

Chapter 8

TVET and entrepreneurship skills

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1 Introduction

There is no doubt that we are living in the 'knowledge era' of human history. Knowledge societies and knowledge economies are the main characteristics of the knowledge era, but more important is the 'knowledge mindset'¹ of individuals. The knowledge mindset helps individuals to navigate today's uncertainties and tomorrow's unknown developments, not only in labour markets but in all aspects of life. Twenty-first-century citizens, regardless of their occupation, must be well equipped to navigate oceans of fast changes and developments. It is the responsibility of education to equip individuals to meet current and future challenges and expectations. This is a huge responsibility, but one that must be fulfilled. Education is the main vehicle used by societies to develop their new generations, and education reforms should be oriented to providing students with a knowledge mindset. Two main forms of education have a particular role to play in this context: technical and vocational education and training (TVET) and entrepreneurship education (EPE).

The last decade of the twentieth century, and the first decade of the twenty-first, have witnessed numerous and diversified initiatives to develop education in almost all countries, both developed and developing, building on the proven role of education in development. There have been rigorous reforms and major developments at all levels of education, from elementary to higher and tertiary. Some of these initiatives are global, while others are regional, national or local.

The United Nations (UN) system has adopted several global educational initiatives to bridge the gap between the vast need to prepare the new generation to help develop societies and economies, and the current offerings of educational and training institutions. Among the relevant initiatives in this context are Education for All (EFA), Millennium Development Goals (MDG) and Education for Sustainable Development (ESD). The United Nations has also contributed to developments such as private–public partnerships (PPP) and Life-Long Career Guidance for All (LLCG).

¹ A mindset is a set of assumptions, methods or notations held by one or more people or groups of people, which is so established that it creates a powerful incentive within these people or groups to continue to adopt or accept prior behaviours, choices or tools (<http://en.wikipedia.org/wiki/Mindset>).

Many country-level initiatives have been developed, customized to the country's specific environment and needs. One initiative that is common to many countries is Education for a Knowledge Economy (EfKE). Although many objectives and activities of these initiatives overlap, each one represents a comprehensive package in itself. Each initiative requires implementation, monitoring and evaluation systems at global and country levels.

The unprecedented economic and social changes sweeping across all corners of the world, and the growing effects of globalization, are drawing a new picture of our current and future world. The global economic crisis which began in 2008–2009, and the revolutions in the Middle East from 2011 onwards, which were led largely by young people, call for a fresh look at how education and training policies and systems, and labour market/ employment policies and practices, are matched to each other and capable of accommodating these new realities. Many have been demanding for a long time a shift of focus from quantifying economic returns as the criterion for success, to an emphasis on securing productive decent work for all and strengthening social coherence. It is time for planners and politicians to seriously consider how they can achieve this transition.

The time is ripe to vigorously examine the role, modalities and effectiveness of many governmental and non-governmental interventions, including education and labour market policies. It will not be realistic to shape the minds of future generations using traditional methods and settings. Innovation is a must, particularly in education. In spite of the plethora of initiatives mentioned earlier, what seems to be missing is an approach that comprehensively sets decent work for all at the centre of planning, in contrast to the current focus on economic indicators. This is not to argue that we should neglect economic growth and competitiveness. Rather, we need to revise our priorities with a view of optimizing the impact of economic development on the standards of living of all citizens. In other words, we need to view economic growth through an employment lens, rather than viewing employment through the lens of economic growth. There is a consensus among development researchers that developmental plans to orient our economies around decent work are the right approach to mitigating poverty² and social exclusion. In such comprehensive plan,

² For further information on decent work and poverty see the International Labour Organization's (ILO's) Decent Work page: www.ilo.org/global/about-the-ilo/decent-work-agenda/lang--en/index.htm

EPE and TVET would be the main cornerstone. EPE could promote innovation and the self-reliance of learners, while TVET continues to play a major role in increasing the employability of students and trainees and empowering them with relevant skills needed for the labour market.

1.1 Background

The developments towards a knowledge economy, (KE) the faster than ever technological developments, as well as changes in the structure and functioning of labour markets, mean that all the workforce, both present and future, need to acquire common skills over and above their specific occupational skills. In order to be seen as employable, people today must not only show a capability of applying their practical and theoretical learning in their own specialism; most importantly they need the abilities to deal with change, to learn from experience, to think critically and act autonomously.

A European Union (EU) Experts Group report (EU, 2008, p. 7) identified three broad areas of competencies necessary for each individual: using tools interactively, interacting in heterogeneous groups and acting autonomously. Among the other generic skills that employers have indicated that they prioritize for inclusion in education and training programmes are working in teams, communication and language skills and problem-solving. Many education development initiatives have taken on board the need to foster generic (also called soft or transferable) skills, but there is a need to do still more, because skills and characteristics such as innovation, creativity, energy and single-mindedness are needed increasingly for all levels and types of work. The EU Expert Group report stated:

The important role of education in promoting more entrepreneurial attitudes and behaviours is now widely recognised. However, the benefits of entrepreneurship education are not limited to start-ups, innovative ventures and new jobs. Entrepreneurship refers to an individual's ability to turn ideas into action and is therefore a key competence for all, helping young people to be more creative and self-confident in whatever they undertake.

(EU, 2008, p. 7)

In essence, comments such as this one are calling for skills and competencies that are already included in the rich modality of EPE. Indeed, the time is ripe for integrating the efforts aiming at helping individuals acquire occupation-related technical skills through TVET with those for instilling transferable skills through EPE. The growing trend towards many career changes in the course of people's lives adds to the importance of their acquiring good generic transferable skills.

Because of this growing awareness of the role of entrepreneurship in growth and employment, the issues of redefining entrepreneurship, and consequently entrepreneurship education and training, have become hot ones since 2001. Initiatives in this regard have resulted in a wide acceptance that entrepreneurship skills should be considered as generic skills for all. The conclusion of the EU Expert Group report was that:

If it is to make a success of the Lisbon Strategy for growth and employment, Europe needs to stimulate the entrepreneurial mindsets of young people, encourage innovative business start-ups, and foster a culture that is friendlier to entrepreneurship and to the growth of small and medium-sized enterprises (SMEs). The important role of education in promoting more entrepreneurial attitudes and behaviours is now widely recognised.

(EU, 2008, p. 7)

The countries in the Organisation for Economic Co-operation and Development (OECD) also consider EPE as one of three pillars for building the individual. In the OECD project on Definition and Selection of Competencies (DeSeCo), entrepreneurship skills are highlighted:

In most OECD countries, value is placed on flexibility, entrepreneurship and personal responsibility. Not only are individuals expected to be adaptive, but also innovative, creative, self-directed and self-motivated.

(OECD, p.8)

This relatively new concept that entrepreneurship should be seen as a generic skill for all is not in contradiction with the still prevailing concept that entrepreneurship is concerned primarily with the development of businesses (which typically begin as SMEs). EPE programmes usually include a 'Raising awareness' element that is offered

to all learners, as well as more in-depth training that is provided in particular for TVET students and trainees. In this context, it is important to clarify the definitions used here for entrepreneurship, EPE, social enterprises and TVET.

Entrepreneurship

The word 'entrepreneur' originates from the French *entreprendre*, to undertake. In a business context, an entrepreneur is someone who starts a business. The concept of entrepreneurship covers a wide range. At one extreme an entrepreneur is a person of very high aptitude, possessing characteristics found in only a very small fraction of the population, who pioneers change. At the other, individuals who want to work for themselves can be considered as entrepreneurs.³

There is however a clear distinction between entrepreneurship and managing a small, medium or even large enterprise. An entrepreneur is a person with vision (or a visionary):

Who starts a business with a fresh idea – to make something better or less expensively, to make it in a new way or to satisfy a unique need – [and] is often not primarily interested in making money. The visionary wants to do something that no one else has done because they can, because it is interesting and exciting, and because it may be meeting a need. Once the business begins to have some success, then the nature of the processes needed change.

(Di Masi, 2009)

EPE planners must distinguish between the need to assist visionary would-be entrepreneurs in realizing their vision, and the equally real, but different, need to prepare business managers (who need not possess this kind of vision) to run businesses successfully. EPE programmes need to cover both roles. Trainees can best be selected on the basis of their ability to create business ideas, rather than by using psychometric tools. There are two real dangers for those involved in making such selections. The first is:

Selecting entrepreneurial qualities over managerial skills. This may thereby condemn the business to uneven growth, poor management and ultimate

³ www.quickmba.com/entre/definition/ (retrieved 1 January 2012).

failure, as the enterprise does not respond adequately to new market and trading conditions. A further danger is attempting to select people over ideas.

(Di Masi, 2009)

There is a longstanding debate on whether entrepreneurship is an innate ability, or a skill that can be acquired through education, or indeed a combination of both. Whatever the truth, it is apparent that a number of people in society opt to follow this path, although the proportion varies between societies. Some societies are known for their 'entrepreneurship culture', an environment which encourages individuals to become entrepreneurs. In other societies, there is more of an emphasis on the need for security, best achieved by taking up a job in an established enterprise, which tends to have a negative impact on the entrepreneurship culture.

A more recent phenomenon is the tendency for economic development that does not of itself create new employment opportunities. Because of the real need noted above for an emphasis on employment opportunities, such a trend calls for structural changes in labour markets, including the promotion of SMEs. As a result many scholars and leaders are calling for encouragement of, in effect a revival of, an entrepreneurship culture. In a recent Global Entrepreneurship Forum in Turkey (see INSEAD, n.d.), the president of the Public Forum Institute talked about Turkey's case:

Perhaps most difficult to change, as is often the case around the world, is culture. Although entrepreneurs 'by necessity' are generally respected for their work ethic, entrepreneurs 'by choice' who have other promising career options are often discouraged by their families.

(Ortmans, 2011)

Entrepreneurship education is certainly a vehicle towards reviving entrepreneurship culture.

Social enterprises

In addition to for-profit enterprises, social enterprises have become an important field of entrepreneurship. They are emerging as the 'missing middle' between traditional government programmes and non-profit bodies. Social enterprises use business methods, but work for the common good of the society. At best, they

address social, environmental and human concerns more efficiently than traditional government programmes, and more sustainably than traditionally funded non-profit organizations. Some see social enterprises as the single most hopeful vehicle for overcoming the most heavily debated social, environmental and human concerns.

In the late 1990s, national gatherings for social entrepreneurs started in several countries, leading to the establishment of social enterprise alliances and unions. These focus on creating more connectivity and opportunity for mutual learning and support between members, providing access to information, partnering with other resources and developing a social enterprise marketplace. Some of these alliances and unions certify their members, to help them obtain better visibility and credibility. Such certification may help social enterprises in obtaining venture finance, promoting their products and services, and receiving a favourable response from governmental and other bodies. The work involved in establishing, managing and developing social enterprises is not much different from what is required for business enterprises, but the objective is to achieve social goods rather than profit.

Entrepreneurship education (EPE)

Initiatives to use the power of education to enhance individuals' entrepreneurial mindsets, and raise awareness of entrepreneurship as a viable alternative to paid employment, gave rise to educational programmes that can be grouped together under the heading of entrepreneurship education and training. EPE has existed for decades and a wide variety of courses have been introduced in many systems of education around the globe. Special EPE programmes are tailored to job seekers, to unemployed people, and to scientists, engineers and researchers to encourage them to commercialize their intellectual property. EPE is often a link in a chain of support offered to those who decide to explore self-employment and establish a small enterprise. Other links of the chain include technical, legal and administrative support, as well as incubation, franchise and networking support services.

Although in this sense EPE is well established, the first decade of the new millennium witnessed the birth of a broader concept of entrepreneurship as a generic skill for everyone, and not just for exceptional entrepreneurs. EPE on these lines has been adopted in many countries and regions, but this new concept is still in its infancy. The new concept of EPE is closely linked to innovation and to knowledge-based action,

so it stimulates the 'entrepreneurial mindset' of learners. EPE, in this new sense, should start early in the lives of learners. 'Introducing entrepreneurial thinking and entrepreneurship education early at all levels can go very far in nurturing a culture that rewards prudent risk-taking' (Ortmans, 2011). In this paper EPE is used in both senses: as a preparation for entrepreneurs and as a generic skill for all. The context usually makes it clear which sense is meant, and where clarification is necessary, EPE linked to enterprise start-up is referred to as the prevailing concept, while the 'new concept' refers to training in generic skills.

Technical and vocational education and training (TVET)

The 2002 UNESCO and International Labour Organization (ILO) Recommendations on TVET characterize it as:

A comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life.

(UNESCO, 2002)

Accordingly, the responsibility for activities related to TVET is shared among all bodies planning for, implementing, monitoring and evaluating programmes. TVET is administered differently in various countries, and several ministries and bodies can be involved, but with a common objective: all TVET programmes aim at increasing the employability of individuals, and work for the benefit of the community and sustainability in general. 'TVET must be the master key that can alleviate poverty, promote peace, conserve the environment, improve the quality of life for all and help achieve sustainable development' (UNESCO, 2004).

1.2 Why this paper?

Under the prevailing concept of EPE, a vast range of activities to support entrepreneurship have focused on numerous initiatives, projects and plans all over the world. Typically there is an educational component that develops learning materials,

in addition to other components (linking education to incubators, soft loans, technical and legal/administrative support, and other services for entrepreneurs). Because the broader conception of entrepreneurship as a generic skill is much newer, currently there are few programmes focusing on this area. This paper attempts to:

- Analyse the main policies and trends in introducing EPE in education in general, and TVET in particular;
- Identify the relevance of EPE to TVET;
- Come up with some policy recommendations.

Although it touches on EPE in its prevailing concept as promoting entrepreneurship, the focus of the paper is on policies and trends for EPE to teach entrepreneurship as a transferable skill necessary for all learners at all levels and at any point of life.

1.3 Methodology

The paper is based on an analytical review of the rich literature on TVET as a generic concept, programmes linking technical, industrial, vocational and entrepreneurship training (TIVET) in some African countries, career and technical education (CTE) in the post-secondary sector in the United States of America (USA) and the two concepts of EPE discussed above.

2 TVET and EPE: where we stand today

It would be impossible to cover all aspects of TVET and EPE in this paper, so the emphasis here is on their complementarity and relationship. There are new trends and developments in the concept, coverage, policies and modalities of both TVET and EPE. In this section the focus is on EPE as a preparation for SME establishment and development. Section 3 of the paper focuses on the newer trend for EPE to impart a generic skill for all, as an integral part of life-long learning (LLL).

2.1 TVET: A broader concept and greater importance

TVET is of paramount importance in developing, competitive economies and better societies. International and regional developmental organizations as well as country planners and decision-making bodies are nowadays focusing on TVET to boost economies and promote equity. Research shows the level of workforce skills is a major determining factor in growth rates: 'Recent research shows that the level of skills in a workforce predicts economic growth rates far better than average schooling levels' (World Bank, 2011). A look into the international arena gives specific evidence of that importance. It is shown, for example, in the selection of 'Skills Development: Expanding Opportunities for Marginalized Groups' as the theme of the EFA Global Report 2012; in the Third Global TVET Congress in May 2012; in plans to issue the OECD Skill Strategy during 2012; and in the selection of 'Education and Skill' as the topic of 2012 Global Youth Video Competition. The World Bank Group's Education Strategy 2020 (World Bank 2011) stresses the importance of skills and many more examples, both international and on the country level, could be given.

To meet the growing demand for skills, many developed and developing countries are adopting policies that clearly focus on skill development and TVET as means to ensure that people will be more employable, and more productive once they are employed (or self-employed). TVET policies cover the preparation of tomorrow's workforce for competitive labour markets, most of which are dominated by SMEs. In many countries SMEs amount to more than 90 per cent of the total number of enterprises, and employ more than two-thirds of the labour force. In Serbia, for example, they make up 99.8 per cent of enterprises and 67.2 per cent of employees (Republic of Serbia, n.d.).

Innovation in SMEs is crucial to their success and sustainability. Enterprises characterized by innovation are more likely to survive in the market than enterprises that do not innovate. Innovation should be the responsibility not only of entrepreneurs but of all employees, particularly in high-tech enterprises where many are typically TVET graduates.

Some countries have already moved to link EPE and TVET. For example, in Kenya there is a Technical Industrial Vocational and Entrepreneurship Training (TIVET) programme.

To sustain and develop SMEs, entrepreneurship education must be integrated into TVET programmes to empower entrepreneurs and potential SME workers as innovators.

2.2 EPE for SMEs to complement TVET

One of the challenges for educators and policy-makers working in TVET is to assess the extent to which their programmes are preparing students for the whole spectrum of working life, including paid employment, work in cooperatives, self-employment, setting up businesses, family work, social work and voluntary work. Currently, most TVET programmes are basically designed to prepare people for paid employment and many focus on employment in large enterprises. It could be argued that PPP can help TVET planners and providers to improve the relevance of offerings, by ensuring that the private sector viewpoint is heard and considered. In addition, EPE is needed to ensure that students learn entrepreneurship. A combination of entrepreneurship skills and occupation-specific skills should act as a major tool in mitigating unemployment and opening opportunities for self-employment and SME development. So EPE is needed alongside TVET to address the challenge.

By its nature, TVET applies particularly to some economic sectors (those with a relatively large technical component). These relatively high-tech occupations can play a significant role in alleviating poverty and achieving sustainable development (UNESCO, 2004). It is natural to find entrepreneurship education as an integral part of the TVET mandate in this context. It is through EPE (in the long-established sense) that TVET graduates can gain access to a wider and better range of employment opportunities. The eye for innovation that it encourages will also enable them to become more productive employees. In addition to its role in accessing direct employment, EPE can help TVET trainees and learners acquire the skills necessary for successful enrolment in higher education. In some countries TVET is not a popular training choice, and a crucial, and much needed, part of the equation is that EPE can help to improve the public perception and image of TVET, enabling TVET courses to attract higher-achieving learners.

TVET (at all levels of education) and EPE have more in common than either has with many other types of education. First, TVET (in particular when designed using PPP, so

the courses have strong links with the labour market) is already utilizing enterprises of all sizes to assist in training students and trainees. This real-life experience helps to expose them to the reality of entrepreneurship, and to see self-employment or starting up a business as a viable employment alternative. Second, some of the occupations for which TVET courses provide training lend themselves particularly to self-employment and the establishment of SMEs. Third, many TVET programmes and activities already include some of the main EPE skills, such as working in teams, problem-solving and thinking innovatively. TVET students with practical work experience are already familiar with the rules of preserving the work environment (that is, with occupational health and safety) and the wider environment (being aware of issues such as pollution and the degradation of natural resources), as well as having some awareness of the sustainability of work opportunities and the economy in general. For these reasons, and many others, EPE is crucial to TVET students, trainees, and equally important to their teachers and other educational personnel.

Further evidence for the relevance of EPE to TVET can be found by analysing graduate employment data, considering in particular the percentages of graduates from TVET and general education who choose to become self-employed or establish their own enterprise. Only limited information on this subject is available, but the evidence that is accessible suggests that a higher percentage of TVET graduates establish SMEs than do graduates in general education. In Australia, for example:

Around 20 per cent of all workers, the majority of whom are TVET graduates, are self-employed, a significant number that has steadily increased since the late 1970s. Over a quarter of males with vocational qualifications and 14 per cent of women with vocational qualifications are self-employed. Most self-employed males are working in skilled manual occupations, while most self-employed females are in hospitality management and the community and personal services sector.

(Atkinson, 2011)

In the People's Republic of China, 12.84 per cent of secondary vocational school graduates opted for self-employment or to establish their own small business in 2010 (China integration of Vocational and Technical Education, 2011). This data was collected just over one year after graduation, so the percentage can be expected to

increase over time, as graduates gain experience and become more confident about running their own businesses. The considerable percentage of TVET graduates who choose to work independently (in self-employment or their own business) supports the conclusion that EPE is relevant to TVET.

EPE and TVET are two types of education that aim directly at increasing the employability of students and trainees in two major types of employment: self-employment (which includes establishing and developing SMEs) and paid employment. Both types of education directly link the educational course to the labour market, widen the scope of choices for students and graduates, optimize the utilization of individuals' potential, and contribute to the comprehensive development of society, both economically and socially. EPE is a major cornerstone in promoting the establishment and development of SMEs. It can usefully be provided at secondary and tertiary education levels, and to graduates, the unemployed (including both the never-employed and those who have been laid off as a result of economic difficulties) and many other groups. TVET programmes in particular are a major beneficiary of this type of entrepreneurship education in many countries.

In times of national, regional or global economic crisis, such as has prevailed since the onset of the global financial and economic crisis in 2008–2009, the need for more skills becomes even more apparent. OECD research clearly confirms this:

Millions of workers lost their jobs in the recent economic crisis. And with the global economy still subdued, the OECD expects unemployment to remain high. One lesson from the crisis has been the importance of skills in today's workplace: job losses among skilled workers were much lower than among the unskilled. In a globally competitive, knowledge-based economy, having a skilled workforce is necessary to ensure productivity and sustainable growth.

(OECD, 2012)

Complementing their acquisition of job-specific skills with EPE would broaden the scope for gainful decent work opportunities for TVET graduates in times of economic difficulty.

2.3 Selected EPE–TVET complementarity practices

The European Union's Leonardo da Vinci programme was specifically designed to promote innovation and entrepreneurship in Europe, through modification schemes linked to professional and vocational training in individual participant countries (Norway, 2006). The 2008 Expert Group report referred to earlier in this paper showed that in spite of this initiative, implementation is lagging behind targets, 'In spite of the numerous policy initiatives to promote EPE, implementation is still lagging behind and scattered (Final Report of the Expert Group, 2008)'. The analysis, carried out by the European Commission in cooperation with national authorities, showed that:

Although numerous initiatives on entrepreneurship education are under way at all levels across the EU, most of them are neither integrated into the curriculum nor form part of a coherent framework, and that as a result most students – at school and university – have no possibility as yet of taking part in entrepreneurship courses and programmes.

(Final Report of the Expert Group, 2008)

Analysis of the results of the EU initiatives to promote entrepreneurship has stressed the need for:

- Raising awareness;
- Tutoring by experts and professionals;
- Securing technical assistance;
- Involving guest trainers from different backgrounds, including young entrepreneurs; and
- Integrating EPE into a wider entrepreneurship promotion programme (Final Report of the Expert Group, 2008).

There is further information on EU policy and activities in this field in Section 3 of this paper.

Norway's Strategy for Entrepreneurship in Education and Training 2004–2008 shows a trend towards EPE–TVET integration:

Knowledge of working life, of enterprise-founding, of ethics/environmental theory, economics and resource utilization will be important elements in training. Within the vocational programmes the pupils and apprentices will get to know different kinds of business and industry.

(Norway, 2006, p. 5)

The strategy hints at a team-teaching methodology that integrates EPE into subjects that lend themselves to EPE:

For upper secondary 1 and 2 vocational programmes (Norw. Vg1 and Vg2) we find entrepreneurship in: Arts, Crafts and Design, Electro and Electrical subjects, in Media and Communication, in Programme for Agriculture, Fishing and Forestry and in Service and Transport and communication.

(Norway, 2006, p. 7)

The ILO has a special department for enterprise development (Job Creation and Enterprise Development Department, EMP/ENTERPRISE), including a unit responsible for SMEs (Boosting Employment through Small Enterprise Development, EMP/SEED). The Entrepreneurship training package developed by the ILO includes programmes entitled Know About Business (KAB), Start Your Business (SYB) and Start and Improve Your Business (SIYB).⁴ Know About Business (KAB) is focused on the awareness issue, while SYB and SIYB aim to help those who opt to establish and/or improve an SME. The ILO's field offices offer support to training and educational institutes in using the package in their programmes, including training teachers/instructors to use it efficiently. Numerous memoranda of understanding (MOU) between ILO field offices and education institutes, including ministries of education, have been signed in many countries around the globe. A good percentage of these initiatives involve TVET programmes.

At the request of its Member States, UNESCO has developed two training packages, one tailored to students in secondary technical and vocational schools, and one fitted to learning in informal settings. The idea is to broaden career options (work options) for TVET graduates:

⁴ www.ilo.org/empent/units/start-and-improve-your-business/lang--en/index.htm

Proposing that entrepreneurial skills should augment the technical knowledge and skills young people gain in formal vocational training. Entrepreneurial skills will help them to acquire the mindset and know-how necessary to make self-employment a viable career option.

(UNESCO, 2006-07a, p. 4)

Each package starts with raising the awareness of self-employment as an option:

Launching a successful business requires an awareness of one's knowledge, skills, abilities, aptitudes, values and preferences. The training therefore begins by inviting students to consider their own strengths and weaknesses in these areas, so that they develop a clear sense of themselves.

(UNESCO, 2006-07a, p. 4)

The packages focus on preparing individuals to become successful entrepreneurs:

They are encouraged to perceive themselves as the actors responsible for their own lives. Learners are then guided through the various stages of developing a commercial idea, from identifying a community need for a product or service to acquiring resources, organizing a workplace and marketing the product or service and finally preparing a business plan.

(UNESCO, 2006-07a, p. 4)

These quotes are taken from the package for formal learning, but the one designed for use in non-formal settings has similar content. Both training packages include a participant's workbook, as well as a facilitator's guide.

Finally, it must always be remembered that EPE alone is not sufficient to promote entrepreneurship. The task calls for a multidisciplinary approach involving other governmental, financial, economic and social bodies. Shaping fertile ecosystems for entrepreneurship is crucial in boosting the success rates of start-ups (Badawi, 2011). A Forbes study (Marich, 2011) outlines ten recommended actions for governments to promote entrepreneurship. The recommendations are grouped under three main headings: shaping fertile ecosystems, financing entrepreneurship from inception to critical size, and promoting an entrepreneurial culture.

3 Emerging trends in TVET and EPE which confirm their complementarity

TTVET today involves more than skills acquisition programmes. Its policies and strategies stress the need for stronger links with the labour market and for strategies to help graduates to adjust continuously to the fast changes in the market. With the return of apprenticeship programmes (in a modern form), learning/workplace partnerships, high skills training, broader specializations, a greater role for information and communications technology (ICT) in TVET, more transferable skills, the learning workplace, recognition of prior learning and skills acquired informally, and many other initiatives, EPE seems to be the glue that can keep all the trends together. The innovative mindset developed through EPE will help people in choosing and pursuing the career that most suits their abilities and interests. It will also help them in changing their occupation, should the need arise, in fast-changing labour markets.

TVET trends can be analysed on three main axes:

- The demand for graduates (with the skills taught);
- The willingness of students and trainees to enrol in programmes; and
- The qualitative and quantitative relevance to actual labour market needs.

On the issue of demand for general skills, a recent World Bank discussion paper on skill development in the OECD countries confirms that the demand is growing: it refers to 'the growing demand for general competencies and higher-level skills' (You, 2009). This finding is true for most countries, developed and developing. The same study found that more than half of the secondary school students in OECD countries choose to enrol in TVET courses:

Despite the increasing focus on general and higher education, we document that participation in TVET systems at the upper secondary level in OECD

countries has remained at approximately 50 per cent of total enrolment in recent years.

(You, 2009)

Three strategic trends in the OECD countries were identified which were aimed at ensuring the relevance of TVET:

There has also been an increasing trend in OECD countries to defer vocational specialization and more effectively integrate general and vocational education. Furthermore, in an effort to combat the image of TVET as a 'dead-end' pathway, OECD countries are undertaking measures to improve permeability between TVET and higher education (e.g. the establishment of national qualifications frameworks). Finally, while traditional apprenticeships are declining in popularity, OECD countries are adopting new approaches of effectively integrating workplace experience in pre-employment TVET systems.

(You, 2009)

EPE could open up the scope of employment for TVET graduates, as well as playing an important role in promoting enrolment in TVET courses and improving their image. Transferable skills acquired through EPE would help to integrate TVET with general education as well as workplace learning.

With the growing role of entrepreneurship in economic and social development, and its importance for building a 'self-reliant population' capable of surviving in increasingly turbulent labour markets, the learning of entrepreneurship skills cannot be left to chance. Just as EPE is moving from a preparation for those starting up SMEs to a focus on broader generic skills for all, it needs to become an integral part of national education systems:

Entrepreneurship is an employment strategy that can lead to economic self-sufficiency. Through entrepreneurship education, young people, learn organizational skills, including time management, leadership development and interpersonal skills, all of which are highly transferable skills sought by employers.⁵

⁵ [www.unevoc.unesco.org/56.0.html?etx_drwiki_pi1\[keyword\]=Entrepreneurs](http://www.unevoc.unesco.org/56.0.html?etx_drwiki_pi1[keyword]=Entrepreneurs) (Accessed 1 January 2012.)

That is why EPE is today recognized as a main objective of national education systems:

One of the main goals of education is to prepare students to be entrepreneurial innovators and active participants in the labour market. Entrepreneurship education increases the self-reliance of populations and makes them less dependent on an increasingly shrinking job market.

(UNEVOC-UNESCO, n.d.b)

3.1 Emerging EPE and education systems: selected examples

In 2001 the European Commission set up an expert group for training and education in entrepreneurship. The group had members from sixteen countries. One of the group's tasks was to arrive at a common definition of entrepreneurship in training and education. In November 2002 the group submitted their report, defining entrepreneurship as:

Entrepreneurship is a dynamic and social process where individuals, alone or in collaboration, identify opportunities for innovation and act upon these by transforming ideas into practical and targeted activities, whether in a social, cultural or economic context.

(EC, 2002)

The Council of Europe in Strasbourg and the European Charter for Small Businesses adopted the proposed definition and stated in the EU publication *Measures to Create a Culture of Enterprise* that 'Today the importance of entrepreneurship as one of the fundamental skills that must be acquired through lifelong learning has been accepted' (EC, 2002). With this declaration, EPE became an integral part of the LLL process. In October 2006, the European Union organized a European Conference on EPE in Oslo, which presented a wealth of good-practice examples of EPE policies and practices in the EU Member States. Based on these experiences the Commission published *The Oslo Agenda for Entrepreneurship Education in Europe (2006c)*. The agenda presents a menu from which all stakeholders can pick items at the appropriate level.

EU policy does not limit EPE's importance to one level or type of education, but it stresses its importance for tertiary and higher education, including researchers:

Special attention should be paid to systematically integrating entrepreneurship training into **scientific and technical studies and within technical institutions**, to facilitate spin-offs and innovative start-ups, and to help researchers acquire entrepreneurial skills. There needs to be more focus on developing the skills necessary for fully exploiting innovation and knowledge transfer activities in combination with the **commercialization of new technologies**. Academic **spin-offs** are increasingly seen as important means of enhancing local economic development. However, in their new roles, scientists and universities must build business and managerial competencies.

(EC, 2006a)

Entrepreneurship and innovation are closely linked, and the "Recommendation of the European Parliament and the Council" of 18 December 2006 on "Key competences for lifelong learning (EU, 2006a)" identifies a 'sense of initiative and entrepreneurship' as one of eight key competences that should be put across at all stages of education and training. In its Europe 2020 Strategy (EC, 2010), the Commission is clearly reflecting on that understanding. One of the 'Flagships' of the Strategy is entitled 'Flagship on innovation union' and clearly refers to promoting entrepreneurship as a tool for ensuring that the Union is an innovation one:

To promote knowledge partnerships and strengthen links between education, business, research and innovation, including through the EIT, and to promote entrepreneurship by supporting Young Innovative Companies.

(EC, 2010, p. 13)

Support for innovative companies would not be effective without TVET-EPE complementarity.

Beyond the European Union, there are several other initiatives focused on adopting EPE in its broader sense. In 2003, the World Economic Forum announced a Global Education Initiative (GEI) as an open multi-stakeholder approach to education advancement (WEF, n.d.) aiming to scale education partnerships globally.⁶ One of the

⁶ GEI now involves over forty private sector partners, fourteen governments, seven international organizations and twenty NGOs. It has mobilized over US\$100 million to support five countries or regions, Egypt, Jordan, Palestine, Rajasthan (India) and Rwanda.

GEI's main work streams is 'Educating the next wave of entrepreneurs' (WEF, 2009). In its Phase II, this work stream organized regional EPE round tables (for Europe in May 2010, the Middle East and North Africa in October 2010 and Africa in April 2011). The GEI justifies an emphasis on entrepreneurship education as a tremendous force with a big impact on growth and progress. Education for the new wave of entrepreneurs would normally include both EPE and TVET. It is equally important to offer similar training to current and future employees of SMEs, to help them in running more sustainable enterprises.

UNESCO too has not been far from the developments. An inter-regional seminar on entrepreneurship education was organized by UNESCO's Division for the Promotion of Basic Education (from 11 to 16 February 2008) to address the issue of entrepreneurship education in a global context. It took place in Bangkok, Thailand, where representatives from UNESCO and other UN agencies along with education experts from all geographic regions of the world participated. The seminar adopted the joint UNESCO- ILO definition of entrepreneurship education, which opens the concept up to focus on basic skills for all. The inter-regional seminar also decided to establish an International Working Group (IWG) on Entrepreneurship Education. This group organized its first meeting in Frankfurt, Germany from 27 to 29 October 2008. Around twenty education experts from various international organizations, national governments and entrepreneurship education providers met to share experiences and build partnerships, and to determine the best means for the IWG to promote entrepreneurship education that responds to the current needs and conditions of countries worldwide.

Shortly before the Frankfurt meeting, from 22 to 24 September 2008, UNEVOC Centres in the Southern African region came together in Mbabane, Swaziland to exchange views on innovations and best practices, and to discuss areas for intensified collaboration. The meeting adopted integrating entrepreneurial skills in TVET curriculum as one of these areas of intensified collaboration.⁷

In clear support to the new concept of EPE as a generic skill for all and an integral part of LLL, a UNESCO on-going pilot project for Arab States was launched jointly with a UK NGO, the StratREAL Foundation, in 2010. The project title is 'Entrepreneurship

⁷ [www.unevoc.unesco.org/wiki.html?&tx_drwiki_pi1\[keyword\]=page_entrepreneurial_learningmore](http://www.unevoc.unesco.org/wiki.html?&tx_drwiki_pi1[keyword]=page_entrepreneurial_learningmore)

Education in the Arab States', and it is being implemented by UNEVOC Bonn and the UNESCO Beirut Office. The project adopted the joint UNESCO-ILO broad definition of EPE as basic/generic/key skills for all learners at all levels. Based on the adopted concept, four country reports and a regional synthesis report have been prepared. The reports clearly showed that a major thrust of EPE offered in the four countries is focusing on raising the awareness of self-employment and establishing SMEs. They also revealed that the EPE programmes available were not as yet an integral part of a national entrepreneurship promotion strategy or plan, but rather that the on-going activities were scattered in nature.

To help countries in the Arab region to consider the practicality of adopting the new EPE concept, and to re-examine their current EPE plans and activities, these reports have been disseminated to all Arab countries for study. The project also offers technical support, according to need. In development, it is well known that adopting new concepts is a policy decision that must be supported with applicable plans for implementation. Arab countries were invited to study the new concept, explore its relevance to their educational strategies and systems, and decide on their own priorities. Countries that choose to engage in further activities related to policy/strategy or pilot implementation of the new EPE concept have been invited to submit project ideas.

As would be expected, the responses were cautious, and at present several small pilot projects are being implemented in a number of Arab countries. Most of the supported pilot projects are focusing on the policy level, aiming at a smooth inclusion of the broad concept of EPE in educational policies and strategies. Interestingly, most of the project ideas submitted, and the projects that are currently running, came from the TVET sector in ministries of education and other concerned national-level institutions.

4 Conclusions and policy recommendations

There is a consensus on the potential role of entrepreneurship, and its supporting educational activities (EPE), in promoting economic and social progress for all societies, in both developed and developing countries. The international evidence for this consensus is documented by the GEI:

The current emphasis on Entrepreneurship Education reflects the fact that entrepreneurship has never been as important as it is today when the world is confronted with big challenges that extend well beyond the global economy. Entrepreneurship is a tremendous force that can have a big impact in growth, recovery, and societal progress by fuelling innovation, employment generation and social empowerment.

(WEF, n.d.)

4.1 Conclusions

The need for national entrepreneurship strategy

The potential role of EPE covers two main complementary, but distinct, roles: skills for all, and the preparation of entrepreneurs. The importance of both roles calls for integration and coordination via comprehensive national policies which weave together all the necessary success factors. EPE strategies must stem from a broader strategy to promote entrepreneurship and revive its culture.

National decisions on adopting EPE concepts

TVET, at all levels including tertiary programmes, should be a main contributor to entrepreneurship skills acquisition in both its senses. EPE is more relevant to TVET than to most other types of education. According to the situation in each country, a decision needs to be taken on whether to focus the available resources on one track or the other, or to work simultaneously on both tracks. In all cases, EPE should not be the responsibility of education professionals alone. The business community and other related bodies (law, finance, marketing, management, human resource

professionals and so on) as well as representatives of society at large must be full, active and educated partners. Building the capacity for proper implementation of EPE should start without delay.

EPE as generic skills for all is best started early in schools

If generic EPE were offered to students as part of the basic education cycle, entrants to TVET would normally enrol on their courses on a sound basis of appropriate labour market information and an accurate analysis of their own abilities and interests. Their educated choice of TVET would ensure their motivation, lead to better achievement of the required skills, both personal and technical, and increase their opportunities to enjoy satisfaction in their jobs and life. During their programme of study, they will continue to use their acquired entrepreneurship skills in mastering skills and acquiring knowledge that would enable them to become self-employed, establish their own business, or become more productive in paid employment. EPE would help them become more mature employees and possible entrepreneurs.

EPE should be an integral part of life-long learning

Life-long EPE would mean that students and trainees enrolled in TVET, at any level and age, would continue to receive relevant support to master entrepreneurship skills. Addressing TVET and EPE in an integrated way, for example using a multidisciplinary team teaching approach, would allow students and trainees to organize what they learn, in terms of skills, knowledge or attitudes, in a way that facilitates recalling and using it, as appropriate, in different types of employment. It would also help them to think about using these competencies in an innovative way in their work and in their life more generally.

EPE can support the career decisions of individuals

Students and trainees who receive EPE as general skills for all would be able to optimize their workplace experience, as a part of the TVET programme, by looking beyond their skills and knowledge to other issues such as the organization of the workplace, relationship between workers and managers, and many other aspects of the workplace as an enterprise. Such 'extra' learning would be crucial in empowering them to take career decisions.

EPE would enhance the starting-up of enterprises

As they approach the completion of their TVET programme, students and trainees receiving EPE as general skills for all should have the opportunity to discuss with their teachers, parents, peers and others, issues related to their next step in life. They should seek careers advice from life-long career guidance services either in or outside their educational institutions. They can then start to arrange finance for their project if they opt for a self-employment route, to seek employment (perhaps with the private partner in their training programme), or to continue their education as appropriate.

Implementing EPE is lagging behind policies

After almost ten years of developing the emerging concept of EPE, the achievements are mostly at the policy and strategy level. On the ground, the UNEVOC joint pilot project on EPE in Arab States is a humble start with very limited funds. It is hoped that UNEVOC and UNESCO Beirut will be able to use the lessons learned from the project in fuelling further implementation of the emerging concept. Good and practical ideas can help to overcome the scarcity of funds for such pioneering projects. Meanwhile, more information on the application of policies and strategies is expected in the near future, in particular from the countries of the European Union and from the OECD countries that have adopted EPE as life-long skills for all.

4.2 Policy recommendations

Based on the analysis and discussion in this paper, the following specific main recommendations can be made. They are divided into recommendations for each of the main stakeholders, researchers and international organizations, as appropriate.

Recommendations for governments

- **Comprehensive national entrepreneurship promotion strategy:** As entrepreneurship must be developed by concrete policy initiatives, governments are invited to take the lead in developing such policies and strategies. EPE would normally become the cornerstone of the strategy, weaved in harmony with related issues such as fertile ecosystems, finance and marketing.

- Adoption of the EPE concept and activities: Since there are two strains of EPE, it is necessary for each country to consider its available human and material resources as well as its developmental plans, to decide how available allocations can be best utilized. A double-track approach, which includes both training for entrepreneurs and offering entrepreneurship skills as generic skills for all, is recommended. Prioritizing activities in phases within a medium-term plan is an alternative where human and financial resources are limited.
- Promoting regional and inter-regional cooperation: For developing policies and activities in a relatively new area such as EPE as skills for all, governments should seek regional and global exchange of ideas and practices through regional and international networking. Peer review and learning would facilitate cooperation.

Recommendations for TVET institutions (at all levels)

- Building capacity and motivating staff: Given the importance of entrepreneurship skills to all, awareness programmes for all teachers, professors and other related staff should be started without delay. Building capacity in an early stage would help in studying the appropriateness of introducing EPE in TVET institutions. Motivation for staff is also needed. Staff members need to be confident that they will be rewarded in the medium and long term if they invest in personal development in this area.
- Taking the lead in building partnerships with all stakeholders: Partnership is crucial in education in general, and TVET and EPE in particular. TVET institutions should play an active role in networking by reaching out to anticipated partners. Partnerships for EPE (and TVET) should not be limited to economic sectors, but must also include civil society, other providers of education and training, trade unions, employers' associations, academics, learners and their families, national and local supporters and others.

Recommendations for business and social partners

- Engage in a win-win partnership: Research in the area of partnership in education, and TVET in particular, has revealed that such partnerships benefit all the partners, including businesses. Economic sectors reaching out to TVET

institutions to play an active role in TVET and EPE are choosing a win-win option. The involvement of business associations and social organizations would give credibility to the process.

Recommendations for researchers

- Crucial areas like EPE and TVET deserve more focused research. There is a need to explore issues related to EPE and TVET especially their bilateral relationship and the impact on the employability of learners. Evidence-based policies cannot be realized without a sound research base. Such a base would also guide policy development and implementation actions, so this is an area that merits further research from institutions and individuals.

Recommendations for international organizations and the donor community

- Coordination, articulation and collaboration: In spite of a good deal of international and bilateral/multilateral cooperation in EPE, there is a large amount of overlap in the on-going activities. In other areas, there is little active endeavour: for example, efforts to educate policy-makers in developing countries about the new concept of entrepreneurship are very limited. EPE, in particular in TVET, is a promising area that merits more effort. This should involve networking among those working on current initiatives and facilitating the exchange of practices, lessons learned and ideas.

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