), Ethiopian TVET faces the following significant obstacles: The TVET plan has a thorough description of the main issues Ethiopia's TVET program faces. According to the TVET Strategy (2008). Demand far outstrips supply, and most people are currently unreached by TVET offers; low quality and theory-driven due to limited resources and a shortage of qualified TVET teachers; employers' lack of cooperation because they were not consulted during the planning process; and the majority of urban public TVET programs are underfunded, while rural public TVET programs suffer from inadequate facilities and a lack of training materials. In addition to the creation of information that could have been utilized to enhance practice and policy has been hampered by the absence of sufficient and pertinent quantitative and qualitative data on labour market demands and other topics. The main obstacles are a lack of a suitable workplace and operating expenses.

1.2. Empirical studies

In his study on the factors influencing young learners' acquisition of vocational skills in Maranda Division, Siaya Country, Ngige (2012) discovered that learners' attitudes are a major barrier to skill acquisition, and parents believe that vocational education is only for standard eight or form four failures and school dropouts. High dropout rates and low enrolment in the vocational centres are the results of this. According to the survey, vocational education facilities face budgetary difficulties. When students failed to pay their fees on time, some of the privately held facilities were unable to function effectively. The government-owned ones were not receiving enough funding to operate.

Lack of parental involvement in their children's education and teacher or instructor burnout, which results in a loss of interest in their profession, were additional factors influencing the development of vocational skills. Another aspect mentioned as influencing the acquisition of vocational skills was a broad curriculum that could not be mastered in the allotted time.

Funding, which was scarce, was determined to be another significant element. As a result, managing the program proved challenging, particularly for the managers of the vocational facilities. As the dropout rate increased due to students' inability to pay their fees on time, enrolment declined annually. As a result, everyone involved in vocational education should raise awareness of its value and advantages and adopt a more optimistic stance than has been the case in the past. This will draw more young people to these facilities, increasing enrolment and student retention in the vocational education facilities.

In a study on the difficulties technical institute graduates face in acquiring practical skills in Ghana's Upper East Region, Adam (2011) came to the conclusion that there is typically a lack of instructional materials, which causes the emphasis to be more on theoretical instruction and leaves trainees unprepared for their chosen specializations. Inadequate training resource supply and provision do not correspond with large class sizes. The abilities required for the workplace are adversely affected by these deficiencies. The significance of industrial attachment is devalued. This has a significant impact on training, which leads to

a mismatch with the demands of the labour market. Inappropriate teaching techniques are also employed in practical instruction.

At their evaluation of strategic change implementation at tertiary institutions (a case of government institutions in the coast region of Kenya), Gongera and Antony (2012) came to the conclusion that a sizable portion of staff still need orientation training on change implementation. The biggest obstacles to implementing strategic change successfully are insufficient funding and poor two-way communication. This ultimately results in tertiary institution staff members being resistant to change. Higher education institutions have embraced both proactive and reactive methods to strategic change management. To effectively employ both reactive and proactive techniques in change management, tertiary institution management should properly analyse the underlying issues. Additionally, this necessitates the appropriate time and backing of upper management.

Effective planning and making sure there is enough money to implement the planned changes are key factors in a successful strategic transformation. The survey also showed that good communication between management and stakeholders is essential to their engagement. Since they inspire employees, rewards and penalties have also been shown to have an impact on the success of strategic change.

In his research on the elements influencing the implementation of Technical and Vocational Education and Training in a few Southern Zone public institutions, Berhe (2011) found that the training process currently being carried out in TVET institutions falls well short of what is necessary. TVET instruction is so useless without practical, hands-on training that it is impossible to become competent enough in a world where technological knowledge and skills are constantly expanding. Employee morale and productivity are negatively impacted by improper supervision and the lack of timely feedback on various forms of performance, which has a significant impact on the training process.

According to a study by Haimanot (2011) on the difficulties faced by Technical Vocational Education and Training Colleges in Benshangul Gummuz Regional State, the colleges' workshops, libraries, classroom supplies, machinery, equipment, and other amenities (like water and electricity) are not up to par. The region's TVET colleges face several obstacles, including inadequate funding, a lack of competent labour, a lack of facilities, a lack of knowledge of TVET strategy, and a lack of commitment from relevant parties. The colleges don't have a technology transfer department. In order to apply the existing TVET curriculum, colleges lack the necessary resources and are poorly managed. Functional cooperative training with stakeholders is lacking.

COC exams do not test the competence of trainers or trainees. While failing the COC exam, being able to work with people, and finding companies are expected problems, the college has significant challenges due to a shortage of qualified instructors, inadequate facilities and equipment, and a weak internal organization. The college's trainers lacked complete expertise in their fields. The colleges' oversight efforts were not helpful. There were less opportunities for management bodies and trainers to upgrade programs. The majority of trainers at the college are happy with their positions. Trainees are unsure of their chances of landing a related employment. Professional counselling and guidance are not available in the colleges.

2. Objectives

This study's main goal was to evaluate the variables that influence the TVET Strategy's implementation at public TVET colleges and identify potential remedial actions to address issues with the strategy's successful and efficient execution in Addis Ababa. More precisely, the study sought to achieve the following particular goals.

- To identify the variables influencing TVET programs.
- To evaluate the difficulties in managing and leading TVET colleges.
- To determine potential remedial actions for the elements influencing TVET strategy execution.
- To offer policy recommendations for upcoming initiatives.

3. Research Methodology

3.1 Research Method

The TVET strategy's execution was examined using a descriptive survey method. This method is thought to be the most effective in identifying the main obstacles preventing the strategy's execution in the chosen TVET colleges in Addis Ababa. "Descriptive surveys describe and interpret what is concerned with conditions or relationships that exist, or trends that are held, processes that are going on, effects that are developing," according to Best and Kahn (1990:114), who made this argument. The study used two methods to do this. First, the researcher looked for relevant facts, theories, and concepts. It is anticipated that this will advance the literature, which may also be helpful for the analytical portion. The second stage was to collect empirical data in order to look into the elements that affect TVET strategy execution in TVET colleges in Addis Ababa.

3.3 Data Sources

Following the formulation of a study problem and research design, the work of data gathering commences. The researcher took into consideration primary and secondary data when choosing the data collection approach for the study (Kothari, 2004). As a result, primary and secondary sources were used as data sources.

According to Kothari, secondary data are those that have already been gathered by another party and have undergone statistical analysis, while primary data are those that are gathered freshly and for the first time, making them unique in nature (Kothari, 2004). Documents were thus used as secondary sources of information. The following respondents were gathered by the researcher using primary sources of data in order to get first-hand information: TVET college deans and vice deans; TVET college instructors and trainers; and TVET college students.

3.4 Sample and Sampling Techniques

There are six TVET or polytechnic colleges run by the city of Addis Ababa. The study used three TVET colleges as samples out of these six. These were TVET colleges in Entoto, Misrak, and Tegbareid. They were chosen using basic random sampling methods that were part of the sample. Because it gave the samples an equal chance of being chosen for each of the six TEVT colleges, a simple random sampling procedure was employed. Both simple random and purposive sampling strategies were used to choose the respondents after sample colleges had been found using a simple random methodology. Purposive sampling methods were used to choose the teaching staff. However, random selection methods were used to choose the trainees. Thus, using a basic random sampling strategy based on the lottery method, 210 respondents in total—80 trainees from Entoto, 60 from Misrak, and 70 from Tegbareid—were chosen.

3.5 Data Gathering Tools

In order to get adequate and complementary information for the study, three types of data gathering instruments namely questionnaire, interview and document analysis were employed.

3.5.1. Questionnaire: - Since questionnaires are the best way to quickly obtain the information needed from a large sample size, they were utilized to collect data from both teaching staff and students (trainees). Both open-ended and closed-ended questions were included in the survey. It also addressed a variety of

factors, such as material-related concerns and implementation as practiced by students, instructors, administrators, and finance. The majority of the questionnaire's items were created using a Likert scale.

3.5.2. Interview: A un- structured interview was conducted with college deans to get deep and thorough responses regarding various issues pertinent to the topic of the study.

3.5.3. Document Analysis: - The purpose of the document analysis was to examine how the TVET strategy was being implemented in the three chosen TVET colleges, as well as to pinpoint the fundamental issues affecting the plan's execution and look for solutions. Furthermore, for both theoretical and empirical reviews, relevant research works, published materials, and reports were taken into consideration and used as secondary data sources. Additionally, policy papers including the TVET strategy and the educational sector development program were consulted and carefully examined for analysis.

3.6 Procedures of Data collection

A questionnaire, unstructured interviews, and document analysis were the methods utilized to gather data, as explained in the previous subsection. The student questionnaire was created in Amharic because it was assumed that the majority of the pupils would be proficient in reading and speaking the language. On the other hand, a questionnaire was produced in English for the teaching staff due to their superior proficiency in the language. Five trainees and two teaching staff members were given a draft questionnaire for the layout at Nifas Silk TVET College prior to the questionnaires being distributed to the entire sample population. Each questionnaire was reviewed item by item once respondents had completed it in order to identify any questions that were confusing or ambiguous. This made it easier to update the items in accordance with the respondents' suggestions. In order to collect pertinent data for the study, the respondents were finally given the two types of questionnaires.

3.7 Methods of Data Analysis

Following data collection, the information must be processed and examined in compliance with the plan established for the study's development (Kothari, 2004). Various data analysis techniques relevant to the investigation were used. The study was supported by the use of both qualitative and quantitative data analysis methods. Thus, the surveys were initially gathered, arranged, and totalled. To illustrate the findings and offer analysis, items from the two questionnaire types were categorized into distinct tables according to commonalities. With the aid of tables and graphs, percentage, ratio, and average approaches were applied in order to evaluate, interpret, and display the data that was gathered. Basic data and score distribution were analysed using descriptive statistics (mean and percentage) for numerical interpretation. Finally, the qualitative information obtained from the interviews was examined through narrative and associated description.

4. Data Analysis, Interpretation and Presentation

4.1. Available Resources and Internal Organization of TVET Colleges.

Finding out what resources were accessible in the study colleges was the goal of the question item. As a result, 52.5% of teaching staff and 79.3% of trainees claimed that the colleges lacked the resources necessary to carry out the plan. Conversely, 47.5% of the teaching staff and 20.7% of the students thought that the colleges had sufficient resources to carry out the plan. There is not much of a difference between the teaching staff's replies to the item (52.5% and 47.5%). According to the teaching staff's comments in the table, the general state of the facilities and supplies may not be ideal for carrying out the plan.

The available resources and internal structure of the TVET Colleges under consideration are compiled in the following tables (table 1).

Table 1: The available resources in the Colleges

Items	Respondents			
	Students		Teaching Staff	
	No	%	No	%
Do you think that your TVET College has enough resources to implement the TVET strategy effectively?				
Yes/no?	42	20.7	28	47.5
Satisfactory/not	161	79.3	31	52.5
Total	203	100.0	59	100.0

Source: Own Survey (2024).

Specific requirements for the setup and training apparatus were outlined in the Ethiopian TVET strategy. As a result, TVET institutions will have a library and workshops that are appropriate, a classroom that can typically hold trainees for each specialization, spaces for intensive training, and training materials. The strategy also calls for the provision of basic and necessary measurement tools and training materials, suitable teaching aids, and other items that are necessary for training in each institution, as well as enough hand tools, machines, and other equipment and materials in accordance with the number of trainees in each field (MOE, 2008:49-51). TVET institutions in Ethiopia face a number of difficulties, including a lack of instructional materials and ineffective use of resources and equipment (ESDP IV, 2010:7).

Because of this, when TVET college deans and vice deans were interviewed, they all agreed with the above statements and mentioned the following difficulties:-.....TVET colleges ought to supply the tools and resources required for the teaching and learning process. To accomplish its objective, the college is expected to use equipment and instructional materials creatively. However, given the circumstances, we lack the facilities and instructional resources necessary to provide suitable hands-on training. Furthermore, a different respondent expressed the following: "First of all, the TVET is lacking in supplies and equipment.

It is clear from the discussion above that Addis Ababa's technical and vocational education programs are having trouble finding resources for their teaching-learning activities.

Table 2: Internal Organization of the TVET College.

Items	Respondents			
	Students		Teaching Staff	
	N	%	N	%
Is your training college well organized?				
No	144	70.9	36	61.0
I can't determine	19	9.4	8	13.6
Yes	40	19.7	15	25.4
Total	203	100.0	59	100.0

Source: - Own survey (2024).

The purpose of the item in Table 2 was to look at the colleges' internal structures. According to the findings, 61% of the teaching staff and 70.9% of the trainees concurred that the colleges are not internally

structured to facilitate the delivery of high-quality training. Conversely, 25.4% of teaching staff and 19.7% of students believed that colleges are internally organized.

Therefore, in order to guarantee an outcome-based implementation strategy that aligns with its goal, TVET colleges must be internally well-organized in accordance with the standards specified in the City Administration's TVET bureau.

4.4 TVET implementation practices

Bezawork (2010) states that outcomes-based education entails giving workers and students opportunities that are relevant to their real-world experiences in a learning environment that is meaningful (ideally professional practice) so that the learner can develop integrated, performance-oriented capabilities for handling the main issues in practice. According to the same perspective, TVET aims to develop in trainees the skills, information, and attitudes they need to perform in accordance with occupational standards and, as a result, receive certification (MOE 2008:21).

Given this, this section addresses the in-and-out-of-school practices that impact TVET institutions' ability to implement TVET strategies that align with their objectives. The table below provides a summary of data pertaining to such practices.

Table 3: TVET practices that affect the implementation of the program.

S/N	Item statement	5	4	3	2	1	Mean	Decision
	Student response	SA	A	N	D	SDD		
1	Students are not aware of the importance of vocational /technical education.	116	79	1	1	2	4.5	Agree
2	Students are placed to their fields of study without their consent.	91	95	3	2	10	4.2	Agree
3	Students can choose their fields of study	19	21	35	63	60	2.3	Disagree
4	Students are interested in their field of study	9	11	8	82	92	1.8	Disagree
5	Students are always afraid of practical	122	45	10	14	9	4.2	Agree
6	The class size has a negative effect on effective practical training.	126	54	12	4	5	4.4	Agree

With grand means of 4.5 and 4.4, respectively, the replies of students and teaching staff regarding Item 1 reveal that the majority of students do not understand the significance of vocational/technical education prior to their placement.

According to the students' and teachers' answers on Item 2, both parties think that students are assigned to their fields of study against their will. Students and teaching personnel gave grand mean answers of 4.2 and 4.3, respectively, indicating that student placement occurs without their agreement. Regarding Item 3, the grand mean of students and faculty is 2.5 and 1.6, respectively, indicating that students were unable to select their own academic paths because of college logistical issues.

Table 4: Teaching Staff practices that affect the Implementation of TVET Strategy.

S/N	Item statement	5	4	3	2	1	Mean	Decision
	Teaching staff response	SA	A	N	D	SD		

1	Students are not aware of the importance	26	33	-	-	-	4.4	Agree
2	Students are placed to their fields of	24	33	2	-	-	4.3	Agree
3	Student can choose their fields of study by	-	-	1	34	24	1.6	Disagree
4	Students are interested in their field of	-	-	8	27	24	1.7	Disagree
5	Students are always afraid of practical	27	24	2	6	-	4.2	Agree
6	The class size has a negative effect on	30	28	1	-	-	4.4	Agree

Mean ≥ 2.5 Agree; key: SA= Strongly Agree, A= Agree, N= Neither agree nor disagree, D= Disagree, SD= Strongly disagree; Source: - Own survey (2024).

The grand means of 1.8 and 1.7 obtained from the students' and teachers' responses to Item 4 respectively suggest that students are not engaged in their topic of study because they lack psychological preparedness and are unable to select it on their own. Similarly, both students' and teachers' answers to Item 5 (grand mean of 4.2) indicate that students' fear of practical work stemmed from their prior experiences.

To provide some context, Ethiopian primary and secondary schools do not offer vocational guidance and counselling services. As a result, choosing a vocation has presented significant challenges for many students enrolling in TVET institutes. They were unable to determine and make decisions based on the kinds of jobs, their interest in a job, and future work chances. Many TVET graduates were unable to become capable, successful entrepreneurs (employable), and self-assured in their field of training as a result (MEO, 2006:3).

Students' and teachers' answers to Item 6 show that class size has a negative impact on successful practical instruction, with a grand mean score of 4.4. This runs counter to the claims that, in contrast to general education programs, classroom instruction requires smaller class numbers in an outcomes-based approach. In conclusion, it can be deduced from the comments above those student attitudes and experiences have a role in influencing how the TVET strategy is implemented in Addis Ababa's public TVET colleges.

4.5. Implementation Practices of the Teaching Staff

The impact of the instructional personnel on the implementation processes was evaluated. With mean scores of 4.6 and 4.4, respectively, the students' and teachers' answers to Item 1 demonstrated that professional and experienced teachers are not a problem at TVET Colleges in Addis Ababa. In addition, the grand mean of the teaching staff's (i.e., 4.1) and students' (i.e., 4.2) answers to Item 9 show that teachers are not receiving enough practical training, which has an impact on students' practical training. The implementation practices of the teaching staff at TVET Colleges are compiled in the following table.

Table 5: Teaching Staff practices that affect the Implementation of TVET Strategy.

S/N	Item statement	5	4	3	2	1	Mean	Decision
	Student responses	SA	A	N	D	SD		
1	Lack of professionals and experience	4	4	11	27	150	4.6	Disagree
2	Insufficient remuneration to teachers.	-	30	13	105	53	2.0	Disagree
3	Teachers are not motivated.	89	88	15	8		4.2	Agree
4	No timely feedback to their trainees.	66	103	22	8	-	4.1	Agree
5	Improper evaluation of trainees' achievement	81	98	17	-	3	4.2	Agree
6	Lack of cordial teachers-students relationship.	92	107	1	-	-	4.4	Agree

7	Little/no willingness to assist their trainees (in & outside classroom)	-	5	21	98	77	1.7	Disagree
8	Teachers' appropriate use of available instructional materials	4	8	7	108	73	1.8	Disagree
9	Inadequate training to teachers affects the practical training of students.	93	85	8	-	12	4.2	Agree

Key: Mean ≥ 2.5 Agree; SA= Strongly Agree, A= Agree, N= Neutral, D= Disagree, SD= Strongly disagree; Source: - Own survey (2024).

Additionally, the grand mean of the teaching staff's (mean 3.8) and students' (mean 4.1) answers to Item 4 showed that teachers do not give their trainees timely feedback. Accordingly, the answers provided by the teaching staff and students to Item 5 demonstrated those TVET College instructors fail to adequately assess trainees' performance. Additionally, respondents who were students (mean score of 4.4) and teaching staff (mean score of 4.3) thought that there was no friendly contact between students and teachers. Table 6: Teaching Staff practices that affect the Implementation of TVET Strategy (Teaching Staff responses)

S/N	Item statement	5	4	3	2	1	Mean	Decision
	Teaching Staff responses	SA	A	N	D	SD		
1	Lack of professionals and experience	-	-	8	15	36	4.4	Disagree
2	Insufficient remuneration to teachers.	-	-	2	38	19	1.7	Disagree
3	Teachers are not motivated.	31	27	1	-	-	4.5	Agree
4	No timely feedback to their trainees.	21	16	14	8	-	3.8	Agree
5	Improper evaluation of trainees' achievement.	24	27	-	8	-	4.1	Agree
6	Lack of cordial teachers- students relationship	34	17	-	8	-	4.3	Agree
7	Little/no willingness to assist their trainees (in & outside classroom)	-	8	-	13	38	1.6	Disagree
8	Teachers' appropriate use of available instructional materials	-	8	-	13	38	1.6	Disagree
9	Inadequately trained staff reduced practical training of students.	8	51	-	-	-	4.1	Agree

Key: Mean ≥ 2.5 Agree; SA= Strongly Agree, A= Agree, N= Neutral, D= Disagree, SD= Strongly disagree; (Source: Own Survey, 2024).

One of the challenges to TVET development in Ethiopia, according to the MOE (2008:11), is the lack of an adequate corps of TVET teachers and instructors. The poor reputation of their profession has had a negative impact on the calibre of TVET professors and instructors. TVET delivery at higher qualification levels is significantly impacted by the comparatively low formal qualifications of the majority of TVET teachers and instructors. Some of them were enrolled in technical teacher institutions even though they did not want to become technical teachers since they had no other choice. Lastly, the majority of current TVET instructors and teachers lack the necessary skills, meaning they are unable to deliver TVET in compliance with industry requirements. This is the outcome of a training system that, for a long time,

placed a strong emphasis on academic knowledge—which was frequently out of step with the demands of contemporary technology—while downplaying the significance of practical skills and an understanding of the working world.

Consequently, when the deans and vice deans of TVET colleges were interviewed, they all agreed with the above and mentioned the following difficulties they had encountered:

Because inadequate pay and benefits are so common, academic staff members are not very interested. The teaching staffs are not happy. You see, we need to keep teachers happy in order to achieve our goal. The following was said by another respondent: The pay and benefits that teachers currently receive are not enough to satisfy them. Even though the majority of teachers are committed to their jobs, some do not allot enough time to regularly evaluate their students, pinpoint their areas of weakness, and close any gaps that may occur.

It is clear that professors have a major influence on the calibre of vocational and technical education. The vocational teacher's job experience in industries or similar experience in a particular discipline is also a significant factor in their performance. According to UNESCO (1990:50), it is more important than ever to make sure that teachers of vocational and technical education have the necessary, current knowledge and abilities to meet the training demands of all trainees. This would assist in fulfilling all present and future demands in the workplace.

In general, the conversations show that other factors that impact the TVET Strategy's implementation in the study TVET Colleges of Addis Ababa City Administration include the lack of friendly relationships between teachers and students, inadequate methods for assessing trainees' performance, a lack of prompt feedback to students, and teachers' discontent with pay and benefits.

4.6. Facility Factors that Affect the Implementation

The study concluded that elements connected to facilities have an impact on how the TVET plan is implemented. Students' and teachers' responses to Item 1 confirm that the library does not have enough textbooks (means of 4.4 and 3.9, respectively). There aren't enough reference books in the library, according to the grand mean responses of students and teaching staff on Item 2, 4.3 and 3.8, respectively. The facilities aspects that impact the TVET strategy's implementation are compiled in the following table.

Table 8: Factors related to facilities and affecting the implementation of vocation education Programs.

S/N	Item statement	5	4	3	2	1	Mean	Decision
	Student response	SA	A	N	D	SD		
1	There is lack of textbooks in the library.	102	90	9	-	-	4.4	Agree
2	There is lack of reference books in the	99	80	9	14	-	4.3	Agree
3	Workshop are not readily available	99	78	22	-	-	4.3	Agree
4	Materials are not readily available.	144	55	2	-	-	4.7	Agree
5	Teaching aids are always used in	6	11	17	69	96	1.8	Disagree
6	Lack of adequate workshop equipment.	128	37	2	27	4	4.3	Agree
7	Unattractiveness of the compound.	158	42	2	-	1	4.7	Agree

Mean ≥ 2.5 Agree key: SA= Strongly Agree, A= Agree, N= Neutral, D= Disagree, SD= Strongly disagree; Source: - Own survey (2024).

Both categories of respondents attested to the fact that the libraries are lacking in textbooks and reference books, that training areas lack easily accessible workshops for teaching and learning, and that teaching and learning resources are not easily accessible. They also cited the compound's unsightly appearance and the absence of workshop equipment as further implementation difficulties.

Table 8: Factors related to facilities and affecting the implementation of vocation education Programs (Teaching staff).

S/N	Item statement	5	4	3	2	1	Mean	Decision
		SA	A	N	D	SD		
1	There is lack of textbooks in the library.	13	37	1	8	-	3.9	Agree
2	There is lack of reference books in the library.	11	39		9	-	3.8	Agree
3	Workshop is not readily available.	42	8	1	8	-	4.4	Agree
4	Materials are not readily available.							Agree
5	Teaching aids are always used in classrooms.	5	-	3	15	36	1.6	Disagree
6	Lack of adequate workshop equipment.	34	14	3	8	-	4.0	Agree
7	Unattractiveness of the compound.	40	8	3	1	7	4.2	Agree

Key: Mean ≥ 2.5 Agree, SA= Strongly Agree, A= Agree, N= Neutral, D= Disagree, SD= Strongly disagree; Source: Own survey (2024).

According to the MOE (2008:11), public TVET programs in Ethiopia are often more costly than general education when compared to most other nations. This is because they require a lower than normal teacher-to-student ratio as well as significant initial and ongoing costs associated with practical training. Budgetary restrictions have resulted in underfunding for the majority of urban public TVET programs and inadequate facilities and training materials for rural public TVET programs.

Students and teaching staff were given two open-ended questions to add to the responses above. In response to the queries, "What are the main issues in your organization? What fixes do you recommend for the main issues? The primary issues, according to the majority of the teaching staff, were inadequate working materials and equipment, budget difficulties, and power outages.

According to the ESDP IV (2010:7), among the issues facing TVET in Ethiopia include a lack of instructional materials and ineffective use of tools and resources. However, when the deans and vice deans of TVET colleges were interviewed, they all agreed with the above and cited the following issues they had encountered:

Even though we have attempted to offer more training materials to our institutions, we have found that the training and instructional materials that are now available are comparatively adequate. Therefore, in collaboration with other supporting organizations, we are making every effort to ensure that our universities have the necessary teaching resources to run the training mover successfully. As you are aware, when we offer training materials, our students gain sufficient information and skills. In addition to using instructional materials in the classroom to teach and learn, our teachers also provide hands-on training in a workshop outside of the classroom. To be honest, though, our college lacks the necessary resources to be more productive.

"It is very obvious that TVET colleges should provide the necessary materials and equipment to the teaching learning process in order to give practical teaching," said another respondent.

To accomplish its objective, the college is expected to use equipment and instructional materials creatively. However, given the circumstances, we lack the facilities and instructional resources necessary

to provide suitable hands-on training. Once more, the following was expressed by another respondent: First of all, due to a lack of funding, the TVET is lacking in supplies and equipment to meet the demands of the faculty.

According to the TVET strategy, each institution's training must include basic and necessary measurement tools, materials for suitable teaching aids, and a sufficient number of hand tools, machines, and other equipment and materials in accordance with the number of trainees in each field. Additionally, it has seminars and libraries, a classroom that typically holds trainees for each specialization, spaces for intensive instruction, and training materials (MOE, 2008:50-51).

Based on the aforementioned conversations, it can be concluded that TVET Colleges have faced difficult challenges in putting the discussed plan into practice due to a lack of adequate training resources, such as textbooks, reference materials, teaching aids, machines, equipment, and related facilities.

4.7. Finance Related Factors that Affect Implementation.

The aforementioned table listed financial considerations that have an impact on how the strategy is implemented. According to an analysis of the students' and teachers' answers to Item 1, the teaching and learning process has been significantly impacted by a lack of funding, according to both respondents. The financial considerations that influence the TVET strategy's implementation are compiled in the following table.

Table 9. Factors related to finance that affect the implementation of vocation education Programs.

S/N	Item statement	5	4	3	2	1	Mean	Decision
	Student response	SA	A	N	D	SD		
1	Lack of fund to enhance the non-availability of instructional aids	114	80	1	1	2	4.5	Agree
2	Funding of vocational subjects at present level is not adequate	114	85	1	2	-	4.5	Agree
3	Lack of fund affecting the running of vocational education programs.	121	79	1	-	-	4.5	Agree
4	Institution is currently facing financial difficulties	98	83	17	1	-	3.3	Agree
5	Government budget is enough for teaching-learning process.	-	13	1	63	117	1.5	Disagree

Key: Mean ≥ 2.5 Agree, SA= Strongly Agree, A= Agree, N= Neutral, D= Disagree, SD= Strongly disagree; (Source: - Own survey, 2024).

The answers show that the government's allotted budget is insufficient to carry out the plan effectively. The seamless operation of vocational education programs has been impacted by a shortage of funding, according to responses from both students and teaching personnel. As a result, according to the grand mean replies of teaching staff and students (3.3 and 4.3, respectively), TVET colleges are experiencing severe budget difficulties.

Table 10. Factors related to finance that affect the implementation of vocation education Programs. (by staff)

S/N	Item statement	5	4	3	2	1	Mean	Decision
	Teaching staff	SA	A	N	D	SD		

1	Lacks of fund enhance the non-availability of instructional aides.	13	36	10	-	-	4.0	Agree
2	Funding of vocational subjects at present level is not adequate.	23	33	3	-	-	4.3	Agree
3	Lack of fund affecting the running of vocational education programs.	24	32	3	-	-	4.3	Agree
4	Institution is facing financial difficulties.	36	15	-	8	-	4.3	Agree
5	Government budget is enough for teaching-learning process.	-	7	1	15	36	1.6	Disagree

Key: Mean ≥ 2.5 Agree, SA= Strongly Agree, A= Agree, N= Neutral, D= Disagree, SD= Strongly disagree; (Source: - Own survey, 2024).

Students and faculty were asked to answer two open-ended questions. The majority of them responded to every item. "What are the major problems in your institution?" was the first item. What remedies do you propose for the main issues? One of the biggest issues facing TVET colleges, according to nearly all of the teaching staff, is a lack of funding. The deans and vice deans of TVET colleges were interviewed in relation to this. They all concurred with the previous statement and added the following: As is well known, the government's allotted budget is insufficient to support the teaching and learning activities. Additionally... The following was also said by another respondent: First of all, due to a lack of funding, the TVET is lacking in supplies and equipment to meet the demands of the faculty. The city administration is unable to provide enough funding for the initiative.

Underfunding is a structural issue in the TVET industry, especially in the public system, according to the MOE (2008:11). Since government-based training is currently the most common way that TVET is delivered in Ethiopia, the costs will continue to be high. Ethiopian public TVET programs, like those in most other nations, are often more costly than general education due to the need for a lower-than-average teacher-to-student ratio as well as significant upfront and on-going costs associated with hands-on training. Budgetary restrictions have resulted in underfunding for the majority of urban public TVET programs and inadequate facilities and training materials for rural public TVET programs.

Based on the conversations, it can be concluded that budgetary and financial issues are a major obstacle to the implementation of TVET programs in Addis Ababa's public TVET colleges.

4.8. Implementation Practices by Administrative

The following table discusses administrative practiced that affect TVET Colleges in achieving TVET strategy in line with their goals.

Table 11. Administrative-related factors that affect the implementation of vocational education programs (Teachers' response).

S/N	Item statement	5	4	3	2	1	Mean	Decision
	Student response	SA	A	N	D	SD		
1	Do not provide strong leadership for the institution	111	85	1	1	-	4.5	Agree
2	There is lack of co-operation from parents.	74	125	1	1	1	4.3	Agree
3	Failure to create relationship with local	148	36	15	1	1	4.6	Agree
4	Failure to monitor in training classes regularly.	130	51	3	16	-	4.4	Agree
5	Administrative bodies do not evaluate out-of-class activities regularly.	118	80	2	-	1	4.5	Agree

6	Non-affordability of books for the course .	93	84	15	4	4	4.2	Agree
7	Poor appreciation of TVET .	128	58	11	3	1	4.5	Agree
8	Managing bodies do not promote quality training.	122	76	2	2	1	4.5	Agree
9	Creating and appreciating cooperative training.	-	1	8	60	130	1.3	Disagree
10	Do not create conducive environments for training	139	37	13	3	8	4.4	Agree

Key: Mean ≥ 2.5 =Agree; SA= Strongly Agree, A= Agree, N= Neutral, D= Disagree, SD= Strongly disagree; Source: Own survey (2024).

Administrative practices for implementation are shown in Tables 11 and 12. According to the students' and teachers' responses to Item 1, both respondents (means of 4.5 and 4.4, respectively) think that TVET colleges lack good leadership. Item 5 reveals that administrative authorities also do not assess activities that take place outside of the classroom. The replies from both sources demonstrate that managing bodies do not routinely supervise training sessions.

Table 12. Factors related to administrative affect the implementation of vocational education programs (students' response).

S/N	Item statement	5	4	3	2	1	Mean	Decision
	Teaching Staff response	SA	A	N	D	SD		
1	Do not provide strong leadership for the institution.	26	32	1	-	-	4.4	Agree
2	There is lack of co-operation from parents.	24	35	-	-	-	4.4	Agree
3	Failure to create relationship with local community.	51	8	-	-	-	4.8	Agree
4	Failure to monitor in training classes regularly.	24	25	2	8	-	4.1	Agree
5	Lack of regular evaluation in out-of-class activities.	26	30	3	-	-	4.3	Agree
6	Non-affordability of books for the course	22	35	2	-	-	4.3	Agree
7	Poor appreciation of TVET .	35	14	2	8	-	4.2	Agree
8	Managing bodies do not promote quality training.	34	24	1	-	-	4.5	Agree
9	Creating and appreciating cooperative training.	-	6	2	18	33	1.6	Disagree
10	Do not create conducive environments for training	35	24	-	-	-	4.5	Agree

Key: Mean ≥ 2.5 Agree, SA= Strongly Agree, A= Agree, N= Neutral, SD= Strongly disagree; Source: Own survey (2024).

The difficulties facing TVET in Ethiopia include a lack of teaching materials, ineffective monitoring and evaluation methods, a weak information exchange and coordination system, and wasteful use of resources and equipment, according to ESDP IV (2010:7).

Students' and teachers' answers to Item 3 make it abundantly evident that respondents concur that local communities are not cultivated by administrative entities. Regarding Item 2, the respondents also acknowledge that parents and TVET Colleges do not work together.

However, when interviewed, TVET college deans and vice deans all agreed with the aforementioned arguments and mentioned the following issues:

.... Management personnel at TVET colleges, especially vice deans, have a high turnover rate. As a result, TVET colleges lack effective leadership. Change ought to be made.

From the discussion above, it can be generally concluded that the study public TVET Colleges in Addis Ababa are experiencing a delay in the execution of the TVET Strategy because to a number of contributing issues, including inadequate administration, a lack of regular review, a lack of cooperation, a lack of coordination, and parental attitudes.

5. Summary, Conclusions and Recommendations

5.1. Summary

The following three fundamental questions served as a guide for the study in order to achieve its goals: 1) What are the elements influencing how teachers and students perceive and experience the TVET strategy's execution at Addis Ababa TVET Colleges? 2) Does Addis Ababa TVET College's TVET strategy implementation depends on management and leadership practices? 3) What remedial actions may be made to address issues pertaining to the strategy's execution in public universities in Addis Ababa?

Relevant literature was reviewed in order to address the research problem. Questionnaires and document analysis were also used to gather pertinent data for the study. The study was carried out in three public sample TVET institutions in Addis Ababa using the descriptive survey approach. Six deans and vice deans, 60 trainers, and 210 trainees were the study's subjects. The sample colleges and respondent trainees were chosen using a simple random sampling technique, while the remaining groups were chosen using availability and purposive selection strategies.

Percentage, frequency, and grand means were used to critically assess the data that was gathered from several sources utilizing a variety of data gathering instruments. Additionally, the information gathered from the interviews was provided to supplement the information gathered from the questionnaire.

5.2. The major findings

- Although the pupils were unaware of vocational education, the professors were enthusiastic in their field work and had a clear understanding of its value. Furthermore, the students' 4.2 mean scores did not correspond to their areas of interest in their field of study. According to the teachers' questionnaire results, the children were not put according to their interests (4.2 mean).
- Regarding the difficulties with knowledge regarding vocational education, 4.5 out of the students said they did not know enough about TVET, and 4.4 out of the teachers said they did not know enough about the significance of vocational education.
- Regarding the lack of a friendly relationship, 4.4 out of students said that there was no friendly contact between students and teachers, and 4.3 out of teachers' responses agreed with the students' assessment.
- The results showed that chronic issues included discontent with the wage and other benefits. The average of the instructors' responses was 4.5. The results of the interviews showed that the professors lacked motivation.
- Teachers and students in TVET colleges faced four major obstacles when it came to conducting teaching-learning activities: a lack of equipment, a lack of reference books, a lack of teaching and learning materials, and a lack of workshop equipment. Almost 80% of the teachers who responded to the open-ended question stated that the previously listed items were lacking. Additionally, the deans and vice deans of the colleges, who serve as management bodies, concurred with the aforementioned statements.
- The results showed that the colleges' on-going issues constituted a financial challenge. Students agreed at a mean of 4.5, whereas both teachers agreed at a mean of 4.3. All of them agreed with the aforesaid statement, based on the information obtained from the interviews. Almost all of the teachers and students who responded to the open-ended question stated that the lack of funding was one of the biggest issues facing TVET colleges. In addition, the institutions' inability to provide adequate

measurement, evaluation, and student feedback is another issue that prevents them from reaching their objectives. This indicates that it has an impact on how the TVET approach is implemented.

- In terms of administration, there was a lack of collaboration, weak leadership, and an atmosphere that was not favourable for teaching and learning activities.

Thus, the study's main conclusion may be summed up as follows: -

- The significance of TVET education was not well understood.
- Insufficient knowledge about vocational education continues to be a barrier to the successful use of TVET strategy.
- Teachers and students did not have a friendly relationship.
- There was dissatisfaction with the pay and additional benefits.
- Reference books, learning materials, and work shop equipment were in short supply.
- Financial limitations that impact TVET strategy implementation.
- The execution of TVET strategies is impacted by inadequate evaluation and prompt feedback.
- Strong leadership is lacking.

5.3. Conclusions

These conclusions have been reached in light of the study's findings.

- One important aspect of the strategy's adoption is the availability of awareness for both teachers and students.
- The colleges would have sufficient knowledge to carry out the plan.
- The study discovered that the relationship between teachers and students was less friendly. This is among the obstacles preventing colleges from successfully putting the TVET approach into practice.
- The study revealed a variety of issues that may have an impact on teachers' performance. The primary ones are inadequate wage payments and a dearth of additional college perks.
- The colleges should be equipped with the required resources, including reference books, learning materials, and workshop equipment, in order to ensure high-quality implementation. On the other hand, the survey found that several resources, references, and equipment are still missing from the colleges. Thus, these are the obstacles that universities face when putting the TVET plan into practice.
- The colleges encountered difficulties in accomplishing their specific goals while putting their strategy into practice. This is because of budgetary constraints. Thus, having a sufficient budget is essential since it helps prevent shortages of supplies, machinery, technology, inadequate salary payments, etc.
- The approach may not be successfully implemented as a result of the management bodies' attempts to run the TVET colleges. The colleges' administration lacked adequate leadership.

5.4. Recommendations

The study's conclusions led to the formulation of the following suggestions.

- One of the most important aspects of the strategy's implementation is the availability of awareness for both teachers and students. To increase awareness of the value of TVET, TVET Colleges would collaborate with the MOE and the Addis Ababa City administration's Education Bureau.
- As found out by the study both the teachers and students had less friendly interaction. Trainers and students would also have a friendly relationship.
- In order to assist their learners, trainers would conduct ongoing assessments and provide timely feedback.

- As the study had discovered, there were several issues that could impact the teachers' performance. The primary causes were inadequate wage payments and a dearth of additional college perks. As a result, trainers would receive higher pay and be fairly compensated.
- The colleges encountered difficulties in accomplishing their specific goals while putting their strategy into practice. This resulted from budgetary constraints. The government would provide buildings and infrastructure, as well as necessary funding, to prevent budgetary limits. TVET colleges would make money on their own from a variety of possible sources. Adapting and transmitting new technologies to users, offering consulting services, selling items made by trainees, and providing workshop maintenance are a few examples of how to do this.
- TVET colleges would have enough infrastructure and be outfitted with the right tools for instruction and learning. In this sense, libraries, workshops, and labs should be well-equipped.
- The management bodies' attempts to run the TVET institutions may not have been successful in putting the strategy into practice. To mimic the interests, skills, and performance of management bodies in TVET colleges, the Addis Ababa City administration Education Bureau and MOE would regularly conduct training and retraining programs in the form of conferences, seminars, in-service training programs, and short courses.

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