



EVALUATION OF OUTCOME-BASED ACCOUNTING EDUCATION AND TRAINING IN SELECTED COLLEGES IN WEST OROMIA, ETHIOPIA

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Abstract. Purpose: The demand for accountants is increasing from time to time because of the increase in the complexity of the business environment. Higher education institutions are responsible for producing well qualified and ethical accountant required by different organisations. Specifically, Technical and Vocational education and Training (TVET) colleges play a great role in training middle and lower level accountant in Ethiopia. However, academicians, practitioner and employers are raising concern on the excellence and significance of training given in TVET colleges. The objective of this research is to evaluate the education and training in accounting offered by public and private colleges in West Oromia region, Ethiopia.

Research Methodology: This study used the cross-sectional survey to obtain the opinion of the trainee, trainers and college deans on how TVET in accounting program is performing about each of the components of CIPP model and identify the knowledge and skill gap as compared to the actual work environment. Both descriptive and inferential statistical tools were used in the analysis.

Findings: Examination of the existing TVET in accounting curriculum found that it has a limitation concerning relevance and content. The study further found that there is a lack of sufficient inputs such as an adequate number of qualified trainers, computers and Reference books. Trainers mainly use lecture methods, and there are various problems associated with continuous and summative evaluation. Therefore, it is recommended that the existing curriculum should be revisited, sufficient training inputs should be availed and cooperative training should be strengthened.

Research Limitations: This research is based on the respondent's opinion from a limited part of the country. The nationwide survey is required to conclude at the country level.

Practical Implication: the finding and recommendation given in this study can be used in strengthening TVET in accounting education and training in Ethiopia.

Originality / Value: Previous studies investigated the challenges of TVET education and training in general terms, and this specific study which focuses on TVET in accounting is the first attempt in Ethiopia.

Keywords: accounting, CIPP Model, outcome-based education and training, West Oromia, Ethiopia.

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Introduction

Competence is the use of knowledge, skills and attitudes obtained from training to perform work to the level expected in the actual work environment. Ethiopian education sector strategic development Program explains that competence-based Education and training approach facilitates the learning process in a way that students can acquire set of competencies required at the workplace as defined in the Ethiopian Occupational Standards (EOS) (Ministry of Education [MOE], 2011). Since the introduction of competency-based training in 2008, TVET education sector has implemented two EOS. The new EOS, which has been effective since 2012, commenced in six broad sectors including Economic Infrastructure; Health; Agriculture; Industry Development; Culture, Sport and Tourism; Labour and Social Affairs sectors. Among the available TVET sectors, Economic Infrastructure is the main focus of this study.

Economic infrastructure sector incorporates Business and Finance sub-sector. One of the programs in business and finance subsector is the field of accounting which can be described as training students about identifying, recording, summarizing, reporting, analyzing, and auditing financial data that will steer the decisions in business. Basic Clerical Work (Level I) is one of the occupational standards that every trainee has to go through before they start to study their area of specialization. All economic infrastructure sectors should pass through this level. Basic accounts Work (level II), Account and Budget support (Level III), Account and Budget service (level IV) and financial accounts management (Level V) occupational standard are the area in which trainees will specialize in the accounting area. Starting from Level III to Level V, trainees are expected to have specialities' in their level and expected to work without much supervision in the workplace (Edukans Foundation, 2012).

At the end of each level, the trainee is offered certificates, diploma or advanced diploma program that is provided for one, two and three years training respectively. The program has career development opportunity for those who deserve it after giving service in the world of work. These pieces of training in certificate and diploma are believed to meet the demands for skilled middle-level accountants in the country. However, academicians and employers complain that the program is not preparing graduates well for middle-level accounting profession because of several reasons.

The authors have conducted a study by taking evidence from TVET colleges in West Oromia, Ethiopia. The main objective is to scrutinise the present status of TVET in accounting in Ethiopia in general and west Oromia in particular in order to draw attention to issues that should be taken in to account in the process of implementing the various initiatives the country is undertaking to lift the profile of accounting profession. Specifically, the present study examines the challenges of accounting education and training at TVET colleges. The motivation for this comes because TVET in accounting which is aimed at producing a middle-level professional accountant is relatively ignored.

1. Statement of the problem

The accounting profession has been changing for several years as a result of rapid technological progress and increasing globalisation (Lin, Xiaoyan, & Min, 2005). The function of today's accountant has changed from mere record keeper to the provider and interpreter of

financial information to various internal and external users (Albrecht & Sack, 2000). This development requires enhancing the knowledge, skills and attitude of accountants to meet the changing demands of the current business environment.

Jeacle (2008) have pointed out the changing nature of accounting work overtime, and he calls for changes in the accounting curricula. In the current turbulent world, technical accounting competencies are not sufficient for educating professional accountants and needs to be complemented by other competencies. Colleges should incorporate the employer's expectations into their accounting curriculum in order to make sure that graduates are equipped with the knowledge, skills and attitude required by the market. However, there are increasing criticisms that the current accounting education and training are not in line with developments in the business environment (Madawaki, 2015). The same is true in Ethiopia, where employers usually complain that TVET accounting education and training has lagged and failed to prepare graduates for discharging their professional responsibilities adequately and they are spending too much resource to train newly recruited accountants.

On the other hand, previous experience has indicated that TVET institutions have been facing many challenges while implementing competency-based instructions because of limited competent instructors, lack of understandings about outcome-based methods of instruction and assessment, lack of instructional materials and financial constraints. So the research conducted in this area would have a great contribution for TVET institutions to see the challenges against their objectives (Mekonnen, 2012). There are indications that the current TVET training in general and accounting, in particular, lacks effectiveness and efficiency. Ministry of education (MOE) has confessed that TVET graduates remain unemployed even in those occupational fields that show a high demand for skilled human resources. Problems in the curriculum, Inadequate training of instructors and lack of up-to-date teaching materials are some of the factors that lessen the usefulness of outcome-based TVET program in meeting the required knowledge, skills and attitude by employers (MOE, 2008).

Assessment of the existing TVET curriculum recommended that the existing curriculum should be improved in order to prepare graduates for enhanced requirements in the actual accounting practice. For instance, the currently working curriculum does not embrace the international financial reporting standard (IFRS). Professional ethics are not properly incorporated and the textbooks used are not up to date with recent trends both at the international and national level. Specifically, the TVET accounting curriculum was mainly adopted from Australia and lacks local relevance in most of the competencies. The adequacy of the training is also low with much emphasis on theory rather than on the acquisition of skills (Report On the Observance... [ROSC], 2007).

Brain drain and low qualification of teachers is another big challenge. TVET colleges are losing better-qualified trainers because of low salary and lack of job security as a result of the frequent change in the programs. Further, the existing trainers lack appropriate skills and are not competent to provide training per the occupational standards. Many of the teachers are said to be old-timers and lack the creativity and practical skills to competently give the desired training using the new curriculum available at TVET Colleges (Solomon, 2011).

The problem is more critical in private TVET colleges which work mainly for profit generation. Therefore, they usually search for alternatives that maximize the profit from their business. As a result, they accept candidates that do not qualify the minimum requirement

for the program and hire less skilled teachers. The class size in most of the cases is beyond the standard and many of the students are not passing the COC Exam. They usually start their program without having adequate need assessment, manpower and training facility because of the weak financial capacity and poor government supervision.

The major problem observed in curriculum development for TVET accounting training was the frequent and unpredicted change made in it. Some TVET trainers complain that the change was not based on detail study of the limitations of the former curriculum instead; it is based on the grant and support coming from abroad.

Research in accounting education in Africa in general and in Ethiopian in particular were relatively ignored (Lubbe & Coetzee, 2018) though there are some researchers who studied the challenges in undergraduate accounting education at university level in Ethiopia (Mihret & Bobe, 2014; Kidane, 2012; ROSC, 2007; Belete & Dessalegn, 2011). Also, the challenges of the existing TVET system were studied in general terms to some extent (Dadi, 2014; Solomon, 2011). But TVET accounting education and training, in particular, were relatively ignored. Hence, there is increasing recognition by all stakeholders such as teachers, students, employers, governments and society the need and utility of researching within TVET colleges in order to prepare such institutions for the challenges of the 21st century.

The main research question for this study is, therefore, what are the challenges in the current TVET accounting training system and how do trainers and trainees perceive TVET in accounting education and training? Hence, the main objective of this study is to evaluate accounting education and training offered by public and private colleges in West Oromia as compared to the demands of the middle-level accounting profession. The study will try to elicit the perceptions of the respondents on how TVET accounting program had performed concerning each of the components of CIPP model (Context, Input, Process and Product) and identified the main limitations. Specifically, this study is aimed:

1. To scrutinise the context of existing outcome based TVET in accounting program in West Oromia region.
2. To investigate the adequacy of human power, material and physical facilities to undertake the TVET in accounting programs.
3. To study how current students, teachers, and college deans perceive the implementation of teaching and learning of the accounting program.

2. Literature review

Formal accounting education at university is a recent development even in developed countries such as USA, UK, Australia and Canada (Maatoug, 2014). In developing countries, the accounting education and accounting practice have been shaped by Western countries accounting systems. However, the status of their current accounting system differs from one country to another. For instance, earlier UK colonies modelled their accounting education and practices around the British systems. After independence, though some continued to follow their former coloniser's, others moved away from it. In most former colonies that continue to follow their former coloniser's accounting systems, their accounting education and practice are modelled from a single source after their colonisers. In such situations, accounting education and practice are aligned to one system (Kidane, 2012).

In regards to foreign influence on the development of accounting, Ethiopia possesses a unique heritage. Although it has never been colonized, it has had open relationships with the outside world. This means that the country was open to the influences of different countries' education systems and practices. In particular, UK and USA played significant roles in connection to the growth of Ethiopian accounting education and profession. The accounting curriculum used at university is based on USA textbooks, but practising accountant and auditor are still getting certification from UK based ACCA (Mihret, James, & Mula, 2009). Researchers in accounting advice the importance of aligning accounting practices and education for the growth of the profession in the country since accounting education serves as an input for accounting practice by providing theoretical and practical ground to students entering the profession (Mihret & Bobe, 2014).

Accounting education helps to shape the behaviour of a future accountant regarding knowledge, skill and attitude required by profession (Romanus & Arowoshegbe, 2014). As a result, every nation has introduced accounting education system in which Ethiopia is a part. The start of accounting education in Ethiopia is traced to the developments in the 1940s that created a demand for skilled personnel in accounting and auditing. In 1943, Addis Ababa Junior College of Commerce started offering diploma in accounting. The objectives of the college at that time is to produce middle-level accountants that are required for the then accounting profession. College of Commerce has continued training professionals in accounting at diploma level till the responsibility to train middle-level professionals in the field is transferred to TVET Colleges. In addition to the College of Commerce, other governments and private higher institutions have been training accountants to produce middle-level accounting practitioners (Belete & Dessalegn, 2011).

When TVET program was started in 2002, MOE of Ethiopia was responsible for determining the general areas and the specific programs to be opened. That time, all TVET colleges were using similar training materials for the same program and the curriculum used was the traditional knowledge-based curriculum. Traditional education and training are characterised by disciplinary knowledge, and it is subject-based. Its curriculum consists mainly of courses dealing with conceptual knowledge with limited practical works. Also, in traditional education and training, there is little attention to the application of theory, and as a result, the graduates' skills do not coincide with the demands of trade and industry in the country (Ministry of Education (MOE), 2011).

After a while, it was believed that taking existing experiences of other countries would help Ethiopian TVET system. Thus, the experiences of Australia and Philippines was adapted and used as a benchmark to develop new outcome-based curriculum starting from 2008. Outcome-based TVET curriculum is becoming popular nowadays in the world. Training based on outcome-based curriculum enables trainees to acquire knowledge, skills and attitude of defined standards corresponding to relevant workplace requirement and to reflect the realities of the workplace. Outcome-based training focuses on what is expected of the learners in applying what they have acquired to new situations and environments and emphasizes practical experiences (Dadi, 2014).

Several research findings have revealed the challenges to accounting education. For example, Singh (2004) evaluated the accounting courses offered by professional bodies and col-

leges in India and found that accounting education in India had failed to meet the changing nature of the business. This is because accounting education in India lacked coordination between academics and industry and remained fragmented. He concluded there was a need to update colleges' course curricula by current business' requirements. Yucel, Sarac, and Cabuk (2012) researched 245 students of Economics and Administrative Faculty of Uludag University in Turkey. They found the major problem faced by students as future accountant candidates are lack of accounting course content and practices, which lead to estrange students from accounting professions. They further argued that creating "fully furnished" students with a lot of theoretical knowledge was not effective. In connection to this Palm and Bisman (2010) concluded that the current accounting education has a limitation in equipping students with the required generic skills since most teachers use the conventional subject-based curriculum.

Lack of Computer facilities and other supporting equipment and resources are also critical problems in most training institutions in developing countries. For instance, Nassar, Al-Khadash, and Mah'd (2013) found that underfunding of computers and laptops and large class sizes at Jordanian training institutions negatively affects the learning process of accounting students.

Accounting education should provide students with basic accounting knowledge and ensure they can create measure and analyse information for decision making. In this regard, Allison (2007) surveyed 310 graduates from two universities in Victoria Australia and revealed they lack most of the generic skills desired by the professions, particularly interpersonal, communication and information technology skills. To broaden graduates' generic skills, the researcher suggested that course opportunities should be given to students to enhance their communication and problem-solving competencies (Allison, 2007).

Researcher in earlier studies has identified the following additional challenges affecting accounting education and training: The continuous changing business world, the lack of skills of the trainee, problems related to accounting trainers, the new generation of learners, improper adaptation of accounting education from developed world, biases of accounting education towards private sector, severe shortage of books and various other inputs, large number of students, political intervention (Fouch, 2013). Turner et al. (2011) suggest that accounting professionals and educators should be aware of the need to revise the curricula in order to reduce the negative effect of the above factors. In designing the syllabus, Turner et al. (2011) further advised accounting educators have to choose what to cover and how it aligns with the needs of the specific cultural and business environment. Fouch (2013) also calls for change in the current accounting education system since it remained stagnant for the last 50 years.

The curriculum is described as an academic plan which consists of purpose, content, sequence, learners, instructional process, resources, evaluation mechanisms of a certain program (O'Neill, 2015). Many education specialists recommend that curriculum should be revised periodically after making detail evaluation of its strength and weakness. There are several methods of evaluation education programs including; Tyler's Model, CIPP Model, Stack's Model, Roger's Model, Scriver's Model, Krikpatrick's Model. Among these, the study used the CIPP model to evaluate TVET in the accounting program. It is a comprehensive

framework for making both formative and summative appraisal of the educational program (Stufflebeam, 2003). Also, the guidelines set by the International accounting education standard board are used in the evaluation. International accounting education standards are guidelines that are set to strengthen the competence of current and future accountants (International Federation of Accountants, 2017).

3. Research methodology

This study used descriptive research approach. The rationale for the choice of the descriptive design is to collect factual information that would explain existing situations; make comparisons and evaluations; identify special problems or justify existing conditions or practices, and to determine what other people are doing about similar problems and to make suggestions for future courses of action. Descriptive research uses people and other written sources of information to describe, clarify, and interpret aspects of education as they presently exist.

The choice of data collection method mainly depends on the objective of the study. To achieve the research objective, the study used different methods of data collection including a survey questionnaire and Interview with key informants. In addition to survey questionnaire and semi-structured interview, the existing TVET curriculum at each Level, statistical data from Oromia TVET agency, Policy documents and other pertinent secondary sources were intensively used in the study.

Primary data was collected from trainee, trainers, college deans and an expert from Oromia TVET agency who are expected to implement the findings as well as those who are responsible for guiding the implementation effort. The respondents were selected from six TVET colleges in West Oromia including Jimma, Agaro, Mettu, Nekemte, Rift valley and Dandi Boru TVET colleges. Accordingly, data for this study were collected from 271 trainees, 21 trainers, 4 TVET college Deans and one expert from Oromia TVET agency selected using multistage sampling. The following Table 1 and Table 2 shows the characteristics of the respondents among the six colleges.

Table 1. Characteristics of a trainee who participated in the study

a) Sample Colleges	Frequency	%	b) College Ownership	Frequency	%
Jimma TVET College	58	21	Government owned	155	57
Rift Valley TVET College	58	21	Privet owned	116	43
Dandi Boru TVET College	58	21	Total	271	100
Agaro TVET College	21	8	c) Respondents' training Level		
Mettu TVET College	36	14	Level III Trainee	65	24
Nekemte TVET College	40	15	Level IV Trainee	206	76
Total	271	100	Total	271	100

Table 2. Characteristics of Trainers who participated in the study

a) Name of College	Frequency	%	b) Educational level	Frequency	%
Jimma TVET College	3	14	Masters Degree	4	19
Rift Valley TVET College	6	29	BA Degree	12	57
Dandi Boru TVET College	4	19	TVET Diploma	5	24
Agaro TVET College	2	10	c) Specialization		
Mettu TVET College	2	10	Accounting & Finance	13	62
Nekemte TVET College	4	19	Management	5	24
Total	21	100	Others Fields	3	14

The study was guided by Stufflebeam's (2007) four-stage model (Context, Input, Process, and Product) which proposes a straightforward, systematic, and practical approach to evaluate educational programs. There are numerous instances where the CIPP model has been employed to evaluate educational programs in Business fields. For instance, Adaboh (2014) has used CIPP in assessing the effectiveness of undergraduate accounting degree program in Ghana, Hsieh (1999) used CIPP model in evaluating banking and insurance technology programs in Taiwan; Onyefulu (2001) to evaluate the Business Education programs in Jamaica.

While evaluating the TVET in accounting program in TVET colleges in Oromia regional state which is the purpose of this study, four key dependent variables were used to frame the survey items that were employed in the survey instruments. These variables constitute the four main components of the CIPP (Context-Inputs-Process-Product) evaluation model. The context questions are aimed to find out if the goals and the objectives of the program were in line with national and professional standards as well as the mission of the TVET colleges. The input evaluation variables assess alternative approaches, action plans, budgets and resource allocation for the achievement of targeted goals. The process evaluation variables examine the training and evaluation process in the achievement of the identified goals. The product evaluation variables identify and assess the outcomes of the TVET in accounting as compared to the actual work environment.

Descriptive statistical tools are the main methods of data analysis that are suitable for this study. However, inferential statistics for differences such as t-test was also employed to find out differences in responses between the respondent groups whenever appropriate.

4. Result and discussion

Ethiopia is dedicated to participating in the highly competitive market economy in the world which requires middle-level technical professionals trained in the specific field of study. Hence, TVET is at the centre of Ethiopia's education strategy, which is aimed at the development of employable entrepreneurial skills. This section evaluates the TVET in accounting program using Stufflebeam's (2007) four-stage CIPP model.

4.1. Context evaluation

The different stakeholders who are implementing TVET in accounting program were requested to give their opinion on the deficiencies of the existing curriculum. With this respect, trainers were requested to give an opinion on the limitation of the current accounting curriculum and their response is summarised in Table 3 below.

Table 3 above vivid that shortage of training budget, lack of labour market information and absence of training need assessment are the top three challenges in accounting program respectively. These are critical in the sense that they do have a negative effect on the quality of training as summarised in the Figure 1 below.

Further, as can be seen from Table 4 above, trainers complain that in the currently working curriculum, professional experts did not participate sufficiently, it is directly copied from another country, other stakeholders’ didn’t participate, irrelevant to our countries context and it is too bulky to cover in the given period. Specifically, concerning relevance, when we see the competencies at each level, most of them are directly copied from Australia. For instance, some TVET trainers who are interviewed for this study complained that there are terminologies that are not popularly used in Ethiopia which were directly copied from Australian curriculum. The two countries are different regarding the legal, economic and

Table 3. Limitations of the Current TVET in Accounting Program

Which of the followings do you believe are major challenges of TVET in the accounting program	%	What deficiencies have you seen in the current TVET in accounting curriculum?	%
Shortage of training budget	62%	Professional experts did not participate	67%
Lack of labour market information	43%	It is directly copied from another country	57%
The absence of need assessment	24%	other stakeholders did not participate	43%
Theoretical method of instruction	19%	It is not relevant to our country	33%
Low quality students	14%	Time shortage to cover all competencies	33%
Total	100%	Total	100%

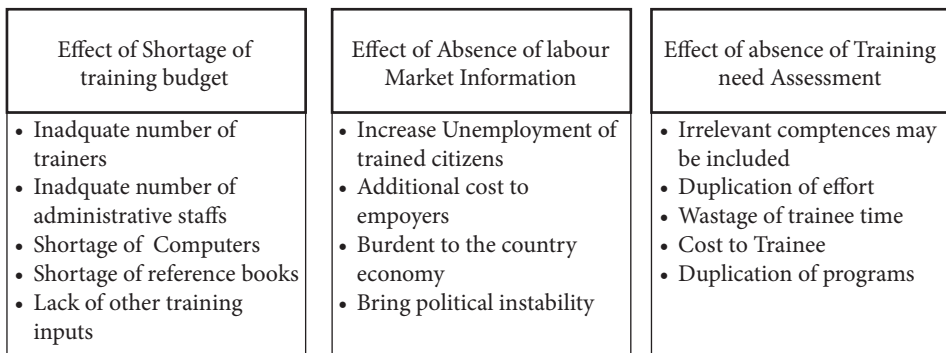


Figure 1. Negative effects of the three critical problems

cultural setting which will need different knowledge and skill in the training area. Taking experiences of developed countries might be good, but it should be customised to our countries context. With this respect, Bennett, Bouma, and Ciccozzi (2004), and Enthoven (1981) advice that any Accounting education and training should take into account the country's context. Copying the educational system from abroad is not helpful if it is not in line with the requirement of the country.

Further, the TVET deans interviewed mentioned the following problems about the curriculum. Relevant professional did not prepare the curriculum, aged trainers have difficulty adapting to the new curriculum. Although C level trainers can be assigned as a teacher, they are usually unable to prepare teaching material for their trainees, some of the competencies required facilities and the colleges have no sufficient budget, due to the temporary nature of the program, senior trainers will leave college and there is brain drain.

The perceptions of the trainee were sought with five closely linked context related questions. The objective of these questions was to evaluate whether the program goals, objectives and competencies were properly prepared, communicated and implemented in the TVET colleges in West Oromia region. The evaluation result is summarised in Table 4 below.

According to Table 4 of context question, except for item number 2, the mean score for all the others is greater than 3.00. This indicates that respondents tend to agree concerning the provision of information about accounting program, effort on customisation of the contents to Ethiopian practice by the trainers, flexibility and relevance of the current curriculum. However, the respondents disagree on the provision of written goal, objectives and reading material for each competency at the beginning of the training. Concerning relevance, the evaluation by the trainees is different from that of the trainers. Trainers argue that significant numbers of competences in TVET accounting curriculum are irrelevant to our context.

On the other hand, a significant number of trainees evaluated the competencies as relevant. This might be because trainers are trying to customize some of the competences to

Table 4. Context appraisal of TVET in accounting program

Items for Context Appraisal	N	Mean	Std. Deviation
My TVET College provides me with relevant, accurate, and timely information about the accounting program I am attending	264	3.4848	1.26962
Written goals, objectives and reading materials for each competency in the program are provided to me at the beginning of each Level	259	2.8571	1.32319
The training contents of each competency are customized to reflect the current needs of middle-level accounting practices in Ethiopia	269	3.7249	1.23633
The curriculum at each level is flexible in adapting the latest national and international developments in the middle-level accounting profession	266	3.3459	1.22271
The curriculums at each level have clear and relevant goals and objectives	254	3.7362	1.18176
Average Result	238	3.4420	.80016

Ethiopian context and they look relevant in the eye of the trainee. The overall context evaluation is only slightly higher than three which indicates that though respondents tend to agree on average, there are still problems that need the attention of concerned parties.

Independent sample t-test was used to see whether there is a significant difference regarding context evaluation between government and private colleges. The result showed that there was significant difference in scores for government colleges ($M = 3.5401$, $SD = 0.81543$) and private colleges [$M = 3.3089$, $SD = .76290$]; $t(236) = 2.222$, $p = .027$]. This means government and private colleges are significantly different concerning context measurement of TVET in accounting. According to Cohen (1988) the magnitude of the differences in the means was moderate (eta squared = .02). This implies that government and private college trainees have a different opinion for context evaluation variables which includes the provision of information about the program, goals and objectives and the curriculum. Private colleges are running for profit, and they do not bother about this kind of issues. Further, a significant number of trainees in private colleges complained that they are not using the current curriculum consistently.

4.2. Input evaluation

In creating a new product, the quality of inputs used plays a vital role. The same is true in a given education and training system. The input in a given training system can include trainers, budgets and other facilities like books, laboratories, computers, classrooms etc. This section identifies challenges associated with these inputs and evaluates the adequacy of the inputs. Highly competent trainers are the backbone of any education and training. In this connection, trainees were requested to mention limitations of their accounting trainers and the result is summarised in Table 5 below.

The analysis in Table 5 shows that the major problems were lack of skill in pedagogy and information technology. The challenges are relatively different between government and private colleges. In government-owned colleges, lack of information technology skill is critical whereas, in private colleges, the top limitation of teachers is lack of pedagogical skill and IT skill is the second critical problem. Table 5 above further revealed that the majority of respondents rated trainer's talent in practical teaching and IT skills as low. This implies trainers were not in a position to offer the required skills for the level. The open-ended questionnaire also indicates that the existing trainers are small in number and they are busy with their duty. The college dean interviewed further added that B – level trainers who are certified and have

Table 5. Limitations of current accounting trainers

In which of the following aspect your trainers are deficient?	Government	Private	Total
Pedagogy/method of teaching skills	10%	66%	34%
Information technology Skills	23%	34%	27%
Generic skills	11%	28%	18%
Subject matter Knowledge	4%	27%	14%
Practical accounting Skills	3%	18%	10%

industry experience are not found in the market sufficiently. In addition to the competence of the teachers, other inputs in the training process have an impact on the quality of training. Both trainers and trainees were requested about the criticality of these additional inputs, and the result is summarised in Table 6 below.

As can be seen from Table 6 above, the top five problems identified are the same both by trainers and trainees. The critical problems identified both by the trainers and trainee include; Lack of access to the Internet, Lack of training aids and facilities, Lack of the adequate number of computers and software, Lack of Library and up-to-date books and lack of an adequate number of qualified trainers. In this age of technology where everything is in the process of being digitalised, students should be acquainted with IT skills. For this purpose, our training institutions should have an adequate number of computers, software and Internet connection. Specifically, accounting trainee should be introduced with common software such as Peachtree accounting for their day to day accounting job. Our TVET colleges must have access to ICT to help them access online resources and use the Internet for their study. But as seen from the result, there are critical problems of an adequate number of computers and software in the sampled TVET Colleges.

Another important constraint mentioned by the respondents was connected to the absence of a library and relevant reference books. Trainers and trainees highly complain that no relevant reference book is in line with the curriculum. The adequacy and relevancy of books, up to date learning resources and research materials are determinant for the quality of outputs in TVET training. This is a serious problem even in the universities in the country. Mihret and Bobe (2014) found that there is a lack of locally written textbooks at Addis Ababa University and most of the teaching materials used are imported from abroad.

In addition to the inputs mentioned above, both trainers and trainees are complaining about the absence of an adequate number of class, chairs and other facilities. They further added that there is no conducive environment for training. Specifically, for evening class stu-

Table 6. Additional challenges in the training process

Challenges identified by Trainers	%	Challenges identified by Trainees	%
Lack of Access to the Internet	62%	Inadequate computers and software	48%
Lack of teaching supplies and facilities	52%	Lack Reference books	39%
Inadequate computers and software	43%	Lack of Access to the Internet	38%
Lack of reference books	43%	Inadequate number of qualified trainers	33%
Inadequate number of qualified trainers	33%	Lack of teaching supplies and Facilities	27%
Lack of a conducive learning environment	29%	Lack of Conducive Learning Environment	15%
Inadequate classrooms, offices and equipment	24%	Number of students too large	15%
Diversified learners Background	24%	Diversified learners Background	14%
Lack of LCDs projectors	10%	Inadequate classrooms, chairs and tables	11%

dent frequent power cut is affecting the quality of training. Also, they complain that there are no adequate cafeteria and restrooms for both trainers and trainees. About this, MOE (2008) also confessed that as a result of these physical and financial constraints, training provided by TVET institutions had been mismatched with the demands of skilled human resources in the economy. Finally, the perceptions of the trainee were sought using closely related input evaluation Likert scale items. The objectives of these items were to determine the perceptions of students on the overall quality and quantity of human and material resources committed to the program. Summary of the result is given in the Table 7 below.

The items in Table 7 above are believed to measure the extent of inputs to the program. From the result, one can see that except item 1 and 2, respondents are dissatisfied with the remaining three items. According to data for item number 2, respondents have agreed about trainees' overall readiness for class every day. Concerning the availability of adequate academic staffs and their level of helpfulness, respondents tend to agree slightly. For item 3, which sought responses on the availability of relevant course books at the library, respondents tend to disagree. A similar response was obtained using open-ended questions in the previous section. The same dissatisfaction was reported concerning the availability of classrooms, computer laboratories, software and access to the internet. The overall input evaluation also indicates that there is dissatisfaction among students.

Further, independent sample t-test was conducted in order to see whether there is a significant difference regarding input, between government and private colleges. For input variable, the result shows that there was no significant difference in scores for government colleges ($M = 2.8446$, $SD = .72633$) and private colleges ($M = 2.9918$, $SD = .85333$); $t(235) = -1.390$, $p = .166$]. This is to say, government and private colleges are not significantly different regarding input measurement which implies the input problems such as sufficiency and quality of trainers, availability of reference books, computers and other training facilities are equally a problem for both private and government TVET colleges.

Table 7. Input appraisal of TVET in accounting program

Appraisal Items	N	Mean	Std. Deviation
Trainees are coming well prepared for the training into class including me	261	3.3870	1.17329
Academic staffs and the program support staffs are available in sufficient number and helpful to trainees all the time	265	3.0491	1.23147
There are relevant course books and Teaching materials available in the library, and I can easily access them for reference	258	2.8798	1.36561
The classrooms are not overcrowded, and the facilities are adequate for the training	257	2.9105	1.37350
The computer laboratories have up-to-date software related to accounting such as Peachtree software, and there is internet access to get up to date information	267	2.2135	1.31623
Average Result	237	2.9055	.78298

4.3. Process evaluation

The training methods used are important to instil students' understanding of a particular subject and technical competency. In a comparative study in South Africa and UK, McCrewe, McChlery, and Visser (2014) found that teaching methodology was affected by the requirement of a professional association in the two countries. In South Africa, where the professional association have a stringent requirement, teachers focus on the requirement of the profession whereas, in the UK, there is relatively better freedom for the teacher to choose their teaching methodology. Project-based and case study approach is believed to be the best to develop critical thinking and problem solving, stimulate students' interests and link course material to practice. Not only advantageous for students, projects and case studies also can respond to the academic challenge on its practical relevance and contribute to the development of the knowledge (Abrahams & Witbooi, 2016). Specifically, the TVET strategy document states that TVET training should be undertaken 30% theoretical and 70% practical using cooperative training. In connection with this, trainers were asked about the training methods adopted at their TVET College, and the result is summarised in Table 8 below.

Effective teaching requires an understanding of the subject matter very well as well as the use of appropriate teaching methodology. As seen in Table 8 above, the lecture method is the most common training method and project and practical training are next in the respective order. The result further revealed that cooperative training and group work are less popular within the TVET in accounting. This is against Killen (2000) who suggested that Learner-centred approaches are required to be used by the instructor in order to implement outcome-based instruction effectively.

Educational assessment involves collecting evidence and making judgments on whether the trainee has acquired required competence. Especially, summative assessment is made at the end of each unit of competence or by grouping unit of competence according to their similarity. Both trainers and trainees were requested to mention challenges related to summative assessment which is commonly termed as COC (Certificate of Competence) and the result is summarised in Table 9 presented below.

As can be seen from Table 9 above, Lack of clear guideline on COC, Shortage of qualified assessors and the use of the same assessment tool repeatedly are major challenges identified by trainers. On the other hand, trainee identified; the assessment tools are out of content, Lack of clear guideline on COC, the use of same assessment tool repeatedly, the subjectivity

Table 8. Teaching method adopted by trainers

Which of the following teaching methods do you use in your training frequently?	Frequency	%
Lecture method	14	67%
Project-based Training	13	62%
Cooperative training method	7	33%
Group work Method	7	33%

Table 9. Challenges related to summative assessment

Challenges identified by Trainers	%	Challenges identified by Trainees	%
Lack of clear guideline on COC	43%	The assessment tools are out of content	44%
Shortage of qualified assessors	33%	Lack of clear guideline on COC	30%
Repeated use of an assessment tool	33%	Repeated use of an assessment tool	20%
Tools not prepared professionally	29%	Subjectivity of assessors	20%
Lack of confidentiality in tools	24%	Lack of confidentiality in tools	20%
Assessment tools are out of content	19%	The absence of orientation about COC	17%
The absence of orientation about COC	14%	Shortage of qualified assessors	13%

of assessors and confidentiality of the assessment tools are critical problems affecting their performance. Shortage of time in COC exam, lack of support for COC exam preparation, lack of confidentiality of the exam, not being professionally prepared are some more challenges mentioned.

Trainee further complained that TVET Colleges do not arrange COC exam regularly and frequent change of mode of delivery of COC are additional problems mentioned. Previously, students will take the theory part first, and if successful, they will proceed to practice. This was reversed, and students start taking practice first and then proceed to theory next. After a while, this was changed, and they started taking both at the same time. Recently students take the practice part and then proceed to the theory online.

The perceptions of the trainee were sought with five associated process evaluation Likert scale questions. The objective of these questions was to examine how trainee perceives the implementation of teaching and learning in the program and perceptions on the extent to which the various components of the program were being carried out. The response for process evaluation questions is resented in Table 10.

From Table 10 above, one can see that respondents tend to agree on the use of a variety of training methodology, facilitation of cooperative training, and undertaking both formative

Table 10. Process appraisal of TVET in accounting training

Appraisal Items	N	Mean	Std. Deviation
The trainers use a variety of teaching methods to facilitate learning	262	3.6489	1.15751
Trainers facilitate cooperative learning in the classroom (through activities such as group formation, class discussions etc.)	253	3.4822	1.25542
The balance between theory and practice in the training is 30:70 respectively	254	2.9055	1.19903
The trainers employ information technology (such as the use of internet resources–online videos, etc.) in their training.	261	2.8468	1.26775
Trainers undertake formative and summative assessment and give feedback for each competence on time	263	3.3346	1.27895
Average Result	227	3.2361	.85968

and summative assessment and give the feedback immediately. On the other hand, respondents tend to disagree on the balance between theory and practice in the training is 30:70 respectively and the trainers' use of information technology (such as the use of internet resources—online videos, etc.) in their training. Specifically, students complain that trainers are not prepared, the relationship between trainee and trainers is not good, trainers are not willing to show the exam result, providing too much material to be copied, they do have a language problem and they usually use Amharic language, focusing only on the theory part, not supporting needy students etc.

Independent sample t-test was used to see whether there is a significant difference regarding process measurement, between government and private colleges. The result shows that there was significant difference in scores for government colleges ($M = 3.4105$, $SD = .79673$) and private colleges [$M = 2.9849$, $SD = .88869$]; $t(225) = 3.773$, $P = .000$]. This means government and private colleges are significantly different regarding process measurement. This implies government and private college trainers use significantly different training methodology, cooperative training and assessment method. According to Cohen (1988) the magnitude of the differences in the means was moderate ($\eta^2 = .0595$). This seems logical as most private colleges do not have permanent staffs and most of the training are undertaken by part-timers. Staffs that are not permanently employed are not encouraged to make use of cooperative training and conduct assessment per the curriculum.

4.4. Product evaluation

The main objective TVET training is to produce highly competent professionals who will undertake their duties in the work environment. Hence, the contribution of the training obtained at TVET level to the professional practice will be known by conducting a study on a graduate. However, for this study purpose, respondents were requested to give their opinion on how the program and the training are influencing or have influenced their professional knowledge, skill and values. The result of the evaluation is presented in the table below (see Table 11).

Table 11. Product appraisal of TVET in accounting program

Appraisal Items	N	Mean	Std. Deviation
The program has helped me to acquire adequate knowledge in accounting including financial & managerial accounting, Finance, taxation and Auditing	263	3.8403	1.16451
The program has helped me to develop communication and quantitative skills	263	3.6920	1.25408
The program has helped me to develop Effective use of information technology skill such as the use of application software like Excel, Peachtree, internet, and email.	264	2.9356	1.38144
The training has helped me to develop Effective self-management and interpersonal skills	263	3.9163	1.11574
I am confident that I will successfully pass COC Exam at level III or Level IV	265	4.3849	3.30904
Average Result	240	3.7017	.87647

From Table 11, it can be seen that except item number 3, which sought whether the program has helped the trainee to develop effective use of information technology skill such as the use of application software like Excel, Peachtree, internet, and email, in all others, they tend to agree. The respondents agree that they have acquired adequate knowledge in accounting, the program has developed their communication and quantitative skill, the program has helped to develop their self-management and interpersonal skill. They are also confident that they will pass the COC exam. This result contradicts with the earlier finding, and it might be as a result of the positive attitude of the trainers towards themselves.

Independent sample t-test was conducted to see whether there is a significant difference regarding product between government and private colleges. With respect to product, the result shows that there was no significant difference in scores for government and private colleges ($M = 3.7486$, $SD = .86810$) and private colleges [$M = 3.6360$, $SD = .88825$]; $t(238) = .981$, $p = .328$]. This means government and private colleges are not significantly different regarding product measurement. This result is not in line with the overall belief that trainee in government is better than those in private college.

Conclusions and recommendation

The study found that TVET colleges are suffering from a shortage of computers, software and access to the internet. The study further revealed the shortcomings of competency-based TVET in the accounting curriculum and lack of training material and up-to-date textbooks. Well developed accounting training materials are lacking in the TVET centres. This is due to the trainers' inability to prepare their training materials. As a result, it becomes advisable if TVET agencies and TVET institutions jointly engage stakeholders with profound knowledge of occupational standards, different educators, curriculum experts and industry experts in the preparation of competency-based TVET curriculum materials. In this regard, Jimma University accounting and finance department should take the leading role and other stakeholders should provide support in arranging training on how to prepare training material especially on the technical aspect.

The Ethiopian economy is mainly based on agriculture. Especially, west Oromia region is known with the production of coffee, and there are significant numbers of investors engaged in coffee production. However, the curriculum at all levels lacks some relevant competencies such as agricultural accounting. Therefore, it plays a vital role to incorporate agricultural accounting competencies in the curriculum. Further, Professional ethics, language and quantitative method competences should be incorporated in any of the five levels to increase the generic skill of the trainee. Also, it is better to arrange all the competences in a logical order. Customising all of the competences to Ethiopian context is also required.

Cooperative training is negatively affected by lack of support from relevant organisations such as financial institutions, Revenue offices, and other business organisations. Getting their support requires awareness creation, making appropriate advocacy work and giving incentives. Especially, financial institutions like banks should be contacted to get real experience on competencies related to maintenance of ATM.

Trainees are highly frustrated by the absence of job opportunities. The economic growth and the expansion of TVET colleges should be closely monitored. Especially, Private colleges

are expanding to every region without having adequate input. The regional TVET agency should give due attention to private colleges. Politicians in the ruling party argue that graduate will create their job once they have obtained access to training through aggressive expansion of training institutions. The idea of self-employment sounds good, but many practical problems affect its realisation.

Trainers available at TVET centres are lacking practical competency. Alleviating the situation requires serious practical training for existing trainers. Care also has to be taken in the recruitment and deployment of trainers and COC assessors. Trainers should also try to upgrade their educational level. In this regard, the government should consider for promotion those trainers who improved their education at their own expense. Further, equal emphasis should be given to private college trainers.

The TVET deans should strengthen the monitoring and controlling so that trainers will complete all the competencies in the curriculum on time. The TVET colleges should also support those trainees who did not succeed in their first COC exam. The college should arrange orientation on COC exam and provide COC model questions. They should try to make the colleges conducive for training by fulfilling the necessary facilities, arranging graduation, and create linkage with potential employers. Jimma University should support TVET colleges in West Oromia by giving reference books, computers and other facilities in this regard.

Performance of trainee will be assessed during the training process by the trainer in the form of formative assessment. If trainee succeeded the assessment, they would be evaluated as “satisfactory” and otherwise “not satisfactory”. In the same way, in the COC summative assessment, if the students succeeded, they will be evaluated as “competent” and otherwise, “not yet competent”. This method of evaluating students’ performance has its own problem, especially during job recruitment. Therefore, it is recommended that either letter grade or actual mark scored in the exams should be written on the certificate awarded.

Association of Accounting Professionals influences the curriculum of accounting training in South Africa (Verhoef & Samkin, 2017). In Ethiopia, there is no as such strong professional association that can influence the education system. Therefore, strengthening the accounting association in Ethiopia plays a vital role in supporting the accounting education system in the country.

The last recommendation is that; employers themselves are advised to arrange periodic short-term training program at the organisation level. Further, they need to encourage employees to upgrade their educational level by sponsoring them to join regular or continuing and distance education program at the university. Further, they need to encourage those who join university for further education by covering tuition fee, provide study leave and exam leave.

Reference

- Abrahams, M. A., & Witbooi, S. (2016). A Realist assessment of the implementation of blended learning in South African higher education context. *South African Journal of Higher Education*, 30(2). <https://doi.org/10.20853/30-2-577>
- Adaboh, S. (2014). *An evaluation of the bachelor degree in accounting program in a Ghanaian private university* (PhD Thesis). UK: Andrews University.
- Albrecht, W. S., & Sack, R. J. (2000). *Accounting education: charting the course through a perilous future*. Accounting Education Series (No. 16). Sarasota, FL: American Accounting Association.

- Allison, M. (2007). A commentary on professionalizing claims and the State of UK professional accounting education: some evidence. *Accounting Education an International Journal*, 16(1), 23-26. <https://doi.org/10.1080/09639280601150947>
- Belete, J. B., & Dessalegn, G. M. (2011). *The misalignment between accounting education and practice in Ethiopia: A resource dependence perspective*. Paper presented at Accounting and Finance Association of Australia and New Zealand (AFAANZ) Open Conference Module.
- Bennett, M., Bouma, J. J., & Ciccozzi, E. (2004). An institutional perspective on the transfer of accounting knowledge: a case study. *Accounting Education: an International Journal*, 13(3), 329-340. <https://doi.org/10.1080/0963928042000273807>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.
- Dadi, L. (2014). *Effectiveness of competency – based TVET Curriculum in Ethiopia: the Case of TVET Institutions of Oromia Regional State* (PhD Thesis). Addis Ababa University, Ethiopia.
- Edukans Foundation. (2012). *Technical and Vocation Education and Training (TVET) mapping in Ethiopia final Report*. Learn for work Schkoland Program for Work.
- Enthoven, A. J. (1981). *Accounting education in economic development management*. Amsterdam: North Holland Publishing Company.
- Fouch, J. P. (2013). A renewed call for change in accounting education practices. *International Journal of Educational Sciences*, 5(2), 137-150. <https://doi.org/10.1080/09751122.2013.11890071>
- Hsieh, W. (1999). *Assessing the effectiveness of two-year banking and insurance technology programs of junior colleges in Taiwan, R.O.C.: An application of the context input process product (CIPP) evaluation model* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 9936933)
- International Federation of accountants. (2017). *International accounting education standard board: A hand book of international education pronouncement*. USA.
- Jeacle, I. (2008). Beyond the boring grey: the construction of the colourful accountant. *Critical Perspectives on Accounting*, 19(2), 1296-1320. <https://doi.org/10.1016/j.cpa.2007.02.008>
- Kidane, F. (2012). Accounting and auditing practices in Ethiopia: review, analysis, and conclusions. *EXCEL International Journal of Multidisciplinary Management Studies*, 2(6), 32-43.
- Killen, R. (2000). Standards-referenced assessment: Linking outcomes, assessment and reporting. Key-note address to be presented at the *Annual Conference of the Association for the Study of Evaluation in Education in Southern Africa*, Port Elizabeth, South Africa (pp. 26-29).
- Lin, Z. J., Xiaoyan, X., & Min, L. (2005). Knowledge base and skill development in accounting education: Evidence from China. *Journal of Accounting Education*, 23(3), 149-169. <https://doi.org/10.1016/j.jaccedu.2005.06.003>
- Lubbe, I., & Coetzee, S. (2018). Accounting education in Africa. *Accounting Education*, 27(5), 453-455. <https://doi.org/10.1080/09639284.2018.1514789>
- Maatoug, A. G. (2014). *Accounting education in Libya: an institutional perspective* (PhD Thesis). UK: University of Dundee.
- Madawaki. (2015). *Accounting education in Nigeria universities and the changing demands of the accounting profession*. Southern African Accounting Association (SAAA) And International Association for Accounting Education & Research (IAAER) Biennial Conference in East London, South Africa.
- Mekonnen, Y. (2012). *The status of implementing outcome-based TVET system in Major General Mulgeta Buli Technical College: challenges and prospects* (MA Thesis). Ethiopia: Addis Abeba University.
- Mecrewe, N., McChlery, S., & Visser, S. S. (2014). Balancing academic and professional pedagogies: a comparative study of two accounting departments in South Africa and the UK. *Teaching in Higher Education*, 19(3), 276-288. <https://doi.org/10.1080/13562517.2013.860103>

- Mihret, D. G., & Bobe, B. J. (2014). Multiple informal imperial connections and the transfer of accountancy to Ethiopia (1905 to 2011). *Accounting History*, 19(3), 309-331. <https://doi.org/10.1177/1032373214533174>
- Mihret, D. G., James, K., & Mula, J. M. (2009). *Accounting professionalization amidst alternating state ideology in Ethiopia* (Accounting History Forum Conference paper). Australia.
- Ministry of Education (MOE). (2008). *National Technical & Vocational Education & Training (TVET) Strategy*. Addis Ababa, Ethiopia.
- Ministry of Education (MOE). (2011). *Guide to training, teaching and learning materials development Ethiopian TVET System*. Adis Ababa.
- Nassar, M., Al-Khadash, H., & Mah'd, M. (2013). Accounting education and accounting profession in Jordan: the current status and the processes of improvement. *Research Journal of Finance and Accounting*, 4(11), 107-120.
- O'Neill, G. (2015). *Curriculum design in higher education: theory to practice*. Dublin: UCD Teaching & Learning. ISBN 9781905254989. Retrieved from <http://www.ucd.ie/t4cms/UCDTLP0068.pdf>
- Onyefulu, C. N. (2001). *An evaluation study of the B.Ed. Business Education programs in the University of Technology, Jamaica* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. NQ60330)
- Palm, T. & Bisman, J. (2010). Benchmarking introductory accounting curricula: Experience from Australia. *Accounting Education*, 19. <https://doi.org/10.1080/09639280903254959>
- Romanus, O. O., & Arowoshegbe, A. (2014). The challenges of accounting education: The Nigerian experience. *Accounting and Finance Research*, 3(2). <https://doi.org/10.5430/af.v3n2p129>
- ROSC. (2007). *Report on the Observance of Standards and Codes (ROSC)*. Ethiopia: Addis Ababa.
- Singh, G. (2004). *Emerging dimensions of accounting education and research in India*. India, Punjab school of management studies. Retrieved from https://www.researchgate.net/.../32233157_
- Solomon, M. (2011). *Challenges for Technical and Vocational Education and Training (TVET) in Ethiopia*. Ethiopia: St. Marry University.
- Stufflebeam, D. L. (2003). The CIPP model for evaluation. *International Handbook of Educational Evaluation* (pp. 31-62). Portland, Oregon. https://doi.org/10.1007/978-94-010-0309-4_4
- Stufflebeam, D. L. (2007, March). *CIPP evaluation model check list: a tool for applying CIPP model* (2 ed.). USA, Kalamazoo, MI: Western Michigan University.
- Turner, K. F., Reed, R. O., & Greiman, J. (2011). Accounting education in crisis. *American Journal of Business Education*, 4(12), 39-44. <https://doi.org/10.19030/ajbe.v4i12.6612>
- Verhoef, G., & Samkin, G. (2017). The accounting profession and education: The development of disengaged scholarly activity in accounting in South Africa. *Accounting, Auditing & Accountability Journal*, 30(6), 1370-1398. <https://doi.org/10.1108/AAAJ-08-2015-2192>
- Yucel, E., Sarac, M., & Cabuk, A. (2012). Accounting education in Turkey and professional accountant candidates expectations from accounting education: Uludag University application. *Business and Economics Research Journal*, 3(1), 91-108.