

# Investigating the Framework for Examining the Factors Influencing Vocational Education and Training (VET) as the Crucial Factor of Self-Employment and Entrepreneurship Development<sup>1</sup>

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*The main purpose of this study is to analyze the existing work of researchers in respect of effectiveness of vocational education and training (VET). Vocational education and training enhances human potentials and diversifies peoples' choices in order to promote self-employment and entrepreneurship development. Most of the vocational education students contribute to entrepreneurship programs at some point during their vocational education path. In this study, the researcher has discussed the impact of Curriculum Revision and Vocational Entrepreneurship Education, Need Based Training, Interrelation with Industry, Employability, Assessment and Examination, Physical Resources and Trainee Selection on VET effectiveness. Human Capital Theory, which emphasizes the contribution of education and training to individual as well as organization productivity (Becker 1962), is related to the occupational structure of the labor market and the labor market institutions. Most of the researchers have linked vocational education and training with Human Capital Theory. So, it is necessary to study the existing work of researchers in context of vocational education and training so that VET effectiveness can be increased, which is considered as an important factor of development in any country.*

**Keywords:** vocational education and training, entrepreneurship, effectiveness of vocational education and training.

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## **Analiza ram badania czynników wpływających na kształcenie i szkolenie zawodowe jako zasadniczy element rozwoju samozatrudnienia i przedsiębiorczości**

*Głównym celem artykułu jest analiza dotychczasowych prac naukowych poświęconych skuteczności kształcenia i szkolenia zawodowego. Kształcenie i szkolenie zawodowe pozwala na zwiększenie potencjału jednostek i umożliwia dywersyfikację decyzji, prowadząc do rozwoju samozatrudnienia i przedsiębiorczości. Większość osób kształcących się zawodowo wnosi wkład w programy przedsiębiorczości na pewnym etapie swojego kształcenia. W artykule badacz zaprezentował wpływ weryfikacji programu nauczania i kształcenia zawodowego w zakresie przedsiębiorczości, szkolenia w zależności od potrzeb, wzajemnych powiązań z przemysłem, umiejętności przystosowania zawodowego, ocen i egzaminów, zasobów fizycznych i doboru uczestników szkolenia na skuteczność kształcenia i szkolenia zawodowego. Struktury zawodowej rynku pracy i jego instytucji dotyczy teoria kapitału ludzkiego, kładąca nacisk na możliwość podwyższenia wydajności indywidualnej i organizacyjnej poprzez kształcenie i szko-*

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lenie (Becker 1962). Większość badaczy wiąże kształcenie i szkolenie zawodowe z tą właśnie teorią. W celu zwiększenia skuteczności tego rodzaju kształcenia, uznawanego za istotny czynnik rozwoju w każdym kraju, należy zatem przeprowadzić analizę dotychczasowych prac naukowych w tym zakresie.

**Słowa kluczowe:** kształcenie i szkolenie zawodowe, przedsiębiorczość, skuteczność kształcenia i szkolenia zawodowego.

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## 1. Introduction

Entrepreneurs or changes towards self-employment are becoming an important element of economic growth and development (Briga, 1996). Vocational education and training enhances human potentials and diversifies peoples' choices in order to promote self-employment and entrepreneurship development (Ansari, 2013). To equip the VET students for self-employment on graduation, appropriate implementation of entrepreneurship education is a necessary tool (Edmond, 2014). Vocational education is about personal development, as well as social change and occupational mobility (Margriet et al., 2014). Vocational Education and Training (VET) may be considered as human development and capabilities approach (McGrath, 2012). Human Capital Theory, which emphasizes the contribution of education and training to individual as well as organization productivity (Becker, 1962), is related to the occupational structure of the labor market and the labor market institutions. Middieton et al. (1993) strongly emphasize that Human Capital Theory provides a fruitful framework for evaluating training especially in the vocational education and training context. According to Schultz (1961), a development in human activities in which a person shows himself as more useful and more productive according to the changes in the economy is known as human capital formation. Becker (1975) and Mincer (1974) stated that vocational training and skills development are considered as a main source of human capital from which earning of life and indirect positive benefits can be gained for an individual. Nilsson (2010) also relates Human Capital Theory with vocational education

and training because vocational education and training is considered as a major factor to increase the economic growth and labor productivity.

The first purpose of Vocational Education and Training (VET) is to meet the demands of the labor market to equip the students with the theoretical and practical tools needed to function within their various occupations (Clarke & Winch, 2007; Westerhuis, 2007). In several countries, VET colleges serve both the purpose of preparing students for working life and the purpose of preparing them to face the challenges of the labor market (Margriet et al., 2014). Since competence-based education and training is increasingly widespread, the focus of VET shifted towards the skill sets necessary to function in a specific work environment (Argüelles & Gonczi, 2000; Brockmann et al., 2008; Cedefop, 2010). VET colleges are responsible for meeting the demand of the labor market for which they should work in close collaboration with companies (Margriet et al., 2014). Another purpose of VET is to meet an increasing number of requirements regarding the organization of programs (Clarke & Winch, 2007; Westerhuis, 2007) and the professional development of VET teaching (Shaw, 1999; Stanton & Bailey, 2001; Cort et al., 2004). Sower (1971) also emphasizes that vocational/technical education is mainly associated with the people and their work and vocational education is the main source of organizing the people for work.

The second aim of VET is to improve the national educational performance (Margriet et al., 2014). To cope with the international competition, quality vocational education and training (VET) programs have a direct link with increasing

work efficiency and productivity (Cornford, 1999). Vocational education is perceived as an instrument to produce more productive workforce to increase the prosperity of a nation (Cullen, 1997). Many studies found that young people in countries with strong initial vocational education and training (VET) systems fare better than their counterparts in countries that provide mainly general education (e.g. Breen, 2005; Brzinsky-Fay, 2007; De Graaf & van Zenderen, 2013; Müller & Gangl, 2003; Scherer, 2005; Wolbers, 2007). So, it is necessary to take some important steps to improve national educational performance by improving the quality of VET.

The third aim of VET is considered as a source of decreasing the poverty and unemployment from the society (McGrath, 2012). Tilak (2002) stated that vocational training was considered to provide a solution to problems of education in the developing countries' economies. Moreover, VET refers to education and training that prepares people for employment and makes them more productive in various economic sectors (Finch & Crunkilton, 1999). VET enhances human potentials and diversifies peoples' choices in order to promote self-employment and entrepreneurship development. It is perceived that VET plays an important role for social development (UNESCO, 2004; Jallah, 2004) and has a significant impact on the alleviation of poverty in the society. The contribution of entrepreneurship education in VET programs is also helpful for poverty alleviation from the society (Edmond, 2014).

Entrepreneurship education is more applicable than ever before (Fayolle, 2010; Matlay, 2008), especially in the vocational education and training context (Jossberger et al., 2010; Avis, 2012). Work based learning is an essential part of vocational learning in which interrelation with business community naturally relates to entrepreneurial learning (Jarvi, 2012). There is close cooperation between vocational schools and enterprises in Europe, but the gap still exists in entrepreneurship education (Jarvi, 2012). Unfortunately, very little research has been conducted on the education of entrepreneurship, in particular on vocational education (Pihie & Bagheri, 2010), and there is dire need of time to include vocational entrepreneurship education in the vocational curriculum (Jarvi, 2012).

Entrepreneurship education is a necessary tool for self-employment of VET students (Edmond, 2014).

Keeping in view the above discussion, it is clear that vocational education and training has a significant impact on satisfying the demand of the labor market. Moreover, VET is also considered to improve the national educational performance. Furthermore, VET is considered to be a solution for unemployment and poverty alleviation. So, there is a dire need of working to improve the effectiveness of VET. In this regard, it is necessary to study the existing work on VET so that suggestions are made to improve the effectiveness of VET which is a considerable need of today. In the present scenario, promotion of vocational education and training is considered to be a key aspect of any development initiative that intends to improve socio-economic well-being, generate jobs and eliminate poverty (Grierson & Young, 2002).

## **1.2. Purpose of the Study**

The main purpose of this study is to analyze the existing work of researchers in respect of effectiveness of vocational education and training. In this study, the researcher has discussed the impact of Need Based Training, Interrelation with Industry, Employability, Curriculum Revision and Vocational Entrepreneurship Education, Assessment and Examination, Physical Resources and Trainee Selection on VET effectiveness. Human Capital Theory, which emphasizes the contribution of education and training to individual as well as organization productivity (Becker, 1962), is related to the occupational structure of the labor market and the labor market institutions. Most of the researchers have linked vocational education and training with Human Capital Theory. So, it is necessary to study the existing work of researchers in the context of vocational education and training so that VET effectiveness can be increased, which is considered as an important factor of development in any country.

## **1.3. Scope of the Study**

The basic scope of this study is to analyze the existing work of researchers in respect of effectiveness of vocational education and training. In this study, the researcher has discussed the impact of Need Based

Training, Interrelation with Industry, Employability, Curriculum Revision and Vocational Entrepreneurship Education, Assessment and Examination, Physical Resources and Trainee Selection on VET effectiveness. Most of the researchers have linked vocational education and training with Human Capital Theory. Practically, vocational education and training is one of important factors of human capital which plays an important role in the development of a country.

#### **1.4. Rationale of the Study**

The author has made an effort to understand the existing work of different scholars on VET and examine the existing work scenario so that effectiveness of VET can be increased. The study would be beneficial not only for trainees, trainers and training institutes but it will also be helpful to fulfill the demand for skilled workers in the labor market.

#### **1.5. Limitations of the Study**

The author has made an effort to work based on the existing literature towards the effectiveness of VET. The author has mainly analyzed important factors that can play an important role towards the effectiveness of VET but there are a number of more factors that can also be discussed in this context.

## **2. Literature Review**

Recently, several scholars have pointed out that the notion of a simplified dichotomy between general and specific skills, as conceptualized within the framework of Asset Theory adopted in the Varieties of Capitalism approach, lacks analytical rigor in capturing differences in the skills provided by the education and training system (Busemeyer, 2009; Busemeyer & Trampusch, 2012; Iversen & Stephens, 2008; Streeck, 2012). Whilst in the Asset Theory, the portability of skills is a property of their content, i.e. substantive breath, portability in Human Capital Theory as defined by Becker (1962) is related to the occupational structure of the labor market and the labor market institutions. Human Resource Development (HRD) is a process in which human efficiency can be improved through personal training and development to increase the performance (Swan-

son, 1995). Training is one of important activities of human resource development. Training is a group of activities that is helpful for a worker to perform his job more effectively (Moskowitz, 2008). Vocational education and training is one of the forms of training. Vocational training and learning has a significant impact on the development of a group and an individual (Jamshidi & Jamshidi, 2012).

In the economic growth of any country, vocational training is one of significant factors (Moldovan, 2012). Vocational education and training offers skills to people for a specific job. VET is normally linked to physical and hands on activities related to a particular vocation, trade or occupation. VET enhances human potentials and diversifies peoples' choices in order to promote self-employment and entrepreneurship development (Ansari, 2013). It is perceived that VET plays an important role for social development and sustainable citizenship (UNESCO, 2004; Jallah, 2004). In the context of China's current rapid economic growth, the latest five-year plan (2011–2015) calls for an increase in high-skilled work as a way of raising living standards (Jing Xu, 2011). Technical and vocational education is considered as a valuable policy issue in developing countries (King, 2009; Palmer, 2009). Karbasioun (2005) argued that the trained workforce is the key focus of attention in most of the development programs. Asian countries put a strong emphasis on vocational education in formal and non-formal educations system. This is the reason why the world has observed economic development of the Asian Tigers. The main reason for this speedy growth is heavy investment in human capital. These countries put a special emphasis on the development of labor productivity, which was productive for laborers (Mustafa et al., 2005).

Vocational education and training plays an important role in poverty alleviation from the society and is a source of training for employability (Powell, 2012). VET provides a solution to unemployment and alleviates poverty in Africa (McGrath, 2012). VET has a major role in the growth of the economy in Africa (McGrath, 2011). Moreover, VET is helpful in removing discrimination between urban and poor populations. Usually, rural people are not equipped with the education pro-

vided by elite education systems and the unemployment rate is much higher among rural people than urban people. Carmen (2012) also emphasizes that vocational training is helpful in lessening the poverty and unemployment. The main reason for unemployment in South Africa is skills shortage (Allais, 2012). Skills development and training are necessary for economic growth (Mustafa et al., 2005). The rate of return can be increased by employment of skilled workers (Booth et al., 1996). The main purpose of VET is to provide the skills that should be applicable in the workplace and it is evident that VET has a positive impact on productivity and economic growth (Nilsson, 2010). In the European context, VET is considered as a major tool in the transformation of the European economy (Baum, 2002; Budría & Telhado-Pereira, 2009; Mupimpila & Narayana, 2009; Spielhofer & Sims, 2004). The contribution of entrepreneurship education in VET programs is also helpful in poverty alleviation from the society (Edmond, 2014).

Keeping in view the above discussion in the literature review, it can be seen that vocational education and training is one of important activities of human resource development. VET does not only provide skills to the workers but it also has a significant impact on the economy. VET also plays a significant role in poverty alleviation and is a source of training for employment. Vocational training and development is considered as a solution to unemployment and organizations are spending huge amount of money on VET in private and public sectors. The researchers believe that VET can solve the workplace problems and is a source of skills and knowledge of the labor force. Because of this fact, this is the dire need of time to work on the factors that are helpful in promoting quality vocational education and training.

## **2.1. Vocational Education and Training Dimensions**

Vocational education and training has a number of dimensions that have a significant impact on the evaluation of training (Aldrich, 2002). Keeping in view the research conducted on vocational education and training, this research explains the most significant dimensions of VET: Curriculum Revision and Vocational Entrepreneurship Education, Need Based Training, Interrelation with Industry, Employability, Assessment and Examination, Physical Resources and Trainee Selection. All these dimensions have a clear influence on the performance and results of training programs.

2.1.1. *Curriculum Revision and Vocational Entrepreneurship Education*

### *2.1.1. Curriculum Revision and Vocational Entrepreneurship Education*

Entrepreneurship education is more applicable than ever before (Fayolle, 2010; Matlay, 2008), especially in the vocational education and training context (Jossberger et al., 2010; Avis, 2012). There is massive growth in entrepreneurship education programs as it is recognized by businesses and governments that entrepreneurship is a useful tool for the market economy (Jones, 2010). Curriculum development is a repetitive process and has a significant impact on a number of stakeholders (Van den Akker, 2003). A high quality curriculum helps teachers employ active learning processes (Cornford, 1999). To meet the demand of the industry, a VET curriculum should incorporate skills needed by employers (Vogtenhuber, 2014).

A revision of contents of courses is essential to promote learning (Badaqir et al., 2011). To meet the challenges of industrial growth and expansion, there should be a continuous revision of curricula of polytechnic institutes (Bakah et al., 2011). Vocational students should be equipped with the skills that are required at the workplace and these skills should be derived from the curriculum (Virtanen et al., 2014). Unfortunately, less attention has been paid to reviewing curriculum structures or assessment practices (Oxtoby, 1997) and there is dire need of time to include vocational entrepreneurship education in the vocational curriculum (Jarvi, 2012).

### *2.1.2. Assessment and Examination*

Assessment has a great impact on the quality of students' learning (Chalmers & Fuller, 1996; Jordan, 1989; Mahendran, 1997; Scott, 1997). No course evaluation should be complete without a proper assessment system (Jordan, 1989). Chalmers & Fuller (1996) have claimed that grading and learning are the two main functions of assessment. In order to promote learning, there should be a review of the assessment methods (Badaqir et al., 2011).

In order to examine the skills and knowledge at work, students' learning should be examined properly and learning should be followed by an assessment (Virtanen et al., 2014). The Program for International Student Assessment (PISA), an international assessment program, has been focused on standards of literacy in vocational education (OECD, 2001). In this dimension, the researcher will measure the method of examination, examination environment and graduating criteria.

### 2.1.3. Selection of Trainees

Selection of trainees always has a significant impact on the effectiveness of training. According to Enkuzena & Kliederer (2011), trainees should be selected on the basis of their motivation for learning. Training environment plays an important role in the effectiveness of training (Tassmeer & Harris, 1992). Russ-Eft (2002) has discussed a model which shows characteristics of training, indicating that especially trainee selection has a crucial impact on the training program. In this dimension, the researcher will measure the competence of trainees registered in the training program, process of selection for the trainees and entry qualification of trainees in the training program.

### 2.1.4. Physical Resources

Training facilities and equipment used in training laboratories have become a substantial factor in the vocational training programs (Farmer et al., 2004). There is no concept of effective vocational training without suitable provision of learning facilities (Puyate, 2004). The teachers admit that there exists modern equipment in the industry but polytechnic institutes are lacking in providing the latest equipment (Bakah et al., 2011). Unfortunately, most of the equipment and tools used in the polytechnics are damaged and are not replaced by the institutes (Puyate, 2006). The researcher will measure the information about interrelationship among class rooms, services provided by the institution, number of class rooms and laboratories, lightening and ventilation system, maintenance of building and services, safety features, utilization of space for class rooms and laboratories and provision of supportive equipment like multimedia, projectors etc.

### 2.1.5. Interrelation with Industry

The interrelation of vocational education and training with the industry is considered as a necessary condition for ensuring the success of VET programs (Akomaning et al., 2011). A link with the industry normally refers to the placement of trainees in the workplace (Choy & Haukka, 2009). The recent learning theories describe the integration of learning and workplace and these should be connected to each other from the early stages of education (e.g. Griffiths & Guile, 2003; Tynjälä, 2008, 2009). Educational institutes and industry linkage leads to successful internships (Divine et al., 2007). Without involvement of employers in delivering vocational training, vocational education is unreliable and unsustainable (Chen, 2006). There should be at least a six month internship outside the vocational institute to meet the degree requirement (Virtanen et al., 2014). It is a fact that there should be close interrelation between industries and vocational training institutes (Guile & Griffiths, 2003). Unfortunately, the distance between the workplace and institutes has increased and there is a dire need for them to be brought closer together (Allais, 2012).

### 2.1.6. Government Support / Financial Support

The government's attitude towards education is always considered as an important feature in the education system. It is the core responsibility of the government to implement the national education program in an effective way (Puyate, 2008). From the international comparative perspective, governments regard VET as an important factor in the positioning of their countries (Shaw, 1999; OECD, 2009; Leney & Green, 2005). It is necessary for the government to provide proper funds to VET schools to run the vocational education programs effectively (Puyate, 2008).

### 2.1.7. Employability

The institute should also assess trainees on their skills and knowledge acquired at work (Virtanen et al., 2014). In vocational education and training, the employer's appreciation for the trainees is highly important (Margriet et al., 2014). The rate of unemployment is used to assess the quality of VET systems (European Parliament and Council, 2009). The voca-

tional education and training system has been described as “having the ambition to become employer led” (Sung, 2010).

### 3. Research Methodology

In this section, the author gives details about the systematic review, research questions, research objective, research design and theoretical framework of the study.

#### 3.1. Systematic Review

Due to the conflicting nature of the discipline of management, there is a lack of thoroughness and real investigation owing to unsystematic reviews of previous studies (Tranfield et al., 2003). Therefore, it is necessary to make a domain analysis of critical review of the relevant literature. This structure is consistent with Schaap et al. (2012), Iqbal et al. (2014) and also partly similar to the one that Ponis et al. (2009) used. This process of systematic review is conducted in four phases. First, the author has formulated general keywords for the selection of literature. Second, a thorough analysis is performed based on key publications to elaborate general keywords. Additionally, keywords for synonyms are also formulated. In the third stage, literature is explored in two databases: ABS and ISI indexed journals. Finally, sample filtering is done based on availability and relevance of the relevant material.

In this research, the author focused on quality journals listed in the academic journal quality guide of the Social Science Citation Index (SSCI) and Association of Business Schools (ABS). The advanced search options are also used to produce relevant results from the homepage of each journal. As the first step, the main search terms of “VET”, “VET effectiveness” and “factors influencing VET” are applied. The general keywords are: vocational education, vocational training, factors influencing VET, Need Based Training, Interrelation with Industry, Employability, Curriculum Revision and Vocational Entrepreneurship Education, Assessment and Examination, Physical Resources, Trainee Selection and vocational training effectiveness. After that, key search terms were used for searching inside the results.

The author used the truncation symbol to all search terms to the full text. The process produced 235 articles, then skim read-

ing (rapid scanning of the entire article) is applied to select the most relevant ones (Thomas, 2004). Concentrating more on the concepts of VET, the researcher selected the most relevant articles. A total of 105 articles, published in 20 journals, met the criteria. With regard to periodization, the author focused more on studies published in 2000 and onwards. The author also uses studies published before 2000.

### Conclusion

The above mentioned review clearly reveals that vocational education and training is one of important activities of human resource development. VET also plays a significant role in poverty alleviation and is a source of training for employment. Vocational training and development is considered as a solution for unemployment and organizations are spending huge amounts of money on VET in private and public sectors. The researchers believe that VET can solve workplace problems and is a source of skills and knowledge for the labor force. It is also observed that developing countries are spending huge amounts of money on VET but not meeting the local and international standards of skilled labor. Because of this fact, this is the dire need of time to work on the factors that are helpful in promoting quality vocational education and training.

Work based learning is an essential part of vocational learning in which an interrelation with the business community naturally relates to entrepreneurial learning (Jarvi, 2012). There is close cooperation between vocational schools and enterprises in Europe, but a gap still exists in entrepreneurship education (Jarvi, 2012). Unfortunately, very little research has been conducted on the education of entrepreneurship, in particular on vocational education (Pihie & Bagheri, 2010) and there is dire need of time to include vocational entrepreneurship education in the vocational curriculum (Jarvi, 2012). Keeping in view the research conducted on VET, this research explains the most significant dimensions of VET: Curriculum Revision and Vocational Entrepreneurship

Education, Need Based Training, Interrelation with Industry, Employability, Assessment and Examination, Physical Resources and Trainee Selection.

## Footnotes

- <sup>1</sup> This paper is a part of a doctoral thesis which is being prepared by the author at the Faculty of Management, University of Warsaw, Poland under Tomasz Ochowski's supervision.

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