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1. Introduction

The vocational education and training (VET) sector has been considerably evolving for the last two decades. It has long been considered as a valuable instrument of sustainable socio-economic development as it has actively participated in developing and delivering skilled labor force globally. In addition, the labor market has seen major changes during the last two decades and skills needs have shifted from production and manufacturing towards more digital and service-based occupations which usually require higher skills. Indeed, there is an apparent increasing demand for skills coupled with economic, social, and technological developments. Amid the ever-challenging context of globalization, technological progress and market economy development have dictated the upskilling and the reskilling of the existing and upcoming workforce to be able to improve productivity and enhance competitiveness.

For these reasons, a plethora of studies, analyses, policy papers have been conducted to explore the role of the VET sector to align skills required by employers in the present and future labor market to improve productivity and competitiveness in the sectors which are critical for the achievement of national employment and development goals. However, vocational education remains a secondary choice for young people aspiring for a successful career and the significant skills mismatch and the increasing unemployment rate in developing countries pose considerable challenges for the VET sector. Therefore, it has become urgent for national policy makers and VET stakeholders to work on improving the VET sector role in coping with rapid technological changes, matching labor market demand for higher skills, attracting youth enrollment in VET programs and rendering the VET sector an instrument to reduce poverty, promote economic growth and increase competitiveness.

The present study aims to explore ways to improve vocational training development opportunities to boost business productivity and competitiveness and positively impact on economic growth and job creation. It also aims to support the 2030 agenda for sustainable development and its number of ambitious targets under SDG 4 on quality education and SDG 8 on decent work and economic growth. The study will make some recommendations to provide innovative responses from the VET sector in developing countries that enable it to become a catalyst in the vicious loop of job creation and economic growth.

2. Aims of the report

The present report reviews the literature that tackles major issues around the development of the VET sector in the last decade. The report outlines main topics raised including the role of the VET sector as a solution to youth unemployment as well as the ways to develop the VET sector by tackling issues such as funding VET, improving its quality, aligning VET curricula with skills

demand, and engaging both private and public stakeholders in improving the VET sector and raising its attractiveness among youth.

Policy makers in developing countries are cognizant that the well-structured VET sector can be a one stop solution to major socio-economic problems facing youth and women in developing countries. The VET sector seems to have the potential to find solutions to sluggish growth characterizing these countries in addition to the rising unemployment and pronounced skills mismatch.

3. Major Findings from Desk Research

The literature review conducted in the study covered a variety of resources on the VET Sector. The researcher reviewed several meta-analyses and qualitative studies on the VET sector, including (CEDEFOP, 2015, 2017, 2018, 2019, 2020), UNESCO-UNEVOC (2013), Advisory Committee on Vocational Training (2018), European Training Foundation (ETF), International Labor Organization (ILO), the Organization for Economic Co-operation and Development (OECD), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank (WB). The European Commission (EC), the European Training Foundation (ETF), the African Development Bank (AfDB) and the Asian Development Bank (ADB), among other recent publications on the subject matter.

The tools designed in these analyses provide systematic assessment of the VET sector and exposes what works and what does not work to meet the demand for skills in the labor market and improve the employability of youth. This survey considers the conclusions and assumptions reported by these previous works and uses as a baseline the information gathered in previous research conducted about the VET sector in Northern and Southern Mediterranean countries. In addition, the desk research helped gain knowledge and broad understanding of the current situation of the VET sector in these countries. It therefore highlights the major findings which are structured into six major topics tackled in the reviewed literature. In the following subsections, each topic is briefly described:

3.1 VET System as a solution to youth unemployment and skills gap

Little is known about the impact of the VET system on youth employability, economic growth and social inclusion. Countries have dedicated special commissions to investigate this issue. Some reported that the VET system can have an enormous potential to impact on development and others reported that the VET system is expensive, inefficient, and unresponsive to economic growth and sustainable social development.

Since Shanghai consensus on the VET system issued in 2012 (UNESCO 2012), there is no doubt that globally, countries have realized that investing in the VET system is of paramount importance for economic growth, sustainable development, and social inclusion. In Northern and Southern Mediterranean

areas, developed and developing countries have investigated whether the VET system can be determinant of youth employment and a driver that can impact on youth labor market situation. Recently, several studies conducted by Cedefop, ETF, UNESCO-UNEVOC, and many others have revealed that there is a high probability that the labor-market oriented VET system can considerably contribute to reducing the skills gap and accelerating the employability of youth. These studies demonstrated how the VET sector can be a solution to tackle the double challenge of youth employability and unemployment and how it can close the skills gap, accelerate the labor market insertion of job seekers and lead to considerable reduction of the mismatch between skills offer and demand. In addition,

In addition, the ongoing coordination between members of the Inter-Agency Group on Technical and Vocational Education and Training (IAG-YVET group¹) have made encouraging developments that have significantly enhanced the knowledge-sharing and the understanding of the key issues related to the VET sector. Such consortium has leveraged the work accomplished by its members and facilitated the design and implementation of more effective VET policies and recommendations to improve the VET sector role and to attain better economic productivity and prosperity. The VET sector has gained significant interest and it is seen as a potentially powerful solution to increase productivity, accelerate growth and create a more balanced and resilient society.

The VET sector role is to supply skills in demand by the labor market, however, the level of demand needs to be increased in the first place to effectively allow the VET sector support to impact on the VET workforce. In the current situation, with the dual constraints caused by the recession and the Covid19 pandemic, the labor market is disrupted. The demand for skills is usually triggered by industries' increased competitiveness and steady growth which leads to job creation. This highly uncertain outlook of the labor market increased the burden of the skills suppliers. Due to recent economic recession caused by the pandemic, millions of jobs have disappeared, and thousands of new ones are emerging. Both current workers who saw their jobs disappear and future workers who see no job opportunity amidst this crisis will need support. They need to be reskilled and upskilled to be able to fit into the new jobs that emerged during the pandemic and will continue to expand during the upcoming years.

It seems that the pandemic has created an opportunity for the vocational sector to thrive. Indeed, the pandemic seems to have accelerated the advent of future jobs and imposed on employers the pressing need to reskill their workforce to be able to cope with the technology-induced economic growth and competitiveness.

The recent World Economic Forum report on the future of jobs (October 2020) revealed that the double disruption caused by the pandemic and the

¹ IAG-TVET group was convened by UNESCO in 2008 to coordinate efforts in delivering policy advice and research on TVET. Its members are UNESCO, ILO, UNIDO, ADB, IDB, CEDEFOP, ETF OECD and EC.

accelerated technology pace made future jobs available today and increased the need to reskill the actual workforce and upskill the upcoming workforce. One of the most efficient ways of approaching the workforce upskilling and reskilling is to use the VET system to build the capacity of the workforce in a cost-effective and effective manner.

3.2 Funding and reforming the VET system

The reform of the VET system requires the creation of well-articulated curricula with modularized courses that focus on the skills needed in the workplace. The VET sector must offer 'just in time' training to enable youth to acquire skills in demand by the private sector. To target systemic improvements in the quality and market-relevance of curricula in key skill areas. Targeted vocational areas of focus must be effectively informed by input that private sector firms report about skill gaps in key economic sectors.

In several countries, successful attempts to reform the VET sector depend on the types of funding adopted which can be donor's funding, joint funding, or public funding. Funding the VET sector entails upgrading the infrastructure and rendering it technology friendly. In addition, some sectors require heavy investment in equipment and machinery needed to conduct practical training.

For instance, the automotive sector requires equipping VET schools with car parts or allowing VET learners to conduct their apprenticeship in the automobile factory. BMW group, for example, has recently signed an agreement with a Hungarian vocational school to implement the German dual vocational training concept by allowing the schools' learners to use BMW facilities in Hungary to practice and apply their knowledge and gain on-the-job experience.

This has been supplemented by stakeholder feedback from public and private-sector partner institutions, such as BSOs, chambers of commerce, private sector firms, Ministries of vocational and tertiary educations, Ministries of employment, etc. This multifaceted partnership establishes an organic feedback loop between private sector firms, vocational training institutions, and third-party stakeholders to address the mismatch between the market demand in each economic-sector and the supply of skills-training providers from vocational institutions.

3.3 Skills development and skills forecast

Unemployment coexists with an unmet demand for skills combined with unfulfilled vacancies because there are delays in adjustment in the VET sector (e.g. Engineering tracks and Admin business tracks, services, hospitality, manufacturing, etc.). Several VET-focused commissions have been active in skill

mismatch research and analysis such as Cedefop, ILO, UNESCO. In a recent publication by Cedefop (2018), it has been reported that “*Cedefop’s European skills forecasting model projects that by 2025 about 48% of all job opportunities in Europe will need to be filled by individuals with tertiary-level qualifications*”. In addition, World Economic Forum’s 2020 report on the future of jobs revealed that 97 million new roles may emerge and that 40% of workforce need reskilling. This indicates that countries need to take action to provide the existing and future workforce with the new skills needed to perform future jobs.

Both MENA and EU employers have been facing an exacerbated skill mismatch that continues to grow and create a huge gap that is adding burden to the employment and employability of youth in addition to growing cases of underemployment of adults. Countries with high rate of unemployment have been dealing with many forms of skills mismatch: experience workforce that is not using the skills acquired through the job, junior workforce that lack the basic skills required by the job and experienced workforce that finds it difficult to adjust to the new requirements of the job. These situations where both skills in demand and skills supplied diverge and lead to *considerable waste of skills and human potential* (Cedefop 2018) and ask for immediate actions of upskilling and reskilling to reduce the impact of the skills mismatch in addition to a robust skills development program to upgrade VET schools and training centers curricula.

It is of paramount importance to balance between what employers request in terms of skills needed to accomplish the jobs they created and what skills are acquired by the workforce to fulfill this request. This can be accomplished with a sound skills forecasts system that inform policymakers and other stakeholders (vocational institutions and ministries) about future labor-market needs. Future jobs that require skills development are technology related and they include machine learning, big data analytics, the internet of things and advanced robotics. These new fields of interest generate millions of jobs and require specific vocational skills. Also, the global value chains are also reshaping the world of work and require specific skills development. Future generations must be introduced to these new skills and adults must be reskilled to adopt to the changes in the workplace. The VET sector can help improve the matching of labor supply and demand by offering new upskilling and reskilling solutions. Although research drew a negative portrait of the skills mismatch issue, there is still hope that the VET system has an immense potential to prepare future and current workforce to acquire and develop the skills in demand in the labor market.

3.4 Quality assurance in the VET sector

Quality assurance in the VET sector is a constant process that aims at developing the VET sector and at the same time maintaining its quality standards. According to ETF (2015), a *Good VET* has the following features:

- responds to labor market, societal and individual needs.
- leads to nationally, or even internationally, recognized qualifications or credentials.
- provides access to decent jobs and sustainable employment.
- is attractive, inclusive and accessible, i.e., all citizens have access to VET.
- fosters capabilities that enable progression to further learning.

Countries that plan to improve the VET sector need to monitor its development by examining whether it responds to features of a *Good Vet* system. In addition, Quality assurance in VET is an effective way of monitoring whether the countries' strategic plan towards improving the VET system is appropriate and is leading to the VET sector improved attractiveness, matching labor market skills demand, developing qualified workforce, effectively spending public funds, regularly upgrading training curricula, using technology-based pedagogical solutions and qualified instructions to deliver training and engaging with the private sector to secure valuable apprenticeships.

3.5 Policy dialogues, policy papers, research in the VET system

One way to improve employability of youth and reduce the skills gap is to encourage governments to adjust their policy dialogues and reposition their strategic vision towards empowering the VET sector role. Policy dialogues bring together major stakeholders to discuss effective ways of enhancing knowledge sharing about skills needs. Countries strive to leverage its engagement with both youth and employers in the private sector to achieve systemic impact on the VET sector by addressing major policy challenges that can help foster a more demand-driven VET system.

Research endeavors conducted by research groups such as the IAG-TVET group is a role model that illustrates how a working group can create efficient mechanisms to carry forward work on priority issues in the VET sector. The group regularly publishes policy papers, research papers, bulletins, books, articles, etc. regarding the opportunities of the VET sector and ways to consider the sector as a major solution to youth unemployment.

Country policy regulations may participate in improving the VET systems as it is the case in most developed countries of Northern Mediterranean region, or it can sadly contribute to the deterioration of the VET system due to lack of any strategic as it is the case in major developing countries of the Southern Mediterranean region. Policy papers and policy dialogue can significantly contribute to raising awareness of the importance of the VET sector and promote the urgent need to multi-stakeholders' collaboration to develop the sector potential to tackle skills development and youth employability issues.

3.6 VET sector in the digital age

The dual challenge of the pandemic induced economic recession and the increasing use of automation caused by the accelerated pace of technology significantly affected the labor market and boosted the demand for digital jobs. These jobs require more qualified workforce from the existence workforce that faces the challenge of keeping pace with the ongoing need for more digital skills. In addition, these jobs represent a challenging opportunity for new entrants in the labor market who will need to adjust their skills to be able to match them with the skills requirements of future digital jobs.

On one hand, the VET sector seems to be the adequate educational system that can drive the effective skills development of the current and future workforce and adequately upskill and reskill the workforce according to the demands of the future jobs. On the other hand, technology seems to impose on the VET sector to upgrade its learning and teaching techniques and adjust its pedagogical engineering to the digital age. Online courses and virtual classrooms are replacing the conventional classroom settings. The VET sector requires robust technical provisions to adjust to these new trends.

4. Analytical Framework

The analytical framework is a logical structure that is used to describe what the VET sector intends to achieve to develop VET graduates' skills, increase their employability and accelerate their labor market insertion. Below, we model determinants of the core analytical framework that will be applied for reviewing selected countries' VET sector. Our research on the relevance and effectiveness of VET Models focuses on seven major intertwined analytical parameters. A concise review of international and regional VET experiences from the perspective of these core analytical parameters will help us demonstrate, albeit with some caveats, the relevance and effectiveness of major VET models. It will also point the way towards additional research questions that will need to be addressed moving ahead and help lay the initial groundwork for the development of the most successful VET system. The key parameters we will be examining include:

4.1 Private sector engagement

Private sector engagement is a significantly important parameter that can effectively contribute to the success of a VET system. Employers' involvement in the process of reform/development of the VET sector is crucial as it helps to further delve into the skills demand emanating from the private sector. Private sector engagement can take several forms and can contribute to the VET sector development in many ways. Growth of the private sector firms in highly competitive and is usually translated by employment generation. New jobs necessitate qualified workforce with specific skills to occupy these positions. Here comes the role of the VET sector to cooperate with the private sector firms and collaboratively develop training curricula to prepare youth for the new jobs created by partner firms. Constant coordination between the VET sector and the private sector firms can facilitate the knowledge sharing about skills and qualifications needed to occupy these new positions.

Historically, private sector engagement in the development and reform of VET curricula was initiated by public institutions (ministry of vocational education, ministry of employment, ministry of commerce and trade, etc.). These public institutions adopted a macro-level approach that was meant to provide, in a top-down fashion, the broad guidelines on how to govern and control the collaboration between the private sector and the VET sector. It was part of governments' targeted strategy to reduce unemployment among young graduates and to initiate proactive partnership between the private sector and the VET schools. At the beginning, it was challenging to convince the private sector to take part in the development and reform process of the VET sector because there was no clear win-win situation. Once the issue of skill mismatch has directly affected private sector firms' productivity and growth, it has

become essential for firms to be involved in the coordination with VET institutions to regulate the shortage of qualified VET graduates.

As the top-down approach to encourage private sector engagement in the VET sector reform process has not led to any positive results, private sector stakeholders including BSOs, chamber of commerce, cooperatives, CSOs and other social partners, have decided to switch to a bottom-up approach to tackle the skill mismatch issue. The particularity of the bottom-up approach further promotes private sector engagement because it works at the meso level and it is sector specific. Research has revealed that this approach is more effective. It encourages a network of firms to become more engaged to support VET institutions in developing and reforming the curricula by taking into consideration the set of skills and qualifications they need according to the specific sector of activities. Committed firms can inform VET institutions about skills needed in their industries and can support them to reform/redesign the curricula. This collaboration can be more effective if it is developed at the sectoral level with a network of firms constantly dialoguing with a group of VET institutions.

Private sector engagement is also important to develop collaboration with VET institutions to enable VET learners to experience work-based learning (WBL) opportunities and be better prepared for the labor market. (WBL) experience accelerates labor market insertion, equips VET graduates with work-related skills, and contributes to the development of a professional profile. Current research praises the best practices performed in the tourism and textile sectors for example. In the tourism sector, for example, hotel and hospitality facilities closely collaborated with vocational schools to reform the curricula and include the most needed training modules required by the hospitality sector. The practical aspect of the training was conducted in the hospitality businesses who were engaged in this process either by offering their facilities to conduct apprenticeship experience or to perform practical trainings.

Work based learning can take several forms: it can be an apprenticeship opportunity that is completed as part of the requirement of the VET diploma. In this case, it can be compulsory and VET learners cannot obtain their VET degree unless they successfully complete the apprenticeship. The German dual form or the Canadian Cooperative system are examples of compulsory WBL that are required in the VET qualification. Compulsory apprenticeship requires a strong and sustainable collaboration with the private sector to enable VET institutions to rely on a network of firms that regularly take a certain number of VET learners as apprentices in addition to contributing to subsidizing them.

Apprenticeship can be optional requirement of the VET diploma, and in this case, it is the responsibility of VET learners to look for apprenticeship opportunities. Ironically, countries that opt for this option have weak private sector engagement in the VET sector and the culture of apprenticeship is not deeply rooted in the labor market. Also, private sector firms are not incentivized

to take part in the WBL process and do not see any valuable trade-offs. This is likely the case in countries where the private sector is not particularly strong and is mainly built on the informal economy.

Moreover, WBL can be integrated in the VET school curricula and can take the form of practical learning activities conducted in equipped laboratories, enterprise simulations and business games performed in dedicated classrooms, equipped kitchens and restaurants designed to replicate the real hotel setting, etc. These integrated practical learning experience can effectively replace the real work-based experience. Research revealed that, in countries where unemployment of VET graduates is high and labor market insertion is slow, WBL opportunities are not systematically offered and the private sector does not seem to be involved in the labor market insertion process of VET graduates.

Business Support Organizations Role: Business Support Organizations (BSO) can play a crucial role in engaging the private sector in reforming/developing the VET sector through a plethora of activities:

- Involvement in the promotion of the apprenticeship opportunity among SMEs.
- Collaboration with VET schools or VET ministry to develop new curricula tailored to the needs of the private sector.
- Implementation of donors' funded projects designed to support employability of youth and private sector engagement.
- Organization of employability and career event to link up employers with job seekers.
- Development of skills forecast surveys and analysis of data related to skills needs by sector and by geographical location.
- Involvement in policy dialogue about the importance of the VET sector.
- Creation and management of innovative training centers dedicate to upskill and reskill current and future workforce according to the skills needed for future jobs.
- Promotion and awareness raising of the VET sector role in improving the employability of youth and women.
- Support in obtaining professional certifications and accreditations for VET schools.

4.2 Public expenditure and existing forms of funding

Recently, governments realized the important role of the VET sector in significantly reducing the endemic skills deficit and the soaring youth unemployment rate. Public funding and donors' engagements through European Commission funding and World Bank funding programs among others have recently prioritized their funding agenda to the development of the VET sector. Funding involves rebuilding the VET infrastructure to align it with technological

needs of today's knowledge economy. It also includes developing new curricula that responds to the economic sector skills needs, training and upskilling instructors and VET administrators, and other related interventions aimed at developing the VET sector.

In developing countries, public expenditure is geared towards realizing economic growth and poverty reduction. Globally, public expenditure on education comes first and so is the case in developing countries with a particular focus on vocational education because it is considered as the adequate solution to realize social inclusion for excluded youth (NEET) as well as realize social resilience for women who face some form of social injustice such as GBV and who need to be socially and economically empowered.

Moreover, donors have been calibrating their funds to adjust to developing countries' priorities by injecting more money to realize significant impact on selected interventions. For this matter, we have seen more focus from major donors on issues related to education and vocational education. For instance, the German donor, GIZ, the German Society for International Cooperation, utilizes its funds to promote the German dual system in developing countries in MENA and Africa when funding economic development and social inclusion projects. These funds are used to train the trainers, fund VET schools' infrastructure, hire VET experts to support in developing VET curricula, support private sector firms to grow and create sustainable jobs for youth.

4.3 Governance to drive the entire VET system

The literature shows that there is a positive correlation between a strong governance model of a VET system and its overall performance. Countries where VET system is successful tend to have a strong governance system in place that imposes a strict leadership to oversee the VET system and govern, control, and monitor the implementation of the strategic plans to improve the VET sector. There are many cases where countries seem to put a promising strategy and a visionary plan to modernize the VET system, but these initiatives remain on paper and do not reach the policies' implementation stage. Countries that established an effective coordination mechanism to follow up with the reform/development of the VET system opted for a solid vertical and horizontal coordination to effectively improve performance in VET policy making and policy implementation. They also adopted the so-called collective governance, where more than one partner is involved: national government, regional authorities, business associations, and the private sector. This type of governance proved to be very effective in managing the Swiss VET system (see the Swiss VET Model section).

4.4 Quality assurance management mechanisms

The research indicates that most countries that put in place a solid strategy to promote and improve the VET system have also strengthened a culture of quality assurance to monitor the reform process and observe its continuous improvement. Through the scrutiny of an effectively implemented quality assurance mechanism, several actors in the VET system reform process are considered: the policy makers, the implementers, the trainers, the leaders, the business owners, the trainees, and VET system advocates themselves. An adequately implemented quality assurance mechanism inspects the efficiency of the leadership, checks the effectiveness of stakeholders' engagement and coordination, and assess the validity of the curricula, the trainings, and the certifications. These provisions of quality assurance are important to guarantee a viable reform of the VET system.

4.5 Labor market intermediation mechanisms

Labor market intermediation mechanisms include employment service interventions that are designed and implemented to boost job seekers employability and accelerate their labor market insertion. They are usually combined with capacity building and training interventions. They principally aim to equip job seekers with the skills needed to start the job search process. Labor market intermediation mechanisms are promoted using career centers and employment units, job matching portals, job fairs, and career days, and the like. These mechanisms are essential in enhancing labor market information systems; as they facilitate information sharing about existing employment opportunities, as well as the skill types and levels of job seekers.

Employment service interventions use a job matching/intermediation approach to address a significant information gap that exists between both sides of the labor market. The job matching process is meant to close this gap by providing needed information for job seekers about suitable job opportunities available in the labor market. Jobseekers also learn how to market themselves and network to find a job and connect potential employees with employers. This approach can significantly reduce the costs and timeframes required for filling job openings and dramatically reduce the waithood phenomenon, which is related to the time spent searching for a decent job after graduation by job seekers.

Employment services include labor market information exchange/channeling and job matching processes that help job seekers transition to the labor market. They play an important role in making labor market information available and creating market linkages through career readiness workshops, career counseling, and guidance, access to job matching services, access to a variety of skills training, and job search tools. Employment services interventions collaborate with a country's main provider of employment services. These are typically public employment agencies or units, although, in some countries,

private employment agencies exist and work on addressing labor market information failure and mismatches.

4.6 Attractiveness of the VET sector and its image among youth and society

There is a general belief that VET education has a negative image, and that society undermines the VET education path and perceives it as the ultimate path for low achievers. Youth tend to undermine the VET education path because it does not guarantee a successful career and is likely to limit them in a low social standing. There is a general preference toward selecting academia as an alternative pathway. According to the literature, (Cedefop 2017 and 2014, ILO 2020), most VET reforms tackled the issue of VET attractiveness as it represents a major factor hindering youth from engaging into a VET career; however, policy changes related to increasing government funding, improving VET qualifications, reducing skills gaps, and other related initiatives have not yet succeeded in reducing the lack of VET attractiveness among youth and their family.

It seems that there is a misconception of the VET education that, over time, has negatively impacted on the attractiveness issue which has become deeply rooted in the historical/cultural background of a given community. The stigma surrounding the VET education led to reducing it to a second choice to academic. However, this can be altered if the same fame that was built around academia can be transferred to the VET sector. If the message to be conveyed to youth is that a VET career is a symbol of successful career with decent salary, higher social status, comfortable working conditions, equality of opportunities, gender balance, possibility of promotion and success, it will be better perceived. Several VET experiences such as the German dual model and the Swiss model, invested in shifting the VET image to a better one and they succeeded in attracting youth towards opting for a VET career. To illustrate and according to a recent report published by UN's Economic and Social Commission for Western Asia (2020), in the Arab countries, only 12% of youth enrolled in secondary school pursue vocational studies in comparison with Northern European countries where in Switzerland for example, more than two third of youth coming out of compulsory education enroll in VET paths.

4.7 Skills development and skills forecast

To assess the degree to which there is an alignment between the skill sets supplied by the workforce and those required by the labor market, it is essential to regularly conduct labor market information surveys. The VET system should presumably be based on a clear understanding of market needs. In this regard, the VET system should aim to employment by identifying and addressing the critical labor market bottlenecks constraints that limit the capacity of SMEs in

high potential industries to increase productivity and expand sales, exports, and jobs. This entails identifying key skill gaps that relate to major occupational niche needs in local labor markets and identifying the skills needed.

This parameter assesses the degree to which the VET system put strategic intervention mechanisms in place that effectively promote the capacity of intermediary institutions (e.g., Ministries of Labor/ Education, business associations, NGOs) to undertake labor market information sharing and job search activities. Programs should be designed to sustainably improve the efficiency, effectiveness, and impact of intermediary processes of the core labor market (e.g., job search, job matching, curriculum reform).



5. Sample Country Analyses

5.1 Swiss Model

<i>Swiss Model: Main Features</i>
<ul style="list-style-type: none"> • The VET sector provides youth with solid foundation in one of the 240 occupations available. • The VET sector follows the dual system: training content is divided between different learning locations (part-time classroom instruction at a vocational school, part-time workplace training at a host company and for some occupations also branch courses at a branch training center). • The VET system is very flexible: learners may pursue more advanced education and training opportunities, switch from vocational/professional pathways to general education/university pathways and later change the course of their working lives with relative ease. • Only professional competences that are required by the labor market and are in demand are offered in VET training. These professional competences are determined by the private sector. • The VET training content is distributed across two (or in some cases three) different learning locations: vocational schools, host companies and branch training centers managed by the professional organizations.
<i>Private Sector Engagement</i>
<ul style="list-style-type: none"> • All companies in the private sector are required to contribute to the corresponding VET value chain that they belong to by financing the VET fund. This fund covers the costs of the apprenticeship, the ongoing development of VET courses, the promotion of new courses/programs, etc. • VET fund is mandatory for all companies. • Host companies intervene in the learning and training process. Part of the training is delivered during the apprenticeship.
<i>Public Expenditure and Existing Forms of Funding</i>
<ul style="list-style-type: none"> • VET is a major public undertaking. It is ranked second after social security. • Professional organizations provide both services and funding for the Swiss. • VET learners receive a monthly apprenticeship salary from the host company where they undertake their apprenticeship. • The Confederation, the cantons and professional organizations fund the VET sector. The cantons provide at least three-fourths of public funding. The professional organizations fund the sectoral courses.
<i>Governance of VET sector</i>
<ul style="list-style-type: none"> • The Vet system is dictated by the Federal Vocational and Professional Education and Training Act (VPETA) and the Vocational and Professional Education and Training Ordinance (VPETO) form the legal basis for maintaining the quality of the VPET system. • The VET system is collectively governed by the Confederation, the cantons, and professional organizations. These three main partners work together to maintain a high level of quality within the VET system. • They work together to ensure that there is a good supply of apprenticeship positions and training options. • The tripartite partnership is regulated by the Federal Vocational and Professional Education and Training Act • The State plays a mediating role in enduring that apprenticeship opportunities are available for all VET learners and that general conditions are met and that host companies are encouraged to offer apprenticeship positions.
<i>Quality Assurance</i>
<ul style="list-style-type: none"> • Quality assurance and Quality management is governed by the Confederation, the cantons, and professional organizations. • The providers of VPET are responsible for maintaining quality referring to the Federal Vocational and Professional Education and Training Act (VPETA) that sets out the basic quality standards and • They monitor the provision of VET at the three places of learning (schools, training centers, host companies). • They set the requirements relating to qualification procedures. • They regulate the education and training of VET professionals. • The Confederation and the cantons are responsible for the provision of education and training and for quality in the areas assigned to them.
<i>Labor Market Intermediation Mechanisms</i>
<ul style="list-style-type: none"> • VET graduates start receiving career guidance to find an apprenticeship opportunity. This service is supported by the Cantonal career guidance schools. • VET learners receive coaching and mentoring services, and they are guided during their VET training to improve occupational and social skills and optimize their CVs. Coaching and mentoring programs are sponsored by cantons and private organizations. • VET graduates are offered career guidance to find an entry level job. They are given advice on job search techniques. They are informed on the jobs available in their cantons. They are invited to attend employability events.
<i>Attractiveness of the VET Sector and its Image Amongst Youth and Society</i>
<ul style="list-style-type: none"> • Two third of young learners coming out of compulsory education enroll in VET. • Private sector companies recruit essentially from VET graduates. • Families and youth have positive image of the VET sector. • The VET sector represents the future jobs and skills.

5.2 German Model

<i>German Model: Main Features</i>
<ul style="list-style-type: none"> • The German dual system in the VET sector act within the legal framework determined by the Vocational Training Act (BbIG) and other labor law provisions of various branches of law which are also obligatory for the professional education and further training. • The German VET system offers qualifications in a broad range of occupations. It is a flexible system that adapts to the changing needs of the labor market.
<i>Private Sector Engagement</i>
<ul style="list-style-type: none"> • Employers organizations and trade unions are responsible for the introduction and the development of new curricula that respond to private sector needs. In collaboration with experts from employers and trade unions, the new curricula are designed. Instructors from vocational school intervene to develop the theoretical part of the new curricula. • The chambers of commerce have an important role in the dual system. They are involved in the development of new curricula. They are intitled to provide/conduct specialized training They are also involved in the interim and final examination of practical modules conducted withing the companies.
<i>Public Expenditure and Existing Forms of Funding</i>
<ul style="list-style-type: none"> • In 2017, the German government commitment to VET interventions was increased to €192 million. This amount is bigger than the one allocated by the EU Commission.
<i>Governance of VET sector</i>
<ul style="list-style-type: none"> • A multi-stakeholder approach is adopted. Local, federal, and national entities are engaged in the VET system including employers' associations and social partners. • The Federal Institute for VET, (BIBB), and the national network of research centers play a key role in surveying the skills needs of the labor market and support the VET system through continuous innovative improvement to the system. These entities initiate new curricula through a rigorous labor market survey, design of curricula, training of instructors, examinations, and certifications, etc. They are also involved in the quality assurance process.
<i>Quality Assurance</i>
<ul style="list-style-type: none"> • The high involvement of a wide range of stakeholders from the public sphere, specifically employers' associations, Chambers, trade unions and social actors made it easier to establish a solid quality assurance system. EQAVET was created as an additional initiative to further strengthen quality in VET.
<i>Labor Market Intermediation Mechanisms</i>
<ul style="list-style-type: none"> • Vocational schools are equipped with career centers that facilitate education to work transition for VET graduates. • Private sector engagement guarantees apprenticeship opportunities for VET students and graduates. • Chambers of Commerce play an important role in linking up VET graduates with potential employers through several labor market intermediation mechanisms such as job fairs, enterprise and career days, apprenticeships, etc. • Access to labor market information is available and up to date thanks to the involvement of private and public sector stakeholders.
<i>Attractiveness of the VET Sector and its Image Amongst Youth and Society</i>
<ul style="list-style-type: none"> • More than 60%of German students chose the vocational path. • VET careers are well paid and well perceived by the German society. • Young learners are attracted by the courses offered by the VET system and they appreciate the dual system that enable them to easily transition from education to work.

5.3 Jordanian Model

<i>Jordanian Model: Main Features</i>
<ul style="list-style-type: none"> • The VET public sector is facing skills mismatch challenges. The sector is suffering from outdated curricula and archaic pedagogical skills. • There are several strategic projects conducted by the ministry of vocational education and funded by donors to develop market-relevant vocational curricula, however, the lack sustainability and scalability provisions which significantly reduce their impact. • VET training is mostly supply driven with weak linkages with the labor market. • Absence of an updated national qualifications and occupational standards framework for all sectors that indicates the skills and qualifications required by the labor market.
<i>Private Sector Engagement</i>
<ul style="list-style-type: none"> • There has been attempts to apply the dual system at the VET sector, but the weak engagement of the private sector and the absence of a collaborative governance led to weak results. • The Jordanian private sector is composed mainly of SMEs that are growing at a slow pace and are not creating many jobs. This is mainly due to the recurrent economic difficulties that Jordan has been facing, • The culture of apprenticeship is not deeply rooted in the Jordanian private sector. • There is a fragile collaboration between the VET sector and the private sector except for the textile, automotive and light manufacturing sectors where impactful partnerships to train and recruit workforce are frequent. • Private sector VET schools, such as Luminus College of Technology, represent pilot projects that apply the dual system. These private sector initiatives succeeded in attracting youth to enroll in the VET education and guaranteed their employability in addition to offering market-driven and sector specific training diplomas tailored to the needs of the labor market.
<i>Public Expenditure and Existing Forms of Funding</i>
<ul style="list-style-type: none"> • Major sources of funding of the VET sector are: annual public budget, international donations and loans and contributions from trainees. • Most VET sector development and reform projects are donors funded. • Private sector initiatives to create private VET schools is increasingly growing. These initiatives reflect a sound investment in a sector that has the potential to reduce the impact of skills mismatch on the employability of graduates. • Jordan currently invests 0.3% of GDP in TVET, while international levels stand at around 1.5 to 2.0% of GDP
<i>Governance of VET sector</i>
<ul style="list-style-type: none"> • The VET sector has been through several stages of reform led by the VET public stakeholders; however, the reform initiatives are governed based on a top-down approach and no collaborative governance is put in place at the regional/governorates levels. • The top-down governance of the VET sector does not yield positive returns. • The VET sector governance is fragmented which leads to the duplication of the work and the reform projects without significant impact on the sector development. • The Jordan National Employment-Technical and Vocational Education and Training (E-TVET) Strategy and the CAQA, Centre for Accreditation and Quality Assurance, only have influence on the public and private VET schools but do not collaborate closely with the VET ministry and has no authority on the latter.
<i>Quality Assurance</i>
<ul style="list-style-type: none"> • The CAQA center is working on development performance indicators of the VET sector that needs to be monitored at several levels: the VET management level, the instructors' level, the infrastructure level and the course level. • There is a lack of leadership and autonomy of the quality assurance body which weakens its contribution in assessing the situation of the VET sector and recommending areas of improvement. • There is work in progress to update the occupational standards and associated manual to identify the skills in demand by sector. This initiative is limited to 10 sectors.
<i>Labor Market Intermediation Mechanisms</i>
<ul style="list-style-type: none"> • Social actors (chamber of commerce, Business associations) have limited role in organizing employability events and promoting linkages between the VET sector and the businesses. • Absence of labor market information analysis and skills forecasting surveys implemented by BSOs or public stakeholders. • Employability units had no contribution in improving job matching mechanisms and donors' funded career centers projects were not sustainable initiatives. • Private VET schools are investing in labor market intermediation mechanisms. They conduct skills forecast surveys to identify the skills needed by specific industries. They engage businesses in the trainings offered (apprenticeship programs, practical trainings, pre-employment trainings). These initiatives remain small scale best practices and are not scaled up across the country.
<i>Attractiveness of the VET Sector and its Image Amongst Youth and Society</i>
<ul style="list-style-type: none"> • There is an apparent lack of attractiveness of the VET sector among youth and their family due to its lack of career perspective. • Tertiary education remains more attractive for youth, although tertiary graduates suffer one of the highest unemployment rate in the region.

5.4 Egyptian Model

<i>Egyptian Model: Main Features</i>
<ul style="list-style-type: none"> • The VET sector represents the solution to reduce unemployment of youth in Egypt. It is also the right education sector to invest in because it reflects the country's industrial capacity. • The Egyptian government is giving a special emphasis on the reforming the VET sector through TVET Egypt Project in collaboration with the European Union.
<i>Private Sector Engagement</i>
<ul style="list-style-type: none"> • TVET-Egypt program collaborates with several donors to facilitate education to work transition. GIZ EPP and USAID Wise projects offer training in career readiness to VET sector graduates. • Initiative by IFC to create a Flat6Labs Accelerator Company to promote entrepreneurship in Egypt. • The Dual system implemented following the "Mubarak-Kohl Initiative" initiative helped put in place a formal apprenticeship scheme: private businesses join a business association that implements a technical education program (Regional Unit of Dual System (RUDS). The participating businesses are responsible for the 4-day per week work based training. Apprentices receive pocket money and transportation allowance. It has been reported that through the dual system more than 50% of the graduates obtained jobs in the participating businesses.
<i>Public Expenditure and Existing Forms of Funding</i>
<ul style="list-style-type: none"> • VET reform started with the program of "Mubarak-Kohl Initiative". A reform project that involved an agreement between the Federal Republic of Germany and Egypt during the years 1994-2008. • Several international donors contributed to the reform of the Egyptian VET sector including the EU (TVET II), ILO, UNIDO, GIZ, USAID (WISE) programs. These donors focused on implementing interventions to reform vocational curricula, training instructors, engaging the private sector and improving the governance and the quality assurance mechanisms. • TVET I and TVET II programs were funded by EU (total budget is estimated at 180 Million Euros). At least 70 million Euro represent the Egyptian government contribution. • A total of €12.5 million (11% of TVET Egypt total budget) was allocated by the European Union for the purchase, installation and operating training of state-of-the-art equipment in five key economic sectors. In addition, up to €46 million (39% of TVET Egypt total budget) from the Government of Egypt for infrastructure upgrades of technical schools, technical colleges, and vocational training centers.
<i>Governance of VET sector</i>
<ul style="list-style-type: none"> • Egypt Vision 2030 Program put an emphasis on reforming the education sector in general and the vocational sector in particular to tackle the unemployability issue of Egyptian youth. • The VET reforms are progressing slowly due to the low governance mechanisms. Multiple stakeholders play key roles in the reform strategy and there is a lack of communication and coordination between ministries that are involved in the TVET I and II programs. This has paralyzed the reform and decision-making processes.
<i>Quality Assurance</i>
<ul style="list-style-type: none"> • The TVET Egypt project works closely with the National Qualification Framework (NQF), Sectoral Qualification Frameworks (SQF), Recognition of Prior Learning (RPL) system for informal and non-formal TVET and the Credit Accumulation Transfer Scheme (CATS) to facilitate TVET students' career trajectories. • Both MKI project and TVET Egypt project were closely monitored by both the donors (GIZ and EU) and the beneficiary (Egyptian Government). • Under a presidential request, several ministries will collaborate to establish a new national authority for quality assurance and accreditation of education, parallel to the existing National Authority for Quality Assurance and Accreditation of Education (NAQAEE). This authority will be dedicated to the monitoring of the TVET program interventions.
<i>Labor Market Intermediation Mechanisms</i>
<ul style="list-style-type: none"> • Under the TVET-Egypt program, a consortium that gather ILO, GIZ, EU and the Egyptian Government initiated the design of regional labor market observatories to gather information about VET graduates' employability. The initiative will lead to the conceptualization of a unified labor market information system.
<i>Attractiveness of the VET Sector and its Image Amongst Youth and Society</i>
<ul style="list-style-type: none"> • Recent figures (UNESCO/UNEVOC report 2020) indicate that student enrolment in the technical secondary is 62.7% compared with 37.7% enrolled in the general secondary education. This does not mean that Egyptian youth find the VET sector attractive. • The high percentage of enrolment in the VET sector is due to the orientation system. Low achievers have no option but chose the technical secondary track and high achievers are enrolled in the general secondary track.

Conclusion

The desk research and the country analysis using an analytical framework revealed that there are successful VET systems which can serve as a role model for other countries. The framework used in the report pinpointed the degree of success and the reasons for failure of the selected VET systems and indicated the major factors responsible for the success or failure. The review of the recent literature on the VET system in Northern and Southern Mediterranean countries indicated that both developed and developing countries of these regions consider that the VET system is the solution to the unemployment and employability of youth and women. A solid VET system can be the right ally to withstand the challenges imposed by the pandemic induced economic recession and the effect of the automation caused by the accelerated use of technology. For this reason, funding available for education has been prioritized and calibrated to the development of the VET sector. Also, a solid vertical and horizontal coordination mechanisms and collective governance are essential to guarantee a sound leadership in the VET sector. In addition, it is important to adhere to best practices related to VET quality assurance to ensure the good functioning of the VET system.

The present study supported the belief that the VET system can contribute to the social stabilization, economic development, and growth provided that a multi-stakeholder's strategy is developed, and a collective governance is implemented. The engagement and the involvement of the private sector is key to ensure the success of the apprenticeship scheme and the role of social partners is important to raise awareness of social and economic actors to get involved in the VET sector to encourage youth and women to take the VET path and guarantee a smooth transition to work. In addition, implementing a collective governance will further strengthen stakeholders' engagement in the VET system.

Bibliography

Advisory Committee on Vocational Training. (2018). Opinion on THE FUTURE OF VOCATIONAL EDUCATION AND TRAINING POST 2020.
<https://ec.europa.eu/social/main.jsp?langId=fr&catId=1146&newsId=9263&furtherNews=eyes>

Andrew Reeson, Claire Mason, Todd Sanderson, Alexandra Bratanova and Stefan Hajkovicz (2016). THE VET ERA: Equipping Australia's workforce for the future digital economy. <file:///C:/Users/user/Downloads/EP162981.pdf>

Barbara E. Stalder and Christof Nägele (Editors) (2019). Trends in Vocational Education and Training Research, Vol. II. Proceedings of the European Conference on Educational Research (ECER), Vocational Education and Training Network (VETNET). VETNET ECER PROCEEDINGS, Germany.
<file:///C:/Users/user/Downloads/VETNET%20Proceedings%20Vol%202%202019%20def.pdf>

Caves, Katherine; Ghisletta, Andrea; Renold, Ursula; Kemper, Johanna (2019) : Meeting in the middle: TVET programs' education-employment linkage in developing contexts, KOF Working Papers, No. 460, ETH Zurich, KOF Swiss Economic Institute, Zurich,
<http://dx.doi.org/10.3929/ethz-b-000356567>.
<https://www.econstor.eu/bitstream/10419/204796/1/1675689997.pdf>

Cedefop (2020). On the way to 2020: data for vocational education and training policies. Indicator overviews: 2019 update. Luxembourg: Publications Office of the European Union. Cedefop research paper; No 76.
<http://data.europa.eu/doi/10.2801/62708>.
https://www.cedefop.europa.eu/files/5576_en.pdf

Cedefop (2020). Vocational education and training in Europe, 1995-2035: scenarios for European vocational education and training in the 21st century. Luxembourg: Publications Office of the European Union. Cedefop reference series; No 114.
<http://data.europa.eu/doi/10.2801/794471>.
https://www.cedefop.europa.eu/files/3083_en.pdf

Cedefop (2019). The changing nature and role of vocational education and training in Europe. Volume 6: vocationally oriented education and training at higher education level. Expansion and diversification in European countries. Luxembourg: Publications Office. Cedefop research paper; No 70. <http://data.europa.eu/doi/10.2801/02004>.
https://www.cedefop.europa.eu/files/5570_en.pdf

Cedefop (2019). 2018 European skills index. Luxembourg: Publications Office of the European Union. Cedefop reference series; No 111.
<http://data.europa.eu/doi/10.2801/564143>.
https://www.cedefop.europa.eu/files/3080_en.pdf

Cedefop (2018). The changing nature and role of vocational education and training in Europe. Volume 3: the responsiveness of European VET systems to external change (1995-2015). Luxembourg: Publications Office. Cedefop research paper; No 67.
<http://data.europa.eu/doi/10.2801/621137>.
https://www.cedefop.europa.eu/files/5567_en.pdf

Cedefop (2017). The changing nature and role of vocational education and training in Europe. Volume 2: Results of a survey among European VET experts. Luxembourg: Publications Office. Cedefop research paper; No 64. <http://dx.doi.org/10.2801/548024>. https://www.cedefop.europa.eu/files/5564_en.pdf

Cedefop (2017). The changing nature and role of vocational education and training in Europe. Volume 1: conceptions of vocational education and training: an analytical framework. Luxembourg: Publications Office. Cedefop research paper; No 63. <http://dx.doi.org/10.2801/532605>. https://www.cedefop.europa.eu/files/5563_en_0.pdf

Cedefop (2014). Attractiveness of initial vocational education and training: identifying what matters. https://www.cedefop.europa.eu/files/5539_en.pdf

CEDEFOP (2017). Insights into skill shortages and skill mismatch. https://www.cedefop.europa.eu/files/3075_en.pdf

Cisco (2011). Global trends in vocational education and training. Cisco Research Center. https://www.cisco.com/c/dam/global/en_au/solutions/strategy/content/training.pdf

Christa Rawkins (2018). A Global Overview of TVET Teaching and Training: Current Issues, Trends and Recommendations. ILO Geneva. https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/meetingdocument/wcms_675275.pdf

Dieter Euler. Working Tool for Policy Dialogue and Project Design in Development Cooperation. Donor Committee for Dual Vocational Education and Training DC dVET Hardturmstrasse 123, 8005 Zurich. <https://www.dcdualvet.org/en/topics-experiences/engaging-the-business-sector/working-tool/>

Dominic Angehrn and Andrina Brunner (2016). Vocational Skills Development Reaching the Poorest or Targeting VSD for Innovation. Is There a Trade-off Between These Two Goals? Research Paper for The Swiss Agency for Development and Cooperation Practical Project in Development Cooperation. <http://www.msdconsult.ch/wp-content/uploads/2017/07/VSD-Paper-AngehrnBrunner.pdf>

EU (2010). An Agenda for new skills and jobs: A European contribution towards full employment. European Commission. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0682:FIN:en:PDF>

European Commission (2003). Improving employment in the field of sport in Europe through vocational training: Vocational education and training in the field of sport in the European Union: situation, trends and outlook. <http://eose.org/wp-content/uploads/2014/03/vocasport-Final-Report-English-Version.pdf>

EU policy in the field of vocational education and training Vocational education and training is a key element of lifelong learning systems, which equip citizens with knowledge, skills and competences required in particular occupations and on the labour market. https://ec.europa.eu/education/policies/eu-policy-in-the-field-of-vocational-education-and-training-vet_en

Georgina Atkinson and John Stanwick (2016). Trends in VET: policy and participation. National Center for Vocational Education and Research (NCVER). Australia.

https://www.ncver.edu.au/_data/assets/pdf_file/0017/60722/Trends-in-VET.pdf

ILO. E-discussion: Unlocking the potential of TVET and skills systems: What does reform look like? Skills for Employment.

file:///C:/Users/user/Downloads/FINAL_E_Discussion_TVET%20Reform_11%20Nov_.pdf

ILO. (2020). Employer organizations in the governance of TVET and skills systems.

https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_750563.pdf

ILO. 2020. The Digitization of TVET and Skills Systems

https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_752213.pdf

Luca Azzoni and Francisca Arbizu (2013). TVET and Skills Development in EU Development Cooperation Emerging Markets. Cardno (UK) Ltd for the European Commission.

file:///C:/Users/user/Downloads/aets_2012-308055-1_-_final_report_1.pdf

Melanie Chapman. 2018. THE INVOLVEMENT OF EMPLOYER ORGANISATIONS IN THE GOVERNANCE OF SKILLS SYSTEMS: A LITERATURE REVIEW. ILO.

https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_685645.pdf

Melanie Chapman. 2019. Employer Organisations in the Governance of TVET and Skills Systems. https://actempconosur.org/_lib/file/doc/EOs-and-the-Governance-of-TVET-and-Skills-Systems.pdf

Michaela Brockmann, Linda Clarke and Christopher Winch (2008). Knowledge, skills, competence: European divergences in vocational education and training (VET) - the English, German and Dutch cases. Routledge.

<file:///C:/Users/user/Downloads/OxfordreviewknowledgeskillcompetencepublishedversionOctober2008.pdf>

Olga V. Borisova (2016). Trends and Challenges in Development of Continuing Vocational Education and Training in Russia.

<https://www.iejme.com/download/trends-and-challenges-in-development-of-continuing-vocational-education-and-training-in-russia.pdf>

Olesia Samokhval (2018). The trends of current vocational education and training reforms in Luxembourg: review and analysis. EUREKA: Social and Humanities» Number 2. <file:///C:/Users/user/Downloads/575-1738-1-PB.pdf>

Skilling Australia Foundation (2017). Perceptions Are Not Reality: myths, realities & the critical role of vocational education & training in Australia. Research & design by McCrindle. <https://2qean3b1j1d1s87812ool5ji-wpengine.netdna-ssl.com/wp-content/uploads/work/Skilling-Australia-Vocation-Education-Report.pdf>

UNESCO-UNEVOC (2013). Revisiting global trends in TVET: Reflections on theory and practice. UNESCO-UNEVOC International Centre for Technical and Vocational

Education and Training.

<https://unevoc.unesco.org/home/Revisiting+global+trends+in+TVET+Reflections+on+theory+and+practice>

UNESCO-ILO (2002). Technical and Vocational Education and Training for the Twenty-first Century. <https://unesdoc.unesco.org/ark:/48223/pf0000220748>

UNESCO. (2012). Shanghai Consensus: Recommendations of the Third International Congress on Technical and Vocational Education and Training 'Transforming TVET: Building skills for work and life' Shanghai, People's Republic of China 14 to 16 May 2012. <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/concensus-en.pdf>

UNESCO. (2015). Unleashing the Potential: Transforming Technical and Vocational Education and Training. <https://unesdoc.unesco.org/ark:/48223/pf0000233030>

Ursula Renold, Thomas Bolli, Katherine Caves, Ladina Rageth, Vipul Agarwal and Filippo Pusterla (2015). Feasibility Study for a Curriculum Comparison in Vocational Education and Training Intermediary Report I: The 20 Top Performers. Working Papers: KOF Swiss Economic Institute Division Education Systems. https://www.researchgate.net/publication/312028998_Feasibility_Study_for_a_Curriculum_Comparison_in_Vocational_Education_and_Training_Intermediary_Report_I_The_20_Top_Performers

Ursula Renold, Katherine Caves, Thomas Bolli, and Jutta Buerger (2016). From bright spots to a system: Measuring education-employment linkage in Colorado career and technical education. Working Papers: KOF Swiss Economic Institute Division Education Systems. https://www.researchgate.net/publication/312029123_From_bright_spots_to_a_system_Measuring_education-employment_linkage_in_Colorado_career_and_technical_education

Ursula Renold, Thomas Bolli, Katherine Caves, Jutta Buerger, Maria Esther Egg and Johanna Kemp (2016). Feasibility Study for a Curriculum Comparison in Vocational Education and Training Intermediary Report II Education-Employment Linkage Index. Working Papers: KOF Swiss Economic Institute Division Education Systems. <https://www.research-collection.ethz.ch/bitstream/handle/20.500.11850/119252/eth-49542-01.pdf?sequence=1&isAllowed=y>

Ursula Renold, Thomas Bolli, Katherine Caves, Jutta Buerger, Maria Esther Egg, Johanna Kemper and Ladina Rageth (2018). Comparing International Vocational Education and Training Programs: The KOF Education-Employment Linkage Index. Washington, DC: National Center on Education and the Economy. <http://ncee.org/wp-content/uploads/2018/03/RenoldVETReport032018.pdf>

UN. May 2020. Skills development during the COVID-19 pandemic and preparing for recovery. <https://unesdoc.unesco.org/ark:/48223/pf0000373451>

UN. 2020. Reforming technical and vocational education and training: a gateway for building a skilled youth workforce in the Arab region. Economic and Social Commission for Western Asia (ESCWA).

<https://www.unescwa.org/publications/reforming-technical-vocational-education-training>

Werner Eichhorst Núria Rodríguez-Planas Ricarda Schmidl Klaus F. Zimmermann (2012). A Roadmap to Vocational Education and Training Systems Around the World. IZA Discussion Paper No. 7110. <http://repec.iza.org/dp7110.pdf>

Wheelahan, Leesa and Moodie, Gavin (2016). Global Trends in TVET: A framework for social justice, Brussels: Education International.
<file:///C:/Users/user/Downloads/GlobalTrendsInTVET.pdf>

World Economic Forum. 2020. The Future of Jobs Report. WE Forum. Geneva, Switzerland. <https://www.weforum.org/reports/the-future-of-jobs-report-2020>

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