International Journal of Education, Vocational and Social Science
https://e-journal.citakonsulfindo.or.id/index.php/IJEVSS
E-ISSN : 2963 4954
IJEVSS

Structural Status Of Vocational Schools in Turkiye and Germany: A Comparable Case Study

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Abstract

Due to the significant impact and contribution of vocational education and training (VET) in economic growth and development, policy makers and stakeholders prioritize VET in their economic goals. Although there are many university and vocational school (MYO) graduates in Turkiye, there is a shortage of trained personnel especially in technical and vocational fields. The number of MYO has reached a total of 1003 and students number is 2.82 millions compared to the vocational schools of 211 in Germany. The employment rate of bachelor's degree graduates was 75.6%, while this rate was 67.3 % for MYO graduates in Turkiye. Duration to find a job is about 15 months, compared to only 4 months in European countries. The German VET model is recognized worldwide as a fundamental and effective model for VET. The main reason is that it is a practice and model that combines theory and practice, learning and work, classroom and companies. In Turkiye, some efforts to improve the quality and effectiveness of MYOs and the technical high schools have increased in recent years. It is aimed for students in the relevant programs to work full-time in an company for one semester in the last year of their education period in order to improve their professional skills and experiences. Structural change and practices similar to the system in Germany might be considered based on socio-economic conditions in Turkiye and their experiences could be useful for MYOs.

Keywords: Career, Germany, Industry, Türkiye, Vocational Education.

INTRODUCTION

Vocational education is a type of activity that provides functional knowledge, skills and work habits required by a profession related to a specified profession in a person's working life.

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In addition, it provides on developing and changing of the person's abilities in different aspects (Aslantürk, 2014). Okay (2009) defined that the aim of vocational and technical education is to educate and train people for industry, trade and service sectors. It is also to provide basic skills and to educate for higher education institutions in order to make progress in their professions (Üstün & Yiğit, 2022; 837). Similarly, it is an educational process that provides the individual with knowledge, skills and work habits for business life and improves the individual's abilities in various aspects. (Ergen & Metin, 1983).

The general aim of education is to train the needed labor considering dynamic and evolving processes. In developing countries, there is a need for intermediate labor as well as higher educated staff, and vocational schools have undertaken this task in Turkiye (Akyurt, 2009). According to the Law No. 2547 on higher education, the definition of vocational school (MYO) is a higher education institution that provides four semesters of education and to train intermediate labor for defined professions. MYOs in higher education are schools for practice, not research. In these schools, it is aimed that students have more practical skills compared to other proffesions such as medical doctors, engineers and economists as well as being equipped with more theoretical knowledge than technicians who have received practical training at secondary education level (Haner & Akarsu, 2018; 438).

Many employers and industrialists in Turkiye still criticise the lack of qualified intermediate labor and the lack of job skills and technical labor. Vocational education policies in Turkiye are not sufficient in terms of professional competence (Binici & Arı, 2004). This situation causes to a decrease in the competitiveness of the Turkish economy in the developing business world and in the international markets (Üstün & Yiğit, 2022; 828). This shows that Turkiye needs to improve the vocational education.

The importance of vocational schools will be better understood near future considering the country's economy starts to recover and investments in the fields of industry, trade, agriculture and services. Thus, increasing on quantity and quality of vacational schools needs much more qualified intermediate labor (Özyılmaz, 2005).

On the other hand, vocational training is a means for a country to achieve certain technical and production goals. This can vary from country to country. In recent years, international organizations such as the United Nations Educational, Scientific and Cultural Organization. (UNESCO) and Organisation for Economic Co-operation and Development (OECD) have paid more attention to issues related to vocational education. Germany has positively assessed the current situation in countries such as Switzerland and Austria and has recognized the international

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recognition of the dual system for Germany. German vocational education system aims at (i) economic productivity, (ii) social integration and (iii) individual development (Euler, 2013, 6, 11, 19). Thus, The German vocational education model is recognized worldwide as a fundamental and effective model for vocational education. The main reason for this is that it is a practice and model that combines theory and practice, learning and work, classroom and companies. As a country with high scientific, technological and economic capacity, Germany is therefore in a strong international competitive and strategic position (Anonymous, 2024a).

The proper policies need to be developed on vcational schools for the economical development of Turkiye. In today's technological world, the power of countries has started to be measured by trained manpower. For that reason, the most important move to be made for Turkiye to have a strong competitive power in the global world and to become one of the world's leading economic powers is to train qualified people. Thus, vocational and technical education is becoming much more important. In this framework, vocational schools have a great importance especially in training qualified manpower to meet the expectations of the business world (industry, trade and service sectors) (Alkan et al., 2014; 139).

The proper organization of vocational education is not only a matter of education for countries, but also a factor in international economic competition. It is extremely topical and important in terms of addressing vocational schools, one of the most important steps of vocational education, on a different country axis. The situation of training intermediate labor in European countries which are developed in industry and economy will be important in terms of guiding the training of intermediate labor in Turkiye.

It will be important to examine and compare the structure and impacts of the vocational school in Germany, which has been a model for vocational schools from past to present, with the situation in Turkiye. For this reason, in this article, the general situation and challenges of vocational education and schools in Turkiye are analysed compared to those in Germany as an EU country, and solutions and recommendations are discussed.

METHODS AND MATERIALS

The aim of this study is to reveal the current structural status of vocational schools in Turkiye and to identify other challenges and problems. For this purpose, it has been compared and discussed with similar vocational schools in Germany which is an exemplary and developed country in the world. For this reason, criteria for considering studies for review as a methodology were to search and identify the , previous studies and some information and data contained in

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these studies. Then all these have been analysed. Thus, existing references, mainly search engines such as Google were used, and articles and studies in researchgate were also utilised. In addition, current data on vocational high schools were obtained and evaluated from the web pages of the Turkish Statistical Institute (TUIK) and the Council of Higher Education which are official institutions in Turkiye. Similarly, relevant data for Germany were collected and analysed by graphing or tabulating all and a comparative study was made.

This study is a qualitative descriptive study. However, data were collected and analysed by making a generalisation based on the available figures and data. The data sources are the official data of the countries' statistical institutions and higher education institutions, scientific articles, symposium proceedings, theses, publications of industrialists and businessmen associations, search engines and related web pages. Thus, the author has used all the necessary literature review method and analysed and evaluated scientifically (Callut & Branson, 2009; Listyaningsih et al., 2025).

RESULTS AND DISCUSSION

Vocational Schools (MYO) In Turkiye

In various programs of MYOs of higher education that provide vocational and technical education, it is aimed to train qualified vocational staff and technicians equipped with vocational and technical knowledge and skills who will work in the public, trade and industry areas of the society today and in the future.

The education of MYOs based on 2 and/or 3-year associate semesters in Turkiye started in 1974 (Konya & Güngör, 2015; 433). However, MYOs in Turkiye are almost based on 2-year. Vocational school graduates also have the chance to transfer to bachelor's degree programmes within certain quotas through a general central examination according to their suitability for the relevant fields. Today, the number of vocational schools of higher education has reached a total of 1003, of which 896 are state and 107 are foundation and students number is 2.82 millions (YÖK, 2024). Accordingly, the number of students in vocational schools in Turkiye has increased rapidly in recent years. Considering 81 provinces and 922 towns in Turkiye (Anonymous, 2024b), in fact, there are many MYOs in almost every province and even in small districts in Turkiye. The main problem of MYOs opened in settlements where the population is below a certain number and there is no sector in the field is that skills training in enterprises cannot be carried out in accordance with its essence (Özgül, 2021).

Considering the practical works/internships/training during school semesters, this

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duration was only one month. This internship duration was not sufficient to gain appropriate manuel skills and some practical works.

On the other hand, it has been determined that young people who cannot acquire vocational skills in vocational education institutions are likely to remain unemployed, the need to improve the quality of vocational schools and the need to establish an education-employment relationship (Bulgan & Dolmacı, 2015, 1).

In 2023, the registered employment rate of bachelor's degree graduates was 75.6%, while this rate was 67.3 % for vocational school graduates in Turkiye (Figure 1, TUIK, 2023).

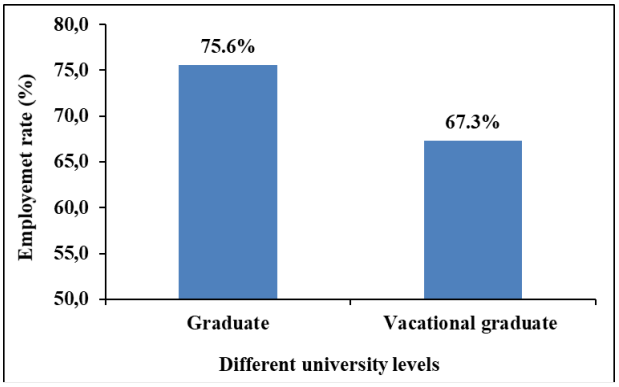


Figure 1. Employment rate according to the graduate

Rapid population growth, some challenges in education policy, lack of investment, political and economic instability are main reasons on those challenges of vocational schools (Ay, 2012). One of the important problems in vocational and technical education is professional incompetence. It could be stated that vocational technical education students cannot gain the professional competences required by industry and company demands. This opinion is expressed by both teachers working in vocational education, students and employers (Özgül, 2021).

Challenges and poblems on MYOs can be solved in the triangle of the individual (student and family), industry (labor market) and higher education institutions (the relationship between society's view of higher education and the structure of higher education) (Fındıkoğlu & İlhan, 2015; 97, 98).

In summary, the main challenges related to MYOs can be stated as follows (Şencan, 2008; 35). (i) The inability of higher education schools to form their own teaching staff, (ii) the low status of academic staff, (iii) curricula are not related to the needs of the labour market, (iv) the

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reluctance of the business world to prefer graduates of these schools, (v) the lack of integration of theoretical and practical education, (vi) the fact that vocational and technical higher education schools do not utilise their circulating capital.

The most complaint of business owners is the lack of qualified labour. However, the same business owners do not want to give the necessary supports both in the training of technical staff and in salary policies. The journal publishes original research analysis and inquiry into issues of all issue of educational and vocational studies. The journal is a peer-reviewed journal, which is devoted to contemporary issues of educational and vocational studies in for global readers, scholars, researcher, lecturer of professional. The journal publishes original research analysis and inquiry into issues of all issue of educational and vocational studies.

Vocational Schools In Germany

Scientific and technical education institutions played an important role in the development of society in Germany. In particular, technical and qualified teachers have helped to reduce mismatches in company training and in the labor market (Focacci & Perez, 2022; p. 12)

The beginnings of the vocational education system in Germany date back to the 12th century. Then, the Vocational Training Act was enacted in 1969 and it was amended in 2020. Vocational education and training is legally open to all young people, regardless of the school they graduated from. The cost of vocational education and training is covered by the federal government, states and companies (Rindfleisch & Maennig-Fortmann, 2015; pp. 11, 28).

The main reasons for the attractiveness of studying at vocational schools in Germany are that they combine theory and practice, are in great demand among young people, are based on a "learn-and-earn basis", are the main step towards a permanent job and are therefore in great demand among young people (Anonymous, 2024b).

There are a total of 211 vocational schools in Germany. Of these, 125 are public and the remaining 86 are private schools (DEDU, 2024). The vocational education and training (VET) is important as it often helps young people to make a smooth transition from education to employment. Both the decision to invest in VET and its effects and consequences at individual, company and state level must be considered together.

In order to have a good job in Germany in a short time, the best alternative is to attend vocational schools. These technical schools usually have one to three and a half years of education and training. Students in these schools have theoretical education in classrooms as well as practical training and working opportunities in enterprises or companies in their study fields. This

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system which is applied in vocational higher schools in Germany is defined as the “dual system” or “Duale Ausbildung”. An essential characteristic of the dual system is the cooperation between largely private companies, on the one hand, and public vocational schools, on the other. This cooperation is regulated by law. The term “dual” also denotes a specific constitutional situation in Germany (Anonymous, 2016).

Figure 2 shows the variation of the number of vocational trainees in Germany. According to this data, the number of vocational trainees has changed slightly, but it can be stated that there has been a appropriate planning and proportional change. This is an indication that vocational school graduates are planned in line with job demand and the needs of the country.

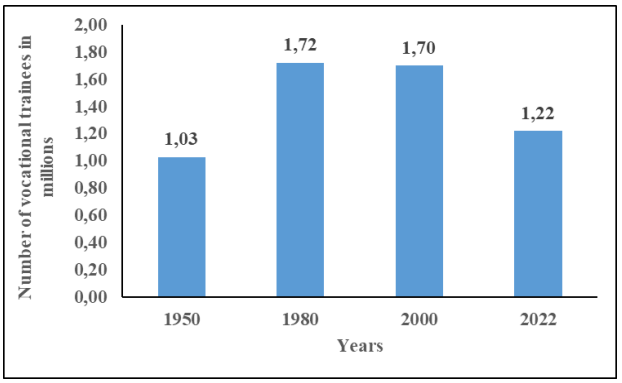


Figure 2. Number of vocational trainees in Germany from 1950 to 2022

Any person who graduated from a vocational school in Germany can be a skilled worker. Thus, they can have considerably higher salary than unskilled workers. Therefore, graduation from such vocational schools is important and encouraged for good career building in this country. (Anonymous, 2023a).

As a result, the German vocational training system, with its combination of classroom and business, theory and practice, learning and working, is recognized worldwide as a basic and highly effective model for vocational training (Anonymous, 2024a).

Comparision and Assessment of MYOs in Turkiye and Germany

Due to the significant impact and contribution of vocational education in economic growth and development, policy makers and stakeholders prioritize vocational education in their

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economic goals. Therefore, important lessons that can be learned from countries with successful vocational education can have a positive impact on the development plans and strategies of countries (Dixit & Ravichandran, 2023; pp. 57, 62).

In Germany, the students in vocational schools spend in their schools for one or two days a week. However they receive sometimes more theoretical training. They spend the rest of their time for working and training in a company. For instance, learning how to use a new machine will be very useful and effective in practice and working life. Thus, students will learn what companies do in their working life, how work order and efficiency are ensured as well as what is learnt in theory. (Anonymous, 2016). For that reason, the period of finding a job for vocational school graduate students in Germany is only 4 months while this period is about 15 months in Turkiye (Figure 3). In addition, rate of finding a job in Germany is 76% for vocational high school graduates while it is 67.3% in Turkiye. Similarly, the employment rate of university graduates is higher both in Germany and in the European Union compared to those in Turkiye.

In connection with the challenges of MYOs in Turkiye, the EU has developed a general strategy for improving the implementation, quality and attractiveness of vocational education and training in the Copenhagen Declaration in 2002. According to the principles of Lifelong Learning, which are accepted as the basis of the Copenhagen Declaration, it is stated that not only individuals who want to move towards their preferred field, but also individuals who want to progress outside their own speciality should not be restricted in this direction (Şencan, 2008).

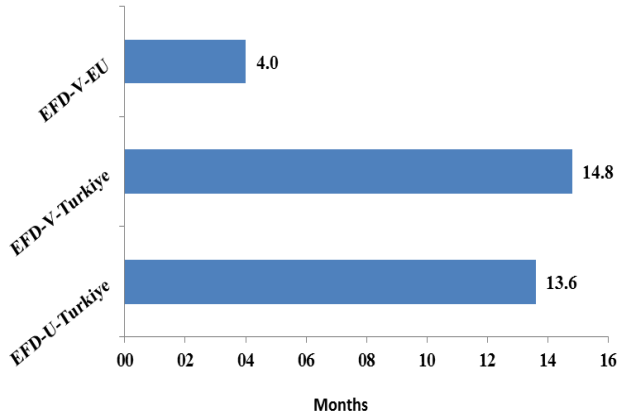


Figure 3. Employment finding duration for vocational and university graduates in Turkiye and EU (TÜİK, 2023; Anonymous, 2023c) *(EFD-U-Turkiye: Employment finding duration for university graduate-Turkiye, EFD-V-Turkiye: Employment finding duration for vacational graduates-Turkiye, EFD-V-EU: Employment finding duration for vacational graduate-Europea Union).*

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In Turkiye, some efforts to improve the quality and effectiveness of MYOs and the technical high schools have increased in recent years. For isntance, the Ministry of National Education and the Ministry of Industry and Technology signed a protocol on vocational education based on curriculum planning and institutional cooperation in 2021 (OECD, 2023). In addition, according to the regulation (Resmi Gazete, 2021), which also applies to students in MYOs under the universities in Turkiye, it is aimed for students in the relevant programs to work full-time in an enterprise for one semester in the last year of their education period (semestry) in order to improve their professional skills and experiences. The companies will pay a fee to the students. This is not an obligation but an approach to encourage more practical work. Some vocational schools have already started for this implementaion. For that reason, three semesters theoretical education in vocational schools and one semester practical works in a private and/or government sectors related to their studies area at the schools were recently started to improve more practical knowledge and manual skills of vocational school graduates. However, all students can not be used this new curriculum application due to some strict and certain rules and conditions The most handicap is that there are not enough number of companies and/or industrial interprices in the province or district where the vocational high school is located. It is a serious problem in underdeveloped regions and provinces where there is not enough industrialisation or companies while this situation can be applied in developed regions with intensive industrial area.

According to the study carried out in Turkiye, the students in some MYOs believe that new regulations that increase the quality and achievements in education and training will make it easier for students to find a job in the future and add value to business life (Demirkan, 2015; p. 491).

On the other hand, the average time to find a job was 14.8 months for vocational school graduates while this period was calculated as 13.6 months for the bachelor's degree graduate in Turkiye (Figure 3). However, this period is only 4 months in European Union countries. Therefore, it takes almost 3 times longer for MYO graduates in Turkiye to find a job than it in the EU. The unemployment rate is, thus, high among vocational school graduates. For this reason, chambers of industry and industrial zone administrations should support to improve the quality of vocational schools, renew and modernise educational materials and equipments (Konya & Güngör, 2015).

In some European countries, such as Germany, Switzerland and Austria, the company owners are the contractors in vocational and technical education through the dual system. In the dual system, occupation-specific skill development is emphasised (Üstün & Yiğit, 2022).

Considering some important indicators of Turkiye and Germany (population, level of

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development, industrialization, etc.) (Table 1), it can be stated that Germany provides an appropriate planning and effective vocational school education. Although the labor demand for industry and other sectors in Turkiye is lower than that in Germany taking into account economical and other indicators, Turkiye has more vocational schools and students than the country needs (unplanned approaches and opening more MYOs). In addition to the fact that most of MYOs in Turkiye do not have sufficient infrastructure, theoretical and especially practical works (professional competence). For this reason, it is inevitable to make a radical change in the vocational school education system. The dual system in Germany which is accepted as a model

Table 1. **Some data on vocational schools and some economic indicators in Turkiye and Germany**

Some indicators for countries	Turkiye	Germany	Sources
Number of vocational scholls	1003	211	(YÖK, 2024; DEDU, 2024)
Number of students in MYOs (Millions)	2.82	1.22	(YÖK, 2024; Davies, 2023)
Country population (Millions)	85	83	(TUIK, 2024a)
Employment rate (%)	53.6	77.5	(EURONEWS, 2024)
Unemployment rate (youth) (%)	16.6	5.7	(TUIK 2024b; STATISTA, 2024)
Gross domestic product (GDP) (USD)	12700	54000	(IMF, 2024)

both in European countries and in some other countries of the world might be considered based on socio-economic conditions in Turkiye and their experiences could be usefull for MYOs.

In addition, the teaching staff of vocational schools should consist of lecturers who will be able to explain the universal and local theory and development dimensions of the applied programme. Lecturers who will internalise the theory and practice of that profession and transfer it to the students by reproducing it. Graduates of these schools, who work in opening and developing a business in their own field, should be supported financially. Private sector organisations employing vocational school graduates should be granted exemptions such as tax (Özyılmaz, 2005).

CONCLUSIONS

In a developing technological, competitive and global world, labor markets have to keep pace. This increases the demand for labor with skills and qualifications. Taking into account the

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fact that the developing technologies and science are in a rapid change in a globalised world, the vocational and technical education is an indispensable issue for life.

Technical high schools and vocational training schools in Türkiye are not almost popular among young people and parents. The main reason for this is the desire of young generation to be a university graduate and they want to reach the higher career in a short way and to have a good possition directly in the society. Vocational schools should be established in close to the industrial, service and trade areas of large settlements to improve the status of vocational schools and students to receive good education and practice. Thus, students can get intensive practical training in industrial, service and trade areas, and to learn computers and foreign languages.

The growing interest in vocational training among young people in Germany is due to the practical skills, strong industry connections and the advantages of a fast transition to the world of labor that these programs offer. As this study shows, technical and skilled labor played a driving role in Germany's development and industrial progress.

The situation of vocational schools in Turkiye and the quality of graduate students are, unfortunately, at low level compared to those in Germany, a European country. For this reason, it is inevitable for vocational schools and students in Turkiye to have a much more organized, planned and qualified as well as an appropriate school infrastructure.

Another reason for the success of the vocational training system in Germany is that it is jointly financed by the state and the private sector. As in Germany, there is an urgent need for MYOs where theoretical study and practical work is carried out together, with the participation and support of the state and the private sector as in industrially developed countries. By re-planning according to the real needs of the country, the number of MYO might be reduced, so that the training of qualified and qualified intermediate staff can be more effective and desirable. As a result, the quality of vocational education will be improved by integrated approach through strict and disciplined practical works together with theoretical courses. Thus, the demand for qualified labor of the private sector will be met.

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