Review of Entrepreneurial Learning at selected Agricultural Technical Vocational Education and Training (ATVET) Colleges

For

Bright Future in Agriculture Ethiopia (BFA) Program

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1. Background

1.1. The Bright Future in Agriculture (BFA) Ethiopia

The Bright Future in Agriculture (BFA) Ethiopia is a three-year (2019-2021) project funded by the Netherlands Ministry of Foreign Affairs being implemented by the partnership of Maastricht School of Management (MSM) from the Netherlands with the Ethiopian Federal TVET Institute. Attached to the UN Sustainable Development Goal 2: end hunger through promoting agricultural growth, creating ecologically sustainable food systems, and increasing water use efficiency in agriculture, the project aspires to impact youth employment and business performances along the agricultural value chains.

With its focus on the dairy and horticulture sub-sector, the project aims at improving the quality and employability of agricultural TVET graduates drawing on an implementation approach of the triple helix which is a partnership between the local, regional and federal level actors. This systemic approach is sought to identify and address the underlining local economic development needs via investment in agricultural TVETs graduates, industry engagement, and technology transfer. Following the launch of the Bright Future in Agriculture-South by January 2020, there are in total 12 beneficiary institutions in Ethiopia out of which the Federal TVET Institute and Arba Minch University are the lead partners. At the micro-level, seven agricultural TVETs have been selected for capacity building support for them to play instrumental roles in delivering an inclusive agro-processing, value addition and production teaching, technology transfer, and industry engagement. While TVET bureaus at Amhara and Oromia regions are key executing partners at meso level, the Federal TVET Institute is the main actor at the macro level for the improvement of The TVET system and programs related to dairy and horticulture sub-sector.

In a bid to implement the stipulated overall objectives and outcomes, the BFA project is implementing wide ranges of integrated activities among which, designing and implementing entrepreneurship development programs within the selected agricultural TVETs systems is a major sub-component. For the sustainable implementation of entrepreneurship development sub-component, the project seeks to build the delivery capacities of the selected ATVETs. It is in this framework that, the team of consultants, in coordination with the project office in Ethiopia took an assignment to review the context of entrepreneurial learning at selected Agricultural Technical, Vocational Education and Training (ATVET) colleges. This report, therefore, presents the current performance of the delivery of the entrepreneurship unit of competence and the entrepreneurship promotion services at selected ATVET colleges. Further, the report highlights the suggested intervention strategies aligned to the desired performance to improve the entrepreneurship provision in the selected ATVET system.

1.2. Objective

The overall objective of this review is to explore and evaluate entrepreneurship education at selected ATVET colleges. More precisely, the review is aimed at:

- understanding the departments to which entrepreneurship course is offered.

- Understanding the objectives of entrepreneurship course at the colleges.
- assessing the contents of entrepreneurship course.
- exploring pedagogical (teaching methods and evaluation methods) aspects of entrepreneurship learning in the selected ATVETs.
- studying extracurricular activities that are meant to promote entrepreneurship at the colleges.
- Suggesting possible recommendations that may help to improve entrepreneurial learning at the ATVETs.

1.3. Approaches and Methods

Data Collection

The conduct of this assessment center on a blended approach designed to mix quantitative and qualitative data to throw light on the subjective as well as objective realities in the context of the subject at hand. The rationale for the mixed design is to have a deeper and extensive sense of the current performance of the entrepreneurship delivery capacity and strategic activities to promote entrepreneurship development within the selected ATVET system. Specific data gather methods employed for this survey are online survey and virtual group discussions.

An online survey questionnaire with a mix of close and open-ended questions was designed and administered to the selected instructors with the prior experience of teaching the entrepreneurship unit of competence in their respective colleges. The rationale behind this was to draw well-informed insight into the context of instructional challenges and entrepreneurship delivery from someone who has experienced the reality at the front line. The survey questionnaire was designed to generate perspectives on the practice of the entrepreneurship education at the ATVETs.

Virtual group discussion was deployed to triangulate data obtained from the online survey, but while heavily focusing on obtaining data from the management team of the college. The objective for this was to elicit strategic insights on the objective and performance of the entrepreneurship course delivery capacity from an instructional perspective, the strategic extra-curricular activities in place to promote and inspire the development of entrepreneurship in the college.

Analysis

While composing this review report the data was analyzed using the thematic approach where the survey and discussion results were integrated per the major themes of the assessment stated under the objective section. Accordingly, discussions are made inline with the departments to which entrepreneurship learning is offered; the objectives of entrepreneurship learning; the contents of entrepreneurship course; pedagogical (teaching methods and evaluation methods) aspects of entrepreneurship learning in the selected ATVETs; and extracurricular activities that are meant to promote entrepreneurship at the colleges.

Sampling

The review was conducted in the six selected ATVET colleges namely, Bako, Konbolcha, Alage, Sodo, Merawi, and Bishoftu Polytechnic college. The college was selected in consultation with the BFA project management team. The selection process conducted to ensure the representation and coverage of all ATVET colleges selected for the local implementation of the project goals. The initial plan was to reach out to sample 4 colleges before the COVID 19 pandemic, as part of the pivoting exercise to use virtual option, an endeavor has been made to reach out to 6 colleges to ensure the collection of valid as well as richer information. Meanwhile, in line with data collection methods, a purposive sampling method was used to select a maximum of 10 instructors teaching the entrepreneurship unit of competence from each college for participation in the online survey. For the virtual group discussion with the management team, a systematic effort has been made to at least involve 3 college management representatives. For this to happen, the team for discussion was selected from the top college leadership positions – the college dean, academic vice-dean, industry extension and technology transfer, and department heads in either dairy and plant sciences.

1.4. Agricultural Technical and Vocational Education and Training (ATVET): A background

Technical and Vocational Education and Training (TVET) connects education and the world of work and aims to address economic, social and environmental demands by helping youth and adults develop the skills they need for employment, decent work and entrepreneurship. Accordingly, TVET systems are expected to play an instrument role in producing technicians equipped with practical knowledge to be able to supply not only middle-level human power demanded for the productive industries but also who would be able to create their own jobs instead of seeking salaried employment. The expansion of TVET system in Ethiopia is driven by the national TVET strategy which was enacted in 2008 as one of the several initiatives put in place by the government to boost entrepreneurship & micro, small, and medium enterprises (MSME) development and the creation of employment opportunities for the citizens. The strategy also aims at improving the quality and efficiency of the products manufactured within the country by producing trained workforce for the industries since whatever is produced in the economy to be competitive, both in the domestic and international markets, depends on the quality of the productive workforce the country has.

Agriculture is one of the leading sectors and the underpinning of Ethiopia's economy, contributing enormously to its economic growth. The country has been promoting and supporting the extension service as an important gadget to meet the agricultural sector's development agendas. Consistent with this, the Government of Ethiopia has been investing in the establishment and expansion of ATVETs. Agricultural Technical and Vocational Education and Training (ATVET) is a subset of TVET approaches and institutions that is mandated to train skilled workers to fill a variety of roles that relate to agricultural development. Similar definition is provided by Jones (2013) who defined ATVET as an educational process involving, in addition to

general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in agriculture.

As a vital component of the general TVET program, Ethiopian Agricultural Technical and Vocational Education and Training (ATVET) strategy targets to immensely contribute to the national mission of creating a modern and highly productive agricultural system that uses a more advanced technology with the ultimate aim of transforming the rural community. In other words, the ATVET system is geared towards improving the competitiveness and sustainable development of the agricultural sector through integrated demand-driven and competence based ATVET systems and producing qualified, competent and responsible workforce in order to enhance smallholder agricultural productivity in rural areas. The specific training program provided at the ATVET aims at producing rural-targeting personnel in animal science, plant science, animal health, natural resource management, agricultural mechanization, and cooperative promotion. Therefore, the ultimate objective of Ethiopia's ATVET system is to offer the skills necessary to be employed as an extension agent within the national system. In addition to support in production practices, there are increasing calls within the ATVET literature to provide entrepreneurial training for these individuals who can create their own jobs (Rivera and Alex 2008). The same authors emphasize the growing place of the small, entrepreneurial farmer and the need to provide vocational training that includes a heavy emphasis on business and managerial skills. However, when closely looked into, the ATVET system in Ethiopia, is not equipping the students with the right entrepreneurship competency and readiness that enable the graduates to pursue entrepreneurship career in their field of studies. Among the several culprits behind this challenge, according to literature, lack of prior readiness of the entrepreneurship trainers to provide impactful training, heavy reliance on the traditional transmissive teaching methods to impact competency in entrepreneurship, lack of strong and effective entrepreneurship development promotion programs, and limited institutional capacity of the ATVET institutes themselves to introduce needed level of innovation and transformation in the provision of the unit of competency in entrepreneurship.

2. Theoretical Review of Entrepreneurship Learning (EL)

Entrepreneurship and Entrepreneurship Learning: Meaning

With the understanding that entrepreneurship skills can be taught (Matlay, 2006; and Kuratko, 2005), nurturing entrepreneurship has become a topic of highest priority in higher education systems both in universities and Technical Vocational Education and Training programs. As a result, entrepreneurship education is promoted in TVET colleges as a mechanism for educating and developing students for an entrepreneurial career and equipping them with the necessary skills and competences not only to create their own jobs but also to create jobs for others. Matlay (2006) noted that entrepreneurship education is believed to have invariable result in a comparable growth in the quantity and quality of entrepreneurial activity.

However, there is no consensus in literature on what entrepreneurship is and how best entrepreneurship skills and competencies can be taught. The potency of entrepreneurship is

concisely presented by Kuratko (2005) who claimed that entrepreneurship has emerged over the last two decades as arguably the most potent economic force the world has ever experienced. In view of that entrepreneurship has been defined in many ways. For instance, according to Danish Foundation of Entrepreneurship 'Entrepreneurship is when you act upon opportunities and ideas and transform them into value for others. The value that is created can be financial, cultural, or social. Kuratko and Hodgetts (2004) entrepreneurship defined entrepreneurship as a dynamic process of vision, change, and creation. The definition implies that entrepreneurship requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions. Another but similar definition was offered by Hisrich and Peters (2002) who defined entrepreneurship as the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence. Although numerous definitions can be obtained from literature, commonalities, namely risk taking, creativity, independence, and rewards can be obtained from varying definitions and these communalities continue to drive the notion of entrepreneurship and entrepreneurship education Hisrich and Peters (1998).

Entrepreneurial learning is often used interchangeably with other terms, from entrepreneurship education to enterprise education, from intrapreneurship to employability, from soft skills to employability skills (UNESCO-UNEVOC, 2019). In the body of entrepreneurship literature, it is not just the essence of entrepreneurship that is elusive, but also the meaning of entrepreneurial learning. Accordingly, entrepreneurial learning, has been defined in numerous ways. Keat et al (2011) defines entrepreneurial education as a course and lectures that contains the curriculum that offers entrepreneurial capabilities, expertise and understanding to entrepreneurship professions while Alberti et al. (2004), defined entrepreneurship education as the structured formal conveyance of entrepreneurial competencies, which in turn refers to the concepts, skills, and mental awareness used by individuals during the process of starting and developing their growth-oriented ventures. Both the above definitions portray entrepreneurial learning as is a purposeful package that is intended at conveying not only entrepreneurial knowledge but also inspiration, competencies, and readiness to become entrepreneurs in the future.

In the context of TVET curriculum, entrepreneurial learning is viewed into two ways: narrow and broad ways. The narrow definition portrays the goal of entrepreneurship education as 'becoming an entrepreneur', with emphasis on preparation for setting up a business and this narrow definition embraces primarily theoretical content relating to entrepreneurship, the identification of opportunities, business development, self-employment, venture creation, and growth while the goal of the wide definition is 'becoming entrepreneurial' (Lack´eus, 2015). The broader way of defining entrepreneurial learning embodies the idea that the essence of entrepreneurship learning is to develop not only entrepreneurial knowledge but also entrepreneurial skills and attitudes and TVET systems tried to consider how to enact this new set of competences that their graduates need for the future. Consistent with this, UNESCO-UNEVOC (2019), emphasized that for TVET, it is most important to reach a better understanding of the specific competences to be developed.

Entrepreneurship Education: Importance

Research in the area has revealed positive role that entrepreneurial learning has in inducing entrepreneurial aspiration and actions in the students. According to Edmond, et al (2014), entrepreneurship education offers learners an opportunity to become business owners. Ibrahim et al. (2015) also stated that greater knowledge about entrepreneurship education can result in students having more convincing views on entrepreneurship interest. The authors specifically assessed relevant literature in the area and concluded that exposing the TVET students to entrepreneurship can propel students to become entrepreneurs. Other research outputs claim that entrepreneurial learning increase learner's likelihood to start their own business in the future by many folds. European Commission (2014) reveled that learners who attended enterprise education are three to six times more likely to start a business in the future. According to the same study, through entrepreneurship activities, learners can gain key entrepreneurial skills such as critical thinking, problem-solving, communication, risk-taking and teamwork and that entrepreneurship can offer alternative pathways for young people, improving their skills, employability and life chances, while supporting wider economic and social development. In general, entrepreneurial learning is relevant in vocational training as self-employment is a realistic option for many TVET students, who end up establishing their own businesses (CEDEFOP, 2011) justifying investing in entrepreneurial learning in TVET systems.

Objectives, Content, and Teaching and Assessment Methods of EL

Leaning objectives are what are intended to be achieved in the curriculum of the EL and hence a determinant for the choice of pedagogical approaches. Accordingly, the content of entrepreneurial learning is often dictated by the objectives that one aspires to achieve in entrepreneurial learning. Consistent with some authors in the field (Co and Mitchell, 2006; Kirby, 2004) objectives of EL are categorized into what they termed as educating for, about, in or through entrepreneurship.

To educate for entrepreneurship means to create an entrepreneur; that is, an individual who is destined to starting a new venture. Co and Mitchell (2006) explain that educating for entrepreneurship addresses both the present and potential entrepreneurs with the aim of stimulating the entrepreneurial process, providing them with the tools to starting a business while to learn about entrepreneurship is to obtain a general understanding about entrepreneurship as a phenomenon (Hytti and O'Gorman, 2004) and yet educating in entrepreneurship is said to aim at making individuals become more entrepreneurial (innovative) in their existing firms or place of work (Kirby, 2004). The difference between educating for and about entrepreneurship are concisely presented by Postigo and Tamborini (2002) as while education for entrepreneurship focuses on the learning experiences and the development of competences, skills, aptitudes and values; education about entrepreneurship is mainly based on the construct and transference of knowledge about the field.

The teaching methods employed by educators in EL may vary. Traditional/transmissive or experiential learning approaches are the two major methods reportedly used in EL. The

traditional approaches to teaching entrepreneurship are lecture-based in which knowledge is passed to learners while enterprising approaches emphasize the use of experiential and action learning through which knowledge is constructed by learners in the process of doing (Lourenco and Jones, 2006). The objectives that the EL intend to achieve tend to dictate the methods employed by the educators. Klandt (1993, cited in Co and Mitchell, 2006) appears to differentiate teaching methods used for teaching for or about entrepreneurship. According to him, the more commonly used methods in educating about entrepreneurship are consulting services by students and research while educating for entrepreneurship involves using techniques such as: videos, practical work, writing business plans, computer simulations, role playing games, working with entrepreneurs, and joining a students' entrepreneurial club. The need to pursue experiential teaching methods in EL in TVET system is specially highly recommended. By nature, TVET is often very practical in nature, but the entrepreneurial learning curriculum goes beyond this to provide the active learning experience through which TVET students understand and develop their entrepreneurial competences (UNESCO-UNEVOC, 2019). One way to expose TVET students to the business world so that they can gain practical experiences to embark on and strengthen apprenticeship program. Apprenticeships can be adapted to develop entrepreneurial competences, adding to the value of the work-based educational experience (UNCTAD, 2015). Beyond this, UNESCO-UNEVOC (2019) recommended three practical approaches to ensure skills and attitudes based on entrepreneurial competences can be strengthened and recognized through defined entrepreneurial learning outcomes in EL. These are: authentic learning, student directed learning, and multidisciplinary learning. Authentic learning means applying knowledge in real-life contexts and situations. It can translate into entrepreneurial learning in real-life working environments (such as work-based learning where entrepreneurial competences are explicitly developed) or working in teams to create viable solutions to real-life business or community challenges Student-directed learning on the other hand requires a move from a teacher-led approach, where the teacher imparts knowledge to the student, to a model in which the teacher takes a more facilitative, guiding approach to student learning. One way to achieve this is through an enhanced project-based learning experience or a business-/ venture-creation experience. In Multidisciplinary learning, students from across disciplines are given the opportunity to work and learn together as part of their curriculum. Projects are often co-designed by a team of teachers and provide students with the opportunity to interact and innovate together through experiential approaches. This can be undertaken via structured curriculum cooperation or through add-on activities such as an 'entrepreneurial week' or themed weeks where all curriculum subjects focus on contributing to a whole-school, multidisciplinary, practical entrepreneurial experience for students.

Assessment method used in evaluating students' performance for entrepreneurship course is another area of debate in EL. Assessment methods are important as they are one means by which educators will verify the extent to which the students are close to meeting the course objectives. Assessment and examination form the basis of how well the students have utilized time and resources available to them to accomplish the objectives of the course studied (Robertson et al., 2003). Routinely, final examinations and tests constitute the common methods for assessing entrepreneurship educations. However, the utilization of these traditional methods was challenged by several researchers. According to Henry et al. (2003) for example,

entrepreneurship education does not fit neatly into the models of the traditional examination. The European Commission (2011) recommended such methods as formative assessment, student self-review and peer review, local business or community feedback, progress and forward planning, and dissemination and celebratory events as the most effective ways of assessing the performances of learners in EL in TVET system.

The Role of Teachers/Trainers in EL

Teachers and trainers are the catalysts for change within any education system, and the mainstreaming of entrepreneurial learning across TVET requires a robust supply of well-trained trainers. The teacher is the most influential actor in the actual implementation of the curriculum' (OECD, 2015). Without training, trainers may lack the confidence and ability to effectively incorporate entrepreneurial competences and relevant curriculum pedagogies into their teaching. Accordingly, teachers and trainers must be well equipped with the necessary pedagogical skills and hands on experiences to help their students benefit from the entrepreneurial learning exposures they go through at different stages of their stay at TVET system. A well design entrepreneurial learning curriculum by itself will not generate the desired output unless it is facilitated by a well prepared and well-motivated instructors. Indeed, a lack of available teacher training has been linked to the slower implementation of entrepreneurial learning across education systems in Europe (EUP4Y, 2017). To bridge the observed gaps in teachers' readiness to provide EL, several renounced international organizations such as ILO (2006), EU Commission (2016b), OECD (2018a) called for specialist training in entrepreneurial learning for TVET teachers and trainers. UNCTAD (2015) also insisted that teachers need to understand key entrepreneurial attitudes and skills and require training in entrepreneurship in order to promote these skills, focusing on experiential learning and project work, identifying best answers, rather than providing students with solutions. The challenges to introducing high-quality teacher and TVET leader training include the resourcing of such an initiative, the costs of training and the costs of replacement teaching staff where needed (UNESCO-UNEVOC (2019) and another factor can be the immediate association of entrepreneurial learning with business training, potentially resulting in teachers and trainers not seeing training as relevant to their current teaching priorities and thus not taking part (ILO, 2006). Accordingly, building the capacity of entrepreneurship teachers and trainers using different modes of capacity building methods such as pre-service training, in-service training and work placements and mobility could play crucial role in boosting the effeteness of entrepreneurial learning.

3. Results

Under this section, the presentation of the major finding of the review shading light on the current practices of entrepreneurship learning at selected ATVET colleges. Covered under this section encompass the structure of entrepreneurship unit in the institute, departments in which entrepreneurship course is provided, areas of focus and objectives of entrepreneurship courses; the teaching and assessment methods used in entrepreneurship education, and extracurricular activities undertaken to promote entrepreneurship by the institute.

3.1. Profile of the Respondents

Two groups of participants were involved in this assessment. The first is participants of the group discussion from the six selected ATVET colleges- the management team and survey respondents- the college instructors. The table 1 below shows sample colleges and numbers per method used. Accordingly, from all sample ATVET colleges, a total of 44 instructors participated in the online survey. Meanwhile, 16 members of the college management team from the top leadership tiers such as College dean, academic vice-dean, vice dean for industry extension and technology transfer, and department heads of either animal or plant science took part in the virtual discussion via zoom technology and teleconferencing. The non-response was observed from Woreta ATVET college as multiple scheduled meeting was canceled from the participant's side due to connectivity and access to the power problem. Access to internet and e-mail account was reported challenge for the online survey respondents as only 1 case is presented. In nutshell, the data collected observed rich, and saturation level was attained to draw analysis and generation on the subject.

Table 1: Number of respondents/participants per ATVET colleges and methods used

S/N	Sample ATVET College's	Number of respondents	
		Online Survey (instructors)	Virtual Group Discussion (Management team)
1	Bako	8	4
2	Konbonlcha	8	3
3	Alage	11	3
4	Bishoftu	2	-
5	Wolaita Sodo	14	3
6	Merawi	1	3
7	Woreta	-	-
	Total	44	16

Source: Online Survey and Group discussion

The following table 2 dedicated to presents the profile of the survey respondents.

Table 2: Summary of respondent's profile

Variables	Frequency	Percentage
Gender		
Male	*41*	*93.2%*
Female	*3*	*6.8%*
Age		
20-30	*19*	*43.2%*
31-40	*22*	*50%*
41-50	*3*	*6.8%*
Over 50	-	-
Educational Qualification		
Bachelor	28	63.6%
Masters	16	36.4%
PHD	-	-
Areas of specialization		
Related to business management	16	36.4%
Unrelated to business management	28	63.6%
Teaching experience		
< 2 years	3	6.8%
2-5 years	16	36.4%
>5 years	25	56.8%
Experience in teaching entrepreneurship unit of competency		
< 2 years	9	20.5%
2-5 years	20	45.5%
>5 years	15	34.1
Attended any kind of teacher training in entrepreneurship education		
Yes	19	43.2%
No	25	56.8%
Taken an entrepreneurship unit of competency (course) in during previous study		
Yes	38	86.4%
No	6	13.6%
Total	44	100%

Source: Online survey

The majority (93.2%) of the college instructors teaching the entrepreneurship unit of competency are male. In terms of the educational qualification, a significant proportion of the instructors (63.6%) are bachelor degree holders, while the remaining 36.4% have master's degree qualification. Surprisingly, only 16 (36.4%) of the instructors teaching the unit of competence have related professional specialization while 63.6% of them have been teaching the competency without having any subject matter authority. On top of this, the majority (56.8%) of them have never attended teacher training in any entrepreneurship education. Besides, as portrayed in table 3 below, of the instructors who have a sporadic opportunity to take short term training, only 18(40.9%) have related training when looked at the title of training. The major training area covers business planning and the basic concept of entrepreneurship.

Table 3: Summary of major training attended related to entrepreneurship education

S/N	Training Title	Frequency	Percentage
1	Preparing Students for Business Planning	7	15.9
2	The basic concept of Entrepreneurship	7	15.9
3	Reach up, start-up, Gender equitable business	1	2.27
4	business growth strategy and know about business	1	2.27
6	Kaizen	1	2.27
7	Manage and maintain small and medium business operation	1	2.27
	Total	18	40.88%

Source: Online survey

Results from the group discussion with the college management team from all ATVET collages also testify the low profile of the instructors teaching the entrepreneurship unit of competency is significantly hampering the achievement of learning outcome set in place in the curriculum directed to cultivate the spirit of self-employment and value creation by the new graduate of the collages. Most instructors teaching this unit of competence have no or little background of entrepreneurship in particular and the business world in general. For example, most instructors have specialized in agricultural science end up teaching this unit of competence which is a completely uncharted professional sphere. The discussants noted that this resulted in low learning appetite from students to follow the instructors in the class as the instructors themselves have no or little confidence, passion, and authority to lead the learning process. The common observation, therefore, as practiced by many instructors, is to deliberately allocate little time focusing on other sections of the course. Some even give the contents of this unit of competence as a reading assignment and forget the rest, leaving the unit itself in the no man's land. In some instances, it is being skipped at all. The aspired change in attitude and aspiration for creativity, innovation, and self-employment among the students remains to be a paper tiger.

3.2 Current Practice of The Entrepreneurship Learning

This section presents the key findings highlighting the current performance of the entrepreneurship delivery from the instructional point of view and the extracurricular activities dedicated to the flourishment entrepreneurship development.

3.2.1 Instructional Analysis

Respondents were asked to react to their experience in using the instructional approach while teaching the entrepreneurship unit of competence. These include the teaching methods, assessment methods, instructional contents, and objectives of the unit of competency. Meanwhile, recommendations for the improvement of the instructional practice while in the delivery of the entrepreneurship unit of competency will be presented.

Contents and objectives

The fundamental feature of successful entrepreneurship learning is identifying learner-oriented learning objectives and crafting the relevant learning contents or topics. Results of the open-ended survey question and group discussion indicated that the objective of the unit of competency and its contents are odd. In addition to the survey with instructors, through discussion with the college management team was made on the goals of providing the entrepreneurship unit of competence. The objectives set at the college level are a derivative of the occupational standard (OS) developed by the Federal TVET Institute to mainstream entrepreneurship in the TVET curriculum as pointed out by the discussants. The following are the major objectives sought to be achieved through this unit of competence as indicated during the discussion:

- Help new graduates to turn the skills and knowledge obtained through their tenure in the college into the world of work and become productive in addition to the workforce at the community, regional and national levels.
- To instill the creativity and attitude of self-employment and independence among the trainees help them to be job creators than being job seekers.
- Encourage and develop the teamwork skills among the trainees as a preparation for the world of SMEs.
- Help graduates to be innovative and add value to their community/solve problems.

However, results from the survey tell a different story. The objective listed in the survey response reflects that focus of the learning outcome is on a low level of thinking entirely covering comprehensions and understanding concepts and real facts. The following summarizes examples of major objectives of the unit of competency taken from all sample colleges.

Table 3: Learning objectives of the unit of competency

Learning objectives (LO) of the unit of competency
• To understand the principles of entrepreneurship, • To differentiate entrepreneur, entrepreneurship, and enterprise • To understand ways how to prepare a business plan • Describe basic concepts, principles, and scope of entrepreneurship, • Describe how to become an entrepreneur, • describe how to start an enterprise, develop one's business plan • Letting students understand self-employment • Enabling students to develop their Business Plan

Besides, the assessment indicates that there is a lack of harmony across the different colleges in putting the learning objectives (LO) of this particular unit of competency. This requires harmonization through the co-design of the unity of competency. In the same vein, the major chapters of the unit of competency resound with the same reality of content orientation as depicted above. The survey respondents and group discussion voted for the redesign of the unity of competency and the main chapters in a way that enables students to develop entrepreneurial learning experiences instead of facts and theories. Meaning, there is a need to design a harmonized content based on entrepreneurial learning curriculum which is focusing on the entrepreneurship competencies.

Delivery methods

The survey results in table 4 below indicate that the instructors delivering the entrepreneurship unit of competence are majorly employing the traditional teaching methods.

Table 4: Methods used by instructors the entrepreneurship unit of competency

Methods	Scale				Total
	Always (%)	Often (%)	Sometimes (%)	Never (%)	
Lecture by instructor	34.1%	40.9%	22.7%	2.7%	100%
Business plan development	9.1%	31.8%	50%	9.1%	100%
Case studies	0%	18.2%	52.3%	29.5%	100%
Reading assignment	38.6%	15.9%	43.2%	2.3%	100%
Research project	0%	4.5%	47.7%	47.7%	100%
Lecture by prominent entrepreneurs	0%	18.2%	31.8%	50%	100%
Visits to prominent entrepreneur's workplaces	0%	9.1%	31.8%	59.1%	100%

Source: Online survey results

As demonstrated in the above table 4, the learning methods mostly used by instructor's are lecture (34.1%) and reading assignment (38.6%). These methods are by their nature generate learning mainly from a cognitive dimension which includes knowledge and comprehension of theories, facts, and contents of the subject matter. As it can be observed, learning methods such as case studies, research project, motivational lecture by the prominent entrepreneur and business visit to local entrepreneurs which have a high orientation towards producing non-cognitive learning outcomes are among the least known or practiced by the instructors. Very few proportions (6.8%) of the respondents reacted to other methods used while teaching the entrepreneurship unit of competency as other those included in the survey. Few methods reported which include group discussion, brainstorming, questioning and answering, and presentation which by themselves are employed to inform real facts and basic concepts. With current significant evolution in the methods of the entrepreneurship learning ecosystem, intensive and continuous intervention is needed to turn this trend around.

This was a striking issue identified also during all six virtual group discussion sessions with the college management team underscoring the need for a move from a teacher-led approach, where the teacher imparts knowledge to the student, to a model in which the teacher takes a more facilitative, guiding approach to student learning. During all discussion sessions, the discussants pointed out that experience they have is at odd with trending experience in entrepreneurship learning in the modern TVET system. Despite 70% practical and 30% theoretical

stipulation in the TVET curriculum, the focus of learning is directed mostly to the teachings of facts and theories. The far the instruction in the class goes is covering what entrepreneurship is. This especially a case during teachings at Level I and II which should have been the right stage at which students obtain a real-time practice of entrepreneurship through hands-on practice methods of teaching. This would have been paved a way for later stages of the training at Level III and IV that could have helped develop enthusiasm and inspiration for career options outside job seeking. At Level III and IV, there is some attempt for practical engagement in terms of project-based learning such as SME visit, which by itself is not a serious kind of engagement directed to generate certain results. It is a kind of activity conducted as a requirement of course completion at face value. This is indeed, a common tradition for all units of competency being provided by the college.

Evaluation methods

The survey responses reveal that majority of the instructors use the traditional assessment approach while teaching the unit of competency as, tests and quizzes, and examination are top-ranked assessment methods. The examinations and quizzes themselves are dominated by the objective type of questions. Other assessment methods that are specified in the survey, such as business plan writing, research project, and case analysis are mostly never used by the instructors. In nutshell, instructors have testified that the current evaluation methods only used to evaluate the comprehension and understanding of real facts and theories reminiscent of the existing learning tradition in the TVET systems.

Curriculum: on entrepreneurship learning

The approach to entrepreneurship learning experiences entail the entrepreneurship course can be delivered either of the three common approaches while designing the TVET curriculum; as a separate common course, integrated into each subject matter, a cross-curricular activity involving students from multiple courses. Discussion with management team and results of the survey responses reveal that the entrepreneurship learning in the Ethiopian TVET curriculum given as a separate common course or crosscutting unit of competency (OS) delivered at Level I.

The Ethiopian Federal TVET Institute (FTI) is a federal level structure responsible for the design of the TVET curriculum. The discussants noted the revision of curriculum integrating entrepreneurship learning is a recent positive development. However, the new curriculum has fundamental loopholes in terms of revolutionizing entrepreneurship learning at micro-levels.

As also portrayed in the survey results, despite the stipulation that each leaning unit including entrepreneurship should constitute a delivery approach of 70% practical and 30% theoretical, the local ATVET instructions end up teaching using the traditional content-oriented approach of chalk and talk. This is resulted from, according to the discussants, lack of ATVET level capacity in translating this approach to deliver practical training based on entrepreneurship competencies. On the other hand, there is poor monitoring and performance evaluation of the delivery of the

unit of competence from the college management. Hence, teachers implement the course as they wish, and mostly skip the main content as it is out of his/her professional qualification.

According to the discussants, the newly envisaged curriculum prescribes a self-contained teaching approach. Meaning, an instructor is assigned to teach a group of students/class imaginably all unit of competence at a particular level or perhaps continuously. For example, an instructor assigned to a class can follow them teaching all units of competence throughout Level I or even stay with them through Level II if there is a shortage of instructors as pointed out by the discussants. Consequently, instructors end up teaching the course they have no prior exposure to which is a major blow to the learning process and disappointing results of having poorly equipped graduates joining the world of work. The unit of competence is put at last in the occupational standard (OS) structure as a standalone course resulted in a sentiment that is a kind of elective and denied focus and possibly skipped when instructors run out of time during the course duration. This is currently a common trend in all ATVET colleges that participated in this assessment. The discussants call this approach as a total failure and suggested, the older approach of assigning instructors based on expertise and qualification must be restored. The multiple assignments of teaching all OS are making instructors lose focus, running only after covering contents, not on the quality of the delivery of the course. Despite the self-contained class directives, experiences from few ATVET (Konbolcha and Wolaita Sodo) colleges have resorted to allocating courses based on the old approach (interest and qualifications) setting the new Federal TVET Institute (FTI) directives aside as opposed to the other colleges participated in this assessment.

Another area of contention in the curriculum design according to the discussants, the curriculum does not reflect the local learning context. It is just copied from elsewhere and tried to fit in the local context. There is a strong assertion suggesting the redesign and making of the entrepreneurship learning curriculum through direct participation of experts from the local ATVET colleges as they are the main implementers at the front line. Related to this, inadequate time allocated to this unit of competence is an area for action to produce the aspired learning outcomes.

3.2.2 Activities Supporting the Development of Entrepreneurship

Under this sub-section, an analysis of existing non-instructional initiative to support the development of entrepreneurship development support at the selected ATVET colleges has been made. The analysis covers two aspects of entrepreneurship development supports which include entrepreneurship promotion services, and business development support to students and local MSMEs.

The extracurricular entrepreneurship promotion activities

Central recipe for the development of entrepreneurial learning is an integration of learning modes other than formal curricula. Both survey and discussion results indicated the absence of strategic activities supporting the development of entrepreneurship learning in the form of encouraging career path through students' startups and innovative practices. Cognizant to the discussion held ATVET college management team, the discussants noted that the potential for entrepreneurship exercise and promotion is very high for the ATVET colleges.

However, little has been done to unleash this potential into entrepreneurial learning and enterprise creations. The collage demonstration sites such as poultry, dairy, and horticulture farm were initiated to fine-tune and inspire practical learning for the students and the surrounding community. However, little has been done to use this as a strategy to promote entrepreneurship and enterprise creation. All (100%) survey respondents claim the absence of any kind of institutionalized effort dedicated to the promotion of entrepreneurial activities outside the formal curriculum. The following are factors underling poor development of entrepreneurship promotion in the selected TVET colleges as indicated in the survey responses:

- Lack of lading center or team in place for entrepreneurial promotion activities as testified by majority 44(90.9%) of the respondents.
- Entrepreneurship development activities are not integrated into the learning approach and denied focus.
- ATVET colleges are underfunded to delve into this type of activity.
- Lack of awareness and competencies for this approach by instructors and management team to design any of such activities.

In this light, the survey respondents and discussants have strongly suggested revolutionary intervention which will help the ATVET institutions to play the expected role of fueling the spirit of self-employment, value creation, and innovation.

4. Conclusion

Assessment on the current status of entrepreneurship learning in six selected ATVET colleges in collaboration with the BFA project office in Addis Ababa was conducted to understand the successful delivery of entrepreneurial learning.

The assessment of current practice in the ATVET system indicates that serious challenges are hampering the development of entrepreneurship learning. One of the key challenges is the low profile of the instructor's teaching the entrepreneurship unit of competency. Only 1 (2.3%) of total respondents whose professional background directly related to business management. In the same vein, only 16 (36.4%) of the instructors teaching the unit of competence have remotely related professional specialization which covers agricultural economics while 63.6% of them have been teaching the competency without having any subject matter authority. On top of this, the majority (56.8%) of them have never attended teacher training in any entrepreneurship education. Teachers are the catalysts for change within any education system, and the mainstreaming of entrepreneurial learning across ATVET requires a robust supply of well-trained instructors.

On the other hand, looking at the practice of entrepreneurship learning from the instructional perspective, a serious intervention must be taken to instill the entrepreneurial learning culture. despite the stipulation in the FTI designed curriculum which proposes 70% practical and 30% theoretical teaching approach, the local ATVET instructions end up teaching using the traditional content-oriented approach of chalk and talk. This is resulted from, according to the discussants and survey responses, lack of ATVET level capacity in translating this approach to deliver practical training based on entrepreneurship competencies. Inadequate attention is given to the value of entrepreneurship learning widely seen at multiple levels. The striking finding also shows the self-contained teaching of all units of competencies by single instructors which is hampering student learning.

As a result, the instructional material on the entrepreneurship unit of competency is poorly designed and the focus of the learning outcome is oriented towards a low level of thinking entirely focusing on comprehensions and understanding of concepts and real facts. The traditional methods of instructors centered teaching such as lecturing and reading assignments dominates the learning endeavored. The student's assessment is also targeting primarily the cogitative learning outcomes as most instructors utilize summative exams at the end of the unit of competency. The respondents suggested a blended approach to student learning evaluation

designed to ensure evaluation in all domains of learning, both in cognitive and non-cognitive areas.

Central recipe for the development of entrepreneurial learning is an integration of learning modes other than formal curricula. Both survey and discussion results indicated nonattendance of strategic activities supporting the development of entrepreneurship learning in the form of encouraging career path through students' startups and innovative practices. Cognizant to the discussion held with ATVET college management team, the potential for entrepreneurship exercise and promotion is very high for the ATVET colleges. Related to this is a report on relative success in the areas of technology transfer to MSME's in the form of service provision to local SMEs. However, such examples were rarely reported and there was no evidence of a coordinated effort to improve communication and collaboration between ATVET colleges and Industry. The ATVET instructors are poorly qualified to provide the business advisory service to the SMEs.

References

Co, M.J. and Mitchell, B. (2006), "Entrepreneurship education in South Africa: a nationwide survey", Education + Training, Vol. 48 No. 5, pp. 48-359.

Edmond, A., Oluniyi, A., Isaiah, D., & Garba, B. (2014). Strategies for revitalizing the implementation of entrepreneurship education in Technical, Vocational Education and Training (TVET) to enhance self-employment in Nigeria. British Journal of Education, 2(4), 50–62.

European Commission (2014), Entrepreneurship Education - A Guide for Educators, Created by ENTR.D.1 - Publication date: 11/11/2014

European Commission. 2011. Entrepreneurship Education – Enabling Teachers as a Critical Success Factor. http://www.tesguide.eu/policy-strategy/enabling-teachers-as-a-critical-success-factor.htm

FFE-YE. (2012). Impact of Entrepreneurship Education in Denmark - 2011. In L. Vestergaard, K. Moberg & C. Jørgensen (Eds.). Odense: The Danish Foundation for Entrepreneurship - Young Enterprise.

ILO. 2006. Towards an entrepreneurial culture for the twenty-first century. https://unesdoc.unesco.org/ark:/48223/pf0000147057

Jones, K. (2013). The Role of Agricultural Technical and Vocational Education and Training in Developing Countries: A Review of Literature, Issues and Recommendations for Action. Harrisburg: The Pennsylvania State University/USAID

Keat, O.Y., Selvarajah, C. & Meyer, D. (2011). Inclination towards entrepreneurship among university students: an empirical study of Malaysian university students. International Journal of Business and Social Science, 2(4), 206-220

Kirby, D.A. (2004), "Entrepreneurship education: can business schools meet the challenge?", Education + Training, Vol. 46 Nos 8/9, pp. 510-19.

Klandt, H. (1993), "Methods of teaching: what is useful for entrepreneurship education", Proceedings of the Conference on Internationalizing Entrepreneurship Education and Training, InkEnt '93, Vienna, July 5-7.

Kuratko, D.F. (2005), "The emergence of entrepreneurship education: development, trends and challenges", Entrepreneurship Theory & Practice, Vol. 29 No. 5, pp. 577-98.

Lack´eus, M. (2015). Entrepreneurship in education: What, why, when, how. Entrepreneurship 360. Background Paper. Paris: OECD.

Laukkanen, M. (2000), “Exploring alternative approaches in high-level entrepreneurship education: creating micro mechanisms for endogenous regional growth”, Entrepreneurship & Regional Development, Vol. 12, pp. 25-47.

Matlay, H. (2006), “Entrepreneurship education: more questions than answers?”, Education + Training, Vol. 48 No. 5, pp. 293-5.

OECD. 2015. Entrepreneurial Learning Environments and a Changed Role for Teachers. http://www.oecd. org/cfe/leed/Entrepreneurial-School-pt2.pdf

OECD. 2018. Developing entrepreneurship competencies. Background document for the OECD Ministerial Conference on Small and Medium-sized Enterprises, 22–23 February 2018, Mexico City. https://www.oecd.org/cfe/smes/ministerial/documents/2018-SME-Ministerial-Conference-Parallel-Session-3.pdf

Postigo, S. and Tamborini, M.F. (2002), “Entrepreneurship education in Argentina: the case of San Andres University”, paper presented at the Internationalizing Entrepreneurship Education and Training Conference – IntEnt 2002, Malaysia, July 8-10.

Rivera, W. and G.E. Alex. (2008). Human resource development for modernizing the agricultural workforce. Human Resource Development Review 7(4), 374-86.

UNCTAD. 2015. Policy Guide on Youth Entrepreneurship. https://unctad.org/en/PublicationsLibrary/ webdiaeed2015d1_en.pdf

UNESCO. 2015. Recommendation concerning Technical and Vocational Education and Training (TVET)
https://unesdoc.unesco.org/ark:/48223/pf0000245178https://en.unesco.org/themes/skills-work-and-life/tvet-recommendation

UNESCO-UNEVOC. 2019. Entrepreneurial Learning in TVET: A report of the UNESCO-UNEVOC virtual conference. https://unevoc.unesco.org/pub/virtualconference-23-eng.pdf