



1. Introduction

1.1 In 2014, Switzerland was ranked as the most innovative economy in the world for the fourth consecutive year, as well as the most competitive economy for the sixth consecutive year.¹ While the high international ranking can be attributable to multiple factors, Switzerland's vocational education and training ("VET") system plays an indispensable role. With as much as two-thirds of young graduates from lower secondary education participating in VET, the popularity of VET system keeps the Swiss workforce dynamic, professional and market responsive. Indeed, VET in Switzerland is widely regarded as one of the best in the world.

2. Vocational training in Switzerland

2.1 In Switzerland, graduates of lower secondary schools need to choose between two major pathways in their further study, namely (a) academic baccalaureate education, and (b) dual-track VET programmes integrating workplace training and classroom instruction. Contrary to the preference in most of the western societies, the majority (i.e. two-thirds) of the teenagers in Switzerland prefer the VET stream to the academic stream.

2.2 In the Swiss VET programmes, most of the participants need to serve as apprentices in the host companies and learn the trade practice there for three to four days each week. In the meantime, they need to study vocational subjects and languages in the vocational schools for one to two days per week. Apprenticeships usually last for three to four years, and trainees will be awarded federal diplomas if they pass the federal examination. Yet shorter certificate programmes are also available with duration of two years.

¹ See World Economic Forum (2014), and Cornell University, INSEAD and the World Intellectual Property Organization (2014).

2.3 There are a total of 230 occupations offering apprenticeships across a wide range of manufacturing and service sectors in Switzerland. Through the tripartite efforts from the Confederation (i.e. federal government), 26 Cantons (i.e. states) and professional organizations, the workplace training is meant to meet the latest market needs and the professional standards. Notwithstanding the predominance of small-sized firms in Switzerland, some 40% of Swiss companies participated in the VET scheme in 2012, providing around 230 000 apprenticeships. The above figures reflect the corporate enthusiasm towards VET.

2.4 More specifically, professional organizations in the Switzerland (including trade associations, trade unions, training service providers and host companies of apprenticeship) are required by law to participate in VET policy formulation and implementation. Their involvement starts from the design of training content at the early stage till completion of the federal examination at the ending stage. In other words, the Swiss VET system is largely led by private sector initiatives, though with government regulation throughout the process.

2.5 VET trainees in Switzerland have a wide range of career/study options open to them upon graduation, on the back of a credible and portable credit system recognized throughout the country. Their options include:

- (a) working in the occupations under training;
- (b) receiving further professional educational and training (PET) at the post-secondary level. There are around 400 federal examinations and 57 professional college degree programmes in eight professional fields under PET; and
- (c) moving back to the academic pursuit in the Universities of Applied Sciences without taking entrance examination, provided that the VET graduate has passed the Federal Vocational Baccalaureate (FVB) examination on general education subjects tailor-made for VET diploma holders. VET trainees can prepare for FVB examination either during or after the VET training. In 2013, 14% of VET graduates obtained FVB qualification.

2.6 The Swiss VET system is thus highly permeable and flexible, allowing graduates to switch between pathways in subsequent development. In stark contrast to the misconception or even stigma commonly seen in other places, VET and apprenticeship is an attractive pathway in Switzerland, even for those talented youngsters interested in academic study in university. Reflecting this, as much as 65% of Swiss youths opted for VET at upper secondary level in 2012, surpassing the rest of 35% that chose general studies. This VET ratio is much higher than the respective figure of 44% seen in the Organisation for Economic Cooperation and Development ("OECD") as a whole.

2.7 For VET trainees, they usually receive a monthly salary of around CHF 600-700 (HK\$5,090-5,940) from the host companies in the first year of training. This will almost double to around CHF 1,100-1,200 (HK\$9,330-10,180) in the last year of apprenticeship. While these salary levels look reasonable for teenagers, they are just around one-fourth of an unskilled worker in Switzerland and result in visible cost savings to the host companies.

2.8 According to the latest survey on host companies commissioned by the Swiss government, the gross cost incurred by all employers participating in the VET programme was CHF 5.3 billion (HK\$45 billion) in 2009, including salary payments to trainees. Yet the aggregate output generated by VET trainees was estimated at a higher level of CHF 5.8 billion (HK\$49.2 billion). In other words, the VET scheme brought in a net benefit of CHF 0.5 billion (HK\$4.2 billion) to the employers. These net benefits should serve as business incentive, obviating the need of any government subsidy to the host companies.

2.9 In the public sector, the Swiss government spent about CHF 3 billion (HK\$25.5 billion) on VET in 2013, mostly for running vocation schools. Coupled with the afore-mentioned apprenticeship cost borne by employers, it was crudely estimated that the total cost of the VET system was about CHF 8.3 billion (HK\$70.4 billion) in 2013. This amounted to some 1.3% of Switzerland's Gross Domestic Product, indicating a high priority accorded to vocational training in the Swiss society.

3. Success factors for Swiss VET scheme

3.1 The success of the Swiss VET system is attributable to a number of factors, including (a) tripartite efforts by the Confederation, the Cantons and professional organizations, (b) legal support for the system, (c) relevance of training content, (d) commitment from Swiss business firms, and (e) unique training tradition.

Tripartite efforts

3.2 The Swiss VET system is collectively governed by the Confederation, the Cantons and professional organizations. All the stakeholders work closely together to maintain the professional standard of the VET/PET system and ascertain adequate supply of apprenticeship positions for the youths. More specifically on division of labour, the State Secretariat for Education, Research and Innovation (SERI) of the federal government is responsible for regulating and co-funding the VET/PET, while 26 cantonal VET offices are tasked with supervision and coordination of VET at the state level and its marketing. For the professional organizations and companies, they are the implementation agencies, taking the lead in the design of training content, the provision of apprenticeship and the conduct of the examination process.

Legal support

3.3 The responsibilities of the tripartite partners are laid down in the *Federal Vocational and Professional Education and Training Act* (VPETA) and its corresponding ordinances. In other words, the Swiss VET system has full legal backing, making involvement of professional organizations a mandatory requirement under the *Act*, and maintaining the professional quality of apprenticeship and training services.

Relevance of training content

3.4 Switzerland has established its VET system with a number of features safeguarding that the skills acquired in training are market-based and transferrable. First, the skills spelt out in the VET ordinances are broad conceptions of vocational competencies. All the stakeholders need to follow suit. Secondly, training content of apprenticeship is worked out together with trade associations that have kept abreast of the general market trends, not by the host companies which focus more on their needs. Thirdly, although Swiss firms are small in size, they are well represented in the trade associations. This ensures that workplace training reflects the general needs of all sorts of employers, rather than biased towards a few large companies. Fourthly, the nationwide examination at the end of the workplace training ensures the VET training is broad-based and transferable across companies.

Business commitment

3.5 The keen interest of Swiss business firms in the VET partly reflects the corporate social responsibility to train up the youths for the overall benefits of the Swiss economy. But VET also provides material benefits to the business firms as well. As discussed above, the value of work engaged by the trainees usually outweighs the cost of training. Moreover, the host companies have a longer observation period over the performance of the trainees and decide whether to employ them as regular staff upon the end of the apprenticeship. Furthermore, trainees are a valuable source of additional manpower supply, as many Swiss sectors are suffering from shortage of skilled workers in recent years. According to the survey mentioned in paragraph 2.8, a Swiss company could claim a cumulative net benefit of CHF 6,000 (HK\$50,910) in a 3-year work cycle per VET trainee.

Unique training tradition

3.6 VET in Switzerland can be dated back to the medieval times when guilds controlled entry into the trades and masters passed the skills to their selected apprentices. In the late 19th century, professional organizations emerged to replace guilds and took over vocational training, with legislative endorsement from the federal government in 1884. In the context of this unique historical background, it helps explain the smooth implementation of the tripartite VET system nowadays.

4. Observations

4.1 Indicative of the effectiveness of VET, the unemployment rate of the youths aged 15-24 in Switzerland was only 8.6% in 2014, less than two-fifths of the corresponding figure of 22% for the European Union ("EU"). It was also the third lowest amongst the 28 member states of EU, next to Germany (7.8%) and Norway (7.9%) which also have their own dual-track VET system.

4.2 The willingness and capability of the business community to create some 230 000 apprenticeships each year is vital for the success of the Swiss VET system. In naming Switzerland as the most competitive economy for the sixth straight year in 2014-2015, the World Economic Forum is also impressed by the "excellent education system and a business sector that offers excellent on-the-job-training opportunities" there.

4.3 The Swiss model of VET has attracted the attention of policy makers around the globe. Switzerland has been working on several global cooperation projects in recent years, sending its VET expertise overseas and assisting these places to develop their own VET systems. These places include South Korea, India, Slovakia, Cyprus, India, China, South Africa, Spain and Portugal.

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