TRIPLE HELIX FOR VET: NEW CHALLENGES FOR PUBLIC ADMINISTRATION IN LATVIA

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Abstract. A high priority in the EU policy is establishing closer links among education, training, and work for skills’ upgrading and employability. This requires innovative and integrated approaches by the involved parties at all levels and sets also new tasks for public administrations in VET provision. The Triple Helix approach is well known in HE and research, implying co-operation among education institutions, public administrations, and enterprises. According to the authors’ research, this approach could be useful also in reforming VET systems to promote innovation and employability. The aim of the paper is to evaluate establishment of a model approach with Triple Helix idea for VET as a mechanism for public administrations at national and regional/community level to promote innovation and employability. The tasks are to determine effective ways of co-operation of educators, employers and public administration, and to evaluate the possible approaches. The study was carried out by a desk research and by an empirical study. As a result of the study, theoretical approaches were developed for applying the Triple Helix idea for VET policy making and implementation by public administrations. Conclusions were drawn that, although without a specific reference, elements of the Triple Helix approach already exist in the current EU and Latvian VET, and employment policies and their implementation. Awareness should be raised for public administrations on the potential benefits of a conscious (systemic) application of the Triple Helix approach in VET policy making. Different models should be developed, compared and piloted in local or regional settings to create recommendations for national policies.

Key words: VET, Triple Helix, public administration, regional development, innovation.

JEL code: J24, J44, M53, I28

Introduction

In recent years, the EU vocational education and training (VET) and employment policy has undergone a substantial change by attributing a much higher relevance to closer links between education and training, and the world of work. The impetus for these developments was partly given by the recent worldwide economic crises which indicated that under the conditions of scarce resources education and training was justified only in those specialities and qualifications that were or would be in demand on the labour market. In Latvia, more than 50\% of VET institutions had to be closed severely hit by the crisis in the period from 2009 to 2012 (Information Note, CM, 2013). The programmes had to be critically evaluated against the actual labour market demand in the remaining VET institutions. At the same time, it was the right moment to initiate a substantial VET reform, and a concept was developed for establishing closer links between the VET providers and the social partners (Order of the Cabinet of Ministers, 2009) to assure a modern VET provision and to promote employability. By implementing these

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new conceptual approaches, the VET providers, the respective public administrations at national and community level and the employers became much closer partners in the development of skilled labour force. This integrated approach, as the authors’ research shows, presented new challenges, as well. At the same time, according to the authors’ observations and analysis, innovative solutions were sought and piloted at national and local level, and this provides a wealth of material for research on the VET reform in Latvia. A survey was carried out in Iecava county in Latvia by the authors of the present paper. The analysis of the survey results prompted the idea to test the principle of Triple Helix (well known in HE and research as cooperation between universities, business, and state institutions) for the VET system, since elements of the Triple Helix approach became clearly visible during the analysis of Iecava survey results. In addition to the empirical study, a desk research was performed for an in-depth interpretation of the survey results. Consequently, it became evident that the VET system incorporates not only the Triple Helix principle but it has also variations depending on the general specificities of regions, the actual activity of the local government, the ongoing entrepreneurial activities, the governance of education institutions, and other factors. This, in its turn, leads to the decision to develop and propose several alternate Triple Helix models for VET – as a source for better VET and employment policy making at local and potentially, also at national level. Given the scope of the problem, the present paper only presents the initial results of authors’ research. The policy and academic discourse are analysed in the theoretical background. The responses of survey of employers regarding the co-operation with education institutions and municipality as well as the results of focus group discussion on such co-operation will be analysed when presenting the results of the empirical study. A general (comprehensive) model for the application of the Triple Helix idea for VET contexts is presented. As a result of the research, it was concluded that there are important steps to be taken by all the involved in Triple Helix for VET. The activities of the parties should be integrated and coordinated. However, unless there is a driving force (agent) in the Triple Helix partnership, the model will not function effectively. The authors’ preliminary conclusions indicate that the role of the ‘driving force’ could be undertaken by any of the involved agents in the Triple Helix partnership. Further studies are needed on the variations of the proposed model, in relation to the specific individual situations and environments, and possibly, also depending on the leading agent in the partnership.

Theoretical background

Academic research worldwide has studied new approaches to Triple Helix, including production-based education (Ilyas and Semiawan, 2012), labour market flexicurity, and the quality of life through better education and training (Chenic, et al., 2012). In the USA, the effect of triple helix system and influence on regional entrepreneurship are covered in several research papers (Kim, et al., 2012) where the results are studied and compared in different parts of the USA. Detailed analysis of the Triple Helix approach has been evaluated in Norway (Strand, 2013) where special attention has been paid to innovation systems and the relations among technology, organisation, and geography in Norwegian PV manufacturing industry (Kliktou, 2013). In the Netherlands, the transformation of innovation systems in a Triple Helix of university – industry government relations are being researched for many years involving also colleagues from other countries and through comparison (Leydesdorff, 2006), e.g. with Germany (Ivanova, 2013) and with applications of different mathematical models. In Germany, several researchers
(Erosa, 2012) have paid attention to cultural issues in the Triple Helix Model implementation, and comparison has been made among government, university, and business culture. The need for hybrid approach has been supported by research results of Triple Helix network analysis of collaboration at regional, county, and institutional levels in South Korea (Khan, 2013). In Thailand, an analysis of triple helix model – case study of poultry industry in Thailand has been performed in details (Klomklieng, 2012), different approaches and experience in various countries have been evaluated (Muravska, 2012). Quadruple helix to design strategies for the green economy has been introduced involving also consumers (Gouvea, 2013). Research papers on those issues are going deeper and wider around the globe giving new challenges for researchers. The EU policy making analysis indicates that the Brugges Communique VET policy priority of linking education and training with the world of work (Brugges Communiqué, 2011) has been effectively translated into numerous specifically targeted policy papers. For example, the CEDEFOP Briefing note (CEDEFOP, 2012) points at the need to address effectively the problem of skills’ mismatch between the trained labour force in VET systems and the actual labour market needs. In the Agenda for new skills and jobs, the European Commission points to the need to improve the attractiveness of VET and encourages employers to facilitate the provision of work-based learning (EC, Strasbourg, 2010). It is especially important to note that the importance of regional involvement is promoted in the Youth employment framework (European Social Partners, 2013) established by the European Social Partners, and attention is drawn to the challenges in integrating young people into the labour market. At the same time, also the future potential of this activity is being stressed. Awareness is being raised on the needed short- and long-term actions of the Social Partners’ for wider use of the work-based learning (WBL) approaches for the improved labour market solutions which is especially important in the context of the present research. Moreover, the European Council Declaration of 15 October, 2013 “European Alliance for Apprenticeship” (Council Declaration, 2013) clearly states that high-quality apprenticeship schemes can make a positive contribution to a smooth and sustainable transition from the education and training system to the labour market. Furthermore, the recently established European Youth Guarantee is an initiative stipulating that every young person in Europe is offered a job or training at the latest four months after leaving education or after becoming unemployed (EC, 2012). Also in its call to action on youth unemployment, the European Commission encourages the Member States to increase the labour market relevance of VET programmes by creating stronger WBL component (EC, Brussels, 2010). Consequently, there is a clear policy indication that in securing better links between VET and the world of work, the involvement of three parties – the VET institution, the employers, and the public administration at national and/ or community level is crucial. This allows concluding that the Triple Helix principle is already inherent in the EU policy approach for VET. Also the National Development Plan adopted in 2012 and the linked policy documents show clear indications of the growth of the role of partnerships of VET. At the same time, the analysis of the relevant academic discourse shows that previous administrative model for VET management becomes too slow or ineffective. There are indirect implications and employers are frequently not aware of the developments in new technologies and new jobs. The main source of changes potentially is innovation, linked with research and HE. Instead of former approaches of top down management of VET by public administration, a more effective approach needs to be implemented - a flexibly combined management with bottom up and Triple Helix approach in VET and HE. Free market economy of the EU creates significant emigration from Latvia and other countries to the countries of the “Old Europe".
Reindustrialisation is necessary in Latvia to overcome problems created by globalisation. New ideas, arising in national universities, must be immediately supported by public administration and converted to innovations, giving start for new national industries. The authors’ investigation shows that all types and levels of qualified specialists for new industries must be trained promptly during the creation of the new technologies with significant direct support of national and local authorities. Clearly the high competition in the EU markets does not allow starting new production without complex support by national authorities. In the authors’ opinion, the optimal way to win the competition in the free market is localisation of the production with support to local authorities which must have enough power and resources to initiate new industries and to defend their interests.

Research results and discussion

Entrepreneurs and municipality co-operation. Universities, VET providers, employers, and public administration should work together, starting from the searching of new ideas with a subsequent involvement of the appropriate qualified specialists and the relevant resources. Some new directions for the possible future development will be discussed in the paper. Empirical research on the preparedness of employers, educators, and municipality to work jointly was conducted in spring of 2013 by the authors as a survey of employers. In addition, focus group discussions were organised in 2013. Some results of entrepreneurs’ survey (evaluations on statements “implementation of joint projects with municipality”, “co-operation with municipality in training organisation”, “creation of entrepreneurship centre”, “support for entrepreneurship start”, and “consultative councils of entrepreneurs and municipality”) are included in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Statistical indicators</th>
<th>Implementation of joint projects with municipality</th>
<th>Co-operation with municipality in training organisation</th>
<th>Creation of entrepreneurship centre</th>
<th>Support for entrepreneurship start</th>
<th>Consultative councils of entrepreneurs and municipality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>7.08</td>
<td>6.56</td>
<td>6.96</td>
<td>6.52</td>
<td>7.08</td>
</tr>
<tr>
<td>Median</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Mode</td>
<td>8 and 10</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8 and 10</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>2.67</td>
<td>2.99</td>
<td>2.68</td>
<td>3.08</td>
<td>2.60</td>
</tr>
<tr>
<td>Range</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Minimum</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Maximum</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: authors’ construction based on the entrepreneurs’ survey in 2013

Evaluation scale 1 – 10, where 1 - lowest evaluation, 10 - highest evaluation

The information in Table 1 indicates that generally entrepreneurs are very positive for co-operation with municipalities and educators: the average evaluations are high: arithmetic means for all analysed statements are higher than 6.5 (in scale 1 – 10), most of entrepreneurs gave high evaluations - 8, characterised by mode; half of entrepreneurs gave evaluations higher than 8; half of entrepreneurs
gave less than 8 (characterised by median). Some entrepreneurs gave the lowest evaluations for all the analysed statements; yet, the influence of their evaluations did not lower the average evaluations significantly.

**Cooperation between VET and higher education institutions (HEI)** already exists in many countries, also in Latvia. The best examples in Latvia are colleges in medicine, Latvian Maritime Academy (LJA), where VET study programmes exist in the same HEI. Maritime School of LJA (LJA Jurskola) – a structural unit of Latvian Maritime Academy is a good example of close cooperation between secondary and higher education (HE). The authors’ research shows that similar cooperation between HE programmes and vocational education level programmes is in Riga Medical College No 1 (4 HE and 5 VET level programmes), in the Social Integration State Agency (7 HE and 12 VET level programmes), in Riga Technical College (10 HE and 10 VE level programmes), Riga Building College (3 HE and 5 VET level programmes), Mechanics and Technology College of Olaine (3 HE and 5 VET level programmes), Malnava College (2 HE and 4 VET level programmes), and Agrobusiness College of Jekabpils (5 HE and 4 VET level programmes).

**Cooperation for innovation.** There are many possibilities for innovations, for future development of new directions in industry and services. Research results and new technologies are promising but specialists with new qualifications or with significantly changed qualifications will be necessary. The starting point for innovations is research results. The highest qualifications, received at universities, are necessary to initiate translating these results to practice. The next steps, the implementation of the new ideas, needs complex work of specialists, including qualified employees, coming from VET. The authors’ research shows that the provision of the needed VET specialists in many cases is the missing point, and mindsets are still to be changed to acknowledge the role of VET in the implementation of innovation. Well synchronised work of all involved parties is necessary, and the chain of innovation should be enriched with a substantial contribution from the VET domain.

**Financing.** Important aspect for the development of VET is financing, and experience shows that relying only on traditional financial sources is not always justified. Three main sources of financing are: state budget, local community, and tuition fees and agreements on education, training, applied research, and other services. The most flexible and appropriate for the implementation of new technologies are direct agreements of employers with VET institutions. When implementing new technologies, there is a high risk for the employers to invest in education without a safe way for developing industry to conquer new markets. Local communities and national governments must support investments in education to minimise the risks for employers. Direct financing is important but also different types of guarantees of the state and local authorities, and state tax policy helps significantly. Direct financial support for VET, HE and research, coming from employers, combined with guarantees and other indirect support, coming from public administration, is a promising policy for Latvia in implementing the Triple Helix approach. Highly important are the possible improvements of the financial credit and investment system for the national industry. Banks and other financial organisations, controlled by state and local authorities, should be created for support.

**Identified problems for implementing the approach – more negotiations and less control.** Regulations for education, such as professional and education standards, are conservative and serve well during the periods of stable production with insignificant changes. Changes of the professional and education standards become a significant problem during the periods of crises, when quick changes
of technologies are necessary. Fast creation of new regulations is one way. Another way implies less administrative control. Both ways should be used but less control by national authorities is a more promising approach for future developments. Indirect control should be used in the form of stakeholders’ participation instead of direct regulations in the form of standards. New qualifications in VET should be allowed only after negotiations with employers and professional organisations. It is fairly feasible to establish the appropriate procedures for the participation of all stakeholders in the framework of the Triple Helix approach and to withdraw the direct bureaucratic control.

**Social infrastructure** is another important problem for sustainable development. Motivation to stay in the local environment and not to emigrate is important for Latvia in the EU free labour movement. Possibilities for the communication, development of local traditions, culture, self-realisation in art and/or education are significant arguments against higher salaries in the countries of “Old Europe”. VET institutions should be used as lifelong learning education, consultation and cultural centres. Content of social activities of the VET institutions and the necessary resources could be effectively supplied in the framework of the Triple Helix approach. An important part in the social activities of public authorities becomes the organisation of voluntary work. Involvement of VET institutions in the organisation of the voluntary work allows creation of the links between concrete local situations and identified problems, many of them concerning production, services and industry. This is a huge resource and motivating development factor, since it often puts the young people at the very core of a problem, and allows the young people to become the ‘driving force’ in particular situations in the local society. The popularisation of Christian values, important part of which is voluntary help to everybody who needs support, is a significant part of the struggle against the consumers’ society and negative results of the freedom for the labour mobility and of the competition in the free market.

**Common language for VET and HEI.** Evidence shows that free markets may become dangerous for weak economies, such as in Latvia. Only complex activities of local authorities, existing and potential owners of production forces (employers and self-employed) and education and training suppliers (Triple Helix approach) can cope with problems created by free market and globalisation. All new technologies, new industries must receive local support, be defended by society, through solidarity within the local community. All involved parties must use the same language during the efforts to solve the problems of the implementation of the new technologies. European education and training support instruments, as the European Qualifications Framework (EQF) for Lifelong Learning, European Credit Transfer System for VET (ECVET), European Quality Assurance system for VET (EQAVET) are appropriate instruments to create mutual trust and cooperation between VET, authorities, and employers. It is extremely important to use these instruments to stay connected with other VET providers locally and internationally, with the potential application of Triple Helix approaches, as well. Therefore, the idea of triple Helix for VET should not be limited to local settings only. Scientific literature and the authors’ empirical analysis show that closer co-operation between VET and HE is crucial in order to implement comprehensive approaches to implementing innovation. Innovative ideas and projects are difficult to implement if well trained and experienced professionals of medium level are missing. Suggestions for enriching the traditional Triple Helix model with the inclusion of also VET is proposed by the authors in Figure 1.
The proposed model allows for a varied types, forms and scope of co-operation between education providers and employers. The support of the public authorities is shown as essential for achieving the goals of the partnership (training of specialists with qualifications necessary for employers). This is a comprehensive model that allows for flexibility depending on the specificities of each particular situation, e.g. the already existing good links between the VET and HE providers, or just the opposite, the very beginning of breaking the existing traditional stereotypes on the separation of these education providers in implementing innovation. Further research is possible on the development and application of variations of this model in relation to the specific strategic objectives and involved stakeholders of each particular community or in broader contexts. The dual system in VET is one of the most perspective directions for the cooperation.

Conclusions

Triple Helix approach is applied around the globe, and researchers, educators, business people and public administration representatives seek for most successful approaches to shorten the way from education to business. Public administrations should look for new ways for getting involved in these partnerships, reviewing options for an integrated and appropriate use of top-down and bottom-up for better results. Changing the mindsets of all involved parties is essential, since the involvement of all levels of qualified specialists has to be addressed in implementing innovation, making VET an indispensable element in the
innovation chain. Strengthened links between HE and VET are relevant, and the models for closer cooperation between VET and HE can be varied. The proposed Triple Helix model allows for flexible approaches to implementing partnerships in local communities, with possible adjustments depending on the local needs, the strategic objectives of the community, and also the maturity and preparedness of the partners to implement change. The developed Triple Helix model allows for further research by testing the model in different local communities and drawing the respective conclusions on the varieties of the implementation of the model.

Bibliography


11. Information Note “On Overtaking the Ministry VET Institutions by Local Governments” accepted at the Cabinet of Ministers, Republic of Latvia 02.07.2013.


I.Buligina, B.Sloka, J.Dzelme, G.Tora

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22. Order of the Cabinet of Ministers of 16.09.2009 No 629 "Increasing VET Attractiveness and the Involvement of Social Partners for Securing the Quality of VET”.


