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Perceived Challenges of Vocational Schooling Graduates Transition to Business Occupation

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Case Report

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Abstract

Using a cross-sectional survey research design, the study examines the challenges faced by TVET graduates transitioning to the workforce at Arba Minch, Awassa, and Akaki TVET polytechnic colleges, with the goal of producing middle-level human capital. The author selected 312 participants via a self-created survey questionnaire and random selection, with 81% correctly completing and returning the questionnaires. The study utilized descriptive statistics to rank perceived mean scores and inferential statistics to analyze gender differences in TVET graduates' views on transition issues to occupations. The study examined the main challenges Ethiopian TVET graduates encounter to access jobs, such as inflation, corruption, limited foreign exchange, inefficient government red tape, and a lack of job-creation potential. The survey also found that TVET graduates mostly blamed government bureaucracy ($t = -2.8$, $df = 250$, $p < 0.01$) and administrative instability ($t = -2.3$, $df = 249$, $p = 0.02$) for perceived gender disparity challenges in small business acumen at the $\alpha = 0.05$. The main challenges faced by TVET graduates in starting their own firms are macro- and microeconomic issues, rather than work ethics, public health, or inadequate training. Both male and female participants face similar challenges despite bureaucratic and unstable governance.

1. Introduction

1.1. Background of the Study

Ethiopia's education and training plan began in the 1940s with secular vocational education, with pioneering schools like Tegbared Technical School (Ayel, 2024; Wirtu, 2020). For these scholars, the government established several technical and vocational schools between the 1940s and the mid-1960s. Under the current regime, TVET has been grown significantly, with female enrollment increasing significantly. Proclamation No. 391/2004 reinforced the 1994 Ethiopian education and training policy's goal of restructuring vocational education (FDRE, 2004). The Ministry of Education (MoE) (2008) sought to improve the quality of TVET goods based on a demand-driven labor market system. Proclamation No. 954/2016 authorized the new TVET direction, aiming to create a competent, motivated, employable, adaptable, and innovative workforce for socio-economic development (FDRE, 2016). However, TVET expansion has been impeded by low social perception, lack of hands-on training, and inadequate training skills for trainers (Geresu, 2014; MoSHE, 2020; Tadesse et al., 2024; Wirtu, 2020). In this aspect, the policy makers and planners require further evidences to consider how to connect TVET graduates to the nation's socioeconomic advantages and address transition issues faced by the graduates.

Transition from school to work is crucial for young graduates, revealing returns and guiding career development, but transition patterns vary significantly across countries (Marczuk, 2024). In Ethiopia, of course increasing product output, reducing poverty, and providing graduates with access to the workforce are the objectives of TVET (FDRE, 2004, 2016; Gebremeskel, 2023). However, the growth and development of the national economy may suffer even from challenges in assisting TVET graduates in finding employment. This is because; the requirement for stable employment opportunities requires

additional job creators, despite Ethiopia's notable increase in educational attainment (MoE, 2008; MoLSA, 2013). The amount of unique work produced by graduates has not increased significantly, despite previous legislation encouraging the growth of engineering and technology in higher education. TVET graduates still need help finding work under fixed contract agreements or producing their own work, even after converting their academic knowledge into practical abilities. Graduate unemployment is more common in metropolitan areas, particularly in Addis Ababa and in certain local administrations (MoE, 2015, 2021; MoSHE, 2020). Accordingly, the study examines employment barriers faced by Ethiopian Polytechnic TVET graduates, highlighting the significant role TVET plays in enabling graduates to secure professional employment.

Due to the imbalance between the demand for TVET graduates and the supply of training at TVET colleges, the government has a major problem with the transfer of Ethiopian TVET graduates into the workforce. In developing nations like Ethiopia, graduate unemployment is a serious issue (Broussar & Tekleselassie, 2012; Hailu, 2012; Krishnana & Shaorshadzeb, 2013; Kibru, 2012). Even if TVET research is inadequate, legal papers in Ethiopia show that there is a dearth of TVET research that addresses labor market realities (MoE, 2010, 2015, 2021; MoSHE, 2020). In this regard, the Federal TVET Agency has, with the assistance of academic specialists, carried out small-scale research in areas such curriculum development, assessment, occupational standards, and quality management (MoLSA, 2009, 2013; MoE, 2015). The papers recommended that future researchers focus on the connections between the TVET system and labor market conditions in light of the noted research gap.

Moreover, MoSHE (2020) attested to the policy-related difficulties facing TVET in Ethiopia. Poor enrollment, unrecognized qualifications, outdated technology, underprepared teachers, and inadequate training infrastructure lead to an inferior TVET system, which is also not widely recognized in other industries, according to this legal document (MoSHE, 2020). The law provisions also acknowledged that Ethiopia has not had full authority over the governance and leadership of the TVET system (MoE, 2021; MoSHE, 2020). The policy document creates occupational standards by working together with industry professionals, commercial sectors, and occupational associations. It guarantees that TVET graduates can legally work in any industry and start small businesses using their profession (FDRE, 2004, 2016).

In support of this, academics often add that small and medium-sized enterprises operating in semi-urban regions encounter challenges like inadequate government regulation, assessment, monitoring, working conditions, initial investment, high collateral requirements from financial institutions, inadequate training, unclear job descriptions, inadequate training, and weak market connections (Abebe & Gemeda, 2020; Desta, 2016; Goshu et al., 2022; Karanassou et al., 2007). Foreign exchange laws, corruption, funding availability, inefficient government bureaucracy, inflation, infrastructure shortage, uninteresting and poorly educated labor force, tax rates, policy instability, tax regulations, and restrictive labor regulations are some of the issues Ethiopia faces when conducting business on a micro to macro level (Desta, 2016; Goshu et al., 2022; Karanassou et al., 2007; Schwab, 2016, 2018).

Because of this, business-related issues, both large and little, as well as labor market conditions, might hinder business operations, which can worsen Ethiopia's unemployment rate. Regardless of gender biases, the challenges faced by TVET graduates often prevented them from launching small enterprises and finding employment in any business organization at all levels of the company (Abate & Henok, 2023; Desta, 2016). Nevertheless, the major business barriers influencing TVET graduates' career decisions were sources of uncertainty.

Few studies have examined the difficulties faced by TVET graduates as they adjust to the small business environment, despite the fact that employment is their ultimate goal. The study aimed to identify common business barriers faced by TVET graduates in Ethiopia, focusing on the challenges they face in conducting professional business, including creating private jobs. Thus, the author designed following research questions

1. What are the major challenging factors that impede the transitions of TVET graduates to employment based on their professions in the study area context?

2. Is there significant difference between the male and female participants' perception about the challenges that impede the transitions of TVET graduates to employment?

1.2. Framing Employment Conditions and Major Business Obstacles

1.2.1. Transitioning Stages from TVET to Employment

A methodical approach to comprehending young people's labor market circumstances, the school-to-work transition survey (SWTS) aims to highlight the primary obstacles in youth employment policies and programs as well as identify the youth labor market's SWOT (strengths, weaknesses, opportunities, and threats). Matsumoto and Elder (2010) define SWTS as the three stages of a young person's transition from school to their first fixed-term or fulfilling job: transited, in transition, and transition not yet started. While a young person in the transited stage is currently employed in a fixed-term, satisfactory job, those in the transition stage are either inactive and not in school to work later, have a temporary, unsatisfactory job, wage and salary employment without a contract, or are self-employed and unsatisfied (Matsumoto & Elder, 2010). According to these researchers, being in school or not actively seeking employment while not concentrating on the current studies is referred to as the transition not yet started stage.

Young people in the transition stage are either inactive and not attending school to work later, have a temporary, unsatisfactory job, wage and salary employment without a contract, or are self-employed and dissatisfied, whereas those in the transited stage are currently employed in a fixed-term, satisfactory job (Matsumoto & Elder, 2010). These researchers define the transition not yet started stage as attending school or not actively looking for work while focusing on ongoing studies. In addition, Bradley and

Nguyen (2008), Goshu et al. (2022), Psacharopoulos and Patrinos (2004), and others have stated that the SWTS is also affected by variables connected to school, family history, personal characteristics, and the state of the labor market.

Accordingly, this study looks at the challenges faced by polytechnic TVET graduates in Ethiopia, with a focus on labor market circumstances and investment, to ascertain how these factors impact their employment transition and job creation. Ethiopia has had Employment Protection Laws (EPL) in place since 1970, but Bastgen (2024) highlights that when evaluating the overall labor market consequences of EPL and its potential to exacerbate regional disparities, it is important to take unemployment composition into account.

Although there are still difficulties in the transition, a considerable number of graduates have entered the workforce as a result of Ethiopia's TVET institutions' growth. Cities have more significant workplace obstacles than rural places, according to SWTS research that have looked at the variables that impede this shift (MoLSA, 2013; Krishnana & Shaorshadzeb, 2013; ILO, 2012; Kibru, 2012; Broussar & Tekleselassie, 2010; Matsumoto & Elder, 2010; AU, 2007). Insufficient training-to-work connection, weak labor markets, and inadequate young employment information systems were listed as important difficulties by the ILO (2012).

Ethiopia's TVET graduates face labor market challenges, including training competency and loans. The government aims to boost employment rates by developing SMEs and supporting microfinance institutions, but some graduates may fail to meet minimum criteria along with major problematic challenges to do business in the study area. Thus, the study looked at the obstacles that graduates faced when they transitioned from TVET to the business occupation.

1.2.2. Major Problematic Challenges for Doing Business

Typically, world economic forum (WEF) usually uses sixteen problematic business criteria to rank investment conditions from favorable to unfavorable in order to compare nations throughout the world, including Ethiopia. According to Schwab (2016, 2018), executive opinion survey participants have been asked to rate the five features that they felt were most challenging for conducting business in their nation, from 1 (the most problematic) to 5. Finally, the overall scores have been determined in line with the weighted replies based on rankings.

Consequently, as one of the WEF member countries, there are a number of significant macroeconomic issues that influence doing business in Ethiopia and have empirical supports in the literature. The factors include foreign exchange laws, corruption, funding availability, and ineffective government bureaucracy (Abebe & Gemeda, 2020; Desta, 2016; Goshu et al., 2022; Karanassou et al., 2007). Ethiopia's business environment is impacted by factors like government instability, crime, lack of innovation, and poor public health, according to reports (Schwab, 2016, 2018). However, inflation, infrastructure issues, uninteresting labor, inadequate education, high tax rates, policy instability, and

restrictive labor regulations have substantially impacted investment in developing countries (Abebe & Gemeda, 2020; Goshu et al., 2022; Houston & Lindsay, 2025; Schwab, 2018). As a result, the research region that shared Ethiopia's labor market and socioeconomic features may or may not share all of the commercial issues of the nation where it have been originated.

The aforementioned macro-level business problem elements may have an influence on small-scale investments, such as generating one's own job or engaging in self-employment, as well as employment in the study area's public and private sectors (Abebe & Gemeda, 2020; Goshu et al., 2022). The ramifications of macro-level investment issues might also have an impact on TVET graduates' ability to create jobs or find employment in accordance with their professional training. Ethiopia is implementing a significant expansion of its education system across all subsectors to generate sufficient human capital that support the nation's economic growth and development.

Nevertheless, Gebremeskel (2023) verified that "…poor institutional capacity that denied paying necessary attention for the input and process of the training delivery has obstructed the competence of graduates." As well, Magagula and Awodiji (2024) acknowledged that the TVET program's modifications, labor-labor collaboration, technological adoption, and increased lecture capacity place a significant emphasis on creativity and problem-solving skills for the current era's industries. In this aspect, the competency of the TVET graduates may influence their success while doing business in profession.

In this regard, Ethiopia plans to use TVET to generate middle-level human capital, enabling job creation and meeting labor market needs (FDRE, 2004, 2016). However, the transition of TVET graduates to the workforce remains a challenge, affecting both male and female graduates. But, the gender gap aggravating issues are unclear. Thus, the research aims to address these obstacles and confirm gender imbalance issues in business operations for vocational school graduates.

$$H_{0M} = H_{0F}$$

$$H_{AM} \neq H_{AF}$$

2. Method

2.1. Research Design

The research design used in this study was a cross-sectional survey. In order to collect numerical data that aids in examining the difficulties faced by TVET graduates as they transition into the workforce, the quantitative inquiry focuses on a descriptive survey kind of developmental-trend analysis. Therefore, the research methodology is better suited to examine the difficulties faced by Polytechnic TVET graduates as they enter the workforce.

2.2. Data Sources

We used both primary and secondary data sources in this investigation. Secondary data sources included reports from Polytechnic TVET colleges and institutes, TVET agency records, tracer studies, and organization records about the Polytechnic TVET and labor market conditions. Whereas, the primary sources of data was collected from participants of the study. In this case, the data aid in identifying the basic determining issues that influence the transition barriers faced by Polytechnic TVET graduates in order to succeed in the global labor markets.

2.3. Population and Sample of the Study

The study included 5,481 polytechnic TVET trainers and specialists from 12 polytechnic colleges in Addis Ababa city (2591) and the Southern Region (2890) (MoE, 2018). Out of 12 polytechnic TVET colleges, Akaki, Arba Minch, and Hawasa were chosen for a cross-sectional survey quantitative investigation. Using statistics from the MoE (2018), the average number of trainers per polytechnic college was determined to be close to 457 in Addis Ababa and the former Southern area. The target population consisted of 1371 TVET graduates who worked in the three sample polytechnic TVET colleges as officers, specialists, and trainers.

For the purpose of to determine the sample size, the study also used the algorithm that Cochran (1977) contributed to choose suitable participants from among employers, graduates, and trainers. We utilized the method that uses the degree of significance typically used in education research, 95%; population variance, p = 0.5 (maximum variability), and 1 - p = q to find the suitable sample size for the quantitative inquiry, assuming that the overall population size is large. $n_0 = \frac{z^2}{e^2}\ pq = \frac{(1.96)}{(0.05)(0.05)}(0.5)(0.5) = 385$ subjects

The sample size was selected to be 385 individuals because the target population of the three polytechnic TVETs was anticipated to be big. Cochran's (1977) finite population size adjustment formula was also used to modify the sample size (no), taking into account the study's presumed target population of 1371 TVET graduates who were actively employed at sample polytechnic colleges.

$n = \frac{n_0}{1+\frac{n_0-1}{N}} = \frac{385}{1+\frac{385-1}{1371}} = 300.8 \approx 301$ TVET graduates; where n_{0-} is sample size, n- is corrected sample size, and N- is the target population size of the study.

During the study's pilot test, 96.7% (29 out of 30) of the questionnaires that were issued were correctly completed and returned. The quantitative component of the study required a minimum sample size of about 312 subjects actively working at the three schools, or around 104 participants selected at random from each of the three sample TVET colleges, assuming a 96.7% response rate. Thus, 312 TVET graduates who were employed during data collection as officers, clerks, workshop assistants, or trainers made up the entire anticipated sample size.

Consequently, the self-created questionnaire measuring the perceived actuality of TVET graduates' cultivation concerns was answered by these individuals. For this reason, we used stratified proportionate

random sampling approaches to address the population's representative sample units in the context of the study area. Lastly, we used SPSS version 22 to collect, arrange, and examine the numerical data in order to respond to the intended study questions.

2.4. Measurements

We collected data on the challenges graduates face when transitioning from vocational education to the workforce at three randomly selected polytechnic TVET colleges using a self-created questionnaire. The survey is divided into two parts: the first part covers demographic information, which focuses on the participants' work situation in relation to the sample areas, gender, and employment conditions to start their own business. The second part covers the commonly identified issues with conducting business with respect to professions in the literature.

The ILO labor market standardized profession conceptions of employment conditions, which frequently affect the transition from graduation to work, were in accordance with the first section of the tool items. The basic concerns that business considerations frequently use to gauge investment conditions globally, including in Ethiopia, are covered in the second part. Using a five-point Likert scale, we created sixteen items: "0 = not at all, 1 = rarely, 2 = sometimes, 3 = often, and 4 = always, if not frequently." The data were per-interpreted using a five-point scale average of 2.

Thereby, the following decision rules were used to interpret the severity of the problematic barriers to conducting business for TVET graduates in the research region: 1) The poll identifies the most pressing problems that TVET graduates encounter when running business, with mean scores greater than three (> 3). 2) Problems with mean scores between scores of two and three [2–3] were considered medium-level. 3) The transition difficulties faced by TVET graduates in the workforce were designed to be less impacted by mean scores below two (< 2). Lastly, the study further configured the developed components for a pilot test to determine the validity and reliability of the instrument.

2.5. Pilot Testing

For the purpose to measure the constructive validity of a questionnaire, the study piloted it at a polytechnic TVET in Addis Ababa with eminent academics. The academics' contributions were utilized to contextualize the investment obstacle items, which are commonly used worldwide, in order to measure the perceived reality of TVET graduates' transition hurdles to small-scale investment and employment. Understanding how TVET graduates adapted to work environments according on gender, academic programs, and time between graduation and first job was made easier by the researchers' endorsements.

Additionally, we used a random sample technique to select 30 TVET graduates who are currently engaged as trainers at one of the major TVET colleges in Addis Ababa, 12 (40%) of whom were female.

We asked participants to rank each item that typically presents a challenge for TVET graduates transitioning to the workforce, based on their experiences from graduation to continuing employment and starting their own business. Of the 30 volunteers who were chosen at random, 29 (96.7%) gave accurate ratings and gave the study instruments back.

Using SPSS version 22, the Cronbach's Alpha coefficient was calculated using the gathered data. For the 16 questions, the calculated $\alpha = 0.82$ fell within the range of Cronbach's Alpha coefficients that are permitted ($\alpha > 0.7$). Lastly, we rebuilt the tool's components based on the information identification to solve the main problems faced by polytechnic TVET graduates when they enter the workforce.

2.6. Data Collection and Analysis

After data collections, the author employed SPSS version 22 to record, organize, and analyze the data properly. To end with, in order to address the primary issues faced by polytechnic TVET graduates upon entering the workforce, the study employed descriptive statistics to rank the variables, in which the first rank was sever issues to do business in the area and employed inferential statistics to test if the variables exerted gender disparities in accessing employment or business occupations.

3. Results and Discussions

3.1. Results

3.1.1. Participants Characteristics

As noticed in Table 1, 252 (81%) of the 312 questionnaires were correctly completed and returned, the study looked at participant characteristics in relation to work conditions to see if demographic factors affect employment conditions in the study area.

Table 1
Participants' location and employment conditions

		Polytechnic TVET Colleges			Total	
		Arba Minch	Hawasa	Akaki		
Employment Type	Employed in satisfactory work (ESW)	64(76.2%)	36 (43.9%)	28 (32.6%)	128 (50.8%)	61.9%
	Self-employed along with ESW	2	12	14 (16.3%)	28 (11.1%)	
	Employed in unsatisfactory work	14	21	17	52 (20.6%)	38.1%
	Unemployed (free services)	0	0	4	4 (1.6%)	
	Employed out of profession	4 (4.8%)	13(15.9%)	23(26.7%)	40 (15.9%)	
Total		84	82	86	252	

The percentage of graduates who found satisfying job among the randomly chosen participants was lower at Addis Ababa Akaki (32.6%) polytechnic college, moderate at Hawasa (43.9%), and higher at Arba Minch (76.2%). Similarly, the percentages of graduate employment outside of trained fields of study were lower in Arba Minch TVET polytechnic colleges, moderate in Hawasa (15.9%), and higher in Addis Ababa Akaki (26.7%). In a similar vein, the percentages of self-employed individuals and employees in the sample polytechnic institutions were lower in Arba Minch TVET polytechnic colleges, moderate in Hawasa (14.6%), and higher in Addis Ababa (16.3%).

Additionally, it was found that the percentage of people who were self-employed in relation to their professions (11.1%) and those who were employed in good employment (50.8%) was approximately 61.9%, which could be observed as employed persons in sample polytechnic TVET colleges. The remaining participants' sum of proportions that were classified under employment in unsatisfactory work (20.6%), employed out of fields of study (15.9%), and unemployed but worked for free service (1.6%) was 38.1%.

In this regard, the semi-urban area TVET polytechnic colleges had a greater advantage in graduate employment in satisfactory work than the urban area TVET polytechnic colleges, while the urban area TVET polytechnic colleges had a greater advantage in self-employment and the employment conditions for out-of-training fields. Additionally, we found that 38.1% of underpaid graduates were employed by the public polytechnic TVET colleges in the sample.

Table 2
Sex and employment conditions

		Sex		Total
		Male	Female	
Employment Type	Employed in satisfactory work (ESW)	102 (54%)	26 (41.3%)	128
	Self-employed + ESW	22 (11.6%)	6 (9.5)	28
	Employed in unsatisfactory work	38 (20.1%)	14 (22.2%)	52
	Unemployed	0	4 (6.4%)	4
	Employed out of trained field	27 (14.3%)	13 (20.6%)	40
Total		189	63	252

Male participants had a 54 percent advantage over female participants in terms of employment in satisfactory work, while among female participants who were unemployed (free service) (6.3%), employed in unsatisfactory work (22.2%), or employed out of profession (20.6%) were deemed unwaged (disadvantage group) in comparison to unwaged male participants who employed in unsatisfactory work (20.1%) and out of profession (14.3%). In this sense, men had an advantage over women when it came to making the move from school to the workforce.

3.1.2. Major Challenges of TVET Graduates to Employment

The study examined the challenges faced by TVET graduates working as trainers and civil workers, focusing on their experiences in various institutions. The government aimed for graduates to work globally, but social, political, economic, and technical factors hindered their journey. We asked graduates to rate the macro and micro business challenges that prevented them from entering the job. As represented in Table 3, there were 16 items to measure the severe problems that influence people to create their own work in line with the literature reviews (Schwab, 2016, 2018).

Table 3
Perceived potential challenges of TVET graduates to employment

Items	N	Min	Max.	Mean	Std. Dev.	Rank
General increase in the prices of goods & services	252	.0	4.0	3.35	.8813	1
Corruption	252	.0	4.0	3.04	.9373	2
Inefficient government bureaucracy	252	.0	4.0	3.03	2.1032	3
Insufficient capacity to create work	252	.0	4.0	3.02	1.0058	4
Foreign currency regulations	252	.0	4.0	3.02	1.0137	4
Lack of access to financing	252	.0	4.0	2.97	.9975	6
Inadequate supply of infrastructure	252	1.0	4.0	2.94	.8814	7
Policy instability	252	.0	4.0	2.92	.9885	8
Government instability	251	.0	4.0	2.79	1.1178	9
Tax regulations	252	.0	4.0	2.73	.9964	10
Crime and theft	252	.0	4.0	2.72	1.0197	11
Tax rates	252	.0	4.0	2.70	.9162	12
Restrictive labor regulations	252	.0	4.0	2.40	1.9901	13
Poor work ethics	251	.0	4.0	2.33	1.0492	14
Poor public health	251	.0	4.0	2.32	1.1698	15
Inadequately educated polytechnic TVET graduates	251	.0	4.0	1.89	1.3753	16
Overall average of graduate to world of work	252	1.0	4.0	2.78	.6049	
Valid N (list wise)	249					

The study's ranking of respondent mean scores indicates that TVET graduates encounter medium-level business challenges based on their educational background. Ratings below the mean of the rating scale indicate less important problems. High-ranking issues were given a rating of more than three according to the decision guidelines in chapter three because they were thought to make it more difficult to generate their own work. In this wisdom, we recognized as potential problems the five top-ranked variable items to reflect the core issues that affect even small-scale investments. Accordingly, the investigated severe potential problems were inflation, corruption, inefficient government bureaucracy, foreign currency regulation, and inefficient capacity to create innovative work.

Although lack of access to financing and lack of workplace infrastructure ratings were categorized under medium level occupational challenges, these issues were frequently vibrated as severe business obstacles for beginners at occupational startup stage in the study area. Besides, policy instability, government instability, tax regulations, crime and theft, and tax rates were perceived as medium challenges of transition for the TVET graduates to get employment including creating own work such as small scale enterprise. Except for inadequate polytechnic TVET graduates, the noticed problems were perceived as substantive problems of investment in this study.

3.1.3. Gender Disparity Issues in Graduates Transition to Employment

The study employed the t-test for independent two sample means to examine if the male and female TVET graduates challenges in the move from graduation to employment were exerted a statistical variation in the study area. To further investigate the dimensions of the challenges, we need to test if there were statistically significant differences between male and female participants' interpretations about the challenges of the transition from TVET graduates to the world of work, particularly creating their own work.

In this focus, the male and female participants' average response rates did not show statistically significant differences for the majority of the variable items (87.5%) in the study area context. Moreover, these findings highlight the need for further research and understanding of TVET graduates' business challenges. As represented in Table 4, the male and female participants' interpretations made statistically significant differences about the challenges of transitioning from TVET graduation to the world of work for three variable items, of which one was the overall response mean score sum of the variable items average value. For instance, the difficulties of government bureaucracy ($t=-2.8$, $df = 250$, $p < 0.01$), government instability ($t=-2.3$, $df = 249$, $p = 0.02$), and overall difficulties ($t=-2.0$, $df = 250$, $p = 0.05$) all exhibit statistically significant gender differences.

The aforementioned two factors, including the overall challenging items, resulted in statistically significant differences in the males' and females' perceptual interpretations; the computed effect sizes for these differences were 0.0304, 0.021, and 0.016, respectively. Each of the calculated effect sizes, according to Gravetter and Wallnau (2007), explained a minor variance in the participants' perceptions of gender disparities in the difficulties faced by TVET graduates when they started their first professional employment.

Table 4
The t-test for equality of means about challenges of TVET graduates to create work

Items	t-test for Equality of Means						
	T	Df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% Confidence Interval of the Difference	
Lower	Upper						
Restrictive labor regulations	− .128	250	.899	− .037	.290	− .608	.534
Tax rates	-1.072	250	.285	− .143	.133	− .405	.120
Tax regulations	-1.722	250	.086	− .249	.144	− .533	.036
Ease of access to loans	-1.168	250	.244	− .169	.145	− .455	.116
Capacity to create innovative work	-1.890	250	.060	− .275	.146	− .562	.012
Government bureaucracy	-2.768	250	.006	− .836	.302	-1.431	− .241
Policy instability	-1.512	250	.132	− .217	.143	− .499	.066
Training quality	1.073	249	.284	.216	.201	− .180	.612
Inflation	− .206	250	.837	− .027	.129	− .280	.227
Poor working ethics	− .058	249	.954	− .009	.153	− .310	.293
Corruption	− .814	250	.416	− .111	.137	− .380	.158
Supply of infrastructure	.000	250	1.000	.000	.129	− .253	.253
Foreign currency regulations	-1.005	250	.316	− .148	.148	− .439	.142
Crime and theft	-1.827	250	.069	− .270	.148	− .561	.021
Government instability	-2.289	249	.023	− .371	.162	− .691	− .052
Poor public health	-1.693	249	.092	− .289	.171	− .625	.047
Overall challenges	-1.996	250	.047	− .175	.088	− .347	− .002

The study found that inadequate education and training among graduates were less austere obstacles to get employment. However, restrictive labor regulations, ongoing tax rates, and limited access to loans for small businesses were identified as common issues. Government policy instability, inflation, poor working culture, unethical norms, and corruption in public organizations were also identified as

significant barriers. Infrastructure, foreign currency regulation, crime, and ongoing social conditions like education and health were identified as additional impediments to transitioning from TVET graduation to world-of-work options in Ethiopia. Moreover, for majority of the items, the study found that the challenges faced by TVET graduates in transitioning to work were the same for both male and female participants, indicating that these variables commonly influence both gender groups in the Ethiopian context.

3.2. Discussions

3.2.1. Top Ranking Challenges of TVET Graduates Transition to Work

The study reveals that inflation, corruption, inefficient government bureaucracy, deficient job creation capacity, and foreign currency regulations are the top issues affecting TVET graduates transition to business in Ethiopia's urban and semi-urban areas, with strong literature support (Abebe & Gemeda, 2020; Goshu et al., 2022; Karanassou et al., 2007; Korkmaz & Abdullazade, 2020; Schwab, 2016, 2018). WEF annual reports frequently involved the identified top five problematic factors for business in Ethiopia (Schwab, 2016, 2018). The study reveals that government instability and bureaucracy significantly impact gender disparities in TVET graduates' ability to do business in Ethiopia's urban and semi-urban areas. However, the remaining 14 business problem items (87.5%) equally influence both male and female TVET graduates to continue their studies and start their own businesses.

The main obstacle to doing business in this study is inflation, which is defined as a general increase in the cost of goods and services. According to scholars, Ethiopia's inflation rate has significantly grown since 2011 (Goshu et al., 2022). In the work of Goshu et al. (2022), the consumer price index (CPI) in Ethiopia indicates that the effects of food inflation on consumers differ across regional states. These effects range from 181 in Somalia to 239.2 in Tigray while the effects of food inflation on consumers at the national level reach 201. Besides, the effects of non-food inflation on regional states range from 151.3 at Dire Dawa up to 192.3 at Tigray, whereas the effects of non-food inflation at the national level measured is 180.4 (Goshu et al., 2022).

In this regard, Houston and Lindsay (2025) advocated full-time equivalent measures to promote demand-side labor market strategies in weaker local markets and less hawkish monetary policy to curb inflation, which could unnecessarily harm economically weaker regions. Moreover, the magnitude of inflation in Ethiopia has been reported to be very high and the trends of inflation in Ethiopia seem to continue (Desta, 2016). The study identifies Ethiopia's primary inflation drivers as the fiscal budget deficit, demand-pull and cost-push theories, monetarist explanations, and inflation as economic growth events.

Incidentally, the result has evidence in the literature that inflation impede the move to employment, which noticed as major problem to do business in Ethiopia (Desta, 2016; Schwab, 2016, 2018). This means that steps made to limit the pace of inflation growth would increase a country's aggregate demand for goods and services in an inflation-prone environment, which will also result in a rise in unemployment and a

decrease in output (Karanassou et al., 2007; Korkmaz & Abdullazade, 2020). In Ethiopia, however, the perceived reality shows that both inflation and unemployment rates of TVET graduates were seem increasing simultaneously.

Corruption is a significant obstacle for TVET graduates, hindering their career prospects and macroeconomic investment. The WEF macroeconomic level research reports rank corruption as a challenge for conducting business in Ethiopia, ranking it second in 2018 and fourth in 2016(Schwab, 2016, 2018). Recent graduates may lack the necessary experience to dismantle corruption networks, deterring them from self-employment. This may explain why 89% of trainers with extensive job experience never attempt to create their own work.

The study highlights inefficient government bureaucracy as the third main obstacle to doing business in Ethiopia, behind inflation and corruption, and contributes to gender differences in the transition from TVET graduation to the workforce, a finding supported as a result of literature (Abebe & Gemeda, 2020; Schwab, 2016, 2018). Ethiopia's inefficient government bureaucracy, influenced by ethnic political beliefs, might poses a hefty challenge to business in developing countries. This is evident in the rise of new ethnic entrepreneurs in public service organizations, which lack morality and behave unethically. Without reform, this could continue to affect labor market conditions.

The transition of TVET graduates from completing professional training to joining the workforce is influenced by their capacity for producing work. The fourth primary issue facing TVET graduates in doing business is their inability to create their own work, as per the current study has support in the literature (Abebe & Gemeda, 2020; MoSHE, 2020). The key capacities for developing one's own work include deploying initial funds, acquiring professional competency to operate a business, and securing job opportunities in urban and semi-urban areas. Experienced TVET trainers struggle to produce original work at the SME level, as evidenced by 20.2% of TVET graduate participants who worked as trainers at polytechnic TVET institutions after five years.

The survey reveals that foreign exchange restrictions are the fifth most problematic aspect of doing business in Ethiopia, ranking third in 2016 and first in 2018(Schwab, 2016, 2018). The country's foreign exchange policy considers inflation, raising product and service prices, which may reduce unemployment (Karanassou et al., 2007; Korkmaz & Abdullazade, 2020). However, Ethiopia's inflation has grown significantly since 2011, leading to a 37% unemployment rate (Goshu et al., 2022). This is due to rising inflation and unemployment in developing countries, where foreign currency exchange losses in imports outweigh gains from exports.

The research region faces significant challenges in conducting business due to medium-sized concerns such as lack of access to financing, difficulty of infrastructure, unstable policies, unstable governments, tax laws, theft, criminal activity, and high tax rates. In the former studies, however, these factors are often considered the main obstacles to conducting business in Ethiopia (Abagissa, 2021; Abate & Henok, 2023; Abebe & Gemeda, 2020; MoSHE, 2020; Schwab, 2016, 2018).

Abebe and Gemeda (2020) highlight several issues impacting micro- and small-scale firms in semi-urban Ethiopia. These include inadequate government regulations, limited workspaces, initial investments, collateral requirements, job descriptions, inadequate training, and poor market connection. These obstacles hinder individuals' transition from TVET to starting businesses and employment, impacting their ability to operate in Ethiopia's national and regional sectors. Business challenges include low-level TVET graduates, stringent labor laws, a bad workplace culture, and poor public health (Abebe & Gemeda, 2020; Mengistu et al., 2024; Wirtu, 2020). Further, even though researchers have confirmed that a lack of institutional capacity prevents proper attention to the ongoing training quality of TVET graduates (Gebremeskel, 2023; Magagula & Awodiji, 2024), this study found that inadequate training is the least ranked barrier to graduates' transition to business.

Issues including inadequate infrastructure, insufficient training, corrupt environmental conditions, and lack of government attention all affect the job prospects of TVET graduates. The ability of trainees and trainers to compete in the labor market is impacted through their inconsistent moral and psychological preparedness, which also has a substantial sway on TVET admissions procedures and graduates' employment prospects. In sum, inflation, corruption, inefficient government bureaucracy, trainees capacity to create own work, and foreign currency exchange regulations are the core challenges of TVET graduates to create their own work in the study area.

3.2.2. Gender Gap Issues to Do Business

Moreover, the study has identified several variables that exacerbate gender disparities in the transition from TVET graduation to employment, including job creation. The study identifies ineffective government bureaucracy and administrative instabilities are barrier that made gender disparities to doing business in the study area. It suggests that government policies ratified that both male and female have equal right but the government system seem favorable for males over females in assisting TVET graduates in their employment, despite gender entrepreneurs seeming to support women in all aspects of their reports. Research indicates that male-owned businesses, even those with higher access to training, are more likely to benefit from such support than female-owned MSMEs (Abate & Henok, 2023; Ayalu et al., 2023).

In Ethiopia, the proportion of female trainees has been coming to increasing in the TVET enrollments (Wirtu, 2020). Although Wirtu (2020) has noticed gender equity closes with respect to access to the TVET, still government conditions provide advantages to males compared to females to do their own business or to get employment based on specialization. Nevertheless, TVET graduates who are female are less able to start their own businesses than their male counterparts due to wasteful government bureaucracy and instability. In this facet, the substantial gender disparity occurs in government-related concerns, while the remaining problems to do business in Ethiopian urban and semi-urban areas are nearly the same for the two parties.

Conversely, Ayalu et al. (2023) discovered gender discrepancies in the literature when it came to infrastructure, raw materials, workspace, and human capital between the two parties involved in micro- and small-scale enterprises in Ethiopia. What is more, these authors noticed that construction,

manufacturing, and urban farming are traditionally male-dominated sectors, in which the participation of females is less than the males in micro- and small-scale enterprises (Abate & Henok, 2023; Ayalu et al., 2023). In this facet, the gender advantage to do business to get job opportunities based on specialization is still on the hands of males compared to females.

4. Conclusion

In Ethiopia's urban and semi-urban areas, foreign exchange regulations, inflation, corruption, ineffective government bureaucracy, and a lack of job-generating capacity are the most prevalent problems influencing TVET graduates' employment, according to the reported poll. While government instability and bureaucracy are contributing causes to gender inequalities in business acumen, the majority of business barriers to employment for male and female TVET graduates remain the same. The transition from TVET graduation to employment is more difficult for females than for males due to government flux and poor civil service conditions. Surprisingly, TVET graduate women are considered to have less favorable working conditions in the government than men, which hinders their ability to either develop their own work or get employment in companies that cater to their areas of expertise.

Ethiopia's uncertain governance, tax regulations, inadequate infrastructure, and financial instability make doing business there difficult. Medium-sized problems include insufficient market connections, excessive collateral requirements, start-up financing, working conditions, government rules, and training. Poorly educated TVET graduates, stringent labor laws, a poor workplace culture, and poor public health are examples of lower-level business barriers.

To conclude, financial instability, a lack of government emphasis, inadequate policy dimensions, disrespect for training quality, a lack of infrastructure, and corrupted environmental conditions are the main variables influencing the transfer from TVET graduation to employment possibilities. Instability in trainers' moral and psychological readiness to produce high-quality human capital exacerbates the detrimental effects of TVET entrance training processes on graduates' employment quality.

Limitations of the Study

The information gleaned from in-depth interviews and observation logically addressed the quantitative flaws, but the qualitative data was not included.

Declarations

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Author contributions

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Data Availability

The current study did not generated or analyzed any datasets. The collected survey data organized and analyzed in the manuscript.

Ethics approval and Consent to participate

The Arba Minch University Research and Development Committee (reference number AMU/39/155/2014) approved this education survey protocol on the Ethiopian calendar on 4/02/2014 (12 October 2022), in accordance with institutional guidelines. The Dean and the School of Pedagogy and Behavioral Sciences Research Ethics Committee approved the proposal using the university's cross-sectional survey research ethics review structure. All participating Technical and Vocational Education and Training (TVET) graduates who served as trainers and officers at the Akaki, Arba Minch, and Hawasa TVET colleges provided written informed consent. The study maintained confidentiality by not publishing or using individual-level data, and participants were informed that they could withdraw at any time. The information was handled transparently and without coercion.

Consent for publication

Not applicable

Competing Interest

This manuscript is my original work and has no potential conflicts of interest.

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