Phuong Chi Diep

(Ho Chi Minh City University of Technology and Education, Vietnam)

Substantial policies and measures to promote quality assurance of TVET in Vietnam towards mutual recognition of qualifications in ASEAN

Abstract

In order to strengthen the TVET quality assurance in the period of ASEAN economic integration which offers the opportunities of labour force mobility in ASEAN countries (ASEAN Secretariat 2015a, b), the *Vocational Training Development Strategy of Vietnam for the period 2011-2020* was launched as a relevant policy (VPM 2012). Besides the quantitative objectives in terms of the amount of vocationally trained labourers and in terms of the amount of vocational schools, the strategy contains objectives and measures focusing on TVET quality assurance such as – among others - developing National Occupational Skill Standards (NOSS) and establishing a National Vocational Qualification Framework (NVQF) in accordance with National Qualification Framework (NQF). Furthermore, this article provides information about initial steps in the process of promoting and enacting the TVET quality assurance program, which includes, for instance, determining a common model of quality assurance of vocational training in Vietnam, building Systems of Criteria, Standards for Accreditation of Vocational Institutions (SCSA), enacting the NOSS and developing NVQF which is referring towards ASEAN Qualification Reference Framework (AQRF) in order to enhance regional mobility of the labour force.

Key words: *National Occupational Skill Standards (NOSS), National Qualification Framework (NQF), National Vocational Qualification Framework (NVQF), quality accreditation, System of Criteria and Standards for Accreditation (SCSA), ASEAN Qualification Reference Framework (AQRF), Regional Qualification Framework (RQF).*

1   Background: The establishment of ASEAN Economic Community (AEC) and its implications on TVET

The establishment of ASEAN Economic Community (AEC) in December 2015 aimed to create a single market and production base including the free flows of *goods, services* (with the free flow of trained labour), *investment and capital*, which can enhance economic competitiveness, promote the prosperity of the whole region based on equitable economic development, and facilitate the integration of the ASEAN to the global economy (ASEAN Secretariat 2015a, b). The free movement of trained labour (in consideration of relevant domestic regulations and market demand conditions) counts on MRAs (Mutual Recognition Arrangements), which are regarded as one of the policy tools for skilled labour mobility within ASEAN (ASEAN Secretariat 2015b, 33; BMZ 2015, 11). There have been eight conducted

MRAs in ASEAN for eight groups of professions: Engineering Services, Nursing Services, Architectural Services, Surveying Qualifications, Medical Practitioners, Dental Practitioners, Accounting Services, Tourism Professionals (ASEAN Secretariat 2015b, 33). It can be noted, that the AEC has just created not only more employment opportunities for workers by facilitating the labour force mobility in ASEAN countries, but also more challenges for the TVET systems by demanding the *harmonization* and the *standardization* towards the mutual recognition of qualification to help citizens of ASEAN countries to find jobs outside their own country. In this background, TVET in ASEAN must encounter some significant problems including " (a) human resources development and capacity building, (b) recognition of professional qualifications, and (c) integrating industries across the region to promote regional sourcing" (Paryono 2013c, 2).

In order to address these problems, some common strategies can be identified through the various debates in the field of TVET in ASEAN (UNESCO-UNEVOC 2012, 6-11; Witaya 2013a, 2-4; Paryono 2013b; Paryono 2013c, 3-6 ; Sharifudin 2014, BMZ 2015, Vu X.H. 2016):

1. *Professional development of TVET teachers*: This trend emphasizes the significance of vocational teacher education (VTE) in enhancing the efficiency of TVET (UNESCO-UNEVOC 2012, 6-11; Witaya 2013a, 2-4; Sharifudin 2014; BMZ 2015, 11; Vu X.H. 2016).

2. *Practice of TVET quality assurance, TVET accreditation systems*: This trend requires all countries in ASEAN to ensure TVET quality to develop highly qualified human resources taking part in the free flow of services within ASEAN countries after the establishment of AEC (Paryono 2013b, c, 3-6; Sharifudin 2014; Vu X.H. 2016).

3. *Synchronization of qualification frameworks*: Aiming towards the mutual recognition of qualifications, the countries in ASEAN need a synchronic qualification framework as the means of mutual reference promoting the transparent mechanism. In accordance with this strategy, the National Qualification Framework (NQF), the Regional Qualification Framework (RQF) and the ASEAN Qualification Reference Framework (AQRF) have been developed and applied in many countries as well as throughout the region. It can be considered a *system change* towards harmonization and standardization. (Witaya 2013a, 2-4; Paryono 2013c, 3-5; Vu X.H. 2016)

4. *Curriculum change, transferable skills, life-long learning*: This issue underlines the relevance of curricular change, which should be in line with the requirements of the real working world (Witaya 2013a, 2-4; Paryono 2013c, 5) and integrate transferable skills including employability skills, "life skills", technical or discipline – specific skills, core skills, attitudes and values, green skills, hot skills etc. (Brennan Kemmis; Hodge; Bowden 2014, 1; Paryono 2014, 1-5; Sharifudin 2014; BMZ 2015, 11). The curriculum and other factors of TVET should offer the flexibility for vocational learners to help them pursue the long-life learning.

5. *Articulations:* This issue refers to the articulation among educational institutions, which can be done horizontally or vertically. Horizontal articulation describes the mutual recog-

nition between institutions at the same training level. Vertical articulation describes the possibility of transferring from the lower education level to the next education level (Paryono 2013c, 3-5).

6. *Labour mobility, graduate employability, career guidance and job information*: This issue concerns the provision of career guidance and job information at the national, regional, even international levels and the enhancement of comparability and transparency on TVET (Paryono 2013c, 3-6; Sharifudin 2014; BMZ 2015, 10-11).

7. *Collaboration with industrial sectors*: This collaboration enables TVET to meet the requirements of the labour market and helps TVET to enhance its practicality (UNESCO-UNEVOC 2012, 6-9; BMZ 2015, 11; Sharifudin 2014; Vu X.H. 2016).

8. *Good governance, TVET policy reform and the networking within the region:* This issue stresses the role of management reform to remedy the fundamental structural deficits and strengthen the legal and financial basis of TVET system, as well as to consolidate the networking of TVET within the region (Witaya 2013a, 2-4; Sharifudin 2014; BMZ 2015, 10; Vu X.H. 2016).

9. *Extension of knowledge sharing and dialogues, expanding access and equity*: This issue relates to the open access to quality TVET for all countries, regardless of their background (Paryono 2013c, 6; Sharifudin 2014).

10. *Research and development*: This issue refers to the importance of the research and development activities and the possibility of sharing research findings through conferences, platforms, publications and online research database in the field of TVET (Paryono 2013c, 6).

In this background, the countries in ASEAN must review their policies to meet the required trends of TVET in the period of ASEAN economic integration. The development and publication of quality assurance mechanisms in the field of TVET as the basis of mutual recognition between the countries also become significant. Taking into account these initiatives, with respect to enhancing AEC, Vietnam has initiated substantial policies and carried out some initial steps to promote the quality assurance in the field of TVET in accordance with the mentioned common trends of TVET ASEAN.

2 The Vocational Training Development Strategy of Vietnam 2011- 2020 in the light of ASEAN economic integration

According to the forecast, workforce in Vietnam will reach nearly 63 million people by 2020, 35-38% of which work in the field of agriculture, 31% of which work in the field of industry and construction, and 27-29% of which work in the field of service (MoLISA 2012). By 2020, Vietnam wants to move towards a basically industrialized and modernized country, and one of the main means for that is the development of human resources based on high quality vocational education. On the basis of the Human Resources Development Strategy for the period 2011-2020 (VPM 2011a) and the Planning of Vietnam Human Resources Development for the period 2011-2020 (VPM 2011b), the Vietnamese Government designated

Vietnam Ministry of Labour, Invalid and Social Affairs (MoLISA) and Vietnam General Directorate of Vocational Training (GDVT) to build the *Vocational Training Development Strategy of Vietnam for the period 2011-2020* (VPM 2012). That is part of the principle of "radical and comprehensive educational renovation" in Vietnam for this period.

The **overall objectives** of this strategy (VPM 2012) focus on meeting the labour market's demand regarding vocational training by 2020 in term of quantity, quality, vocational structures and qualification, forming the force of skilled labour which contributes to improving the national competitiveness, widespread implementation of vocational training for the labour, restructuring the labour force, raising the income of the poor in a sustainable manner and ensuring social security. In order to accomplish these overall objectives, a series of **concrete quantitative objectives** (VPM 2012) was determined:

- **In terms of the amount of vocationally trained labour:** By 2020, the percentage of vocationally trained labour will have reached 55%, which is equivalent to 34.4 million people.

- **In terms of the amount of vocational schools:** By 2020, the number of vocational colleges will have reached 230 (80 non-public colleges) including 40 high quality colleges (10-12 international standard colleges), the number of intermediate vocational schools will have reached 310 (210 of which are non-public) and the number of vocational training centres will have reached 1,050 (in which there will be 350 non-public centres) including 150 key centres.

- **In terms of quality assurance:**
  By 2020, the training of all key occupations at national, regional and international levels, the training in all high quality vocational schools and in all key vocational training centres must be controlled by national quality accreditation. By 2020, three national centres of vocational training accreditation will be established. Some private centres of vocational training accreditation also will be built in this period. By 2020, 400 sets of National Occupational Skill Standards (NOSS) including 150 sets for national key occupations will be issued. (VPM 2012)

Also in this strategy, a series of **measures**, especially measures relating to quality assurance was adopted by the Vietnam state government (VPM 2012):

(1) Renovating the governmental management for vocational training: This measure is held as one of two key measures to enhance quality of vocational training because the steering of government plays a decisive role at macro level in all fields including the field of vocation training. By 2020, the system of regulations and rules regarding vocational training must be modified in the direction of completing and improving the policies on vocational training, e.g.: restructuring management sectors to ensure the effective controlling of government; allowing vocational schools to become *independent units with autonomy*, in which the leaders must be responsible for training results as well as for operating situations of vocational schools and must be trained about management skills; etc.

(2) Developing the vocational teacher staff and managers in the field of vocational education: This measure is supposed to be the second key measure to enhance the quality of vocational training. It deals with training and retraining vocational teachers in compliance with principles of ensuring quantity and quality, having logical structures in terms of occupations and training levels. This measure also emphasizes the reorganization of educational institutions, which are responsible for vocational teacher education (VTE), e.g. revising the operation of technical pedagogical universities, establishing pedagogical faculties in vocational colleges to enhance pedagogical skills for vocational teachers in these colleges. Furthermore, the building of a professional management force in the field of vocational education is also taken into account with concrete solutions such as: developing the curriculum for training managers in the field of vocational education, organizing coaching courses with respect to management skills for managers etc.

(3) Building a National Vocational Qualification Framework (NVQF): This measure is regarded as an *important measure* to ensure the quality of vocational training. It involves building NVQF in accordance with Vietnam's National Qualification Framework (NQF), enacting National Occupational Skill Standards (NOSS) for popular occupations, transferring sets of NOSS to training of regional and international "key occupations", building frameworks of training programs.

(4) Developing the curriculum, syllabus and learning materials: In terms of training of national key occupations, the curriculum, syllabus and learning materials must be developed and governmentally enacted based on NOSS; in terms of training of regional and international key occupations, the curriculum, syllabus and learning materials are designed based on programs from developed countries in Asia and elsewhere in accordance with the Vietnamese situation. In terms of training of other occupations, the curriculum, syllabus and learning materials can be developed by vocational schools based on frameworks of training programs and NOSS.

(5) Developing the facilities and equipment in the field of vocational education: In terms of training of national key occupations, the standards of necessary facilities and equipment must be governmentally determined and enacted. In terms of training of regional and international key occupations, the standards of facilities as well as the necessary equipment categories are built based on experiences of developed countries in Asia and throughout the world. In terms of training of other occupations, the standards of facilities must be defined so that at least they can meet the requirement of training at a minimum level.

(6) Controlling and ensuring the quality of vocational training: In order to establish a quality assurance mechanism, in this strategy, some concrete urgent measures were assigned. They encompass:

- establishing Vietnam Vocational Training Accreditation Agency (VVTAA), establishing three National Centers of Vocational Training Accreditation in three main regions of Vietnam (northern, central and south of Vietnam) and developing some non-public

centers of vocational training accreditation in order to accredit vocational institutions for their training quality and to test the current programs;

- admitting the independence and autonomy of vocational training institutions: Accordingly, each vocational training institution must be responsible for the quality of its vocational training, for the standardization of "learning input" and "learning output", in other words, the vocational training institutions must themselves ensure the training quality, however, they must be guided by the National Agencies of Vocational Training Accreditation requirements;

- developing some centers of vocational skills assessment and establishing some centers of vocational teachers' occupational skills assessment;

- developing a national "bank of examination questions" and organizing the national vocational examinations to accredit the vocational learners for their qualification.

7) Linking vocational training with labour markets, developing the participation of enterprises in the field of TVET: In order to increase the labour market relevance of TVET qualification, some concrete measures were found:

- Vocational training institutions should collect information from graduate vocational learners about their occupational situations and their opinions relating to improving the training programs. Besides that, the vocational training institutions also should frequently gather information from enterprises about their needs and requirements in respect to labour force as well as their feedback regarding graduates from vocational training institutions as a basis to modify training strategies and to improve the current training programs.

- The enterprises should have the main responsibility to ensure occupational skills of employees in their businesses: self-organizing of training and retraining for their workers, cooperating with vocational training institutions for training, placing orders for trained workforce with vocational training institutions. The enterprises should participate directly in vocational training activities: building standards of vocational skills, identification of job categories, development of curriculum, assessment of learning outcomes of vocational learners etc. The enterprises should frequently provide information on employment needs (e.g. number of workers to be recruited, requirements regarding qualification, skills, competencies for recruiting), the advantages for employees (e.g. working environment, salary, insurance etc.), as well as the feedback on their satisfaction with training quality to vocational training institutions.

In reality, according to MoLISA, in 2009, some 40% of vocational institutions were managed by private enterprises in Vietnam (Specht; Aipperspach 2009). These enterprises are willing to undertake their responsibilities regarding TVET, but they require (1) more concrete legal regulations to prevent the graduates from quitting their jobs after being trained by the enterprises, (2) their autonomy in developing the curriculum and the extension, (3) the extension of practical training time (Specht; Aipperspach 2009, 24-25).

(8) Raising the awareness of vocational training development: This promotes activities regarding consulting and vocational guidance in high schools. In addition, enhancing the perception of all social organizations including management agencies about the role and the position of vocational training in national human resource development is regarded as crucial.

(9) Promoting the international cooperation in the field of vocational training: Expanding the international cooperation in the field of vocational training is very necessary, especially in the period of economic integration. According to this strategy, Vietnam wants to cooperate with strategic partners, which are successful countries in the field of vocational training. In particular, Vietnam supports the cooperation between ASEAN countries to move towards the mutual recognition of qualifications. Vietnam also wants to offer the opportunities of international cooperation regarding scientific research in the field of TVET, in application of scientific achievements and advanced technologies to improve the quality of vocational training. The cooperation between domestic vocational training institutions and partners abroad is encouraged. Vietnam commits itself to creating the favorable legal framework to attract investors, foreign businesses to develop high quality vocational training institutions in Vietnam and to cooperate in vocational training in Vietnam (VPM 2011a, 8; VPM 2012, 6).

3 Initial achievements of Vietnam in the process of promoting the quality assurance of TVET qualification in the period of integration

3.1 Developing the National Qualification Framework (NQF)

Perceiving the importance of building the instruments facilitating the mutual recognition of qualifications, MoET and MoLISA are implementing a project of building the Vietnam National Qualification Framework (NQF) based on the reference to the ASEAN Qualification Reference Framework (AQRF) and the European Qualifications Framework (EQF) as well as NQF of other countries such as Australia, New Zealand etc. with regard to the Vietnamese context. The draft of **Vietnam NQF** basically shows **eight levels** (from low to high) belonging to two groups, which can be illustrated by the following table:

Table 1:   **The draft of Vietnam National Qualification Framework (author's own presentation based on GDVT 2015; MoET 2016, Saigon Online 2015)"**

Level	Credential	Credits	Group
1	Skills Certificate 1	10	*Vocational Education*
2	Skills Certificate 2	20	
3	Skills Certificate 3	30	
4	Intermediate Vocational Degree	40	
5	College Degree	60	
6	Bachelor	120-180	*Higher Education*
7	Master	30-60	
8	Doctor	90	

The draft of Vietnam NQF also contains the content regarding the learning-outcome standards of each level (in terms of knowledge, skills, autonomous competence and responsibility). This draft will be completed, modified and submitted for the governmental approval as soon as possible to be officially promulgated (GDVT 2015; MoET 2016).

3.2 Instruments to ensure quality of vocational training as national proper guidelines

3.2.1 *The common model of quality assurance of vocational training in Vietnam*

MoLISA and GDVT have been directing subordinate units to build and consolidate the quality assurance systems inside and outside of vocational training institutions in accordance with a definite general model. According to Pham Vu Quoc Binh (Pham 2015), who is the director of the Vietnam Vocational Training Accreditation Agency, the present model of quality assurance of vocational training in Vietnam encompasses the following three main components: *self-assessment, internal assessment and external assessment.* The combination of these three components helps ensure the training quality efficiently.

Self-assessment concerns the quality assessment at institution level. In a vocational training institution, there are many factors affecting the training quality such as curricula, learning materials, qualification and quantity of vocational teachers and management staff, facilities (including buildings, classrooms, tools, equipment, machines etc.), management activities, the compliance with national guidelines etc. In order to ensure training quality, all of these factors must operate coherently with high standards, e.g., the vocational teachers must be competent enough to use the necessary modern machines, the curricula and learning materials must be appropriate for training in line with occupational skill standards, the facilities must meet the requirements of teaching, or the teaching methods must be appropriate for characteristics of vocational learners, features of occupation to be taught as well as the existing facilities. Thus, a "base management system" is essential to keep the coherence of these factors. The vocational training institutions in Vietnam were, therefore, encouraged to apply ISO 9001-2008 (Pham 2015). "The ISO standards refer fundamentally to the consistency and systematization of the processes. They constitute a method to standardize the organization

activities and to offer reliability to customers over the expected quality of products and services" (UNESCO - UNEVOC 2016). On this basis, ISO standards as the general external assessment instrument combined with self-assessment will help the vocational training institutions in keeping their activities (from administrative work, training activities, financial activities to coordination with businesses and monitoring of vocational learners) in balance and in good quality. A vocational institution needs to build, apply and frequently modify the assessment standards of quality, control the input, the output and the process of training.

Internal assessment involves the quality assessment implemented by national vocational training accreditation agencies including Vietnam Vocational Training Accreditation Agency (VVTAA) and three other national centers of vocational training accreditation (expected to be established by 2020). These agencies use the criteria and process of accreditation enacted by MoLISA to implement the accreditation activities to help vocational training institutions in improving their training quality as well as to improve policy review (MoLISA 2008a, b, 2010).

External assessment refers to the quality assessment conducted by non-national or independent agencies with their own accreditation criteria, which are independent of national criteria. The private centers of vocational training accreditation, employers, and enterprises can be involved in this assessment.

Basically, internal assessment and external assessment are mutually independent procedures, they only have mutual functions in helping the vocational institutions control their training quality to improve and ensure their training quality.
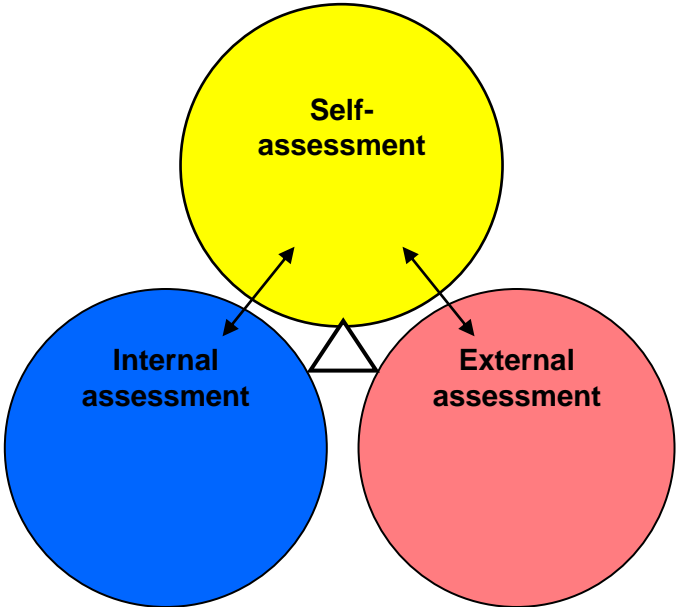

Figure 1: Model of quality assurance in the field of vocational training in Vietnam

3.2.2 Approval of Systems of Criteria, Standards for Accreditation (SCSA) of Vocational Institutions

Based on the review of international processes and practices, systems of criteria, standards for accreditation (SCSA) of Vocational Institutions were adopted. The **national accreditation agencies (internal assessment)** use these SCSA to carry out their accreditation activities of the vocational institutions. In Vietnam, the vocational institutions are categorized into three levels so far: (1) vocational training centers, (2) intermediate vocational schools, (3) colleges. Therefore, SCSA for vocational institutions in Vietnam is also categorized into three kinds corresponding to three levels of vocational institution (MoLISA 2008 a, b, 2010). However, all of these three kinds of SCSA are based on the same framework including:

1. **Criteria** are necessary contents and requirements which the vocational training institutions must fulfil to achieve the goals. Criteria encompass a series of concrete standards.

2. **Standards** describe the extent of requirements and concrete conditions of a criterion. Each criterion is assessed based on these standards. A standard comprises a series of indicators.

3. **Indicators** define requirements and conditions of concrete aspects of a standard.

The three forms of SCSA for the three levels of vocational institutions have the same framework / criteria system, which consist of *the nine criteria shown in Table 2*: Each criterion is assessed through a certain score. The score of each criterion is designed based on characteristics of the level of vocational institution. **The maximum score** that an institution can obtain is **100**. The *standards* and *indicators* in each SCSA correspond to characteristics of each level of vocational institutions. This can be illustrated by showing the SCSA of intermediate vocational schools:

Table 2: **System of criteria, standards for accreditation (SCSA) of Intermediate Vocational Schools in Vietnam (author's own presentation based on MoLISA 2008a)**

No.	Criteria	Standards	Score ∑=100
1.	**Mission and objectives**	1.1 Mission and objectives clearly defined, approved and published. 1.2 Mission and objectives established to meet the needs of labour market, of learners in accordance with actual local conditions. 1.3 Mission and objectives periodically reviewed and adjusted.	**6**
2.	**Organization and Management**	2.1 Regulations on the organization and management mechanism regularly reviewed, evaluated and adjusted. 2.2 Logical structure in accordance with national regulations as well as with objectives of school resulting in high effectiveness. 2.3 The management and development of teachers and school managers. 2.4 Organization of Vietnam Communist Party and other social organizations. 2.5 Monitoring activities regularly implemented and improved.	**10**
3.	**Teaching and**	3.1 Enrolment work effectively implemented in compliance with regulations of MoLISA. 3.2 Diversifying of training forms and establishment of relationship with enterprises.	

	Learning activities	3.3 Planning of training logically designed, effectively implemented; The organization of teaching and learning in accordance with requirements of the actual occupation.	**16**
		3.4 Continuing training programs.	
		3.5 Training in compliance with approved contents.	
		3.6 Teaching methods in orientation of active learning.	
		3.7 Process-based evaluation giving feedback for learners, in accordance with form of training.	
		3.8 Scientific research and international cooperation.	
4.	**Teachers and Management Staff**	4.1 Quantity and organizational structure of teachers.	**16**
		4.2 Qualification and competence of teachers.	
		4.3 Teachers performance.	
		4.4 Training for teachers.	
		4.5 Qualification, competence and ethics of principal and vice-principal.	
		4.6 Quantity of management staff.	
		4.7. Qualification of management staff.	
		4.8 Quality of technical staff and office staff.	
5.	**Curriculum and Teaching & Learning materials**	5.1 Curriculum in accordance with national program framework.	**16**
		5.2 Coherence of various levels of training; The involvement of enterprises.	
		5.3 Clearly defined learning outcome, standards of knowledge and skills, methods of training and evaluation.	
		5.4 Curriculum adjusted and improved based on reference to curriculum of developed countries and feedback from stakeholders.	
		5.5 Curriculum with training modules and subjects.	
		5.6 Training modules and subjects with learning materials.	
		5.7 Innovative Syllabus.	
		5.8 The clarification of requirements of knowledge, skills, attitudes.	
6.	**Library**	6.1 Quantity of books, journals matching trained occupations.	**6**
		6.2 Computers and internet.	
		6.3 Support for readers.	
7.	**Facilities, equipment, teaching instruments**	7.1 Convenient location of school.	**14**
		7.2 General design of campus.	
		7.3 Technical infrastructure.	
		7.4 System of classrooms, lecture halls, laboratories, workshops, classrooms.	
		7.5 Operating conditions of the workshops.	
		7.6 Quantity and quality of equipment.	
		7.7 Preservation and storage of equipment.	
8.	**Financial management**	8.1 Assurance of financial resources.	**10**
		8.2 Standardization and transparency of financial management.	
		8.3 Financial estimation.	
		8.4 Rationality, transparency and effectiveness of using finance.	
		8.5 Financial reporting.	
9.	**Services and supporting of learners and graduates**	9.1 Providing information about trained job, training courses and other school rules for learners.	**6**
		9.2 Ensuring the conditions on accommodation and health care for learners.	
		9.3 Providing information about labour market and job recommendation for graduates.	

Each standard on the table above is assessed by checking the concrete indicators. In the near future, when the draft of Vietnam National Qualification Framework (NQF) is approved and NQF is officially published, the above instruments may be adjusted to match the NQF. It can be predicted, that the change due to this reason will not be very big, because according to the draft of NQF, the system of vocational education in Vietnam will encompass five levels: skills certificates 1, 2, 3, intermediate vocational degree and college (GDVT 2015, MoET 2016) and basically, these five levels of training can be still implemented in the three mentioned forms of vocational institutions: vocational training centers, intermediate vocational

schools and colleges. However, these systems of criteria and standards for accreditation of vocational institutions also will be reviewed, improved and consolidated in the future to adapt to the regional and international standard systems for accreditation.

The result of the accreditation of a vocational institution is basically classified into three levels:

Level 1: Where an institution has assessment score less than 50, or has a total score more than 50 but the score of one of the nine criteria is less than 50% of maximum score of this criterion. This level means that an institution does not pass the assessment.

Level 2: Institution has assessment score from 50 to 80, and has no criterion with a score less than 50% of maximum score of that criterion. If an institution has a total score of more than 80 with no criterion having score less than 50% of maximum score of that criterion, but has one of criteria No.4 (Teachers and Management Staff), No.5 (Curriculum and Teaching & Learning materials), No.7 (Facilities, equipment, teaching instruments) with score less than 80% of maximum score of that criterion, then this institution is also ranked level 2. This level means that an institution has a satisfactory quality, but needs to improve its quality continuously.

Level 3: Institution has total score of more than 80, has no criterion with a score less than 50% of maximum score of that criterion, and all of criteria No.4 (Teachers and Management Staff), No.5 (Curriculum and Teaching & Learning materials), No.7 (Facilities, equipment, teaching instruments) with score of more than 80% of maximum score of each criterion. This level means that an institution has good quality.

3.2.3   Approval of National Occupational Skill Standards (NOSS)

According to the Vietnam Ministry of Information and Communication (MIC), about **122 sets** of **NOSS** for 122 key occupations relating to the fields of industry, agriculture, construction and transport in Vietnam were officially enacted by the ministries related to the specific occupations in cooperation with GDVT, VVTAA and other departments (MoIT 2011, MoARD 2012, MoC 2010, 2011a, b, MT 2011).

The other sets of NOSS of other various occupations are being continuously issued in order to reach **400** sets NOSS issued **by 2020**, as mentioned in "Vocational Training Development Strategy of Vietnam for the period 2011-2020". These NOSS are built based on results of **Job Analysis** and consultation with experts. According to Decree No. 31 / NĐ-CP dated 24.3. 2015 approved by Vietnam Prime Minister (VPM 2015), the existing 122 NOSS will be reviewed and improved by MoLISA to become appropriate for changes in technology.

3.3   The concrete steps of Vietnam to facilitate the mutual recognition of qualifications in ASEAN

Vietnam has also participated in a Working Group building the ASEAN Qualification Reference Framework (**AQRF**) since 2012, with representatives of three Ministries (MoET,

MoLISA, and MoIT). AQRF was approved by ASEAN Economic Ministers in August 2014; then the ASEAN Ministers of Education approved in September 2014. Finally, AQRF was adopted by ASEAN Labour Ministers in May 2015. In the upcoming time, Vietnam's representatives will continue to participate in the Working Group to discuss the process of reference and the governance of AQRF (GDVT 2015).

Previously, in 2010, Vietnam participated in **pilot projects** on evaluation of mutual **recognition** of qualifications for Job Welding and Job Automotive Technology in the Mekong Delta subregion that used the model of regional standards of qualification developed for the Asia-Pacific region by the International Labour Organization (ILO). In the future, in this subregion, the mutual recognition of vocational skills will be implemented for some occupations such as tourist trades, services, welding, automotive technology etc. (GDVT 2015).

In terms of **certification**, Vietnam Government issued Decree No. 31 / NĐ-CP dated 24.3. 2015 providing guidance on the evaluation and certification of national vocational skills (VPM 2015). Accordingly, MoLISA is responsible for the management of international cooperation in the field of evaluation, certification of national vocational skills, for building sets of NOSS (as the basis for certification) in the direction of enhancing compatibility with ASEAN standards and international standards. The existing NOSS will be reviewed and updated in line with the changes of technology and labour market (VPM 2015). In terms of **curriculum**, MoLISA has been focusing on curriculum development, building a list of vocational training equipment and implementing pilot training schemes for some key occupations at ASEAN level and international level based on curriculums from countries with high quality TVET. The issuing of "learning outcome standards" for each occupation, for each level of training in accordance with NQF is prioritized. The curriculums of all key occupations must be developed based on these "learning outcome standards". MoLISA enacted 96 national curriculums of intermediate level and college level for 96 key occupations of national level. Besides that, MoLISA has been transferring 70 curriculums of 70 key occupations of international level: eight curriculums with international standards were transferred from Malaysia in 2012, 12 curriculums with international standards were transferred from Australia in 2015, and 50 curriculums are being transferred continuously until 2020 (DoV.G. 2015). The pilot training based on transferred curriculums with international standards is appreciating: up to the present, there has been pilot training for 2,750 vocational students (at college training level) in 34 key occupations of international level; From 2016-2020, there will be the pilot training for 2,000 vocational students (at college training level) with international curriculums transferred in the period 2016-2020 (Do V.G. 2015).

Improving English language skills and Computer skills for vocational learners is also regarded as one of the more important solutions to facilitate the ASEAN integration in the field of TVET. MoLISA is developing 25 specialized English programs for key occupations of national, regional and international levels. In the near future, MoLISA will implement a pilot program checking English skills and basic computer skills of 150,000 vocational learners of intermediate vocational schools and colleges in three years, especially the high quality vocational institutions (Do V.G. 2015, GDVT 2015).

4 International cooperation to learn from international experience regarding quality assurance in the field of TVET

In June 2015, VVTAA and German Organization for International Development (GIZ) signed an agreement with regard to embedding instruments of quality management in the framework of cooperation program between Germany and Vietnam (Vietnamese German "Programme Reform of TVET in Viet Nam") into Vietnam's system of quality assurance in the field of TVET (TVET Vietnam Organization 2015). According to this engagement, three instruments of quality management based on German experience are piloted in eight selected vocational institutions in Vietnam, prior to wider adoption by many vocational institutions in the TVET system in Vietnam. These three instruments are**: *tracer study*, *enterprise survey*, *workshop management*.

"Tracer study" involves collecting the feedback of TVET graduates about their workplaces and relevance of the previous training.

"Enterprise survey" provides information on feedback of employers about the graduates' competencies in terms of occupational knowledge, skills and attitudes in comparison with requirements of the workplace, therefore, it is regarded as an external feedback for vocational institutions to review and improve TVET training quality to meet the needs and requirements of labour markets.

"Workshop management" provides fundamental knowledge and skills of implementing management methods in TVET institutions such as Lean Workshop Management, Implementing 5S-Workshop Management Model, Establishment of the 3-Layers Management Concept. The methods provided by the "workshop management" instrument are very useful for vocational institutes to keep the operation in TVET workshops effective and optimal, and thereby ensuring training quality. For example, **5S-Workshop Management model** (Sort - Straighten - Shine - Standardize - Sustain) refers to principle of maintaining 5 actions in a workshop: *sort* (remove unnecessary items, prevent accumulation of unnecessary items), *straighten* (arrange the necessary items so that they can be easily selected for use), shine (keep workplace, equipment and machines clean, safe, tidy), *standardize* (maintain high standards at workplace at all times), *sustain* (keep 5S as discipline); **3-Layers Management Concept** refers to a model of TVET workshop with three levels (TVET Vietnam Organization 2012, 2015; IBC Berufliche Bildung und Consulting GmbH 2010; Bui et al. 2014; Pahl 2005, 234-240):

- *Workshop level 1* is equipped in accordance with teaching method "4 steps" (basically, teacher performs the occupational skills and shows how to do, pupils imitate with appropriate equipment to apply knowledge on practice to train the vocational skills);

- *Workshop level 2* is well equipped in accordance with teaching methods "6 steps" such as guiding text method or project method (basically, pupils implement "full actions" from collecting information, planning, decision, carrying out, to controlling and evaluation independently to make learning products as "almost real products", the role of teacher is helping pupils through consulting, discussing, providing materials);

- *Workshop level 3* is equipped well enough to implement "real projects" in the workshop to produce real products for enterprises or for research projects.

On this basis, the 3-Layer Workshop Management Model promotes the cooperation between TVET schools and enterprises, closes the gaps between theory and practice and contributes to ensure the training quality in the field of TVET.

Also in the framework of the Vietnamese-German "Programme Reform of Technical and Vocational Education and Training in Viet Nam", in January 2016, Vietnam General Directorate of Vocational Training (GDVT) in collaboration with GIZ organized the workshop "Pilot cooperative training models – experiences and way ahead". This workshop showed concrete models and concrete recommendations for the cooperation between vocational institutions and enterprises as an effective form to ensure quality in the field of VET (TVET Vietnam Organization 2016).

In addition, Vietnam appreciated the cooperation with other countries having high quality TVET such as Australia, Korea, Malaysia etc. in sharing experiences in regard to TVET quality assurance, vocational teacher education (VTE) as well as transferring the curricula with regional and international standards (as mentioned above). Especially, in the period 2012 – 2013, the project "Improving capacity to establish a system of assessment and certification of national vocational skills in Vietnam" with funding from South Korean reaching 1,500,000 USD, was implemented (MoLISA 2012; MoPICD 2012).

5 Concluding remarks

This article presents the important policies and initial steps of Vietnam in promoting quality assurance in the field of TVET. However, to promote the quality assurance in the field of TVET at a regional level, it should be emphasized that the stronger cooperation between countries in Asia, especially in ASEAN is very significant.

- ASEAN countries should continue developing the *ASEAN Regional Qualification Framework (RQF)* in TVET as a tool for ASEAN countries to benchmark their training qualification against the common criteria. Since 1998 ASEAN RQF has been supported and initially developed by the ASEAN Secretariat, the International Labour Organisation (ILO) Bangkok, UNESCO Bangkok, and SEAMEO. Some countries implemented the pilot testing of RQF in certain occupations, and an outline of ASEAN RQF in TVET is accepted by five SEA countries (Cambodia, Lao PDR, Myanmar, Thailand, and Vietnam) (Paryono 2013a, 6; Dang 2011). In the future, the Regional Association for Vocational Teacher education (RAVTE) could promote the establishing of ASEAN RQF by helping the countries in ASEAN in piloting the outline of RQF in certain professions. After that, RAVTE could organize conferences to collect the feedbacks of the pilot testing from all countries in ASEAN to come to conclusions, how this outline of RQF should be modified and how the "final" RQF should

be. Through the large pilot testing, the RQF can be modified, completed and adopted by all ASEAN countries.

- Besides developing RQF, in a parallel manner, the ASEAN countries should develop the *regional standard vocational institutions* (**RSVI**), which are accredited by external assessment organizations, i.e. international Vocational Training Accreditation Agencies/Centres. It can help these countries in exemplary execution of RQF.

- Before the RQF can and should be completed and accepted by all countries in ASEAN, the ASEAN countries should exploit the ASEAN Qualification Reference Framework (**AQRF**), which was completely adopted by ASEAN Labour Ministers in May, 2015 to consolidate their TVET systems towards the standardization with consideration of advantages and difficulties in the process of implementation of this AQRF. The RAVTE should organize some regional meetings as the forums where the ASEAN countries can share their experiences in applying AQRF as well as in building RSVI.

- Moreover, there are still barriers regarding the mutual understanding between sending countries and receiving countries in labour mobility, therefore, "it requires strong and long-lasting commitment by the participating countries and entails strong collaborations within and across Ministries, and other stakeholders in the participating countries" (Paryono 2010, 2013a, 7). Furthermore, to come to a common understanding between Asia-Pacific countries, the "development of National Quality Frameworks (*NQF*) as a conversion system for education and labour mobility between sending and receiving countries" (Witaya 2013b) also should be seriously taken into account by all countries within the Asia-Pacific region.

- The promoting of building sets of *ASEAN Regional Occupational Skill Standards (ROSS)*, the development of *Regional TVET Quality Assurance Framework (RQAF)* as well as of *Vocational Training Accreditation Agencies/Centres* at regional and international levels should be also regarded as some useful solutions for quality assurance in the field of TVET.

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The Author

PHUONG CHI DIEP, B. Eng., M.Sc.

Institute of Technical Education
Ho Chi Minh City University of Technology and Education
Vietnam

E-mail: chidp@hcmute.edu.vn

WWW: http://hcmute.edu.vn