Innovations

Technical Vocational Education and Training Trainees perception towards Self-employment Career: The Case of Southern, Nations, Nationalities and People Region

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Abstract

These days, graduates from higher education, especially from Technical, Vocational Education and Training (TVET) institutions, in various professional fields, have employable job seekers instead of owning their own businesses. The actual reality is that trainees who have graduated in various professional fields seen unemployed. As the issue of unemployment is a common agenda in developing countries, including Ethiopia, it is a pressing issue. Hence, this study sought to assess the perception of TVET trainees towards self-employment (SE) career in Southern Region, Ethiopia. The study used descriptive survey research design. A total of 451 TVET prospective graduates were sampled using systematic sampling techniques from the research area comprised of eight colleges. The data were obtained through questionnaire. Findings revealed that a considerable number of trainees do not perceive self-employment as a career. The impediments contributed to their negative perception towards SE range from cognitive, institutional, personality to contextual levels. Hence, this calls for TVET colleges to work on promotion and motivation so as an alternative to employment in the world of work. This can be done through cooperative training with the business community to encourage trainees to prefer self-employment as a career. In collaboration with the corporate industry, TVET institutions can develop incubation services where trainees are guided and trained with vocational principles to perceive self-employment as an option.

Key Words*: 1.Contributing factors, 2.Perception, 3.Self-employment, 4.Trainees, 5.TVET,*

1. Introduction

Technical Vocational Educationand Training (TVET) hasfrequentlybeendescribed a form of education and training whose major aim is to prepare person(s) for employment and self-employment career.Habtamu G.(Habtamu, 2016) asserted that "human capital, expressed in terms of the level of knowledge, skills, and capacity of the human resources has been considered as a crucial factor for nations' economic growth and development". Ethiopia is working with the aim that accelerated development and sustainable development can only be achieved through a strong focus on education and training through skilled workforce (Diversity et al., 2011). Equipping citizens with knowledge, skills and attitudes for the development of any country will enable them to participate in the economy and improve their living standards, which will be crucial for the development of the country.

The TVET program is critical to providing the skills needed to expand employment opportunities, increase productivity, and increase income. UNESCO - UNEVOC, the international Center for TVET, indicated that: "TVET is concerned with the acquisition of knowledge, and skills for the world of work"(Hailu, 2012).

The driving goal of the national TEVT strategy of Ethiopia is to strengthen the culture of self-employment and support job creation in the economy (*NATIONAL TECHNICAL & VOCATIONAL EDUCATION & TRAINING (TVET) STRATEGY Ministry of Education*, 2008). Skill development is vital to increase productivity, inspire competitiveness, and bring about economic development(Palmer, 2009). TVET contributes to skill development by improving the individual's knowledge of science and technology in a wide-ranging occupational area that involves technical and professional competencies that include problem solving, creativity, collaboration and specific occupational skills(Eicker et al., 2017; Habtamu, 2016; Bano et al., 2022). It is in recognition of the foregoing that, in all Ethiopian education and training development endeavors, TVET has been considered to play a key role in tackling the country's socio-economic underdevelopment through knowledgeable and skillful workforce (Habtamu, 2016; Hailu, 2012), in creating a competent, encouraged and innovative workforce that could transfer technologies (Mihret Dessie & Shumetie Ademe, 2017).

Self-employment has been defined by different authors to mean different concepts. Startiene et al (Startiene & Remeikiene, 2013) points out that, researchers and various institutions provide a wide range of self-employment concept understandings. Spencer and Gomez (Spencer & Gómez, 2004)defined self-employment as the simplest type of entrepreneurship since self-employment seldom necessitate substantial financial investments, advanced management skills.Zhang et al (Zhang et al., 2006) explained self-employment as proprietors of enterprises, employing numerous persons. S. Parker (Parker, 2009) considers the self-employed as persons who earn no wage or salary nonetheless derive their business on their own account and at risk.

Self-employment has received much interest and attention for a long time because it continues to form an important sector of the labor market of many countries (Andreas & Koloba, 2015).Since communication among researchers contributes significantly to overall work, self-employed professionals are important economically, socially and politically (de Wit, 1993). Self-employment is closely linked to self-responsibility, and people choose self-employment for economic reasons, self-management responsibilities, challenges, self-awareness, and so on. Reflecting the importance of self-employment, the current study examines the desire for self-employment from the perspective of TVET college trainees.

The objective of TVET programs recently in view of the changes in the labor market two other major objectives must now be pursued: to train the workforce for self-employment and to raise the productivity of the informal sector (Atchoarena, David; Delluc, 2002). To this effect, TVET programs for the generation of self-employment possibilities is at the base of all strategies observed by different countries TVET system, including Ethiopia(Sulamo et al., 2022).

1.1 Significance and Scope

The study's contribution is to analyses the perception of trainees towards the factors that contribute to SE. In spite of its importance, the concept of self-employment remains relatively under-researched (Rothwell et al., 2009).Therefore, it was the aim of this study to assess the perceived self-employment decision of TVET trainees. There is thus a need to investigate the SE decision of trainees from their own perspective.

Although TVET training is delivered at various levels of the education and training system in the region, the extent of this study was delimited only to four public and four private TVET institutions in the study area. The study was confined to these institutions mainly due to a better training opportunity for TVET trainees in terms of training facilities, experienced trainers and exposure to various training medium. Currently, TVET in Ethiopia offers training at five levels, level I through Level V. Middle level (level III though level V) TVET trainees were chosen because trainees at this level have more school experience than level I and level II trainees and also middle-level TVET trainees stay longer in the training system. Trainees within this three levels are relatively mature enough in terms of providing the necessary information and understanding of the research questionnaire than trainees in level I and level II.

2. Literature Review

The labor market in most developing countries like Africa has practiced challenges oftrained human resources to transfer their desired occupations. Academic institutionsare supposed to produce graduates ready to enter the labor market. The TVETinstitutions were designed to make graduates with technical skills work in theindustrial sector and other sectors of the economy in order to accelerate economicdevelopment.

2.1 Self-employment: Overview

The importance of obtaining a diploma or degree for someone studying or training in the higher education system is undisputed. However, getting a degree or diploma is not a guarantee of getting a job or creating his/her own business. Instead, higher education institutions are required to equip their trainees with the required training to create jobs for themselves and for others (Pan & Lee, 2011). For their graduates to be self-employed, TVET institutions must be able to train their trainees' problem-solving skills, create jobs, and work in teams, copy technologies and use technology effectively(Sulamo et al., 2022).

Wan L. (Wan, 2017) argued that self-employment has more structural roles to play in economic development. It benefits in reducing poverty, nurturing innovation, developing entrepreneurial economy, promoting economic growth, expanding employment, improving the quality of employment, enhancing cultural exchange and taxation and self-efficacy. Further, (Afeti, 2018)stated that in the growing economies like Africa and where the youth demography became significant, self-employment contributes to political and national stability.

2.2 Contributing factors to Self-employment

Self-employment shows the developments in the changes of various critical success factors. These are categorized in to four major themes in this review;i.e. *cognitive, institutional,personality,and contextual factors* are discussed the way they contributed to the enhancement of self-employment.

2.2.1 Cognitive Factors

Cognitive factors affect one's learning performance and involve the attention, memory and reasoning of the person (Danili & Reid, 2006). They constitute the learners' simple and complex mental operations that include sensation, perception, attention, memory, learning, language use, problem solving, reasoning, and decision making (Lubans et al., 2016). Thus, they influence how people think and make decisions (Wright et al., 2000) and illustrate understanding of how people acquire and process information and utilize to understand entrepreneurship (Wickham, 2006). They affect self-employment through enhanced one's cognitive development i.e. entrepreneurship intentions through entrepreneurship education. Entrepreneurship education, as a cognitive factor, is expected to change one's self-evaluation about being an entrepreneur through behavioral beliefs and judgments (Hamrell, 2011) and this personal attitude will either trigger a positive or negative intention towards self-employment (Ajzen, 2001). These can be seen from developments in personal attraction (Satisfaction, Success, and Evaluation); perceived social valuation (mentorship, social value, perceptions about external influences), perceived self-efficacy: confidence and capacity (Hamrell, 2011). Based on these conceptualization; self-employments' analytical capacity, professional skills, managerial skills, learning skills, and entrepreneurial knowledge are among some of the cognitive factors.

2.2.2 Institutional Factors

Institutional factors include the adequate provision of policy and legal frames, the delivery of services and supports, the availability of logistics and startups, and the establishment of institutions-industry linkages. The policy and legal frames includes the availability of national polices for self-employment and program based trainings (Mihret & Shumetie, 2020). The services and supports consist of the conditions of training institutions, instructional materials, class size (Dasmani, 2011), institutional capacity (personnel, student, facility), modern teaching learning equipment's, advanced training of teachers(Musyimi et al., 2018); management of training facilities, equipment management (Okolie et al., 2019). The availability of logistics and startups included the presence of income generating units at the institution, provision of start-up capital, tools & materials for self-employment, (Kintu, 2019); work place (Muhammedhussen Batu, 2016); and financial services (Muhammedhussen Batu, 2016), (Dessie, 2019).

And the establishment of institution-industry linkages included linkages with local industries for hands-on experience for both trainers & trainees (Dasmani, 2011) and linkages through industrial attachment programs (Kintu, 2019).

2.2.3 Personality Factors

Kintu D. (Kintu, 2019)defined personality as 'the characteristic sets of behaviors, cognitions and emotional patterns that evolve from biological and environmental factors.' It refers to what individual's exhibit differently in terms of thinking, feeling and behaving(Kazdin et al., 2000). Personality factors, thus, are traits that can be displayed by a person due to his/her psychological character and considered as personal identity. They are predictable characteristics of individual behavior, which describes variations of individual actions under similar circumstances (Llewellyn & Wilson, 2003).

Success of SE is directly related to individual's motivation, interpersonal skills, self-confidence and entrepreneurial capacity. Personal motivation is about the level of motivation created because of the employees' need for accomplishment, internal locus of control and self-determination (David Maina, 2019), (Otache, 2019), (Mihret & Shumetie, 2020), (Hailu, 2012). Interpersonal skills include self-employees' communication skills, problem solving skills, time management, and adaptability and flexibility (Российской & Наук, 2017),(Edokpolor & Abusomwan, 2019). Self-employees' self-confidence considers his/her level of hard working, ability to work independently and ability to start new business (Российской & Наук, 2017), (Hailu, 2012), (Otache, 2019), (Dessie, 2019). It also constitutes personal attraction towards self-employment, perceived social valuation and perceived self-effectiveness (David Maina, 2019); and personal qualities, team work & experience (Murgor, 2013); and entrepreneurial capacity includes self-employees ability of innovativeness and creativeness, and risk taking (Mihret Dessie & Shumetie Ademe, 2017), (Otache, 2019), (Hailu, 2012), (Haile, 2008), (Edokpolor & Abusomwan, 2019)(Российской & Наук, 2017).

2.2.4 Contextual Factors

These factors usually determine the success and failures of the performances of the activities and observed through how they created the effects (Fang, 1999). They constitute economic, social and political factors emanating from the contexts of self-employment. The economic factors are external observations about the increase of income, the opportunity for job creation and maintaining financial security of the SE(Dessie, 2019) which in turn brings self-reliance and economic growth at larger scale (Haile, 2008), (Susanti et al., 2017). In the context of social factors that included demographic factors counting gender differences, marital status and educational status as influencing to start & sustain SE(Muhammedhussen Batu, 2016). Social and cross-cultural skills, desirability & feasibility skills (Edokpolor & Abusomwan, 2019), parental influence and work experience also had positive impact to be SE/entrepreneur (Otache, 2019), (Turker & Selcuk, 2009), (Fayolle et al., 2006); and social factors also included the availability of human capital through social culture, support service mechanism and government actions (Hailu, 2012).

3. Conceptual Framework

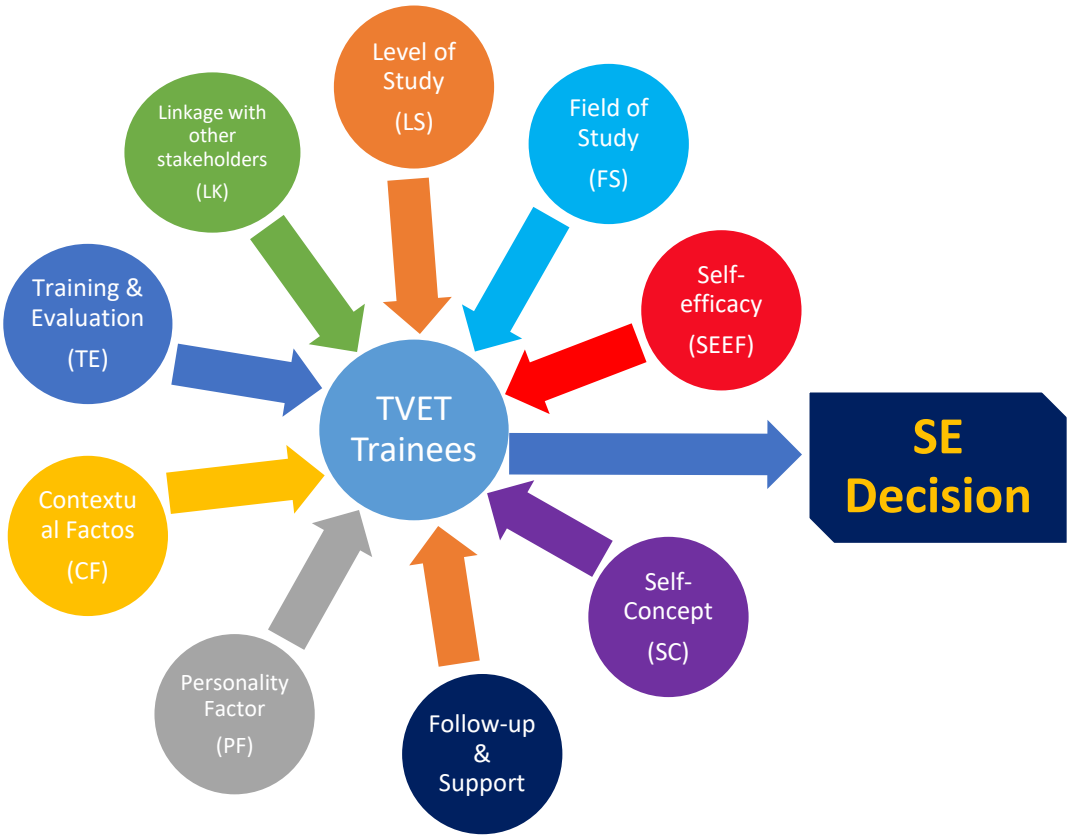

Figure 1: Conceptual Framework,
Source: NailaBano,Siliu YangandEasarAlam, (2022)

Self-employment decision (SE) is a dependent variable, but the remainingall are independentvariables. In this case, the additive model is applied. The equation below represent the model:

$Y_i = \beta_0 + \beta_i * X_i + \varepsilon_i$, where $Y_i$denotes the dependent variable, $\beta_0$is the constant, β is the regression coefficients of the independent variables, $X_i$sare the independent variables and ε denotes the random errors. Hence, the equation that represents the conceptual framework is given below:

$$Y_i = \beta_0 + \beta_1 * LS + \beta_2 * FS + \beta_3 * SEEF + \beta_4 * SC + \beta_5 * PF + \beta_6 * CF + \beta_7 * TE + \beta_8 * LK + \beta_9 * FoSu + \varepsilon_i$$

The dependent variable is represented by Y (SE- decision), and the independent variables are represented by β_1 * LS: level of study, β_2* FS: field of study, β_3* SEEF: self-efficacy, β_4*SC:self-concept, β_5 * PF:personality factors, β_6 * CF:contextual factors, β_7 * TE: training & evaluation factors, β_8 *TE:Linkage with other stakeholders,and β_9* FoSu.Follow-up & Support factors respectively.

Based on the conceptual framework, hypotheses were developed as follows:
Hypothesis 1(H_a1): Level of study has significant impact on SE decision making.
Hypothesis 2(H_a2): Field of study has significant impact on SE decision making.

Hypothesis 3(H_a3): Self-efficacy of trainees has significant impact on SE decision making.
Hypothesis 4(H_a4): Self-concept of trainees has significant impact on SE decision making.
Hypothesis 5(H_a5): Personality factors of trainees has significant impact on SE decision making.
Hypothesis 6(H_a6): Contextual factors has significant impact on SE decision making.
Hypothesis 7(H_a7): Training & evaluation has significant impact on SE decision making.
Hypothesis 8(H_a8): Linkage with stakeholders has significant impact on SE decision making.
Hypothesis 9(H_a9): Follow-up and Support has significant impact on SE decision making

4. Research Methodology

4.1 Research Design

For this study; the descriptive survey researchdesign was employed, as it enables the researcher to describe the current status of an area of study (Creswell & Creswell, 2018). Descriptive statistics allows us to summarize and present the voluminous data in a clear, accurate and simple way (Hannabuss, 1995). Thus, the use of descriptive survey simplifies a detailed set of numbers into simple values and explicitly quantifies data. However, descriptive statistics provide a summary of the collected sample data only. In order to tackle this limitation the researcher used inferential statistics to fill the gap and provide a summary of the overall population from which the sample was drawn.

The independent variables weretwo construct measures of cognitive variables (self-efficacy and self-concept),institutional(training and evaluation, linkage with other stakeholdersand follow-up and support), personality, contextual factorsand the dependent variable was self-employment decision.

4.2Data Collection

This study used quantitative approach for describing tendencies/intentions, attitudes, and perceptions of respondents towards self-employment (Creswell & Creswell, 2018)and regulates responses; allow comparison between perceptions of groups concerning the main issue about the study (Wesselink et al., 2010). Primary data were collected through questionnaire. The questionnaire was developed on five point Likerttype scale from 1 through 5, where 1 representing very low and 5 representing very high. The questionnaire was tested through pilot survey with four basic factors and thirty six indicators. After refining the questionnaire the factors remain the same and the indicators lowered to twenty nine which were used for the study. The Cronbach alpha value was found to .709and reliability of the questionnaire were tested using SPSS version 25.

4.3Target Population

Shukla P. (Shukla, 2008)define population as the total collection of elements about which the researcher wants to make inferences. The target population must be defined accurately and the researcher must be clear regarding who should and should not form part of the participants in a study.The population can be defined by geographical, demographic, economic, and social characteristics, as well as by the content of the survey. Creswell WJ(Creswell & Creswell, 2018)defines population as “a group of individuals who have the same characteristics”. The population corresponds to the entire set of subjects whose characteristics are of interest to the researcher.By clearly defining the target population, the researcher can easily identify the correct sources from which data can be collected (Zikmund et al., 2009).

The participants in this study comprised level III, level IV, & level V trainees at public and private TVET colleges for the 2020-2021 academic years. This study focused on a total of 8 TVET collegesin the study area, which were selected purposefully, as it is most often used in descriptive research where the concern of the researcher is to get an inexpensive estimate of facts (Hannabuss, 1995).

4.4Sample Size

The study was conducted in the selected zones (provinces) that provide training at three different levels (level III, Level IV & level V) with six specialized training programs, 6,348 trainees’.

For this study, to determine the sample size for trainees, the researcher preferred Yamane's (1967:886) simplified formula. A 95% confidence interval and p = .5 are assumed. For N= 6,348 and e = 5% allowance for non-precision because of the use of sample instead of the population. Using the specified formula it gives n= 376. For various scientifically supported reasons, additionally 20% of 376 were taken to compensate for non-returned questionnaires, for wrongly filled questionnaires, and incomplete questionnaires. With that the number of respondents was increased to 451. Based on this number, the respondents involved in this study were distributed to each college according to the proportion of their trainees.

4.5 Systematic Random Sampling

Here systematic random sampling is adopted for trainees since the entire population is finite. Using list of population, a systematic sample picks the first respondent at random and select each k^{th}respondent on the list to the desired sample size. Having the number of trainees determined for each college, the number of intervals was found out by dividing the number of trainees in each college. With this, having the list of trainees from respective departments, then by taking first respondent randomly and continue after 14^{th} item on the list afterwards until it reached the required number.Based on the above results, number of trainees have been assigned to each training field.

Table 4.1: College * Qualification Cross-tabulation

No	College	No of trainees	Sample selected proportionally	Remark
1	BSTL College	577	41 (9.10%)	(451*577)/6348
2	Halaba Poly-technic	985	70 (15.52%)	(451*985)/6348
3	Hawassa Polytechnic	1112	79 (17.50%)	(451*1112)/6348
4	HawassaTegbare-Ed	859	61 (13.53%)	(451*859)/6348
5	Infolink College	549	39 (8.65%)	(451*549)/6348
6	Dilla Polytechnic	760	54 (11.97%)	(451*760)/6348
7	Selam College	718	51 (11.31%)	(451*718)/6348
8	Zion College	788	56 (12.42%)	(451*788)/6348
	Total	**6348**	**451 (100%)**	

Source: Servey data, 2021

4.6 Data Analysis

Based on the type of basic questions and the nature of data collected both descriptive and inferential statistics were used to analyze the quantitative data with the help of Statistical Package for Social Sciences Soft (SPSS 25) for Windows version 25. All statistical methods was carried out using SPSS 25 to analyze the quantitative data. The Pearson Product–Moment Correlation (Kurtz, n.d.)was performed to examine the probable correlations between the various variables. The imperative factors were identified using regression analysis. Multiple regression allows a researcher to derive a lesser collection of variables from a bigger number of predictors by removing unnecessary predictors, simplifying the data, and improving the predicted accuracy (HALINSKI & FELDT, 1970). The findings of the survey and the outcomes of the nine tested hypotheses were presented below.

4.7 Reliability analysis

As we have used closed-ended questions with a five-degree Likert scale ranging from "very low" 1 to "very high" 5, the respondents were asked to rate their level of perception, and the Cronbach alpha was used to assess the internal accuracy and reliability of the questionnaire items used in this study. It is a dependable tool that measures the reliability of several items in a designed questionnaire. The collected data are entered into SPSS to perform the reliability review. The value of the Cronbach alpha is commonly used to assess item reliability. The internal consistency between the items is good if the Cronbach alpha is equal to or greater than 0.70, and the data are

considered accurate for further study. If the alpha value is lower than 0.5, then it shows poor internal consistency (Omar et al., 2011). Theoverall reliabilityintheTable4.2is0.769,whichshowsacceptableinternalconsistency.

Table 4.2Output of Reliability statistics for items in each constructs

Scales	Cronbach's Alpha	No of Items	Sample Size
All items	.769	30	451

NB: - 0.9 ≤ α: Excellent, 0.8 ≤ α ≤ 0.9: good, 0.7 ≤ α 0.8: acceptable, 0.6 ≤ α 0.7: questionable, 0.5 ≤ α 0.6: poor, For α < 0.5 is unacceptable

5. Results and Discussion

Predictors of Self-employment decision and their Interpretations

Hierarchical regression was employed to determine the influences of these independent variables on the dependent variable self-employment decision making.

According to the existing empirical and theoretical literature, SE decision making is influenced by both domain-specific cognitive, institutional, personality,and contextualfactors found to meaningfully relate with self-employment decision among young adolescents' self-employment career. In view of these, two key questions need to be addressed of the selected variables, which ones do meaningfully predict self-employment decision among the study subjects? To answer this, a Multiple Regression Analysis needs to be computed. On the other hand, to find out which variable among the set of variables (cognitive factors,institutional factors,personality factors,and contextual factors) have high contribution to the model influencing theself-employment decision making of trainees.

Table 5.1 Model Summary

Model	R	R^2	Adjusted R^2	SE
1	.189[a]	.036	.031	.65249
2	.440[b]	.193	.186	.59804
3	.440[c]	.194	.185	.59866
4	.499[d]	.249	.238	.57855
5	.597[e]	.357	.343	.53717

Moderating Effect of the Selected Explanatory Variables on self-employment decision

The "Model Summary" results showed that R^2 went up from 3.6% to 19.3% (Model 1 to Model 2 due to the inclusion of cognitive variables: self-efficacy and self-concepts), with small rise from 19.3% to 19.4% (Model 2 to Model 3 due to the inclusion of personality factor), again significantly it rise up from 19.4% to 24.9% (Model 3 to Model 4 due to the inclusion ofcontextual variables),and finally went up from24.9% to 35.7% (Model 4 to Model 5 due to the inclusion of institutional variables:training & evaluation, linkage with other stakeholdersand follow-up & support variables), approximately with total of 36% of the variability of the dependent variable self-employment decision explained by the whole independent variables in the final fifth model. This means that 64% of the variation self-employment decision cannot be explained by these independent variables. Therefore, there must be other variables that have an influence on it.

Table 5.2 ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.044	2	3.522	8.272	.000[b]
	Residual	190.732	448	.426		
	Total	197.775	450			
2	Regression	38.264	4	9.566	26.747	.000[c]
	Residual	159.511	446	.358		
	Total	197.775	450			
3	Regression	38.291	5	7.658	21.368	.000[d]
	Residual	159.484	445	.358		
	Total	197.775	450			
4	Regression	49.158	6	8.193	24.477	.000[e]
	Residual	148.618	444	.335		
	Total	197.775	450			
5	Regression	70.526	9	7.836	27.157	.000[f]
	Residual	127.250	441	.289		
	Total	197.775	450			

The "ANOVA" results showed that the first model (1 control variable) and the fifth model (9predictors) have a significant data (ρ< .001). However, in the "coefficients" results, three of the nine predictors are non- significant, whilesix variables showed significances. But for the purpose of fitting, only the last (the fifth model) is considered since the majority of the variance were explained at this stage.

To assess which group of variables: classified as domain-specific cognitive (self-efficacy and self-concept), personality, contextual, institutional (Training& Evaluation, Linkage with other stakeholders and Follow-up & support) condition factors as well as the demographic variable field of study predict self-employment decision among study subjects? To answer this, Hierarchical Multiple Regression output in five steps were discussed and the fifth model is used.

Table 5.3 Coefficients

Model		**B**	**SE**	**Beta β**	**t**	**Sig.**	**Toler**	**VIF**
5	(Constant)	.789	.202		3.895	.000		
	Field of Study (FS)	-.006	.015	-.016	-.397	.691	.931	1.074
	Level of Study (LS)	.080	.049	.065	1.630	.104	.930	1.075
	Self-efficacy (SEEF)	.140	.048	.127	2.912	.004	.761	1.314
	Self-concept (SC)	.168	.044	.160	3.838	.000	.841	1.190
	Personality Factors (PF)	-.065	.035	-.082	-1.863	.063	.762	1.312
	Contextual Factors (CF)	.083	.032	.122	2.622	.009	.675	1.481
	Training &Evaluation (TE)	.188	.047	.171	4.023	.000	.811	1.233
	Linkage with stakeholders (LK)	.226	.038	.253	5.962	.000	.808	1.238
	Follow-up & Support (FoSu)	.112	.045	.123	2.474	.014	.586	1.707

***Note**: R^2 = .036 in step1, ΔR^2 = .157in step 2, ΔR^2= .001 in step3, ΔR^2= .005 in step 4, & ΔR^2= .108 in step5.*

As the coefficient results in Table 5.3 revealed “field of study- FS” (b = -.006, ρ> .05, ns) emerged as statistically insignificant predictor of self-employment decision. However, the negative regression coefficient shows that the perception of trainees towards SE may vary as their field of study varies. “Level of study – LS” (b = .080, ρ> .05, ns) emerged as a statistically insignificant predictor of self-employment decision. The inclusion of self-efficacy (b= .283, ρ< .05)and self-concept and (b = .256, ρ< .05)in the second model implied that, both had meaningful effect or

contribution, and19.3% of the variability of the dependent variable self-employment decision is explained by field of study, level of study and the two added cognitive variables (R^2= .193; adjustedR^2=.186). In the third model, personality factors were included in the equation to assess their independent effect and contribution as well as their overall effect on the model's variance. Results show that, personality variables (b=.010, ρ> .05, ns) has positive butinsignificant effect on self-employment decisionwith a variance of 0.1% (ΔR^2= .001, ρ > .063) increasing the overall amount of variability explained by three variables of the model to 19.4% (R^2= .194; adj. R^2 =.185).

Examining the fourth model, the coefficient beta of contextual variables (b= .171, ρ =.000<.001) revealed that, gradually increases statistical significance and increase the overall amount of variability explained by the variables of the model to 24.9% (R^2 = .249; adj. R^2 = .238). This might be due to the mediating effect of contextual variable, which is strongly correlated with both the dependent variable self-employed decision and the independent variables level of study, self-efficacy, self-conceptand personality factor (table 5.4). The inclusion of the three institutional variables (training & evaluation, linkage with other stakeholders and follow-up & support) in step five added a considerable 10.8% to the total variance in model six (R^2 = .357). Moreover, training and evaluation (b= .188, ρ = .000< .001), linkage with other stallholders (b = .226, ρ = .000< .01) and follow-up & support (b = .112, ρ = .014< .05) found to be positively and significantly related to self-employment decision. Here, one can observed that as training & evaluation linkage with other stakeholders',and follow-up & support perceptions were positively & significantly leads to high self-employment decision making.Here the effect size of contextual variables dramatically decreased from .171 to .083. This might be due to the inclusion of the last three variables and their mediator nature and having strong correlation between both the dependent variable self-employment decision and the independent variable contextual variable.

In sum, the dependent variable self-employment decision making among the trainees is strongly predicted by trainee's field of study, level of study, cognitive variable (self-efficacy &self-concept), contextual variable, and institutional variables (training and evaluation, linkage with others & follow-up & support variables) about 36% of the variance. Trainees with high self-efficacy, self-concept, favorable institutional conditions and advantageous contextual scenarios will brings high probability of self-employment decision making.

The above relationship can be defined mathematically and considering the fifth model in the analysis (table 5.3), the fitted model is given by: -

SEdecision =.789-.006*FS +.080* LS + .140* SEF +.168*SC - .065* PF + .083* CF
+.188*TE + .226* LK + .112*FoSu

Table 5.4: Inter-correlations of the study variables (N = 451)

	1	2	3	4	5	6	7	8	9	10	11	12
1	1											
2	-.188**	1										
3	.057	.182**	1									
4	.006	.098*	.084	1								
5	-.017	-.010	-.110*	.048	1							
6	.041	-.029	-.137**	.081	.299**	1						
7	-.065	.016	-.083	.200**	.296**	.234**	1					
8	.005	.009	-.015	.174**	.156**	.217**	.303**	1				
9	-.004	.030	-.116*	.139**	.343**	.338**	.171**	.335**	1			
10	-.013	.020	-.071	.074	.306**	.192**	.208**	.268**	.376**	1		
11	.007	.025	-.178**	.069	.295**	.256**	.156**	.238**	.439**	.291**	1	
12	.022	-.106*	-.140**	.172**	.329**	.224**	.419**	.531**	.371**	.323**	.278**	1

Gender=1, Age = 2, Field of Study=3, Level of Study= 4, self-efficacy= 5, self-concept = 6,
personality factors = 7, = Contextual factors= 8, self-employment decision =9, Training and Evaluation = 10,
Linkage with other stakeholders = 11, and Follow-up and Support= 12.

**. Correlation is significant at the 0.01 level (2-tailed). And * Correlation is significant at the 0.05 level (2-tailed).
The correlation is Pearson r Correlation

Correlation Result analysis for study variables Validity checking

The correlation matrix is extremely useful for getting a rough idea of the relationship between predictors and the outcome, and look for multicollinearity preliminary. To assure the construct validity bivariate correlations were established among all independent variables the four demographic variables (gender, age, field of study and level of study); the two construct measures of cognitive variables (self-efficacy and self-concept),personality, contextual, institutional (training and evaluation, linkage with other stakeholders and follow-up and support) factorsand the dependent variable self-employment decision.

The regression analysis in Table 5.3 shows that there is a significant impact of the independent variables on the dependent variable self-employment decision making. Moreover, the correlation analysis shows that the correlation between variables also follows. The Pearson correlation values were -.116,was significant with .05 and .139,.343,.338, .171, .335 and .376, .439, .371were significant at the 0.01 levels, respectively. There was no correlation between SE decisionwithgender and age, but negatively correlated with field of study. The results of the correlation and regression analysis support all the hypotheses, i.e., the factors have a strong and positive relation with the dependent variable.

Table 5.5: Hypothesis Testing

Alternative Hypothesis (H_1)	Regression on SE decision making	b	R^2	F	t	p	Hypothesis accepted
$H_1$1	FS	-.006	.357	27.157	-.397	.691	NO
$H_1$2	LS	.080			1.630	.104	NO
$H_1$3	SEEF	.140			2.912	.004	YES
$H_1$4	SC	.168			3.838	.000	YES
$H_1$5	PF	-.065			-1.863	.063	NO
$H_1$6	CF	.083			2.622	.009	YES
$H_1$7	TE	.188			4.023	.000	YES
$H_1$8	LK	.226			5.962	.000	YES
$H_1$9	FoSu	.112			2.474	.014	YES

Discussion

The dependent variable SE decision was regressed on predicting the variables FS, LS, SEEF, SC, PF, CF, TE, LKand FoSuto test the hypothesis (Table 5.5). SEEF, SC, CF, TE,LKandFoSusignificantly predicted SE decision making f (9, 441) = 27.16, ρ< 0.001, which indicates that SEEF (b = 0.140, ρ= 0.004< 0.01), SC (b= .168, ρ= 0.000 < 0.001), CF (b =.083, ρ = 0.009< 0.01), TE (b = .188ρ = .000< .001), and LK (b = .226, ρ = .000 < .001) and FoSu (b=.112, ρ = .000< .001)can play a significant role on trainees to make SE decision making. Moreover, the R^2 = 0.357 shows that the model explains 35.7% of the variance in the dependent variable SE decision. As Table 5.5 depicts, FS, and PF (b = -.006with ρ = .691>.001 and with b = -.065, ρ = .063> 0.05, ns) respectively has a negative impact on SE decision making. On the other hand even though LS has non-significant role (b = .080, ρ = .104>.005, ns) it has a positive impact on SE decision.

The institutional factors (TE, LK, and FoSu) p-value is 0.000 and less than the 0.05 confidence level; hence, the conclusion is that institutional factors have a positive and high significant effect on SE decision. The findings about the institutional factors agreed with institutional capacity (personnel, student, facility), modern teaching learning equipment's and advanced training of trainers' (Musyimi et al., 2018); management of training facilities, equipment management (Okolie et al., 2019). The availability of logistics and startups included the presence of income generating units at the institution(Sulamo et al., 2022), provision of start-up capital, tools & materials for self-

employment, (Kintu, 2019); work place (Muhammedhussen Batu, 2016); and financial services (Muhammedhussen Batu, 2016), (Dessie, 2019). And the establishment of Institution-industry linkages included linkages with local industries for hands-on experience (Dasmani, 2011) and linkages through industrial attachment programs &cooperative training (Kintu, 2019). It is widely acknowledged that the training environment should be a realistic representation of the actual workplace.

In this study, trainees constitute CFs (economic, social and political factors) emanating from the contexts of SE. The economic factors are external observations about the increase of income, the opportunity for job creation and maintaining financial security of the SEs (Dessie, 2019) which in turn brings self-reliance and economic growth at larger scale (Haile, 2008).

6. Conclusion and Implications

This study investigated nine different variables, potentially influencingSE. The results reveal that cognitive factors (SEEF & SC), institutional factors (training & evaluation, linkage with others, follow-up & support),contextual factors (economic, social & political) , are the three variables that highly influence self-employment career decision; but, field of study and level of study and personality factorsdo not have a significant effect on self-employment career decision. Pearson's correlation was used to test the possible relationship among the variables, and a regression analysis identified the variables that were significant.

Based on the findings, it is concludedthat the trainees had negativeperception about:the personality factors (individuals motivation, interpersonal skills, self-confidence, & entrepreneurial capacity), and positive perception to: quality of TVET training program in equipping them with the necessary entrepreneurial skills, support services in enhancing self-employment ideas among trainees, the training received at the TVET colleges, college prepares trainees for self-employment today, linkage between industry and training colleges in supporting self-employment career, assessment mechanism pays attention to practical competencies, stakeholders attempt engagement for better understanding of the TVET curriculum and trainee's follow-up and supports, industry practitioners invited to the college provide self-employment career guidance, trainees' access to start-up supports, effectiveness of career counseling system for trainees towards self-employment, and institutions promote and encourage trainees for self-employment.

Specialconsiderationneed to be given to the quality of training system. Given the fact that a considerable number of trainees do not consider self-employment as a career, TVET colleges should work on promotion and motivationthrough cooperative training with the business community to encourage trainees to prefer self-employment as a career. In collaboration with the corporate industry, TVET institutions need to develop incubation services where trainees are guided and trained with vocational principles to perceive self-employment as an option.

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